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DIGITAL STRATEGIES FOR ORGANIZATIONAL SUCCESS



Editors

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UGC NAAC ACCREDITED 'A' GRADE INSTITUTE

UGC APPROVED AUTONOMOUS INSTITUTE

Digital Strategies for Organisational Success

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PREFACE

Twenty first century is century of disruptions. Today, every aspect of our personal and professional life is shaped by unprecedented technological changes to which organizations and their leaders need to respond to successfully compete and thrive. Technology companies are now shaping the way we live today. Thanks to these technologies intelligent organizations are completely changing the way they do business. Through the use of these technology based tools the organizations are not only meeting their business goals but are also benefiting their customers, communities and society at large. Three emerging technologies are majorly responsible for this fast paced change. They are: Artificial Intelligence (AI), Internet of Things (IoT) and Block Chain. Together, these three technologies along with 5G enabler offer vast potential to rethink the way we do business.

AI started gaining prominence in the year 2017 and today government and business organizing are increasing their investment in the development of ever more intelligent solutions. Be it banking, healthcare, agriculture and financial tech etc. the applications of AI are massive.

5G has the capability of transforming industries, creating ripples of effect that spur market growth in the Indian as well a global economy. Applications are underway for industry verticals, like healthcare transportation among others. From a customer point of view, the biggest advantage is an enhanced mobile broadband ecosystem, that will enable everything from an ultra HD display your phone to remote surgery. Drones and their application in social sectors like

increasing farmer productivity, traffic management, mapping resources, and providing security cover to cities

According to Gartener more than more than 8.4 billion are connected to Internet, which is 30% more than the previous year. These things generate mass amounts of data and information and therefore, have power to revolutionize everything, from manufacturing and healthcare to layout and functioning of entire cities; enabling them to function more efficiently and profitably.

Blockchain can make interactions more secure, transparent, efficient and cost effective. Blockchain can help to guarantee product quality and safety by empowering and tracking of genuine pharmaceutical products from manufacturing all the way through distribution, addressing the menace of counterfeit drugs. Automobile industry can also benefit by preparing a quality focused block chain spanning a network of parts suppliers, sub-assembly makers, quality control assurance provider and govt. regulatory bodies. With such a blockchain identifying the source of defective parts and re-calling them would be easy to expedite.

Edge computing process data at the point of origin and therefore, provide opportunity to use current and future transmission lines to transmit data and information to and from clouds based on need. Therefore, ensuring far lesser data movement requirement than otherwise.

Using technology in parts of organizational processes or to automate current processes through these technologies are not going to give competitive advantage to the organizations. Organizations need to look at a possibility of completely transformed intelligent organization

driven by the combination of these technologies. While attempting to convert the organizations into intelligent organizations three important expectations need to be kept in mind. They are:

- Drive improved customer experience
- Deliver improved human and machine assets productivity
- Transform the workplace to engage employees better.

Organizations embarking on this path need to build new capabilities, skills and technology and to develop culture that fosters transformation process into intelligent organization. Incremental improvements lead to use of technology with old habits and patterns and generally leads to use of single technology with an excuse that everyone in the organization has become used to it.

The new technologies should not harness in isolation. They should be aligned to business strategy and ideally tied to current business system. In fact, the ninth tech report indicated that the organizations that were developing modern Enterprise Resource Planning Systems as the foundation for emerging technologies such as AI, Blockchain, IOT, Edge computing and 5G are becoming more effective and competitive as compared to those that are waiting for these technologies to mature. Organizations have clear to choices now; either modernize your business and business organizations using new technologies specially, AI, IoT, Blockchain and edge computing or be left behind.

The papers included in the book cover all the areas pertaining to the digital strategies and how these strategies facilitation for enhancing organizational success. The book comprises of

papers presented at the tenth International Conference on *Digital Strategies for Organisational Success*. The book has been divided into four sections to cover all the above mentioned areas. **First section** is of *Financial Management*; this section consists of bundles of papers on financial activities and their interrelationships with the digital strategies. There are forty-one chapters in the first section. They are: A Study on the Awareness and Perception of Robo Advisory Services among investors in Pune City; Working Capital Management and Its Impact on the Liquidity & Profitability of Tata Automobiles: An Analysis; Digital Financial Services: Initiatives and Progress with reference to Banking Industry: Evidence from India; Forecasting stock returns, fed model, interest rate and inflation; a study on financial well-being through digital financial inclusion in tier-2 cities with special reference to Nagpur city; Current Position of Banks in the Practice of Green Banking in Bangladesh: An Analysis on Private Sector Commercial Banks in Bangladesh; Impact of digitalization of the stock market and level of financial literacy on investment and trading pattern of retail investors; A study of perception of tax payers towards return and assessment under service tax with reference to India; Digital banking and civic society.

Impact of E-Banking its growth and future in India; An empirical study of awareness about various services through ATM and its usage by retail customer; Leveraging analytics in human resource information system: a systematic literature review; Leveraging one's impact through Digital Persona and Image Management for enhanced effectiveness and competitive advantage; Financial Inclusion and Changing Profile of Financial Services in India; The impact of derivative market on cash market; Digital payments: Secure enough for the Indian economy to go cashless; Exploring the Underlying Factors Affecting Capital Structure: A Quantitative

Analysis; Stakeholders perception of tourism in valley of Kashmir in Jammu and Kashmir: An importance-performance analysis; Review of PPP Finance Model for Infrastructure Development: Sustainability Perspective; Analysis of Foreign Direct Investment in India; Digital financial services: challenges and prospects for liberalized and globalized Indian economy; A new world of virtual currency: cryptocurrency; Development in the India's financial system: A Conceptual Framework; Diversity in diversity management: insights from workplace diversity and inclusion policies of a foreign firm in the Nigeria banking sector; Study on cash flow management with reference to Baharat heavy electrical limited, Haridwar; Study on causes of non-performing assets and its prevention and measures of industrial development bank of India ltd with reference to Gorakhpur branch; Study on role of Bandhan bank microfinance in women entrepreneurship with reference to Gorakhpur region; Digital Strategy for Loan Documentation in Indian Banks; Cryptocurrency technology: prospects in the success of different organisations; A review of financial patterns on higher education within the BRICS nations: a case study on south Africa; A Study on Awareness about Digital Financial Services among Students;

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A study of long run relationship between spot and futures values of indices; The Dynamic Long Run and Short Run Linkages between Exchange Rates and BSE Sensex Return; A study on financial inclusion: need and challenges in India; Demonetization move in India: A conceptual analysis; Impact of GST on Stock Indices in India; An empirical study on options trading strategy using 'commodity channel index' for NSE's nifty options in India; Measuring Human capital as a predictor of financial performance: An evidence from Indian private sector banks.

The **Second section** of the book contains fifty-two chapters on *Marketing Management* aspects on strategic innovative and dynamic changes to create the delight and WOW moments to the customers using digital platforms. The Chapters are: Exploring the Factors Influencing Millennials Intention-to-purchase of Facebook Advertising in Bangladesh; Influence of Packaging Attributes on Consumer Buying Attitude: A Study on Eatables by Shri Mahila Griha Udyog Lijjat Papad; Interpersonal Service Quality as a Precursor of Store Experience: A Study on Convenience Store; Impact of Digital Strategies on Services Delivery in Rural India Vis-a-Vis Different Flagship Programmes of Rural Development.

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The Implications of Artificial Intelligence In Personalized Marketing Strategy- its Past, Present and Future; Recent advances in shopping through mobile: an Indian perspective; M-Commerce Acceptance in India: Model Development and Validation; A Study of Behaviour of consumers towards Online Shopping- A case study in Gwalior City; Impact of Social Media in Start-Up Entrepreneur: A Demographic Study around Kolkata City (India); Impact of demonetization on consumer's buying behaviour towards online shopping; social media a marketing tool providing awareness in customers; Assessment of digital marketing in promoting

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The **Third section** contains thirty-six chapters that cover *Human Resources Management* practices relating to development of individual as well as organization along with the usage and glimpse of digital strategies. The chapters are: IT Enabled HR Practices in Hospitality Industry in India; Impact of Performance Appraisal system on Performance of Indian Bureaucracy; An Empirical Study on Impact of Green Human Resource Functions on Environmental Performance: Case study with reference to ICICI Bank.

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The **Fourth Section** of book includes fifty chapters of *General Management* and *Economics*. This section highlights the applications of digital strategies and the reasons of changes and their consequences on economic development. The chapters are: Cashless Economy and Digitalization of Tourism & Hospitality Practices in India; Cashless economy in India: challenges and opportunities; Cashless economy and digitalization; India's Progress Towards Becoming A Cashless Economy; Digital payments: Secure enough for the Indian economy to go cashless; Bridging the digital divide and poverty alleviation in Egypt; Impact of demonetisation

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The **Fifth section** contains fifteen chapters on application of *Information Technology*. The chapters are: Insight towards Adoption of International Financial Reporting Standards (IFRS) in India; Combating Unbalanced Datasets with Generative Adversarial Networks; The Implications of Artificial Intelligence In Personalized Marketing Strategy- its Past, Present and Future; Cryptocurrency technology: prospects in the success of different organizations; The tangential influence of technology on destination dynamics; economic impacts of nanotechnology industry: Case study on Egypt; Fractional Kinetic Equation involving Integral Transform; Optimization Approach for Web Customers on Recommendation System Using Collaborative Filtering; A stratified optional randomized response model; Introduction to Machine Learning and Its Basic Application in Python; Application of Fuzzy Concept in Fuzzy Group Redefined; A Study on Some Theorems on Fuzzy Prime Ideal of Gamma-Ring.

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Are Hospitals Moving to Digitization for Success? Assessing Through Utilization of ERP Systems

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ABSTRACT

With the increasing focus of businesses on its customers, customers are moving towards those businesses outputs that are quality centric yet cost effective and timely. This has shown the world urgent and emergent necessity of digitization. With the shift of the organisations from traditional system of managing business to digital strategies, the benefits became very prominent. Under the digital strategies, various systems and techniques evolved over time and one such system is Enterprise Resource Planning. Enterprise resource planning is that business process management software that allows an organization to use a system of integrated applications to manage the business and automate many back office functions related to technology, services and human resources. This is aided with Information technology that has supported this evolution to the prevalent extent.

ERP has proven a windfall for sectors where information plays a vital role in terms of quality, cost and timing. Health care sector is one such case. With the increasing health care importance and requirement, healthcare industry is focusing on back-end business functions across finance and billing, supply chain management, inventory management, patient relationship management, human capitals etc.

This paper aims at identifying the success rate of ERP implementation by the health care sector in Nagpur region. It also aims at understanding the impact of ERP system on the operational areas within the hospitals. With an assumption that many hospitals are still not using ERP; the study is directed towards identifying and quantifying the barriers to its implementation.

The data is collected from 14, 50+ bedded hospitals via a structured questionnaire using 5-point scale. The data is analysed using SPSS Version 20. Based on the results of hypotheses testing, a model is suggested for key stakeholders.

Introduction

Enterprise resource planning (ERP) (Enterprise Resource Planning (ERP)) is a method of easing and simplifying the business processes of the company by efficiently utilizing people, hardware and software to increase productivity and profit. ERP includes many software applications package that smoothly disseminates data required by two or more unique business departments.

There are various modules in an ERP system like Finance/Accounts, Human Resource Management, Manufacturing, Marketing/Sales, Supply Chain/Warehouse Management, CRM, Project Management, etc.

Briefly an ERP solution allows each department or business domain to operate independently while managing the data at central level. Advantages include interoperability of data, increased communication, increased data reliability through the use of a single database, complete visibility into all the important processes, automatic and coherent workflow from one department to another, a unified and single reporting system to analyse the statistics/status etc. in real-time, single ERP software across all departments, business Intelligence functions identify potential areas of problems or scope of improvements advanced e-commerce integration is possible with ERP systems. ERP also enhances the quality of business wide decision making.

(Enterprise Resource Planning System, 2009) Stated the four primary business processes a typical ERP system has as:

- Selling a product or service for Customer order management process
- Production planning and execution process
- Procurement process
- Costing, paying the bills and collecting

With the advancement in the technology, new trends have emerged in the ERP systems. The ERP software is managed on the mobile devices to ease the business to access the information not only in office but on road also. Cloud ERP materialized with the entry of cloud computing that enables operators to data sharing and transferring in real time.

Similarly the concept of social ERP evolved that focus on social customer relationships.

For organisation to monitor information at two levels one at corporate level and other at subsidiary level, a two tier ERP surfaced. (Beal, www.webopedia.com). The following chart depicts ERP trends over these years:

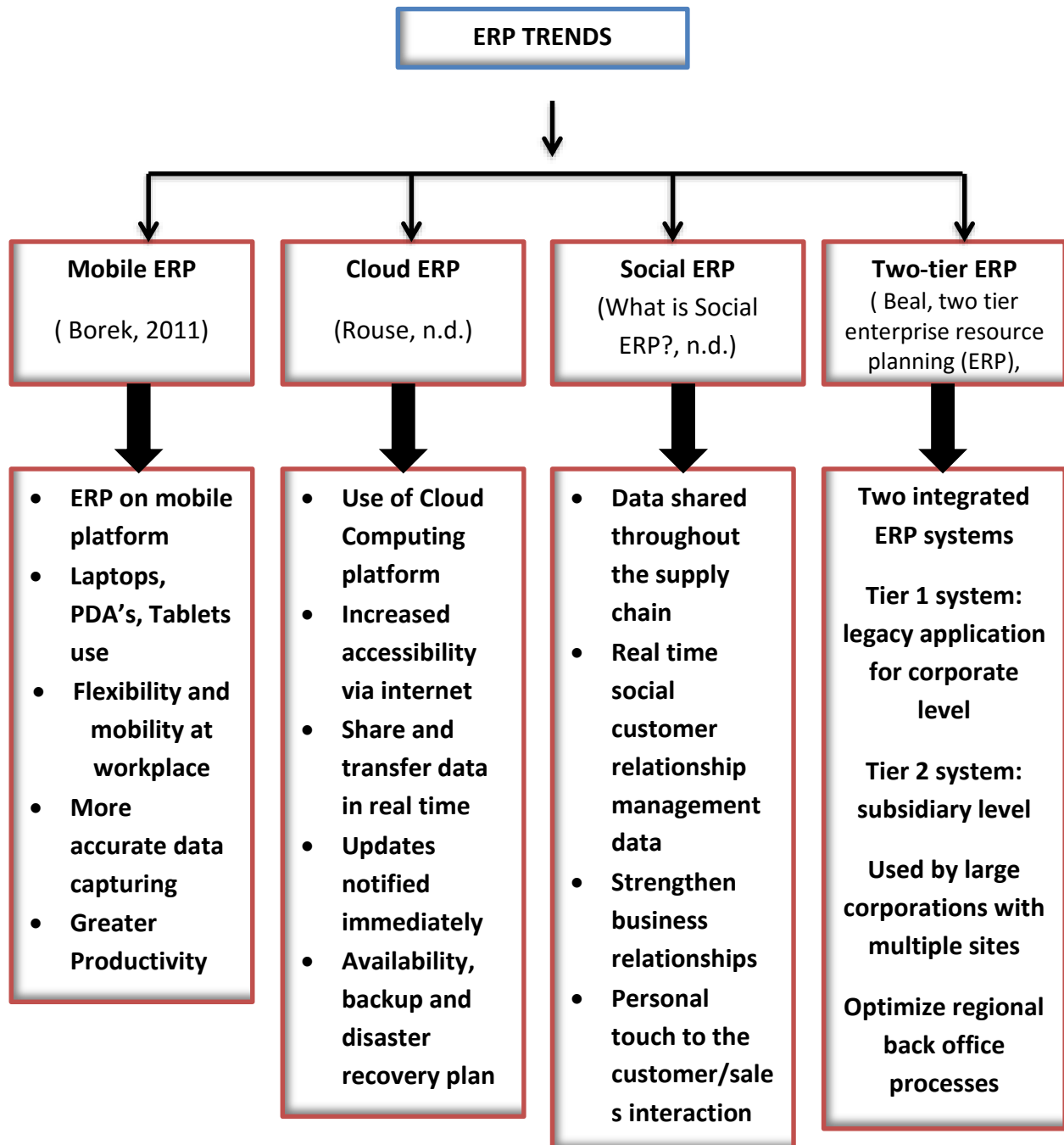


Chart 1: ERP Trends

USE of ERP in Hospitals

Hospital (Hospital ERP Systems) system consist of all the facilities that support the planning and functioning of the processes in the hospitals. Data Visibility is provided through ERP that provides the refresh option for real time data visibility for the decision makers. Patient's information collection, storage and analysis for future prediction, data analysis and representation through Report generation in various formats, user friendly, customizable presentation views/graphs is also aided through ERP system. Bed management in terms of occupancy ward wise Housekeeping is done through enterprise planning software. ERP also supports the function s like the options of payment modes and details, patient Billing Details, Custom billing cycles, Invoice management, Revenue details etc.

ERP has also been used for Diet Management that allows the patients to choose from the food items available in the kitchens. ERP also stores and facilitates the information relating to the nutrient content of the food items, recipe details etc. to aid the patient for proper diet management. It also helps the dietician to prepare the diet plans for patients based on the requirements provided by the system.

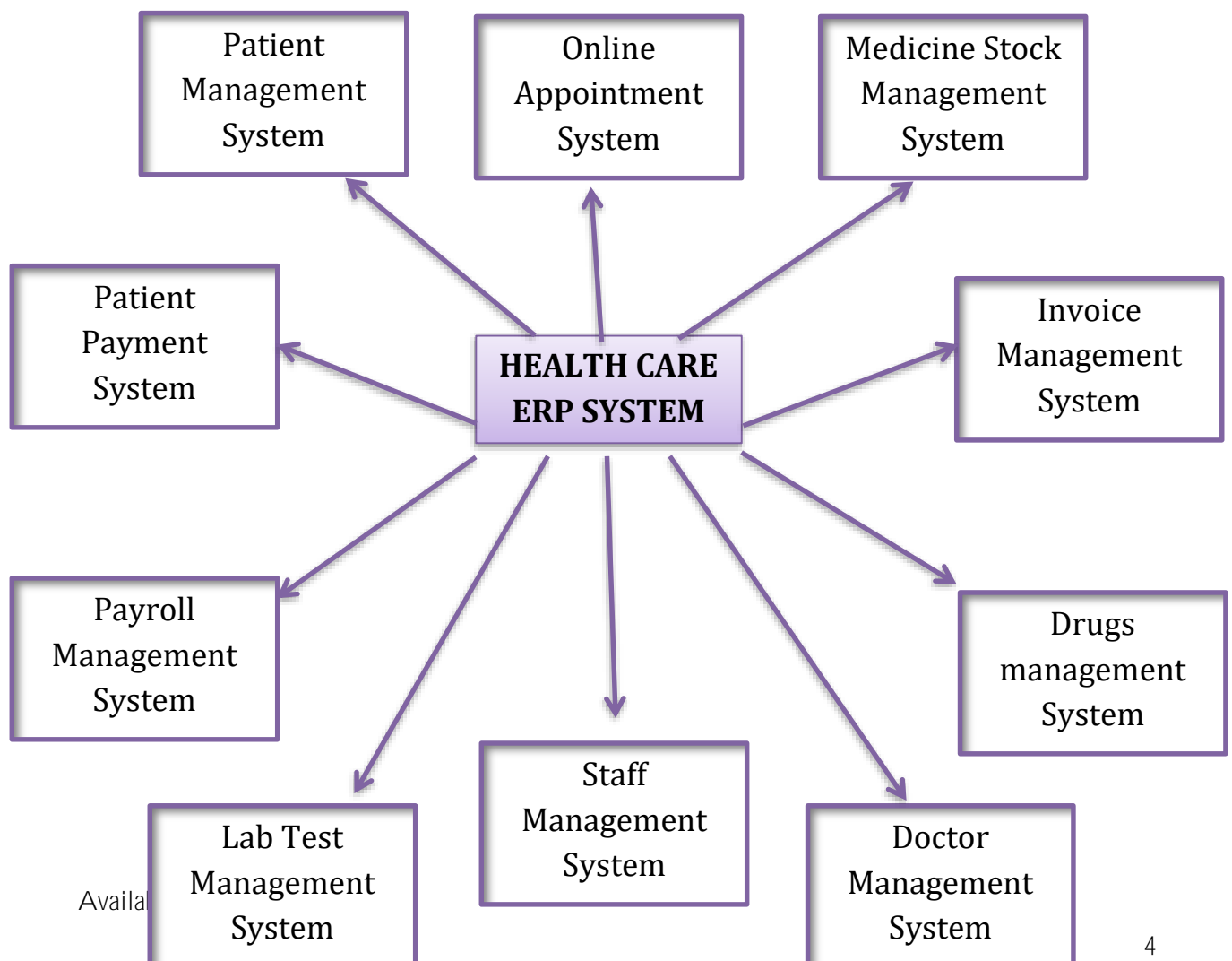


Chart 2: ERP software in the Health Care business

Literature Review

The study by (Carton & Adam, 2005) proposes that the investigation on ERP experience in industry suggests that the single most significant factor that contributes to the successful implementation of ERP is the organisation itself. The willingness and the readiness of employees to cuddle the change in the organisation would help in implementing the ERP program.

(Wan , Ling, & Huang , 2001) identified the barriers at three levels of implementation in an organisation. At initial preparatory stage the barriers can be Network relationships and organisational practices conflicts. At the information analysis and requirement determination stage barriers can be with respect to knowledge sharing and organisational routines. And at the implementation level, the barriers identified are mind-set and cultural barriers and cultural conflicts barriers.

(Cook) has identified the barriers to successful implementation of ERP as under.

Resistance to change: ERP means moving from traditional methods of resource planning to IT enabled planning. ERP requires complete adaptation of the company's business processes. This change may not stand comfortable to the employees working within.

Inadequate Sponsorship: A strong, consistent backing from the top of the organization aids the successful ERP implementation. The authority and credibility of the senior leaders brings successful change. And if adequate sponsorship s not provided, may lead to failure of ERP implementation.

Unrealistic Expectations: Organisation not understanding what ERP system can provide and expecting beyond the benefits of ERP can be a hindrance to its implementation.

Poor Project Management: Implementing ERP itself is a complex project and hence needs competent project management leader. Not having effective project management makes it very hard for an ERP project to succeed.

No Compelling Case for Change: When ERP means change, the organisation must clearly understand the need for implementation of ERP, which may otherwise lead to disinterest and resistance to ERP implementation.

Scope Creep: when the scope of ERP is not well defined, it may result in acting as a barrier to ERP implementation.

No Horizontal Process View: The implementation team needs to focus on the entire process, not just concentrate on certain areas. It is important that the people leading the effort have a full 360-degree view of the implementation process and keep all aspects of the project in mind at all times.

IT Perspective Not Integrated: Putting ERP implementation under the IT team may be contradicting and thus may restrict the use of ERP. IT may not be the only means of implementing ERP, but it plays a vigorous role.

The other barriers identified by (Garg) are lack of top management commitment, inadequate resources, lack of proper training and lack of communication. And the criticism to ERP Systems is identified as the limitation of single ERP system against the mixture of Best of Breed software products. ERP system is also said to have inflexibility of the built-in-business model of ERP system.

Many researches have shown the impact the ERP system has on the firm's performance. Also studies have shown that there are many firms that still are behindhand in the implementation of ERP systems. A study on '**Barriers of ERP while implementing ERP: a Literature Review**' identified the internal and external barriers that hinder the implementation of ERP. The observed barriers from the literature review done in the study were identified as requirement of huge capital for software designing for the ERP usage, improper planning and management for implementation of the ERP project, corporate goals that exclude the new projects like ERP, lack of training to the employees for ERP usage, no proper identification of vendors for ERP software development, lack of risk assessment for the execution of the ERP project etc. The study also showed that the above said barriers are majorly seen in the small and medium enterprises (Khaparde, 2012).

The paper (Sangster, Leech , & Grabsk, 2009) studied the impact of ERP implementations upon the role of management accountants. It also studied the effect of ERP on the business processes and the management accounting process. The study indicated that whether the ERP implementation is successful or failure in the organisation but its impact on the quality of information and data, and other operational processes has improved. The management accountants used to prepare the reports using spree sheets. Now the traditional system has been replaced by ERP and this had contributed to time saving for report generation thereby

improving the quality of data. This has also contributed to better decision making for the management. Now the accountants are able to divert their time to other activities that can add value to the processes in the organisation.

Problem Statement of the research

Most of the literature available on Enterprise Resource Planning System studied its implementation in organisations in general. The requirement of ERP system by organisation is based on organisation type (manufacturing or services), size of the organisation, location and quality and quantity of data generated.

Health care is one such sector where the data generated needs proper treatment. And here the role of ERP system becomes profound. But not much of study is seen done on this sector with respect to the digital tool like ERP.

Objectives of the study

The objectives of the study were as under:

1. To study the impact of implementation of ERP system on the operational factors of the health care units.
2. To study the barriers (if any) in the implementation and usage of ERP systems.

Research design

Impact of ERP can be studied for those organisations that implement ERP systems. Organisations that generate data in quantity and where analysis and interpretation or prediction of information supports the success of the firms, ERP gains meaningful usage.

Small and medium enterprises that run on limited money, time and other resources also lack in having updated technology and information technology infrastructure that hinders the implementation of ERP system (Venkatraman & Fahd, 2016).

With respect to this study, the underlining assumption was that 50 or above bedded hospitals are large organisations, that could have proper implementation of ERP system. Thus the population was private single and multispecialty private hospitals of Nagpur city.

The sample units were derived from the sampling frame provided in (Inventory of Hospitals having 100 beds and above, n.d.) and the other sampling frame derived from (List of hospitals in Nagpur, n.d.). Purposive sampling was used to select the sampling units from the list. Sample size

of 30 was considered for the survey. The response rate was 14 out of 30 i.e. 46.67%. A Structured questionnaire was used to collect data from the respondents.

Hypotheses of the study

H01: There is no significant relationship between the core processes of the hospital and successful implementation of ERP systems.

H02: There is no significant relationship between timely information provision and successful implementation of ERP systems

H03: There is no significant relationship between the data collection time from patients/ clients and successful implementation of ERP systems.

H04: There is no significant relationship between the data analysis and the successful implementation of ERP systems.

H05: There is no significant relationship between the Internal reporting to the management and other departments and the successful implementation of ERP systems.

H06: There is no significant relationship between the controlling of patients/ clients/ suppliers and the successful implementation of ERP systems.

H07: There is no significant relationship between the overall quality of services and the successful implementation of ERP systems.

Data analysis

Reliability test: Cronbach's Alpha was used as the reliability statistics. The value of 0.622 i.e. 62% is found adequate.

Reliability Statistics	
Cronbach's Alpha	N of Items
.622	7

Table 1: Reliability Statistics

To study the extent of relationship between the successes of ERP implementation with the functions of ERP, Carl Pearson's correlation coefficient method was used. The table below shows the correlation coefficients between the successes of ERP implementation with the functions of ERP.

Correlations									
		D	ID1	ID2	ID3	ID4	ID5	ID10	ID11
D	Pearson Correlation	1	.344	.592*	-.258	.439	.538*	.645*	.496
	Sig. (2-tailed)		.228	.026	.373	.117	.047	.013	.071
	N	14	14	14	14	14	14	14	14
ID1	Pearson Correlation	.344	1	.255	-.944**	.151	-.220	.611*	.133
	Sig. (2-tailed)	.228		.380	.000	.606	.450	.020	.649
	N	14	14	14	14	14	14	14	14
ID2	Pearson Correlation	.592*	.255	1	-.382	.000	.239	.764**	.183
	Sig. (2-tailed)	.026	.380		.178	1.000	.411	.001	.530
	N	14	14	14	14	14	14	14	14
ID3	Pearson Correlation	.258	.944**	.382	1	.113	.104	.750**	.240
	Sig. (2-tailed)	.373	.000	.178		.700	.723	.002	.408
	N	14	14	14	14	14	14	14	14
ID4	Pearson Correlation	.439	.151	.000	-.113	1	.484	.283	.218
	Sig. (2-tailed)	.117	.606	1.000	.700		.079	.327	.455
	N	14	14	14	14	14	14	14	14
ID5	Pearson Correlation	.538*	-.220	.239	.104	.484	1	.469	.851**
	Sig. (2-tailed)	.047	.450	.411	.723	.079		.091	.000
	N	14	14	14	14	14	14	14	14
ID10	Pearson Correlation	.645*	.611*	.764**	-.750**	.283	.469	1	.600*
	Sig. (2-tailed)	.013	.020	.001	.002	.327	.091		.023
	N	14	14	14	14	14	14	14	14
ID11	Pearson Correlation	.496	.133	.183	-.240	.218	.851**	.600*	1
	Sig. (2-tailed)	.071	.649	.530	.408	.455	.000	.023	
	N	14	14	14	14	14	14	14	14
*. Correlation is significant at the 0.05 level (2-tailed).									
**. Correlation is significant at the 0.01 level (2-tailed).									

Table1: Correlation between the dependent and the independent variables

It can be seen that the highest degree of correlation with coefficient of 0.645 is seen between ERP implementation success of the hospitals and close controlling of patients, clients and its suppliers. Further the ERP success correlation is seen existing between improvements in the ERP system followed by internal reporting to management and other departments, improvement in overall quality of services and time efficiency in data analysis, and data collection.

Since the p values of the Independent variables 2, 5 and 10 are lower than the significance level, the null hypothesis that improvement resulting from the ERP systems, internal reporting to the management and other departments and close controlling of the patients, clients and suppliers have no significant relationship with the success of ERP system is rejected.

The null hypothesis that success of ERP implementation has no significant relationship with support to core process of hospitals, time efficiency in data collection and data analysis, and improving the overall quality of the services is accepted.

The below figure shows the percentage impact of ERP implementation on the core functions of the health care units. **It can be seen that the impact of ERP system on data visibility, patient's information, data representation and analysis, bed management, billing, information quality and recording of tasks is positive and high.** For the functions of housekeeping and diet management and sterile supply department, the responses on impact of ERP have been less. Since the scope of ERP has been limited to patient information, billing and data processing and not to the supporting departments, the average implementation impact of ERP system is 73%.

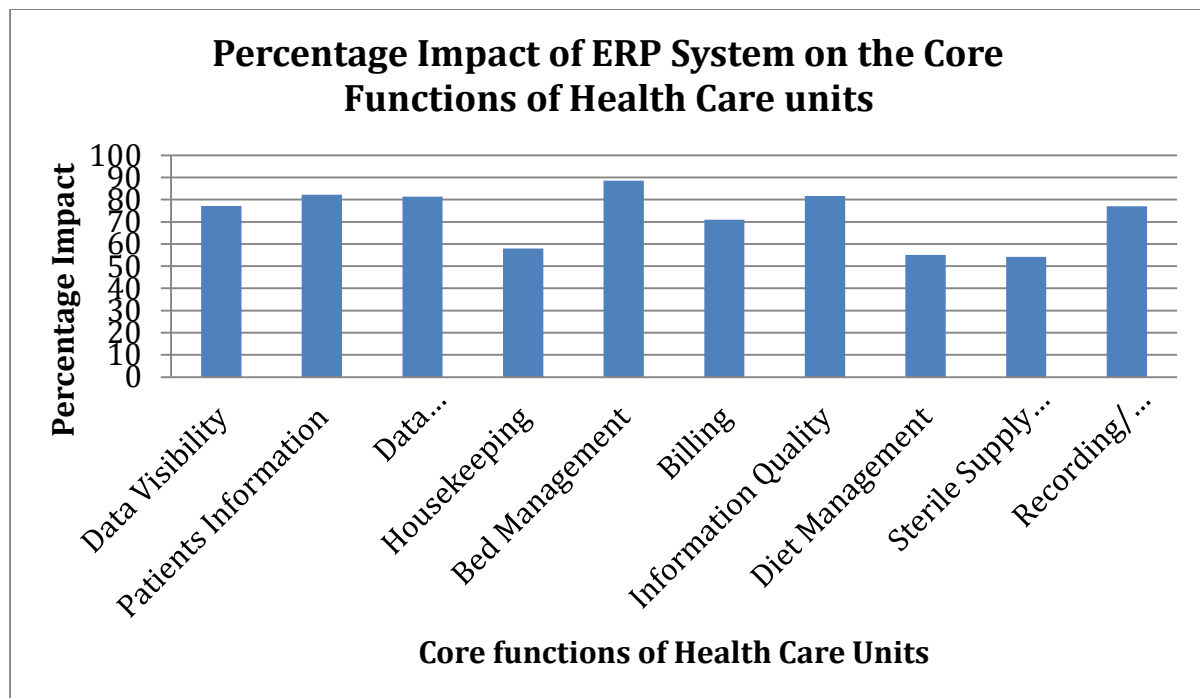


Figure 1: Percentage Impact of ERP System on the Core Functions of Health Care units

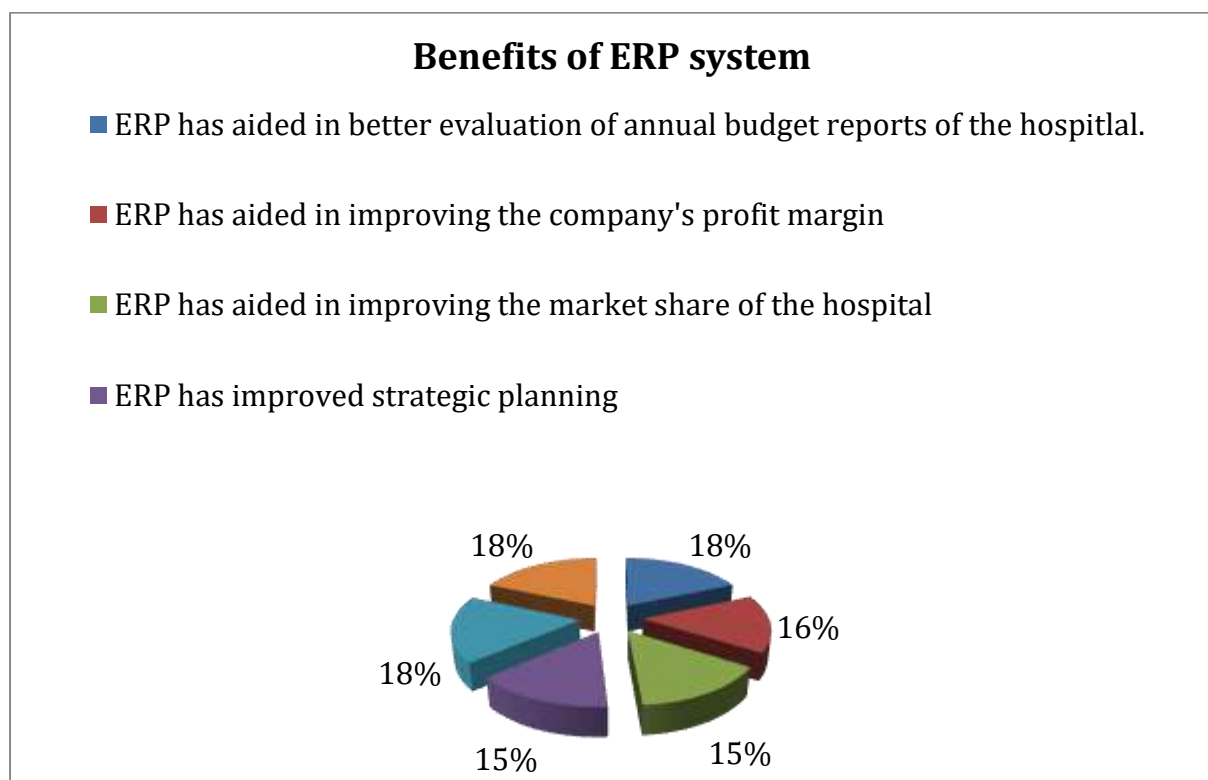


Figure 2: Benefits of ERP system

Above graph shows the benefits of ERP system on hospitals. The overall responses show that ERP has approximately equally benefited in evaluation of budget of the organisation, improved

company profit margin, aided controlling of patients and supplies data and improved data quality.

Impact of ERP system on the core functions of the hospital

When an organisation successfully implements the ERP system, the system is expected to benefit the core functions of the organisation in terms of timely provision of information, data collection and analysis and internal; reporting of the data collected and analysed to the management and the other departments. Here thus for this study the dependent variable was assumed to be the successful implementation of ERP system in the hospital.

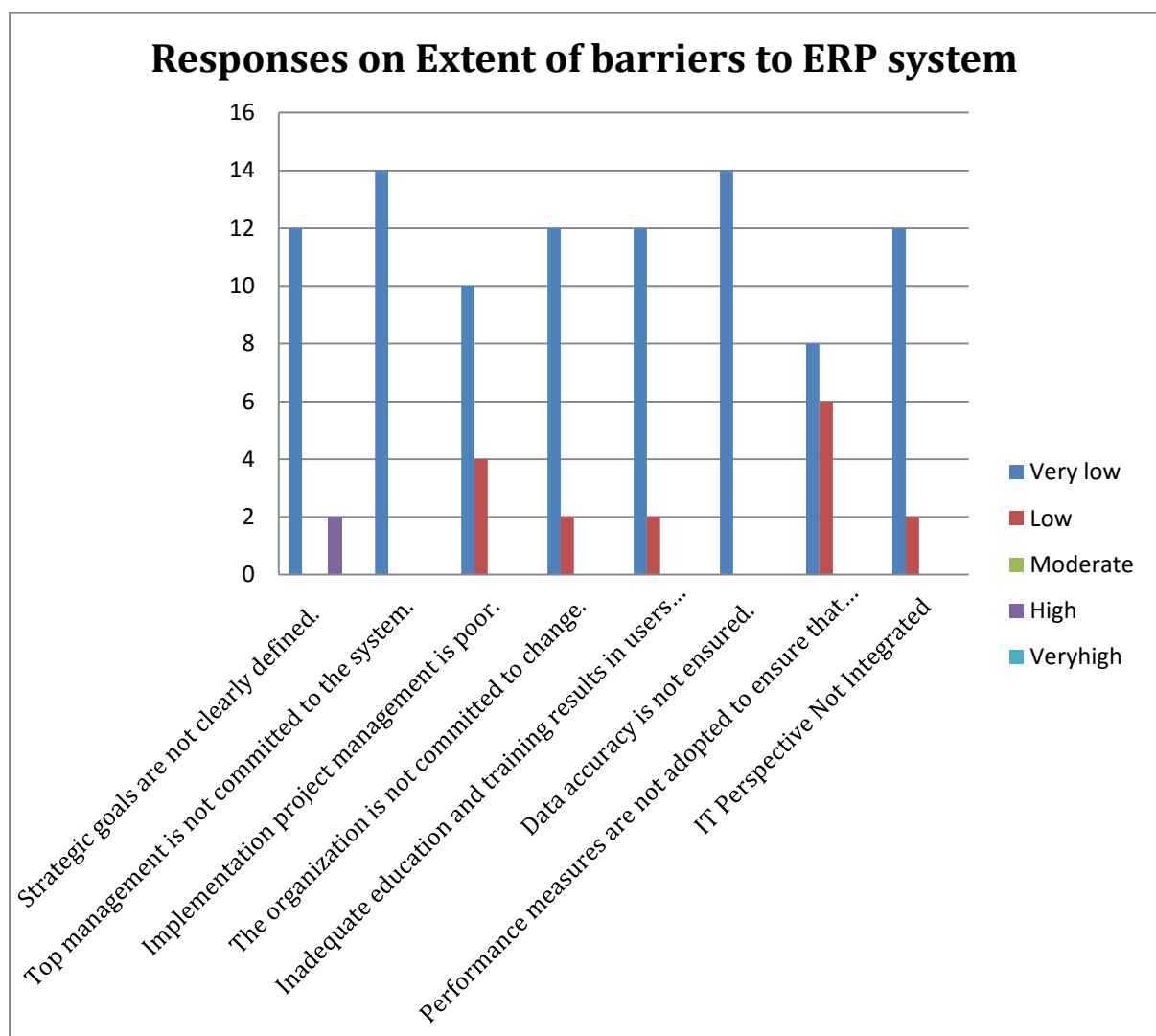


Figure 3: Responses on Extent of barriers to ERP system

The above figure shows the barriers as rated by the respondents on the scale of 1 to 5, 1 being low and 5 being high. Since the hospitals average response on the ERP success was high, there

were very few barriers that affected the system implementation. Above figure shows that only for the barrier of performance measure not adapted to organisation changes, organisations have shown positive response.

- The other barriers identified through the survey were identified as under:
- Scope of ERP not defined: For certain hospitals it was identified that ERP is limited to **patient's** registration and bed management. The supporting functions like housekeeping activities, food/ diet management, accounts were not monitored and controlled by the ERP system. The reason quoted was the limited scope defined for ERP system by the authority.
- Budget for infrastructure: ERP system requires support of IT system for functioning. And this requires capital for installation of IT department, human resources, training, physical infrastructure. This was also stated as a limitation to the implementation of ERP system in the hospital.
- Limited allocation of human in IT department: The functioning of the ERP system in the hospital has to be monitored by skilled people with IT background. And with expansion of the ERP systems through integration will all other departments of the hospital, human capital requirement increases. And financial constraints limit the allocation of human resources in the IT department.

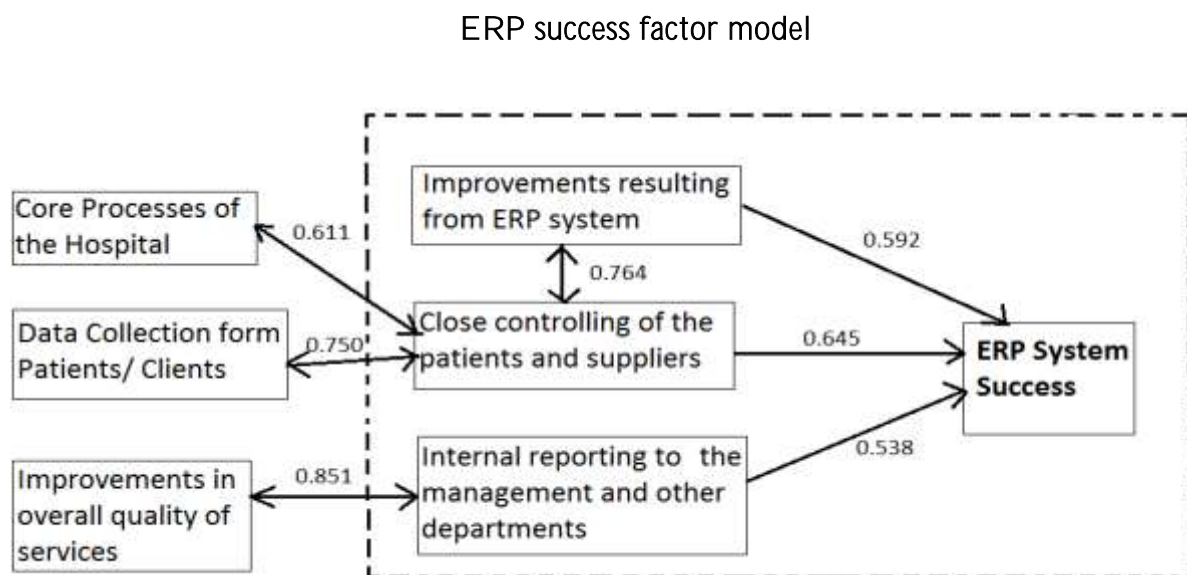


Figure 4: Factors for ERP Success Model

Initially eleven constructs were identified to study the ERP practices in the hospitals. Three of the constructs were found irrelevant. Out of the remaining eight constructs, those which

showed impact on the perceived success of the ERP system were improvements resulting from the ERP system, close controlling of the patients and its suppliers and internal reporting to the management and the other departments. As the Correlation analysis showed that the perceived success of ERP system is highly related to the improvements resulting from ERP system. This means that when the timely information is being provided to the system, the ERP system is perceived to be more successful. Also close controlling of the patients, clients and its suppliers showed an impact on the success of the ERP system by 0.645. Close controlling of the patients refer to keeping the track of the patients, identifying their requirements and facilitating that and patients record keeping. This has been seen associated with the core process of the hospital and timely data collection of its patients. An ERP system is further perceived to be successful when the overall quality of the services of the hospital is improved. And this improvement is correlated with the internal reporting and communication with the management and other departments of the hospital.

Conclusion

The objective of this study was to check whether the healthcare units are moving to digitization or not. And the findings suggest that the extent to which the ERP system is implemented in the operational areas of the healthcare units in Nagpur region is 73 percentages. The departments of housekeeping and diet management are not completely integrated to ERP, the reason being limited scope defined for ERP and financial constraints. ERP has helped the firms to collect, store, represent and analyses data for various departments thereby aiding organisation performance in terms of Data Visibility Patients Information, Data Representation and Analysis, Bed Management, Billing, Information Quality, Sterile Supply Department and Recording/ Reporting tasks.

The findings of this study support the assumptions that the perceived success of ERP system is directly related to the improvements resulting from the ERP system, time spent on data collection from patients/ clients, Data analysis and Internal reporting to the management and other departments.

Various customized health care software that integrates with ERP system to facilitate clinical practices, physicians and health care organisations are being developed with advancement s in the technology. One such software is Electronic medical record (EMR) systems. EMR software solutions are integrated with all modules of the health care units. This software aids

the users in the hospitals to access the critical information relating to availability of surgical equipment, recent pharmacy invention, laboratory tests and conducting emergency tests (EMR Software solution India, 2015). Many health care units are in the starting phase of such projects.

Thus it can be concluded that the health care units are also moving to digitization. And this digital change has been brought through the systems like Enterprise Resource Planning systems that are integrated with the IT systems.

Future scope for research

This study listed the barriers to be surveyed through the literature reviews. For the big healthcare units under this study, these barriers were not very significant. Since the barriers to ERP implementation may vary with respect to the sector, size of the organisation, the demographic and the geographic region, a study can be done to identify the barriers from the small health care units.

Digitization through other systems can further be studied for the healthcare sector.

Other supporting software like EMR system and its implementation by the healthcare units in Indian context can be done. Barriers to its implementation can also be studied.

Further this study can be extended to find the recent trends in the ERP system implementation like cloud ERP, Mobile ERP etc.

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Determinants of Emotional Stability and Psychological Well Being in Investors During Stock Market Fluctuations

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ABSTRACT

Purpose—The purpose of this paper is to explore and confirm the determinants of Emotional Stability and Psychological Well Being in investors during stock market fluctuations. Using self-designed questionnaires and establishing their reliability and validity, EFA and CFA were applied for finding determinants of the variables.

Design/methodology/approach: The authors have presented a brief introduction about the topic explaining further the factors which contribute towards the emotional stability and psychological wellbeing in investors, has explained stock market fluctuations, the relationship between the two variables, research procedure used, a survey carried out and further the analysis of the responses from the survey. In the latter part of the research, implications for finance researchers and practitioners are discussed.

Findings—The paper identifies the determinants of emotional stability and psychological wellbeing in investors during stock market fluctuations. Later these determinants are confirmed using confirmatory factor analysis.

Originality/value—The author has synthesized the inputs made by previous behavioral finance studies in extending the knowledge of emotions, psychological wellbeing and investor behavior of the society. The paper shows that policymakers and financial companies should focus more on these factors while making any kind of promotional campaign. This research study will help the investors to know about the price fluctuations so that they can take the right decision at the right time when they have to invest in the stock market. These emotional swings are widely used by financial practitioners to educate their clients about successful investments.

Introduction

Price fluctuating can be understood as the difference in trading prices from one period to another period or the difference between the daily opening and closing prices of a share of stock. In every second, prices of shares fluctuate in the stock market and this fluctuation depend on the demand and supply of a particular share same as the other market product price fluctuations.

Stock Market directly affects the individual psychology as we can see in many previous researches. Stock market fluctuations affect the individual behavior, health as well as personal life. It can cause many problems like anxiety, panic disorder, or major depression, and bad habits such as smoking drinking alcohol and sometimes the investor who suffers losses continuously may goes into some illegal activities. Stock market fluctuations affect individuals all over, be it India or any other foreign country. A study done in California (1983- 2011), tells a strong inverse link between daily stock returns and hospital admissions, specially for psychological conditions such as anxiety, panic disorder, or major depression. Another research done in America in the year 2008, has explored the impacts of a stock market crash on life wellbeing, psychological stress, and adult health behaviors. The results showed a negative effect of a market crash on hospitalizations, child reported health status, sick days from school, and emotional difficulties. In the early seventies, Kahneman and Tversky (1979), reconsidered the role of attitudes, emotions and, in general, behavioral biases in investors' decisions. Further Thaler (1993) proves that psychological forces play a role in determining asset prices. Further, Forgas (1995) show that the computations required for making investment decisions are typically complex, abstract, and involve risk. These attributes are considered to induce people to rely more heavily on their emotions when making a choice. Emotions have also been used to explain recent financial crises (Tuckett and Taffler, 2008 and Chick, 2008). Lepori (2009) showed that air quality induced mood changes influence traders' decisions.

In this research two key, first is emotional stability and second is psychology wellbeing with reference to stock markets second price fluctuation are use

Stock Market Fluctuations

Stock market fluctuations means when the price of shares, debentures continuously increases or decreases. Price fluctuating means difference in trading prices from one period to other period or

the difference between the daily opening and closing prices of a share of stock. In a stock market it can be seen that, if more people prefer buying a stock than selling it, increase the demand of the stock compared to its supply and the price will increase. On the other hand, if more people prefer selling a stock than buying it, then the price will decrease. Generally seen in the market positive and negative news affect the psychology of individuals, negative news like that Bad earnings reports, poor corporate governance, economic and political uncertainty pressurize the individual to sell stocks and these things decrease the price of stocks; positive news will normally motivate the individuals to buy stocks. New products and acquisitions, increased corporate governance, Good earnings reports, as well as positive overall economic and political indicators, translate into buying pressure and an increase in stock price.

Emotions and Investors

Recently researchers have shown much interest in the role of emotions in decision making (e.g., Hopfensitz and Wranik 2008; Loewenstein 2000; Thaler 2000). Emotions may be constructive or destructive in nature. Mood and emotion are often used interchangeably and are considered as main determining factors of any kind of investment decision an investor take (Beedie, Terry, and Lane 2005). Slovic et al. (2004) have in their work tried to define them in context of “Affect”. Many researchers like Watson and Clark (1997), Bagozzi, Gopinath, and Nyer (1999); Sizer (2000) and Siemer (2005) have defined emotions as feelings about a particular circumstance or event (someone or something) and emotions are in reaction to specific stimuli. Anger, jealousy, fear and envy are few examples of emotional states. Investors experience positive emotions when they realize a gain but comparatively stronger negative emotions when they realize loss of the same value (Kahneman and Tversky (1981). Because of this difference in the feeling few of them will sell their winners hastily while few may dangle on to their losses (Shefrin and Statman 2011; Barber and Odean 1999). In the same circumstances some investors may end up as trading much and some may trade too little. Some trade too much, others, too little (Barber and Odean 2000). Investors use their emotions will bring them a success or failure on their investment.

In addition to emotions, cognitive biases also play a role in investment. As per a research done, **there are more than 188 cognitive biases which effects individual's different decisions including wealth decision. Investor's different emotions explore their cognitions towards the market.** Here emotional swing variables: optimism, Excitement, Thrill, Euphoria, Anxiety, Denial, Fear,

Desperations, Capitulation, Despondency, Depression, Hope, Relief etc. Each emotion has its own **positive and negative aspects**. **How investor's use these aspects will determine their investment success**. Below is quoted some important research work on the variables of emotions.

Optimisms: Bless et al. (1996); Schwarz, (1990); Ruder and Bless (2003); Hogarth et al (2011); Johnson and Tversky (1983); are few researchers who have quoted optimism as important factor of emotion.

Fear: Lucey and Dowling (2005), Andrade and Dan (2009), Cohen, J.B., M.T. Pham and E.B. Andrade, (2008); Cohen, J.B., M.T. Pham and E.B. Andrade, (2008); Lerner, J.S. and D. Keltner, (2001), Lerner, J.S. and L.Z. Tiedens, (2006), Katkin, Wiens and Ohman, (2001) have studied about the presence of fear in investment decisions.

Thrill: Lichtenstein et al. (1978); Gray, (1999); Isen et al, (1978); Johnson & Tversky, (1983); Kavanaugh & Bower, (1985); Mayer & Hanson, (1995); Schwarz & Clore, (1983); Wright & Bower, (1992) are few researchers who researched on thrill as an emotion in stock market investment decisions. Thrill affects the behaviour and in turn investment decisions with high risk taking behavior.

Euphoria: It is the stage of maximum financial risk. The confidence level of investors is very high at this stage (Moore and Healy, (2008) & Odean, (1999); Caballe and Sakovics, 2003; Daniel, Hirshleifer, and Subrahmanyam, 1998; Gervais and Odean, 2001; Hong, Scheinkman, and Xiong, 2006; Kyle and Wang, 1997; Odean, 1998; Peng and Xiong, 2006; Scheinkman and Xiong, 2003; and Wang, 2001). Graham, Harvey, and Huang (2009).

Denial: It is an emotion which shows nearby market improvement hope in future, Lazarus & Folkman, (1984); Rothbaum, Weisz, & Snyder, (1982).

Panic: Keynes (1936) (Holtgrave and Weber,1993; Loewenstein et al,2001; Weber, Siebenmorgen, 2005); Kindleberger, Charles and Aliber (2005); Kahneman, Solvic and Tversky (1982) has worked on this emotion.

Despondence: A negative feeling for the investment when one incurs loss; Stifter & Moyer, (1991) and Ochsner & Gross (2005). This emotion has negative effect on the psychology of investor and which further leads to not investment.

Depressions: (Bushman and Anderson, 2001; Morrow & Nolen-Hoeksema, 1993; Ray, Wilhelm, & Gross, in press; Spasojevic & Alloy, (2001). Benartzi and Thaler, (1995) opined that sometimes mild negative emotions that do not result in a loss of self-control can play a counterproductive role in some situations. If investors try to chase the market, then they will be automatically influenced by gambling attributes. Behavioural finance calls this attitude as gamblers fallacy, Shiller (2002)

Relief: It represents faith in the market that it will recover from the low phase. It gives hope that further investments can be made for ex work by Graham, Harvey, and Huang (2009); Deaves, Lüders, and Luo (2009); Chen et al. (2007); Kaustia and Knüpfer (2008); Choi et al. (2009); has emphasized on relief as an important aspect of emotion.

Summers and Duxbury (2012) studied about the influence of emotions on decision making and found Specific task related emotions are necessary causes of the disposition effect. Lackert, Church and Deaves (2003) argued that emotion has important, and possibly beneficial, influences on financial behavior. Understanding, managing and regulating emotions appear to help in the decision making process Blackman (2014), (Coricelli, Critchley, Joffily, O'Doherty and Sirigu (2005)). Taffler (2014) talked about real emotions adding the real emotions driving investment are those of excitement, anxiety and denial, often experienced by market participants on an unconscious level.

Psychological Well Being

Pollard and Lee in early 2003 described wellbeing as a “complex, multi faceted construct. Hasnain (2006) defined Psychological well-being as an expression having different meanings to different people. Levi, (1987), added the definition of well-being by describing psychological well-being as an active state characterized by a reasonable amount of concord between an individual's abilities, needs and expectations, and environmental demands and opportunities. Keyes, 1998; Ryff and Singer, 1996 in their review defined well-being as the absence of negative conditions such as depression, distress or anxiety. Diener and Diener (1995) ; Diener, Oishi& Lucas,(2003) talked about psychological well-being as a person's calculative and well evaluative reactions to his or her life – either in terms of life satisfaction, 'cognitiveevaluations' or affect 'ongoing emotional reactions'. Ryff (1989b, 1995) gave a

multidimensional model of well-being which included six distinct components of positive psychological functioning.

Personality is the most adequate conceptualizations of a person's behaviour in all its detail (McClelland, 1951). Diener, Suh, Lucas and Smith, 1999, explained that personality determines our reactions to the environment. Headley and Wearing (1992) and Diener, Oishi and Lucas, (2003) talked about The Dynamic Equilibrium model and added that well-being is determined by his personality.

McCrae and John, (1992); Diener and Seligman (2002) findings resulted in five personality traits which are also referred to as the 'Five Factor Model' (Costa and McCrae, 1992). This model is an important development in personality. Adding to it is SPF theory which combines a theory of human well being with a behavioral (Steverink, Lindenberg, & Slaets, 2005).

Ormel et al., 1997; Nieboer et al., 1999; Von Faber et al., 2001; Meertens, Scheepers, & Tax, 2003; Gerritsen, Steverink, Ooms, & Ribbe, 2004; Steverink, Lindenberg, & Slaets, 2005; Elzen, 2006; Mathias & Martin, 2007; Bosmans et al., 2007 in their respective research work have quoted that social production function theory is a useful tool for understanding the processes of ageing, psychological being, and quality of life.

Review of Relationship Between Emotional Stability and Psychological Well Being

Vincent and Bamiro (2013) studied the Nigerian stock market and found that fluctuation rate has very serious implications on the Nigeria economy. Frijter, Johnston, Shield and Sinha (2014), studied the effect of stock market fluctuations on subjective wellbeing and health in Australian and the results indicated that stock market increases lead to a significant but modest increase in life satisfaction and mental health. Sarwar, Afaf, Macmillan (2016) examined investors of LSE and results showed that there is no significant relationship between the gender and investment decision-making, a significant relationship between monthly income level of investors and investment decision-making and psychological factors are having more impact as compared to the economic factors.

Engelberg and Parsons (2014) found a strong inverse link between daily stock returns and hospital admissions. Ratcliffe and Taylor (2015); Cotti and Simon (2016), indicated that there is negative effect of a market crash on hospitalizations and emotional difficulties. Also, volatility

in the stock price index is associated with poorer mental well-being. Tonzer and Lena (2017) analysis showed that life satisfaction is negatively affected by uncertainty approximated by stock market volatility.

Dhoui, Bourouis and Boyacioglu (2013) found that more pessimistic investors have higher influence on trading volume than the more optimistic and the more overconfident one. Horst (2004), studied the asymptotic of both aggregate behavior and asset prices.

Baker and Wurgler (2007) said that it is possible to measure investor sentiment, and that waves of sentiment have clearly discernible, important, and regular effects on individual firms and on the stock market as a whole. Shu (2009) study results indicated that both equity and bill prices correlate positively with investor mood, with higher asset prices associated with better mood. Zouaoui, Nouyrigat and Beer (2010), showed that the sentiment of investors positively influences the probability of occurrence of stock market crises within a one-year horizon. Zhang (2015), found the market turnover rate has positive correlation with the lagged market return, which indicated the overconfident tendency of Chinese individual investors are influenced by market return. Sah (2009) studied the seasonality of stock market and found that the Indian stock market is not efficient and investors can improve their returns by timing their investment. **Chang (2017) studied investor sentiment's impact on stock prices and showed that behavior finance is built on two basic assumptions: investors are subject to sentiment and betting against sentimental investors is costly and risky.**

Narayanmurthy, Dharani and Muruganandan (2015) found that weather influence the mood of the brokers and traders prominently at a particular locality and further found shorter daylight hours make people doubtful and pessimistic mood. Individuals feel in a more positive frame of mind on sunny than cloud days in west countries. Kao and Wai (2004) identified the relationship between temperature and stock market return and suggested that lower temperature can cause apathy as well as aggression.

Based on the above review done following objectives were set for the study:

Objectives

1. To identify and confirm the factors of psychological wellbeing
2. To identify and confirm the factors of emotional stability

Research Methodology

The study was exploratory in nature. Survey method was used to complete it. All the investors of Gwalior city were the population of study. Individual investor was sampling element. Sample size was 200 respondents. Non- probability judgmental sampling method was used. For the purpose of data collection, two self design questionnaires were used. One questionnaire was on psychological well being and another of emotional stability. The Questionnaires were on Likert type scale and possessed a sensitivity of 5, where the extreme values namely 1 and 5 would represent least agreement and most agreement respectively. The questionnaires were distributed to respondents after making them understand the context of stock market fluctuations.

Tools used of data analysis

1. Reliability test was applied to check reliability of both the questionnaires with the help of cronbach Alpha.
2. Factor analysis was applied to find act the underline factor of investment design and investor's psychology.
3. Confirmatory Factor Analysis was applied to confirm the factors of investment design and investor's psychology.

Results and Discussions

Checking Reliability of the Instruments

Reliability test was applied by using PASW 18 software on the data collected by using questionnaire; emotional Stability & psychological well being of individuals. The reliability test values of all variables are given in the table1.

The reliability value from the table indicated that **the reliability coefficient Cronbach's alpha** value is greater than 0.7 or very close to 0.7 for all the Variables of the study; indicating that the reliability of the questionnaire was high and therefore, the data collected using these measures is suitable for the study (Nunnaly, 1979).

Sample Adequacy

Kaiser-Meyer-Olkin(KMO) Measure of Sampling Adequacy is an index used to evaluate the appropriateness of data for factor analysis. The Kaiser-Meyer-Olkin Measure of Sampling

Adequacy value for Emotional Stability and Psychological Well being of individuals was 0.832, 0.812 indicating that the sample was adequate to consider the data suitable for factor analysis (refer table 2).

Bartlett's Test of Sphericity: Bartlett's Test of Sphericity is a test of statistic that was used to examine the null hypothesis that the item to item correlation matrix is an identity matrix. The Bartlett's Test of Sphericity was tested through Chi-Square value represented in the table significant at 0.000 level of significance. Therefore, the hypothesis is rejected which indicates that the items used to measure the variable were related to each other and suitable for convergence using exploratory factor analysis.

Principal Component Analysis with Varimax Rotation was applied to find out the underlying factors of the measures on Emotional Stability and Psychological Well being of individuals.

Exploring the Factors of Investment Design and Investor's Psychology

Description of factors Emotional Stability

1. **Overconfidence:** This factor has emerged the most important determinant of Research total variances 39.281. Major elements of this factor include Q-2 "I like things to be firmly under my control."(.793) Q- 10 "I like to believe that I will and I can achieve all that I aspire to achieve in my life and more."(.759) Q-6 "I believe that an element of risk adds spice to life."(.695). Overconfidence indicates about the confidence level of investors which were arises after the fluctuations in stock market.

2. **Optimism:** This factor has emerged the second most important determinant of research investment decisions of total variances 10.971." Q-5 "My friends and family rely on me for emotional and mental support, and I rely on them for the same." (.773) Q-4 "I prefer to sell stocks whose prices recently increased." (.682)". Q-7 "Feelings of depression and anxiety are foreign to me." (.671) Q-8 "I have the ability to see silver lining in every dark cloud." (.541) Q-12 "I can usually let myself go and have good time at a party."(.477).

Optimism indicates about the hopefulness of investors which were arises after the fluctuations in stock market.

3. **Self Image:** This factor has emerged the third most important determinant of factor total variances 9.285. "Q-1 I feel something wonder if there is something wrong with me. (.722)." Q-

3 I feel proud after every difficult accomplishment of my each day. (.677)” Q-11 “I never let myself believe that I am a failure (.521) Q-9 “I believe that it is human to make mistake and that I don’t fail as a person just because of a mistake.”(.495).

Self image indicates about the self identity & self evaluation of investors which were arises after the fluctuations in stock market.

Factors of Psychological Wellbeing

Description of factors Psychological Wellbeing

1. **Healthy & Energetic:** This factor has emerged the most important determinant of Research total variances 30.800. Major elements of this factor include “Q-5” I feel energetic and vitality.” (.811) Q-9” I feel healthy enough to carry out the things I like to do and I want to do.”(.813) Q-11 ” I woke up feel fresh and rested.” (.708) Q-14 “I feel active.” (..796).

Healthy & Energetic indicates about the health activeness of investors which were arises after the fluctuations in stock market.

2. **Anxiety:** This factor has emerged the second most important determinant of research investment decisions of total variances 18.994.” Q-3 “I have been in firm control of behavior, thoughts, emotions, or feelings” (.596) “ PubMed Q-4 I have been bothered by nervousness and “nerves”.(729). Q-7 “I generally feel tensed. (.820).

Anxiety indicates about the worry & nervousness of investors which were arises after the fluctuations in stock market.

3. **Stressed:** This factor has emerged the third most important determinant of factor total variances 9.468 “Q-6 I feel downhearted (.690).” Q-8 I feel happy, satisfied and pleased in my personal life (.608)” Q-10 “I feel sad, discouraged and hopeless and have so many problems that I wondered that anything is worthwhile.” (545) Q-12 “I feel concern, worried and fear about my health” (717) Q-13 “I feel dull or sluggish”.(598).

Stress indicates about the stress level of investors which were arises after the fluctuations in stock market. In this factor five statements were developed to evaluate the information of the investors who invest in stock market.

4. Depressed: This factor has emerged as the fourth most important determinant of research investment decisions of total variances 6.787. Q-1 “I often feel bothered by any illness, bodily disorder, aches or pains.”(.818) “Q-2 I feel depressed.”(.745). Q-15 “I feel anxious worried or upset. (.589).

Depressed indicates about the un-happiness and gloominess of investors which were arises after the fluctuations in stock market.

Confirmation of Factors

g.1) Emotional Stability

To confirm the factors which emerged out of EFA, CFA was applied on both the variables of the study. Confirmatory factor analysis was conducted on emotional stability and the results are as follows

To measure Emotional Stability, the instrument was developed which had 12 items. Exploratory Factor Analysis was applied for exploring the factors for Emotional Stability and it resulted into 3 factors. To know whether this scale of Emotional Stability fits well in the population or not, confirmatory factor analysis was applied to the data. Statistical testing of initially proposed model yielded results which can be seen in Figure (Model1) 1 and values of the same in table 5.

The first order confirmatory test with multiple factors result showed an inadequate fit as shown in Model 1. The χ^2 statistic was 117.154 (degrees of freedom = 712, $p < 0.001$), with the χ^2/df ratio having a value of 2.857 that is more than 2.0 indicating a bad fit. However, the Goodness Fit Index (GFI) was .908 and Adjusted Goodness of Fit (AGFI) was 0.851. The comparative fit index (CFI) was 0.879, Tucker-Lewis coefficient (TLI) was 0.837. These scores are less than 0.9 which is not satisfactory. The next set of fit statistics focus on the root mean square error of Approximation (RMSEA) which is 0.098 which is more than 0.05 indicating bad fit.

On the basis of table 5 of values analysis we can say that model 1 is having bad fit. This model needs to be improved significantly. However, to enhance the fitting the model some items were dropped. Therefore, the model was further improved. Initially Statement number 5 was dropped which improved the model but still the goodness of fit indicators were not perfect. Therefore, in a series of efforts made by, six models were developed by respectively dropping statement 5, 1,

12,11 and drawing co variances from e3 to e5..., e2 to e8..., e1 to e6..., and e1 to optimism for getting a good fit model.

Final Model: Model 6

Please refer model 6 and table 6 for results.

The first order confirmatory test with multiple factors result showed an adequate fit as shown in model 6. The χ^2 statistic was 4.650(degrees of freedom = 712, $p < 0.001$), with the χ^2/df ratio having a value of 0.664 that is less than 2.0 indicating a good fit. However, the Goodness Fit Index (GFI) was .993 and Adjusted Goodness of Fit (AGFI) was .974. The comparative fit index (CFI) was 1.000, Tucker-Lewis coefficient (TLI) was 1.018. These scores are more than 0.9 which is also satisfactory. The next set of fit statistics focus on the root mean square error of approximation (RMSEA) which is 0.000 which is less than 0.05 indicating good fit. Therefore on the basis of above table values analysis we can say that model 6 is having good fit.

g.2) Confirmation of Factors of Psychological well being

To measure psychological wellbeing, the instrument was developed which had 14 items. Exploratory Factor Analysis was applied for exploring the factors for psychological wellbeing and it resulted into 4 factors. To know whether this scale of psychological wellbeing fits well in the population or not, confirmatory factor analysis was applied to the data.

Statistical testing of initially proposed model yielded results which can be seen in Figure (Model1) 1

Confirmatory factor analysis was conducted on psychological wellbeing and the results are discussed in model 1P and table 7.

The first order confirmatory test with multiple factors result showed an inadequate fit as shown in Figure 1. The χ^2 statistic was 326.140 (degrees of freedom = 712, $p < 0.001$), with the χ^2/df ratio having a value of 3.883 that is more than 2.0 indicating bad fit. However, the Goodness Fit Index (GFI) was 0.821 and Adjusted Goodness of Fit (AGFI) was 0.744. The comparative fit index (CFI) was 0.783, Tucker-Lewis coefficient (TLI) was 0.728. These scores are less than 0.9 which is not satisfactory. The next set of fit statistics focus on the root mean square error of approximation (RMSEA) which is 0.122 which is not less than 0.05 indicating bad fit.

On the basis of the table of values analysis we can say that model 1 is having bad fit. This model needs to be improved significantly. However, to enhance the fitting the model some items were dropped. Therefore, the model was further improved. Initially Statement number 8 was dropped which improved the model but still the goodness of fit indicators were not perfect. Therefore, in a series of efforts made by, eight models were developed by respectively dropping statement 8, 14, 12, 11, 7 and 6 and drawing co variances from e10 to e14, e4 to e6, e3 to e13..., e10 and e14 to optimism for getting a good fit model.

Model 8 P: Final Model

Refer Model 8P and table 8 for Psychological well-being.

The eighth order confirmatory test with multiple factors result showed an adequate fit as shown in Figure 8. The χ^2 statistic was 11.230 (degrees of freedom = 712, $p < 0.001$), with the χ^2/df ratio having a value of 1.123 that is less than 2.0 indicating a good fit. However, the Goodness Fit Index (GFI) was 0.986 and Adjusted Goodness of Fit (AGFI) was 0.951. The comparative fit index (CFI) was 0.997, Tucker-Lewis coefficient (TLI) was 0.991. These scores are more than 0.9 which is satisfactory. The next set of fit statistics focus on the root mean square error of approximation (RMSEA) which is 0.025 which is less than 0.05 indicating good fit.

Therefore, on the basis of table values analysis we can say that model 8P is having good fit.

Conclusion

The present study was carried out to find out the determinants of Emotional Stability and Psychological Wellbeing of individuals. Initially self designed questionnaires were developed for of Emotional Stability and Psychological Wellbeing. Both the measures were found to be reliable as indicated by the values of chronbach alpha, the reliability measure. Reliability test was applied by using PASW software on the data collected by using questionnaire; emotional Stability & psychological well being of individuals.

Three factors namely overconfidence, optimism & self image emerged for emotional stability variable and four factors namely Healthy & energetic, anxiety, stressed & depressed emerged for psychological wellbeing after applying Exploratory Factor Analysis. To confirm the factors which emerged out of EFA, CFA was applied on both the variables of the study. As a result of Confirmatory factor analysis, 6 models emerged for emotional stability. Models 1 to 5 were not

fit according to the standards and the last model was found to be good fit. Question number Q5, Q1, Q11, Q4 & Q12 were removed in the process of confirming the factors and the factor model was fit by drawing co variances from e3 to e5, e2 to e8, e1 to e6, and e1 to optimism.

As a result of Confirmatory factor analysis, eight CFA models were developed for Psychological Wellbeing. For this variable, 1 to 7 models were not fit according to standards and 8th model was found to have good fit. During the process of developing good fit model, question numbers Q8, Q2, Q14, Q12, Q7, Q1 & Q6 were removed and co-variance were drawn from e10 to e14, e4 to e6 & e3 to e13.

The study shows the existence of psychology factors affecting investors' decision making in the Indian context. The factors are similar to those found by Ly, T.T.H (2010), Jonie & Chien (2008) in Asian and Hochiminh Stock Exchange. The results are important for individual investor as it provides a base before each transaction. If investors understand these emotional and psychological factors, they can limit or reduce the negative impact on their investment. The results thus show the presence of behavioral factors for individual investors and they do affect their investment strategies. Ton and Dao (2014) found similar factors for Vietnam Stock Exchange. Higgs (2014) results also supported Big-Five personality traits.

In a report published by WHO in 2012 Mental well-being makes up an integral part of an individual's capacity to make day-to-day decisions and choices. At its core, mental health and well-being rests on the capacity of individuals to manage their thoughts, feelings and behaviour, as well as their interactions with others. Redhead (2008) in his book has written that debt causes stress and psychological disorders and accumulated savings improves psychological well being. Harpaz and Snir (2014) in their book have quoted that behavior, emotions and cognition have major role in forming psychological factors. Psychological well being is related with the work related productivity. Jagongo and Mutswenje (2014) have also found out some of the important factors that influence individual investment and indicated that the investors need to analysis the investment factors carefully using the reasonable business knowledge before making an investment decision.

Before making any decision, the investors should interpret the market and economic indicators as they are the influencing factors on the performance of the share on the market. Investors should appraise all the environmental variables rather than taking into account only one

variable. Investors should also diversify their investment in different companies by developing a portfolio of investments to minimize risks and maximize returns.

This research can act as a new research path for other researchers to explain the determinants of emotional stability and psychological well-being by connecting theory and practice of finance, behavioral finance, one can get the explanation of difficult and sophisticate problems which cannot be answered by traditional economic theory and traditional finance theory.

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Exploring The Factors Influencing Millennials Intention-To-Purchase of Facebook Advertising in Bangladesh

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ABSTRACT

This study investigates the factors influencing of Facebook advertising on millennials purchase behavior focusing fashion accessories, photography and event management services in Bangladesh. The study uses both quantitative and qualitative approach to collect data through questionnaire based survey from 327 millennial Facebook users to determine their purchase intention while interacting with Facebook advertising. This paper focuses theory of planned behavior, theory of reasoned action developed by Ajzen and Fishbein (1980), hierarchy-of-effects model by Lavidge and Steiner (1961) and builds on adapting previous models proposed by several researchers on purchase intention. This paper presents a new conceptual model adding two new constructs grasping Bangladeshi millennials interest with Facebook adverts. Reliability and validity analysis, factor analysis, goodness of fit, analysis of variance and linear regression analysis measure hypothesis, using SPSS 22. The result reveals, businesses should carefully manage Facebook ads with personalized customer engagement and reward influencer customers.

Introduction

Worldwide 2.23 monthly active Facebook users until July, 2018; hosting over a half of the world's population in which 92% marketers agreed this is the best social media that cultivates high engagement (Jolly, 2018; Wronski & Goldestruck, 2013). Millennials (born between 1982 and 1994) have been manifested to an outburst of online technological applications since childhood (Duffett, 2015). 50% millennials log-in to Facebook waking up daily, revealing how they influenced to this social site (McNair, 2018). This study focuses on Facebook users in Bangladesh, where 38% deemed to be millennials (www.btrc.gov.bd, 2018). 137.2 million Internet enabled mobile connection results 83% of total till December 2017 in Bangladesh, posing high demand to investigate online shopping behavior of these influential populations (Mallick, 2018). Furthermore, Facebook revenue from advertising has grown by \$22 billion and total Facebook ad budget is 82.9% in 2018; 85% profits emerged from South-Asian countries (Osman, 2018; McNair, 2018). This paper builds on previous research of Ajzen and Fishbein (1980), Lavidge & Steiner (1961), Duffet (2015), Richard & Guppy (2014) and Hosein (2011) adapted the theory of reasoned action (TRA), planned behavior (TPB) and hierarchy of effects model with the aim of developing a model where Facebook advertising of fashion accessory, photography and event management; influence purchase intention representing new optimization of overall marketing communication efforts towards millennials. This paper's contributions mainly in the development of a model for Facebook advertising blending the traditional marketing theory with new

constructs based on millennials of Bangladesh focusing mostly preferred fashion accessory, photography and event management. Moreover, this study derives prioritized factors and suggestions from noteworthy millennials in the developing country context, for the improvement of Facebook ad; which is overlooked by numerous academics previously.

Objectives of the study

Consequently, this empirical investigation seeks to expound upon the following research objectives. These are:

1. To investigate Facebook advertising have an effect on purchase intention of fashion accessories, event management and photography among Bangladeshi millennials.
2. To identify the impact of Facebook advertising on purchasing behavior of millennials of Bangladesh.
3. To prioritize the identified factors according to their influence on purchase intention.
4. To derive suggestions from the Facebook user perspective particularly millennials, how Facebook advertising can be made more attractive, useful and get more attention from the potential millennials.

Literature Review

Underpinning Theories

Theory of Reasoned Action and Theory of Planned Behavior (TRA and TPB)

Ajzen and Fishbein's (1980) most influential models of theory of reasoned action (TRA) and theory of planned behavior (TPB) has been practiced and experimented widely for predicting the online behavior impacted by some independent variables by Facebook advertisement (Hosein, 2011; Raza et.al., 2014; Ketabi et al., 2014). Friends, family members and colleague are considered as positive influence individuals to buy online as subjective norms (Hasbullah, 2016). Ajzen & Fishbein (1980) proved that subjective norm is considered as perceived pressure imposed by others with direct-indirect influence. This model enormously supported by consumer behavior and social psychology associated literature which is adopted by marketing academics affecting future purchase consideration (Ketabi et al., 2014; Raza et al., 2014; Hosein, 2011). In this research paper, the investigation is whether the attitude, attention (personal factors), Facebook advertisements information availability, influencer marketing and boosting strategy (social factors) influence Bangladeshi millennials purchase intentions dominating final volitional purchase behavior of fashion accessories, photography and event management services. These three specific areas are selected because these are most frequent purchase products and services in Bangladesh based on researcher's observations upon Bangladeshi Facebook users. ***Attitudes and Hierarchy of Response Model***

The hierarchy of effects Model was created in 1961 by Robert J Lavidge and Gary A Steiner. Several academics explored attitude changed due to general advertisings and Facebook ads influence critically users brand attitude formation and shopping behavior (Duffet & Wakeham, 2016; Chu, 2011). The adapted hierarchy response model proposes

that consumer experience a series of attitudinal stages from cognitive (awareness and knowledge) to affective (liking and preference), and finally behavioral (intention-to-purchase and purchase) in response to marketing communications (Chowdhury, 2016; Duffet & Wakeham, 2016; Hudson & Hudson, 2013; Hassan et al, 2013; Yadav et. al, 2013; Smith 2013). At cognitive stage product contents, key benefits or brand attributes engage Facebook users through awareness, information processing identifying personal connection (Mansfield, 2014; Hubble, 2018). Emotional bonding with FB fan pages shaping target user's lifestyle-values at affective stage and blending of intellect and emotions heading toward final adoption at conative stage differentiate brand showcasing among rivals to feel and associate the brand with personal identity (Jolly, 2018; Mansfield, 2014, Carrillat et al., 2014; Hardwick et al., 2014).

However, theories by previous academics of different dimensions of purchase intentions supports the theoretical foundation that millennials develop positive attitudes toward the content and finally encouraged to purchase. The present scenario of many users of Facebook indicates that, most millennials visit and curious about fan pages, participate groups, share contents on news feed. Attitudes towards social media marketing communications have not been suitably measured in Bangladesh like developing countries in terms of the hierarchy response models stages specifically for millennials. However prior studies have not focused on Facebook advertised products purchase intentions on millennials most evaluated lifestyle, photography, event management services in developing country context. This research seeks to disclose whether Facebook advertising has a positive effect on the top two levels of the communications of effect model cognitive and affective (awareness, knowledge, liking and preference).

Facebook Advertisements' Effectiveness and Millennials in Bangladesh

Millennials considered to 2.5 times more likely to be an adopter of technology than generations past who influence the driving sales of present marketing environment in a prominent way (Ledbetter, 2017). Millennials also referred as "Generation Y", "Echo Boomers" (as they are the children of "baby boomers" containing largest generation) and "Digital natives" who mostly prefer to spend the adulthood having the latest technological devices and Internet related activities in personal tech devices (Patel, 2018). 18-24 years of people age of Bangladesh are the major Facebook users and out of the total 2.80 million Facebook users in Bangladesh, 1.37 million are young around 50% of total and 29% users' aged 25-34 years (www.socialbakers.com, 2018; Halim 2017). A recent research shows that 53% of millennial households already have children and one in four of them are parents today (www.millennialmarketing.com, 2018). So their pattern of living, life styles, favoring any brands and viewpoints impact the nourishment of their children's; thus it's become critical to analyze this gigantic population's behavior.

Dhaka has been ranked second in terms of having the most active Facebook users in the world according to Global Digital Statshot of Q2 report of 2017 more than 60% population counted as millennials aged between 18 to 35 (Tarik, 2018). McNair (2018) reports to e-marketers that TV ad spending will drop to 0.5% and Facebook will generate \$21.00 billion in ad revenues, up 16.9%; by 2019 Google and Facebook will have combined ad revenues greater that of TV ad spending. 87.87% Facebook users in Bangladesh of total population use Internet only to access Facebook (www.gs.statcounter.com, 2018; Rahman, 2015). By realizing recent purchasing pattern of this huge number of young populations, the marketers of Bangladesh investigate the millennials choice of brand purchasing mainly in online. Rehman et al. (2014)

described that, “Because of its popularity, businesses are placing their ads on Facebook for creating awareness and influencing buying behavior”. One in five Facebook users had purchased products as a result of advertisements and comments that they viewed on Facebook (Patel, 2018). Facebook Pages were specifically engineered for businesses as public home to on-time publish content and receive comments and feedback from fans and customers (Kolowich, 2017). Among lots of online shopping portal Facebook is the best shopping medium providing trouble free shopping experience (Zabeen et. al., 2013). 4G service in 2018 added significant attribute regarding F-Commerce and 70% F-stores got familiarity.

No research, both in Bangladesh and internationally has examined empirically the relationship among Bangladeshi millennial’s (who are the 25% share of Bangladeshi population and 0.8% share of the World Internet users) attitude, interest, preference towards Facebook advertising in fashion accessories, photography and event management. Therefore, marketers in Bangladesh and globally should consider this study significantly.

Conceptual Model and Hypotheses

Attitude

Purchase behavior is the totality of attitudes and intentions towards brand purchase acquiring behavioral disposition which is relatively enduring proved by several academics (Ahmed, 2017; Sinthamrong & Rompho, 2015; Duffet 2015; Raza et al, 2017). For this study, the Bangladeshi millennial’s attitude has a significant impact on their willingness and consideration to future purchase which need to be researched critically for insightful result to savvy marketers. Three factors namely ‘pleasure’, ‘arousal’ and ‘dominance’ affect consumers’ beliefs, feelings, and behavioral intentions impacts attitudinal information (Rehman et al., 2014). However, attitude of millennials in Bangladesh is considered to be as an effective independent variable as a filter, that helps to scrutinize every considered products and services on Facebook podium. Therefore, study hypotheses as:

H1: Attitudes of millennials in Bangladesh towards Facebook advertisement have strong association with intention to purchase.

Attention

Attention refers individuals processing of information in surrounding stimuli, involves in cognitive psychology (Cherry, 2018). Numerous sights, sounds and sensations on the screen having photos, audio, live video, GIF, Instagram and snapchat’s attractive contents capture users’ attention during home page scrolling. This if any brand page or advertisement on Facebook captures viewer’s sense; it also involves ignoring other competitors’ information and stimuli that allows the winning marketers to “tune out” irrelevant information, sensations and perceptions at the moment (Cherry, 2018; Sailer, 2018). DVRs, ad blockers, and mobile devices armed to consumers to avoid ads on Facebook practicing customized choosing (Teixeira, 2015). F-commerce marketers want to make an impact in eight seconds on advertised brands facing incredible difficult challenge (Conran, 2014). In this fierce F-commerce market perfect tailoring of ad message insists both academicians and discreet marketers to investigate more in this regard that impact the adoption process. Therefore, it can be hypothesized that:

H2: Attention towards Facebook advertisement of millennials in Bangladesh has strong association with intention to purchase.

Information availability

Facebook ad reporting ad revenue of \$40 billion in 2017 and in 2018 90% FB ad revenue comes from mobile based Facebook advertising from 1.15 billion daily active users where ease of getting updated information is influential factor (Wagner, 2018). Information availability vitally dominates consumer decision-making process moreover, 46% millennials themselves post original photos and videos online by self-creation (Song, 2018; www.millennialmarketing.com, 2018). Users can evaluate or seek out the best deal through Facebook via recommendations or previous experience of friends or followers, compare prices, other convenient parameters; A/B testing of Facebook power editor, lead generation, creativity, conversion measurement including Facebook pixel (Glover, 2018). Thus it does appear that information availability of Facebook pages and promotions as independent variable, influence millennials purchase intentions. So it is realistic to hypothesis that:

H3: Information availability of Facebook advertisement towards millennials in Bangladesh has strong association with intention to purchase.

Influencer Marketing

Song (2018) notes that, “Influencer marketing is the process of identifying, researching, engaging and supporting the people who create high-impact conversations with customers about your brand, products or services.” Additionally, anyone who has positive feeling among his/her follower, friends or liked by; can share opinion and content thus become an influencer (O’Neil, 2018; Yodel, 2017). Influencer marketing applies word-of-mouth to leverage influence among friend and family, breaking online clutter, creating relevant customer dialogue and bringing trust to the brands (Pollak, 2018; Drake, 2017). Presently peoples are submerged in highly social web where, information travels like waves; and influencers are the wave makers as they have bunch of followers (Wharton, 2018). In Nielsen research, a study found 92% consumers trust word-of-mouth recommendations above all advertising forms (Wagner, 2018). But having huge quantity of followers is not appealing moreover desired quality is needed (Drake, 2017). Influence means by advertising summing up three combinations of “R”-reach, relevance and resonance (Zheng, 2018). Bevy of tools to navigate influencer marketing spheres for social reach, influential blogs, automated research, engagement persuasion; such as, Klout and GroupHigh (Song, 2018). This is true for popular photographer, lifestyle fashion products, event organizer also. However, prior studies have not focused on this application for developing country context towards millennials purchase intentions, thus it can be hypothesized that:

H4: Influencer marketing of Facebook advertisement towards millennials of Bangladesh has strong association with intention to purchase.

Boosting strategy

The millennials have dependence on Internet in such a way that, if they don’t know any answer to a question, they simply “Google it” that shape engagement with purchase decisions (Fromm & Lantos, 2014). Pickowicz (2017) says that “Boost Posts, is a type of Facebook Advertising that allows companies to choose a post and have it distributed in the News Feed to anyone they want, based on interests, demographics.” This reveals like; if any brand doesn’t have a responsive online presence in today’s world it does not even exists in world. Aminul Hakim, the president of Internet Service Provider’s Association of Bangladesh, says that, 88 GB of the country’s total available 436 GB bandwidth is used for Facebook (www.dhakatribune.com, 2017). Facebook converts

“cold audiences” to “warm audience” (Baranova, 2017). Facebook pixel, optins, sales, enquiries are some available tools to track conversations resulted by boost post (Patel, 2018). Logging on 8 times more daily, millennials encounter boost video posts from 3 million business covering 93% Bangladeshi marketers (Pickowicz, 2018; Vahl, 2014). Weekdays than weekends and afternoons between 1p.m and 3p.m. tend to be the preferred times to log on (Osman, 2018). Facebook demographics, carousal ads, offers and homepage ads, video ads, lead ads, custom audience remarketing strategies are some sorts of boosting approaches applied by present fashion products and other event marketers (Sorokina, 2014; O’neil, 2018). Millennials in Bangladesh have huge conversions presently in shaping dramatic change of Facebook business (Tarik, 2018). After meticulous review of updated Facebook analysis, boosting strategy is newly added to the model for the appropriate outcome influencing intention-to-purchase which is previously overlooked by academics. Therefore,

H5: Facebook boosting strategy towards millennials of Bangladesh has strong association with intention to purchase.

The above discussion thus leads to develop a conceptual model for the study:

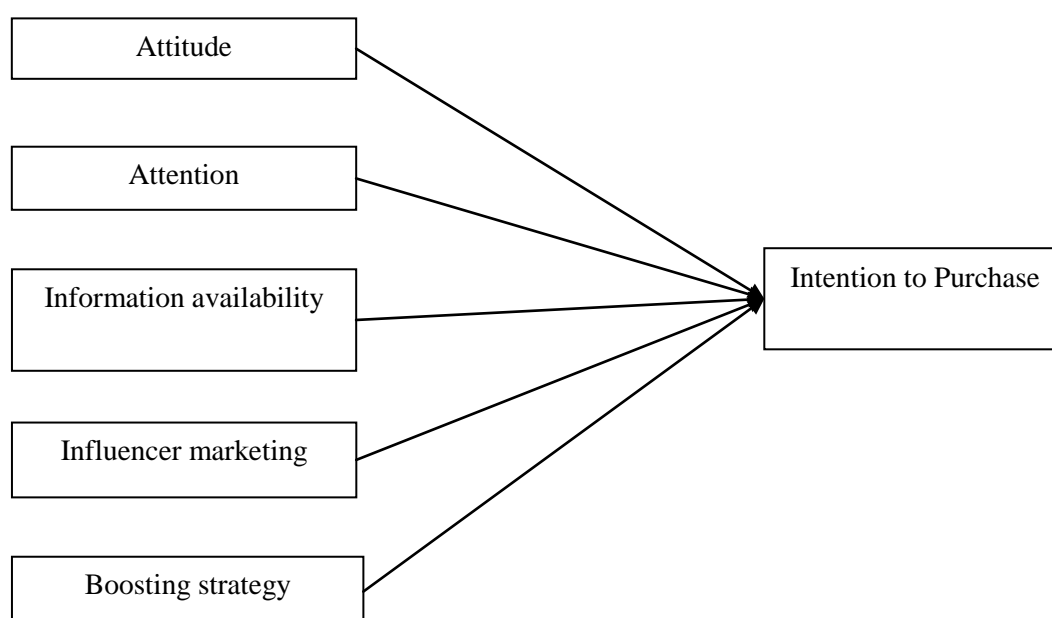


Figure 1: Conceptual research model for the study (Source: Author)

Methodology of the Study

A representative sample of young Facebook users from the population of university students, service holder, entrepreneurs and job seekers from Dhaka, regions near Dhaka and major urban cities considered as sampling frame; non-probability convenience sampling technique and snowball sampling technique used to collect data. Among 28 questions, 27 close-ended questions measured by 5-point likert scale and 1 qualitative question to complete approximately in 7 minutes and data collection is carried out during the month of June-August 2018. Among 377 responses, 327 responses are usable. To ensure internal consistency in the measures, pilot study is conducted among 43 respondents ensuring validity and reliability. The measurement items are evaluated by knowledgeable experts and colleagues to assure refinement and modification.

Data analysis and findings of the study

In analysing the questionnaire, means, frequencies and reliability are initially calculated using statistical software as SPSS (version 22).

Sample Profile

Regarding Facebook advertisements influence of fashion accessories, photography and event management services in Bangladesh, millennials purchase intentions determined from usable 327 sample responses considering response rate of 50% in Dhaka and outside urban areas of Dhaka (See Appendix 1). The survey questionnaire captures background data from the respondents aged 19-25 with 55.96%, 26-32 with 35.47% and 33-40 with 8.56% which comprised more young respondents. There were more male respondents than females, with 69.11% being male and 30.89% females. In terms of occupation, students capture 50.76% whereas 39.14% millennials involve service, only 8.56% in business and 1.53% to other occupations. Among 327 respondents 66.06% are unmarried and other 33.94% as married Facebook users. In terms of education, about 63.30% millennials are post-graduated, 35.78% graduated and only 0.92% respondents didn't complete up to graduation. Most millennial respondents are students, showing income per month 47.09%, 29.37% with 20000-50000, 17.43% with 10000-20000 and only 6.12 % having more than 50000 per month income. 72.17% respondents are from Dhaka indicate that high percent of millennial Facebook users are residing in this metropolitan capital city of Bangladesh whereas 17.74% to adjacent cities of Dhaka and 10.09% respondents are outside urban areas of the country.

The measurement model: Testing for internal consistency

Table 1 shows the result of the reliability statistics for the construct measures where all the research variables meet the acceptable standard of 0.60 (Chetty & Datt, 2015; Vinerean et al., 2013). These statistical results support the validity and reliability of the questionnaire and signifying the goodness of data for this study.

Table 1 Reliability statistics for the construct measures

Construct/Latent Variable	Scale Items	Cronbach's Alpha for the scale
Attitude	5	.693
Attention	5	.799
Information availability	5	.673
Influencer marketing	5	.724
Boosting strategy	7	.702

Factor analysis of model constructs

Factor analysis using principal component with varimax rotation attempts to discover the unexplained and unobserved factors that influence the co-variation among multiple observations (Hall, 2017).

Table 2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.949
Bartlett's Test of Sphericity	Approx. Chi-Square	3398.008
	Df	351
	Sig.	.000

Table 2 and 3 show the results of the validity and reliability analysis where (1) all research variables exceed the minimum standard of Kaiser-Mayer-Olkin's value of 0.55 indicating sufficient correlations Bartlett's Test of Sphericity ($\chi^2=3398.008$, $p<0.01$) (2) all research variables has Eigen values larger than 1 and total variance explained was 50.72% of the total variance (3) the items for each variable exceed factor loadings of 0.55 on one factor and 0.3 or lower the other factors (Williams, Onsmann & Brown, 2010) and (4) all the research variables meet the acceptable standard of 0.60 (Chetty & Datt, 2015; Vinerean et al., 2013). These statistical results support the validity and reliability of the questionnaire and signifying the goodness of data for this study.

Table 3 Rotated Component Matrix^a				
	Component			
	1	2	3	4
Attitude_1	.674			
Attitude_2	.702			
Attitude_3	.612		.367	
Attitude_4	.601			
Attitude_5			.846	
Attention_6	.687			
Attention_7	.649			
Attention_8	.631			
Attention_9	.681			
Attention_10	.643			
Information availability_11	.675			
Information availability_12		.883		
Information availability_13	.623			
Information availability_14	.700			
Information availability_15	.718			
InfluencerMarketing_16			.506	
Influencer Marketing_17	.581			
Influencer Marketing_18	.586			
Influencer Marketing_19	.609			
Influencer Marketing_20	.584			.408
Boosting Strategy_21	.593			
Boosting Strategy_22	.622			
Boosting Strategy_23		.813		
Boosting Strategy_24	.682			
Boosting Strategy_25	.582			
Boosting Strategy_26				.899
Boosting Strategy_27	.557			
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 5 iterations				

Analysis of variance of model constructs

Table 4 Tests of Between-Subjects Effects					
Dependent Variable: Intention_to_purchase					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	560.533a	6	93.422	22.786	.000
Intercept	4001.667	1	4001.667	976.016	.000
FB_ad_effect	62.000	4	15.500	3.780	.050
age_group	498.533	2	249.267	60.797	.000
Error	32.800	8	4.100		
Total	4595.000	15			
Corrected Total	593.333	14			
a. R Squared = .945 (Adjusted R Squared = .903)					

ANOVA defines information about the model by investigating how the Facebook advertisements effect with three age groups of millennials in Bangladesh (independent variable) variables interact with each other and the effects of interactions upon intention to purchase (dependent variable). According to F test, “FB_ad_effect” and “age-group” have a statistically significant effect on the dependent variable, “intention to-purchase” in table 7.

Multiple regression analysis, Statistical significance of correlations, hypothesis testing and results

To determine how well the model fits and the coefficient of determination, there is a model summary in table 8 that can be used to determine how well a regression model fits the data.

Table 5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimates
1	.646a	.418	.367	.799

In this table $R^2=0.418$, which explains 42% of the variability of purchase intentions (dependent variable) by the variation in independent variables of Facebook advertising.

Table 6 Coefficients determined for the influential predictors for the dependent variable

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	beta			Lower bound	Upper bound
(Constant)	1.131	.259		4.367	.000	.621	1.640
Attitude_1	.336	.057	.317	5.903	.000	.224	.448
Attitude_2	.199	.055	.190	3.607	.000	.090	.308
Attitude_3	.178	.053	.180	3.345	.001	.073	.283
Attitude_5	-.009	.048	-.009	-.189	.850	-.103	.085
Attention_6	.127	.057	.129	2.218	.027	.014	.239
Attention_7	.169	.056	.168	3.000	.003	.058	.280
Attention_8	.167	.057	.167	2.906	.004	.054	.280
Attention_9	.127	.057	.128	2.217	.027	.014	.240
Attention_10	.143	.059	.142	2.421	.016	.027	.259
Information availability_11	.195	.049	.211	3.980	.000	.098	.291
Information availability_12	.167	.035	.222	4.804	.000	.098	.235
Information availability_13	.080	.052	.082	1.526	.128	-.023	.183
Information availability_14	.200	.055	.201	3.606	.000	.091	.309
Information availability_15	.168	.058	.166	2.916	.004	.055	.282
Influencer marketing_16	.055	.052	.050	1.052	.294	-.048	.158
Influencer marketing_17	.166	.052	.171	3.205	.001	.064	.267
Influencer marketing_18	.190	.053	.199	3.617	.000	.087	.293
Influencer marketing_19	.231	.051	.241	4.530	.000	.131	.332
Influencer marketing_20	.117	.051	.123	2.284	.023	.016	.218
Boosting	.195	.055	.193	3.574	.000	.088	.302

strategy_21							
Boosting strategy_22	.124	.050	.136	2.493	.013	.026	.222
Boosting strategy_23	.113	.042	.132	2.709	.007	.031	.195
Boosting strategy_24	.138	.050	.149	2.736	.007	.039	.237
Boosting strategy_25	.130	.048	.144	2.711	.007	.036	.224
Boosting strategy_26	.055	.059	.044	.927	.355	-.061	.171
Boosting strategy_27	.082	.045	.097	1.849	.065	-.005	.170

a. Dependent Variable: I'm interested to buy a specific brand of fashion accessories, photography & event mgt services by FB ad.

Table 6 displays the estimates for parameters included in the overall model and their individual effects on the dependent variable, intention to purchase. Most notably, the millennials who watch live videos, share contents, follow the fan pages, search information on the Facebook; have a positive increase in purchase intentions influenced by Facebook advertisements of fashion accessories, photography & event management service.

Table 7 Multiple regression analysis results and hypothesis testing

Hypothesis	Standardized Coefficients	t	Sig.	Supported
	Beta		P-value	
H1: Attitudes of millennials in Bangladesh towards Facebook ad will have a significant and positive association with intention to purchase.	0.220	3.787	0.000	Yes
H2: Attention towards Facebook advertisement of millennials in Bangladesh will have a significant and positive association with intention to purchase.	0.143	2.501	0.013	Yes
H3: Information availability of Facebook advertisement towards millennials in Bangladesh will have a significant and positive association with intention to purchase.	0.204	3.795	0.000	Yes
H4: Influencer marketing of Facebook advertisement towards millennials of Bangladesh will have a significant and positive association with intention to purchase.	0.147	2.639	0.009	Yes
H5: Facebook boosting strategy towards millennials of Bangladesh will have a significant and positive association with intention to purchase.	0.173	3.148	0.002	Yes

As table 7 of multiple regression analysis results and hypothesis testing, attitudes and information availability of millennials in Bangladesh towards Facebook advertisement of fashion products and services of photography-event management has largest impact

on Bangladeshi millennials purchase intention with B-value of 0.220 and 0.204 (p-value=0.000 < 0.05, both). This clear that, there is a significant and positive association with intention to purchase of millennials attitudes and Facebook advertisements information availability. Boosting strategy having B-value= 0.173 (p-value= 0.002 < 0.05) is significantly influence purchase intentions. Influencer marketing (B-value=0.147, p-value=0.009 <0.05) and millennials attention (B-value=0.143, p-value=0.013 <0.05) towards Facebook advertisement also significantly and positively effects purchase intentions of fashion accessories, photography and event management services. Consequently, hypothesis 1, 2, 3, 4 and 5 are supported and accepted; there is a significant and positive association of each of the independent variables with purchase intentions.

Discussion and conclusion

The above findings indicate that there is a positive and significant influence of Facebook adverts on intention-to-purchase among Bangladeshi millennials attitudes. The investigation moreover explored, millennials are willing to buy if the particular brand matched with their lifestyles-interests and enriched with significant number of “likes”, “review comments”, “shares”, “recommendations”, “check in” to stores followed by friends and family members, colleagues on Facebook. In other words, peer and friend’s recommendations initiated on Facebook create positive comparison than other mediums induce marketers to invest more to social influence. Among 27 research questions of five independent variables, ‘live video’, ‘Query’, ‘interest’ and ‘understanding’ of Facebook promoted contents are the four components perform as momentous playmakers on purchase intention on Facebook conduit of brand pages revealed in this research by factor analysis and multiple regression. Unnecessary images, long-irrelevant videos, fake advertisements, counterfeit fan pages mislead expectation, page verification by Facebook authority is expected by millennials surveyed in this research. More convenient payment system without hidden charge, quick response, variations of product-service offerings; expected by millennials. Accuracy of delivery, differing quality, edited images of of products and events deceive the user; thus more monitoring is expected.

Managerial Implication

More Favourable interaction with FB ad converts more purchase, thus attribution increases by frequency of influencer marketing and boosting strategy of leading brands revealed by this study. Both online and offline marketers should practice remarketing strategy to boost conversions in real time Facebook based answering and queries to solve problems as daedal requisite. The more marketers offer personalized contents; the more purchase intention generates explored by this study. Marketing managers grow brand page, by page likes multiplication but to draw attention diverting the preference towards purchase desires by Facebook ads, Technorati, Blogpulse and other search engines are tracking brand mentions by users. Marketers in Bangladesh should be more practical to identify ‘talkers’ of Facebook users who are happy and influential customers and nurture them publicly by mentioning top talkers name on Facebook fan pages, recognizing them in any campaign. Millennials in Bangladesh are convinced by Facebook ads in the means of viral campaigns mainly sales promotions tagged with games, jokes, funny videos, free content and chance to meeting with desired celebrity revealed by this study.

Conclusion and Recommendation: research implications

This study bridges the gap of understanding the most influential generation ever; millennials' expectation and purchase intentions of Facebook advertisements mainly in Bangladesh of fashion accessories, photography and event management services by implementing the modified theory of reasoned action and planned behaviour developed by Ajzen & Fishbein (1980) as well as Lavidge & Steiner's (1961) hierarchy-of-effects model. The major contribution of this study is, two consumer oriented (attitude and attention) and three social variables (information availability, influencer marketing and boosting strategy) specifically developed and tested empirically that integrates a framework related to Facebook advertisements influence on purchase intention for thriving generation of millennials in developing country like Bangladesh, which is previously undiscovered by any academics and marketing scholars. The present study is to be the first study that tested quantitatively and qualitatively in the Facebook advertisement relating to behavioral outcome in Bangladesh. No research however, has examined the attitudinal theories of Ajzen & Fishbein (1980) and Lavidge & Steiner (1961) combinedly in advertisement effectiveness for millennials who are mostly known as fickle generation ever, who are difficult to reach by interactive advertisement stimulation except Facebook than other media. This study assists previous studies gaps of Facebook advertisements influence on purchase intention in millennials by reducing academic-practitioner gap through developing new social variables adaptive to this competitive world to attract consumers among more million ways in the developing country context both quantitatively and qualitatively.

Limitations and Future Directions

In this research consumers purchase intention only explored from a modest part of this area involves few limitations may be solved by future academics. Random samples of millennial Facebook users utilized, limits the generalizability of the findings. Age and other demographics in the different country context may explore unique dimensions. Other emotion related variables; trust, commitment, use, privacy aspects of Facebook advertisement leading intention-to-purchase would be examined except attitude and social variables.

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Appendix 1- Demographic information of sample profile (327 subjects)

Demographic information	Demographic information within category	Percentage of sample
Age	19-25	55.96%
	26-32	35.47%
	33-40	8.56%
Gender	Male	69.11%
	Female	30.89%
Occupation	Business	8.56%
	Service	39.14%
	Student	50.76%
	Others	1.53%
Marital Status	Married	33.94%
	Unmarried	66.06%
Education	Graduation	35.78%
	Post-graduation	63.30%
	Others	0.92%
Income per Month	Less than 10000	47.09%
	10000-20000	17.43%
	20000-50000	29.36%
	More than 50000	6.12%
Residential Area	Dhaka	72.17%
	Near to Dhaka (i.e. Gazipur, Tangail, Manikganj, Narayanganj etc.)	17.74%
	Others (i.e. Mymensingh, Sylhet, Barishal, Chattogram, Cumilla, Rajshahi etc.)	10.09%

Trends in E-commerce and Consumer Behaviour in Contemporary Era

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ABSTRACT

E-commerce refers to selling of goods and services through internet and any other electronic media. In contemporary era, information technology plays an important role as no sector has remained untouched with it. Online shopping has become latest buzzword in the area of marketing where consumers can buy and sell products online. Presently, when most of the people are loaded with hectic schedules, the invention of E-commerce emerged as a blessing. It has created a paradigm shift in the traditional way of shopping. Consumers are no longer bound to opening and closing times of markets and specific locations to purchase goods and services. Easy access to variety of products and convenience has made it a most suitable mode for shopping. Consumer buying behaviour is influenced by different factors such as age, gender, income, family etc. The present paper studies various aspects of e-commerce and factors affecting consumer buying behaviour towards online shopping.

Introduction

E-commerce is a process of buying and selling of goods and services or transmitting of funds or data over an electronic networking, primarily on internet. With the increasing penetration of internet and smartphones, e-commerce has grown rapidly. Earlier those functions which consumed more time and energy, now can be finished within few seconds. According to Orendoff “It’s not a luxury. It’s not for multinational conglomerates. And it’s not just one among many growth strategies. E-commerce is a necessity”. At present, the numbers at which revenues from e-commerce are increasing are hard to wrap our heads around. Revenues from e-commerce world-wide increased from US\$ 1,336 bn in 2014 to US\$ 2304 bn and expected to increase to US\$ 4,848 bn in 2021, which is nearly threefold lift in online revenues (Statista, 2018). India is no exception to this tendency. The country had an internet users base of 450 million in 2017 about 34 per cent of the population which is expected to increase 846 million during 2022. Despite being the second largest user base in the world after China, the penetration of e-commerce is very low in India in comparison to other markets like US, France etc. But the Indian e-commerce industry is expecting to witness a steep increase to surpass US to become second largest e-commerce market in the world by 2034.

The e-commerce market of India is expected to reach US\$ 64 bn by 2020 and US\$ 200 bn by 2026 from US\$ 38 bn as of 2017. And the internet economy is expected to double from US\$ 125 bn as of April 2017 to US\$ 250 bn by 2020, majority backed up by e-commerce (IBEF, 2018). The rising internet penetration is driving the e-

commerce growth in India. About 70 per cent of India's e-commerce market is related to travels and second major contributor is retail market. Currently, there are 1-1.2 million transactions per day in E-commerce retailing. India has greater prospects of market potentials with e-commerce growth doubling every year. The commercial organisations have moved to incorporate the World Wide Web to their promotional campaigns. This internet business has created a highly competitive environment. Under such cut throat competition, understanding the online shoppers' behaviour is very important. Moreover, it should be analysed by online seller that "Why some still do not prefer to buy online". This is very important to understand that consumer shopping orientations are not determined by access to internet rather many other factors like age, gender, income, family etc. plays a major role. The present paper is an attempt to analyse the various aspects of e-commerce and consumer behaviour towards online shopping.

Objectives of study

1. To study various aspects of e-commerce and online trading.
2. To study consumer buying behaviour towards online shopping.
3. To study emerging trends towards e – commerce and online shopping.
4. To study positive and negative aspects of online transactions.

Various aspects of E-Commerce

1) *Business to Business or B2B*- B2B describes transaction of goods and services between businesses or companies through internet via an online sales portal, such as between a manufacturer and wholesaler, or wholesaler and retailer. Under B2B purchases buyers generally place large orders and multiple people are involved. For instance- A company can have multiple buyers. Decision making is usually fact based as it depends on the best deals for the company. e.g. Cloudbuy.com, Amazonbusiness.com etc.

2) *Buyer to Consumer or B2C*- Business to consumer is a term used to describe transaction of goods and services between a business and an end consumer through internet. e.g. Snap deal, Amazon etc.

3) *Consumer to Consumer or C2C*- C2C e-commerce is, when one consumer sells goods or services to another through third party site that helps to take care of the details of the transaction. The purpose of C2C e-commerce is to enable consumers to sell directly to the other consumer without having to go through a middleman. This process allows to keep more of their profit and the buyer to potentially purchase the goods at better prices. e.g Quickr.com, OLX

4) *Consumer to Business or C2B*- C2B e-commerce business is the most recent e-commerce business model. Under this individual customer offer to sell products and services to companies who prepared to purchase them. This model is the opposite to traditional B2C model.

5) *Business to Administration or B2A*- This part of e-commerce encompasses all transactions conducted online between companies and public administration. This is an area that involves a large amount and a variety of services, particularly in the areas of social security, fiscal, legal documents and registrations etc. These type of

services have increased considerably in recent years with investments made in e-governance.

6) *Consumers to Administration or C2A*- This works in both directions C2A and A2C. In C2A model includes applications such as e-democracy, e-voting and information about public services etc. Using such applications consumers can post concerns, requests, feedbacks and information to their local governments and administration. On the other side in A2C provides link between government and consumers like it allows to directly filing tax returns using a secure website.

Key Players of E-commerce in India

The topmost online companies which have achieved considerable success and increasingly being used by customers are as follows:

Amazon

Amazon.com is an electronic commerce and cloud computing based in Seattle, Washington founded by Jeff Bezos on July 5, 1994. Amazon is the largest Internet retailer in the world as measured by market capitalization and revenue. The website started as an online bookstore and later diversified to video downloads, MP3 downloads, audiobook downloads, software, video games, electronics, apparel, furniture, food, toys and jewelry. It has introduced cosmetics, garments and Amazon pantry also.

Flipkart

Flipkart Pvt. Ltd. is an Indian e-commerce company which is based in Bengaluru India founded by Sachin Bansal and Binny Bansal both students of IIT Delhi. The company initially focused on book sales after that they expanded their business to electronic goods, lifestyle products. Flipkart has got significant dominance in sale of apparels and is considered as strong competitor of Amazon in case of sale of electronics and mobile phones.

Myntra

Myntra is an Indian e-commerce company based headquartered in Bengaluru. It was founded in 2007 to sell personalized gift items. In May 2014 Myntra was acquired by Flipkart. The company now basically deals with selling fashion and lifestyle products.

Book my show

Book my show was started in the year 1999 as online movie ticket booking platform. Now you no longer need to stand in long queues to get yourself tickets of your favorite show or movie. It is India's largest entertainment ticketing website. Since its inception BookMy Show has over 70% market share in the online entertainment ticketing space. The company is registered under brand Big Tree Entertainment Ltd and has headquarters in Mumbai.

Make My Trip

Make My Trip ltd is an Indian online travel company headquartered in Gurugram. The company was founded in the year 2000 and provides online travel services such as flight tickets, domestic and international holiday packages, hotel reservations, rail and bus tickets. The company has 14 company owned travel stores in 14 cities and

sells travel packages in approximately 28 cities. The company also has offices in New York, Singapore, Kuala Lumpur, Phuket, Bangkok, and Dubai.

PayTm

Paytm is an Indian e-commerce payment and digital wallet company. The company was founded by Vijay Shekhar Sharma in August 2010 and is based in Noida SEZ, India. This online app is available in ten Indian languages and provides services such as mobile recharges, bill payments, travel, movies and events bookings as well as in-store payments at grocery stores, fruits and vegetable shops, restaurants, parking, tolls, education institutions with the Paytm QR code. In this era of Digital India our Government also hugely promoted this app for online payment. For this purpose Reserve Bank of India granted 'in principal' approval for payments bank to Paytm. The company also aimed at bringing banking and financial services access to billions of un-served Indians.

Naaptol

The company was launched in the year 2008 and has grown to become one of India's largest social shopping portals. It is one stop destination for shoppers, merchants and market enthusiasts. It connects both buyers and sellers in appealing network making the whole experience of purchasing easier for customers.

Table-1 shows the key players in e-commerce in India during 2017. Amazon India and Flipkart emerged as biggest rivals in e-commerce.

Table 1: Key Players in E-commerce during 2017						
	Amazon India	Flipkart	Mynt	Snapdeal	Shopclues	Paytm wallet
Launched/Founded	2013	2013	2007	2010	2011	2014
No. of Sellers	300,000	100,000	N/A	300,000	300,000+	140,000
Product Categories	35	80	N/A	500+	6,500+	500+
No. of Products	40 mn	80 mn	0.15 mn	30 mn	35mn	N/A
Market Share	31.1 %	31.9%	5%	2.5%	2.1%	5.6%
No of Employees	N/A	13,000	2,328	5,829	1,150	1,300

These companies have achieved considerable success in the area of e-commerce. In near future also the number of online companies is going to increase manifold. These companies have not only focused on speed and delivery system but also on quality and features of online products. The keep in mind customers' needs and demand and then design products and services accordingly. With the help of their efficient supply chain management system and marketing skills, they are able to achieve customer satisfaction and retention.

Research Methodology

The present study is on E-commerce and consumer behaviour towards online shopping. For this purpose, primary as well as secondary sources of data have been used. Primary data has been collected through Questionnaire Method from 150 respondents. The sample includes students (44.8%), professionals (26.9%), housewife (6%), service men (17.9%) and remaining comprises businessmen and

teachers. The ANOVA Model and Percentage Method have been used to examine the data.

Analysis of consumer buying behaviour

The study analyses consumer buying behaviour in online shopping. With the help of ANOVA Method, the relation between gender and other aspects of online shopping has been examined. These aspects include frequency of shopping online, sources of gathering information about online products, payment mode used for online transactions and sites mostly preferred by them. For this purpose we have taken null and alternative hypothesis which are as follows:

Null hypothesis (Ho) - There is no relationship between Gender and other aspects of online shopping.

Alternative hypothesis (H1) - There is relationship between Gender and other aspects of online shopping.

For this purpose we have applied ANOVA model and its results are as follows-

Here one variable (gender) is independent and other variables are dependent which are as follows:

Var 1: Frequency of buying online products

Var 2: Sources used for gathering information about online products

Var 3: Payment mode normally adopted by them in online shopping

Var 4: Website mostly preferred by them for online shopping

Independent variable is Gender.

Table 2: ANOVA Results						
		Sum of Squares	df	Mean Square	F	Sig.
VAR00001	Between Groups	1.089	1	1.089	.520	.472
	Within Groups	288.882	138	2.093		
	Total	289.971	139			
VAR00002	Between Groups	.121	1	.121	.050	.823
	Within Groups	330.765	138	2.397		
	Total	330.886	139			
VAR00003	Between Groups	24.861	1	24.861	11.556	.001
	Within Groups	296.882	138	2.151		
	Total	321.743	139			
VAR00004	Between Groups	12.168	1	12.168	5.654	.019
	Within Groups	297.003	138	2.152		
	Total	309.171	139			

From the above table we can see that sig value (0.05) is more in case of Var 1, Var 2 and Var4 which means null hypothesis is accepted and no significant difference was found between Gender and frequency of buying online, sources used for gathering information and website preferred for online shopping. Sig value was less than (0.05) in case of var 3 (.020) which means alternative hypothesis is accepted and significant

difference was found in case of Gender and payment mode normally adopted by them.

Other findings of study are as follows

1. Majority of customers (38.8 per cent) said they shop according to their need. 20.9 per cent respondents were regular (once in a month) buyers. Almost 11.9 per cent customers said they shop frequently (once in a week), and there were respondents (17.9 per cent) who buy occasionally (once in 2-4 months) but very few (10.4 per cent) respondents said that they shop rarely.
2. The feature of cash on delivery plays a major role in online shopping behaviour. Approximately 58.2 per cent customers used cash on delivery as payment mode (29.9 per cent) but very few of them used credit card (6 per cent) and net banking (5.9 per cent) for online shopping.
3. Search engines are the major source for gathering information about various products. The study shows around 42.4 per cent customers use search engines for gathering information. The other sources comprise of friends and family approx. 33.3 per cent, advertisement includes 27.3 per cent and 24.2 per cent respondents gathered information from product reviews in print media Nobody used promotional e-mails for getting information about product.
4. The buyers preferred horizontal e-commerce websites as compared to vertical e-commerce websites. The shopping site preferred by majority of customers is Amazon, the second choice is Flipkart followed by Myntra. Very few customers prefer Book my show, make my trip, Pay tm and Naaptol for their online dealings.
5. Mostly customers agreed that they prefer online shopping because of convenience, ease of return and money refund. Very few customers disagreed on this aspect.
6. Majority of the customers were neutral about this aspect that most internet merchants have good reputation as they were unaware of the merchants.
7. Through online shopping majority of customers buy apparels (30.6 per cent) followed by electronic goods (21 per cent) and gift & greetings (21 per cent). The third preference was given to books (16.1 per cent) and least used the sites for online reservations (11.3 per cent).

Emerging trends towards E-commerce and Online Shopping

Due to increasing usage of internet and electronic gadgets number of online companies is increasing day by day. Earlier their reach was limited to urban areas and now it has reached rural areas also. It is beneficial to both online companies and customers as it provides profits to the company and convenience to the customers. Some of the latest trends towards e-commerce and online shopping are as follows:

1. Due to increase in usage of smart phones and other electronic gadgets the number of online customers has increased significantly. It has provided various business opportunities to existing and potential companies.

2. There is cut throat competition in the area of marketing. With the help of technology companies are expanding their business and customer base.
3. Customers prefer online buying because of their busy life style and schedule. Home delivery and online payment system has provided comfort and ease to customers.
4. On the basis of sample design, it can be concluded that people from various professions are indulged in online purchasing which means customer awareness has increased and they have started trusting these online business websites.
5. These online companies are providing variety of products and services to different types of customers. In order to attract new customers, they provide various offers such as discounts, cash back, ease of return etc.
6. Earlier there were issues such as integrity, authenticity and security of online transaction but now with the improvement these issues are slowly being resolved on the web.
7. The online companies such as Amazon, Myntra and Flipkart have managed to achieve significant position in the area of e-commerce. With the help of technology and management skills they are able to grab new business opportunities and expand their customer base.

Positive and Negative aspects of E-Commerce

Positive Aspects

1) Low Financial Cost- E-commerce involves very low start-up cost. To establish physical retail, store an individual need to spend a handsome amount for the store location, store design, buying inventory, sales equipment's and staff to work and run each location etc. but on the other side business expenses are very low in e-commerce.

2) Convenience- E-commerce provides convenience for both sellers as well as for buyer as they are always open for business. Especially this is very convenient for those who may have odd work schedules or who don't have time to shop-in-person.

3) Easy to showcase Bestseller- E-commerce benefits like being able to easily display best sellers makes it easier to show-off the products to customers. Also it is easier for a customer to find better quality products from the best sellers. The reason why seller wants customers to buy their best seller is because they are proven by other customers who have already bought them and are happy with their purchase.

4) Affordable Employees- A huge advantage of e-commerce is that hiring employees is affordable, as person need fewer employees in an e-commerce business than a retail location.

5) Easier to Encourage Impulse buy- Another benefit of the e-commerce is that your costumers to become impulse buyer are possible. Like many sites execute a range of scarcity tactics such as countdown timers or showcasing limited quantities.

6) Less-Invasive Experience- E-commerce provides a less-invasive experience of shopping weather learning about a sale promotion or feedbacks people are not forced

to interact with the store employees. If a customer wants to contact the store owner, they can click on a live chat feature, e-mail or send a Facebook message.

7) *Sell-Internationally*-E-commerce provides an opportunity to discover audience for a new brand worldwide and create a larger market for a product.

Negative Aspects

1) *Site Crash*- The worst of the e-commerce disadvantage is that no one can buy anything if the site crashes. It's very important to ensure the website is hosted on the right platform.

2) *Privacy*- it is easy to collect a lot of personal information from a consumer using an e-commerce website, sometimes too easy. There is a concept of filter bubble. The online behaviour of an individual is tracked. Therefore, users who access e-commerce websites start encountering the products they have searched in the recent past.

3) *Security*-Online transactions are inherently more insecure than those conducted in person because there's no way to guarantee that the person making the payment is the actual owner of the credit card used.

4) *Highly Competitive*- Merchants used to sell at their shop may often find selling online an extremely competitive marketplace. Their products are displayed alongside competitive offers, often from different countries or bigger retailers with access to better wholesale prices.

5) *Delayed Responses*- Usually most of the customers expect responses for their queries within the hour on social media. Delayed responses may shift them somewhere else to shop.

6) *Shipping of the Products*- While placing an order customer also consider time of shipping as an important factor. In online shopping most of the customers receive their product in a week or more which influence their decision making. When Amazon offered same day shipping, it wasn't a profitable model until they created Amazon Prime. It only became profitable when they got millions of prime members.

Conclusion

Despite its negative aspects e-commerce is going to achieve growth and success in near future. E-commerce with the aid of technologies such as mobile commerce, electronic funds transfer, supply chain management, internet marketing, electronic data interchange, inventory management system and automated data collection system performs business functions efficiently. No doubt e-commerce has revolutionized the way business organizations are performing their functions and expanding their business. It has efficiently proved the concept of liberalization, privatization and globalisation. It has provided ease and convenience to customers also. The findings of the above study show that consumers' e-shopping orientation is not only influenced by the availability of smart phones and internet rather many other factors play a significant role. The payment mode, online and offline information sources and the popularity of the sites are some of the determining factors which are strongly influencing the consumer buying behaviour.

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Marketing Agricultural Output with the Help of ICT- A Study of Chickballapur District of Karnataka

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ABSTRACT

Research was conducted in Gauribidanur Taluk of Chickballapur District. According to 2011 census the total population of Gauribidanur was 80,673, Agriculture plays a prominent role here. Maize, ragi, coconut, sunflower, silkworm are the main crops. Karnataka is considered as the role model for agricultural products marketing. The use of technology to market agricultural products is seen as the most formidable measures by the government. The Karnataka government has implemented Agriculture Produce Market Committee (APMC) in the state through an act of APMC Model Act 2003. The state has 161 APMCs to help the farmers. The online sale of agricultural products was a great hit among the farmers, the state government introduced the -Unified Market Platform (UMP) which integrated the APMCs to form a strong structure and a centralized mechanism to sell the farmer's produce. The idea of "My Product My Price" is being promoted to ensure that farmers go on-line. Karnataka makes its agricultural market digital with Unified Market Platform. 103 APMCs have been integrated into the UMP system. 39 lakh farmers are registered under UMP, & 18,000 commission agents. Two objectives and two hypotheses have been picked up from the thesis and presented in a form of paper. Questionnaire was drafted to collect and analyze the data. Data was analyzed at three levels Macro Perspective-Kruskal-Wallis Test, Mann-Whitney U Test, Micro Perspective- ANOVA, Focused Path Analysis. (Thesis title: "Determinants for Adoption of ICT for Marketing Agricultural Output: An Analytical Study")

Introduction

The term ICT came into existence in 1997 with Stevenson first coining the revolutionary word. This marked the conceptualization of a broad understanding of technology that facilitates storing, processing, communicating, transmitting and receiving through electronic means in one single concept – ICT. It includes a range of systems in each of these facilities.

The concept of ICT has been defined with great diligence and in-depth in the

literature (World Bank, 2002). The World Bank (2002:1) defines ICT as - hardware, software, networks, and media collection, storage, processing, transmission, and presentation of information (voice, data, text, images). ICT is a diverse set of technological tools, disseminate, store, being ICT value addition and manage information. Knowledge is important to achieve development. Rural India lacks knowledge. Rural India needs knowledge empowerment. Government has realized the contribution of ICT in Rural development. There are number of projects using ICT to reduce poverty. Various ICT initiatives are undertaken by the Government, NGO and the corporate to bring a change in the rural economy. It is well established that ICT can contribute to agriculture in a tremendous way. ICT provides with the required knowledge for all agricultural needs. The data is scattered and needs to be compiled geographically before it is flooded to the farmer.

ICT in Karnataka

Karnataka makes its agricultural market digital with Unified Market Platform:

Agricultural business in Karnataka is on line. UMP has eliminated middlemen completely. 103 APMC's have been integrated into the UMP system. 39 lakh farmers are registered under UMP, 18,000 commission agents. Assaying facilities provided to 40 major markets. Some of the major crops marketed here are Arecanut, Jowar, Groundnut, Ragi, Copra, Chilly, Horsegram, Green gram, Tur, Dal, Cotton, Paddy, Maize, Sunflower, and Turmeric etc.

- Unique Features of UMP
- Single unified trade license.
- Licensed traders can login through web portal.
- Commodities are displayed on electronic platform.
- Facilities of cleaning, grading and packing is available.
- Online payment.
- Price information is provided through mobile app.

Maharashtra, Kerala, Haryana, Tamil Nadu, Delhi, West-Bengal and Andhra Pradesh have taken the license to participate in Karnataka UMP.

Literature Review

Shakeel-Ul-Rehman, (2012) has suggested in his study that to a greater extent agriculture is an important aspect for Indians. Major portion of the population depends on agriculture for its day-to-day life however the agricultural sector in India has seen many improvements. The study suggests that there has been a lot of effort from the Indian Government to make sure that the farmer gets a fair share of every Rupee that is made from their produce. The study also highlights that there are many schemes and also organizations that helps the farmers to market their produce in a right way since marketing is very important and crucial in agriculture.

Anil Kalotra, (2013) IT penetration in rural India will help rural India develop, as all eyes are on the rural market, MNC's are eyeing the rural. MNC's are looking for new opportunities, as there is a decline in the urban market. NCAER survey indicates that rural income is keeping pace with urban income leading to rise in purchasing power of the rural consumer. Rural is growing at 12% while urban is growing at 13%.

Pawan, (2013) in their study speak about the effect of green revolution and consumption pattern. There is a demand for large quantity of manufactured and industrial products. Before 1960's rural market was completely unorganized with dominance of mahajans and baniyas. 1960 to 1990 rural market observed drastic change due to green revolution; technological methods were adopted in farming.

Simone and Monica, (2002) have given the example of Warana "wired village" project of Maharashtra to show that ICT helps in rural development related to sugar cane growing and harvesting. The main aim of this project was to increase efficiency and productivity by providing information services to Warana's villages, which are 70 in number. Village information Kiosks provide complete information to the farmers. Their Kiosks have email and Internet facilities. This project has empowered Warana community.

Kameswari et al (2011) "ICT" for agricultural extension: A study in the Himalayan Region" examines that information plays an important role in agriculture. Agencies responsible for disseminating, refining and developing latest technologies to farmers are ICAR, SAU and Krishi Vigyan Kendra's. State Agricultural Department's, NGO's and private agri-business companies provide extension activities.

Methodology- Objectives

- Factors considered for Successful IT in Marketing content.
- To evaluate the mode of seeking a crop loan from financial institutions and adoptability of ICT.

Hypotheses

- There is no significant difference in preferences between set of respondents with respect to Factors considered for Successful IT in Agricultural Marketing.
- There is no significant difference in preferences between set of respondents with respect to Obtaining loan from Financial Institutions and Adoptability of ICT.

Research gap

Despite huge attention and implementation of various ICT projects by many State and Central Governments, this sector is not flourishing. In spite of

technology available and ICT facility available in Kolar District people of Gauribidanur Taluk are unable to adopt and use it.

Sampling Technique and Sample Size

Population Size N = 49,246

Sample Size Formula when population size is known is:

$$n = \frac{N}{1 + ne^2}$$

e= Allowable error (5%)

$$n = \frac{49246}{1 + 49246(0.05)^2}$$

Therefore n = 397 Respondents

Sample Size is minimum 397

Sampling Population

- Total Population: 49246
- Sample collected from: 600
- Convenience sampling
- Area of study: Gauribidanur Taluq

Analytical Tools Used

- Data was analyzed using suitable statistical techniques such as Mean, KW Test, Mann-Whitney U Test, ANOVA, Structured Equation Modelling (SEM), and (AMOS) Statistical Packages for Social Sciences (SPSS. IBM 21.0) has been used for the analysis.
- Descriptive statistics comprising of standard deviation, mean scores, percentages, and coefficient of variation was used to summarize the characteristics of the respondents.
- Inferential statistics was applied to establish the relationship between variables.

Analysis of Data at Three Levels

- To evaluate the significant differences Mann–Whitney U test is applied to evaluate 3 or more groups.
- To assess the differences in the 02 parameters, their impact and significance were analyzed using ANOVA.
- Path analysis is drawn using AMOS.

Scope of Study

- Gauribidanur Taluk is considered for study.
- Farmers are covered.
- Sample size 600.
- Questionnaire was used for Data Collection

Analysis and Interpretation

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IT in Marketing Content

Table: 1 Mean averages - σ calculated S D & calculated Statistics of Factors considered for Successful IT in Marketing Content

Ho = Kasaba = Hosur = M-halli = Thondebhavi = D-alya=Nagaragere

Alternate Hypothesis \neq at least one of them not equal to another.

$\alpha = 0.05$ Significance level

Table 1: IT in Marketing Content

Code	Descriptive Statistics			Test Statistics 1,2	
	Factors considered for successful IT In Marketing Content	Mean	SD	Asymp. Sig.	Decision
CC1	Classify crop to be cultivated	4.5337	0.4823	0.0046	Sig.Diff
AQ2	Ascertain quality and grade the	4.8110	0.4040	0.0031	Sig.Diff
RB3	Show the product for its	4.703	0.6904	0.0009	Sig.Diff
OB4	Organize for online bid	4.3257	0.0145	0.0090	Sig.Diff
ED5	Take decision on sale/extend	4.826	0.0441	0.0067	Sig.Diff
AB6	Thorough sale by accepting bid on behalf of farmers	4.5959	0.2211	0.0079	Sig.Diff
SE7	Settle expenses	4.3512	0.3870	0.0081	Sig.Diff
GP8	Get potential purchasers to Register	4.9252	0.2086	0.0026	Sig.Diff
AC9	Arrange for conveyance service on request	4.6646	0.7652	0.0522	Sig.Diff
Df=5	1.KW Test	2. Area dimensions: Sectorial Belonging			

Source: Primary Data

As per Table: 3, it is inferred that averages of CC1, AQ2, RB3, OB4, ED5, AB6, SE7, GP8 & AC9 are 4.5337, 4.8110, 4.7038, 4.3257, 4.8269, 4.5959, 4.3512, 4.9252 & 4.6646 Correspondingly, which specify that the target group is in agreed state with reference to Factors considered for Successful IT in Marketing Content will have impact on Adoption of ICT- based market Information services for marketing agricultural outputs.

Table: 2: Report on analysis of variance for Successful IT in Marketing Content

Values	Sum of Sq	D.f	Mean. Sq.	F ratio	Sign.
Interacting Groups	1.48355	5	0.0766	3.6628	0.0418
Inside Groups	4234526262222333.9771	594	0.0022		

Significant at 5 % level, Source: Primary data

Table 2.1: Post hoc test Bonferroni p-numbers with Factors considered for Successful IT in Marketing Content

	Kasaba	Hosur	M-halli	Thondebhavi	D-palya	Nagaragere
Kasaba	-					
Hosur	0.0070	-				
M-halli	0.0216	0.0531	-			
Thondebhavi	0.0507	0.0196	0.0438	-		
D-palya	0.0678	0.0839	0.0027	0.0095	-	
Nagaragere	0.0126	0.0696	0.0282	0.0910	0.0450	-

Source-primary data.

Analysis of variance report stated in table:2 the “p” number “0.0418” is < than confidence range (range = 0.05, i.e., 0.0418 < 5%), we reject Null Hypothesis and accept alternate Hypothesis. In other words, the mean Factors considered for Successful IT in Marketing Content scores differ across respondents selected for the study and also within respondents selected for the study, Obtaining Loan from a Financial Institution.

Table 3: Loan from a Financial Institution

Code	Descriptive Statistics			Test Statistics 1,2	
	Factors Obtaining Loan from a Financial Institution	Mean	SD	Asymp. Sig.	Decision
CL1	Convenient location of financial institution	4.3750	0.1534	0.0076	Sig.Diff
QB2	Quick disbursement of loan	4.7945	0.1794	0.0094	Sig.Diff
QS3	Quality of service of financial Institution	4.0103	0.0497	0.0008	Sig.Diff
LI4	Low interest rate/cost of borrowing	4.7062	0.0497	0.0052	Sig.Diff
CR5	Convenient repayment period	4.0752	0.3508	0.0041	Sig.Diff
AR6	Absence of requirement for immovable property as collateral	4.0149	0.6438	0.0055	Sig.Diff
SB7	Availability of other financial services from same banks	4.3585	0.5068	0.0096	Sig.Diff
Df=5	1.KW Test	2. area dimensions: Sectorial Belonging			

Source-primary data.

As per Table no: 3 it is inferred that averages of CL1, QB2, QS3, LI4, CR5, AR6 & SB7 are 4.3750, 4.7945, 4.0103, 4.7062, 4.0752, 4.0149 & 4.3585 Correspondingly, which specify that the target group is in agreed state with reference to Obtaining Loan from a Financial Institution will have impact on Adoption of ICT-for marketing agricultural outputs.

Test Hypothesis: Whether mean Obtaining Loan from a Financial Institution scores (ranks) significantly differ across each type of respondents selected for the study.

Symbolically,

Ho = Kasaba = Hosur = M-halli = Thondebhavi = D-palya = Nagaragere
Alternate Hypothesis ≠ at least one of them not equal to another. Less than 5 percent level of Significance.

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Table 4: Report on Analysis of Variance for Obtaining Loan from a Financial Institution

Values	Sum of Sq	D.f	Mean. Sq.	F ratio	Sign.
interacting Groups	1.83147	5	0.7576	3.7203	0.0483
inside Groups	43.5434	594	0.0664		

*Significant at 5 % level Source: Primary data

Table 4.1: Post hoc test Bonferroni p-numbers with Obtaining Loan from a Financial Institution factor

	Kasaba	Hosur	M-halli	Thondebhavi	D-palya	Nagaragere
Kasaba	-					
Hosur	0.0653	-				
M-halli	0.0845	0.0914	-			
Thondebhavi	0.0913	0.0103	0.0550	-		
D-palya	0.0914	0.0504	0.0824	0.0364	-	
Nagaragere	0.0224	0.0427	0.0488	0.0933	0.0799	-

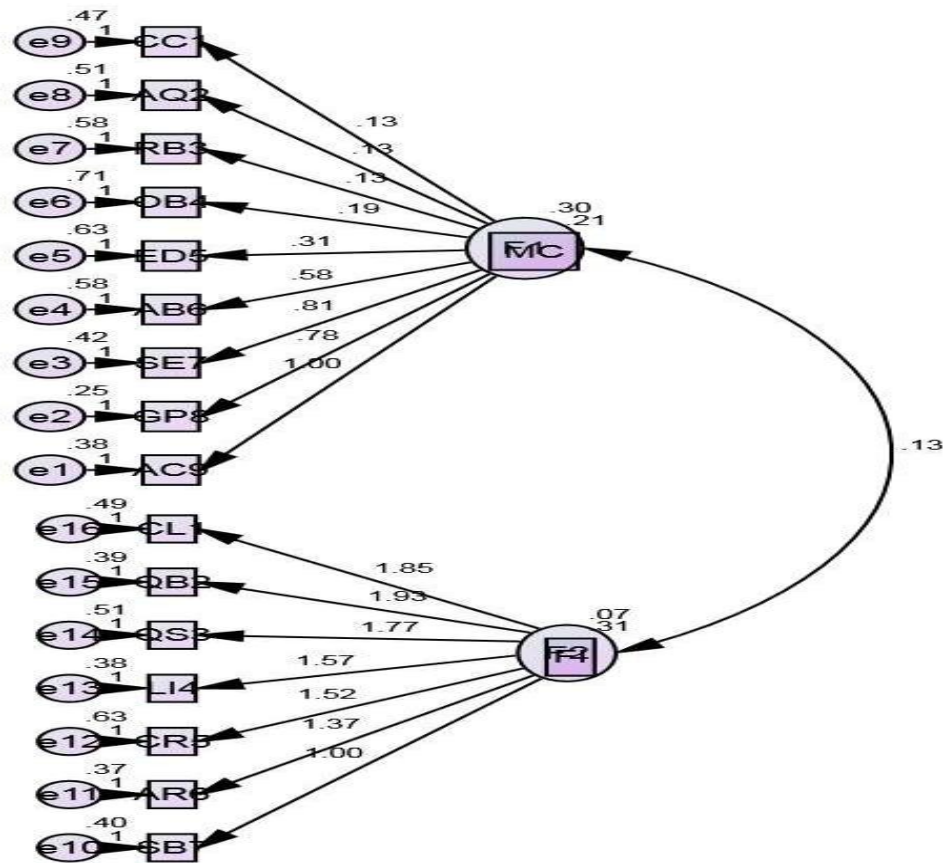
Source-primary data.

Analysis of variance report stated in table: 4 the “p” number “0.0483” is < than confidence range (range = 0.05, i.e., $0.0483 < 5\%$), we reject Null Hypothesis and accept alternate Hypothesis. In other words, the mean Obtaining Loan from a Financial Institution scores differ across respondents selected for the study and also within respondents selected for the study.

F1: Regression Weights: SE7-Settle Expenses, GP8- Get Potential Purchasers, AB6- Accepting Bid on Behalf of Farmers, ED5- Extent Display of Bid, OB4- Organize for Online Bid, AQ2- Ascertain Quality, CC1- Classify Crop, RB3- Register Buyers. These are the variables, which are significantly influencing on Market Content. The above variables are arranged based on the level of influence on Market Content only.

F2: Regression Weights for the following, QB2- Quick Display, CL1- Convenient Loan, QS3- Quality of Service, LI4-Low Interest, CR5-Convenient Repayment, AR6-Absence of Requirement. These are the variables, which are significantly influencing on Loan from Financial Institution. The above variables are arranged based on the level of influence on Loan from Financial Institution only.

Figure 1: Relationship between Market Content, & Loan from Financial Institution and its impact on other statements



Results

Eigen value of F1 ie e(4) AB6- Accepting Bid on Behalf of Farmers, is 0.578, e(7) RB3- Register Buyers 0.582 & e(8) AQ2- Ascertain Quality 0.511. So, it is influencing on Market Content.

Eigen value of F2 is e (12) and e (14) CR5-Convenient Repayment 0.632 and QS3-Quality of Service, 0.514 are more influencing on Loan from Financial Institution.

All the variables are significant in nature. Therefore, we can infer that all the variables are appropriate for the study. However, the above variables are more influencing.

Findings

- Findings show that the factors considered for successful IT in Marketing Content are 1) Classification of crops 2) Grading of crop 3) Display of product to registered buyers 4) Organize online bid 5) Display of bid 6) Accepting bid on behalf. These factors were analyzed and it was found that there is a significant difference.

- Gauribidanur farmers borrow from middlemen, interview conducted shows that farmers take loan on crop in advance. They are committed to the middlemen. It was found that many numbers of times APMC yards deny purchase of crop from farmers on various grounds.
- Factors considered for Successful IT in Marketing Content scores differ across respondents selected for the study and also within respondents selected for the study. It is found that there is a need for ICT in marketing agricultural output.
- The result of the ANOVA test shows that the alternate hypothesis is accepted which specifies that there is a significance difference in respondent's response with reference to Obtaining Loan from Financial Institution.

Suggestion

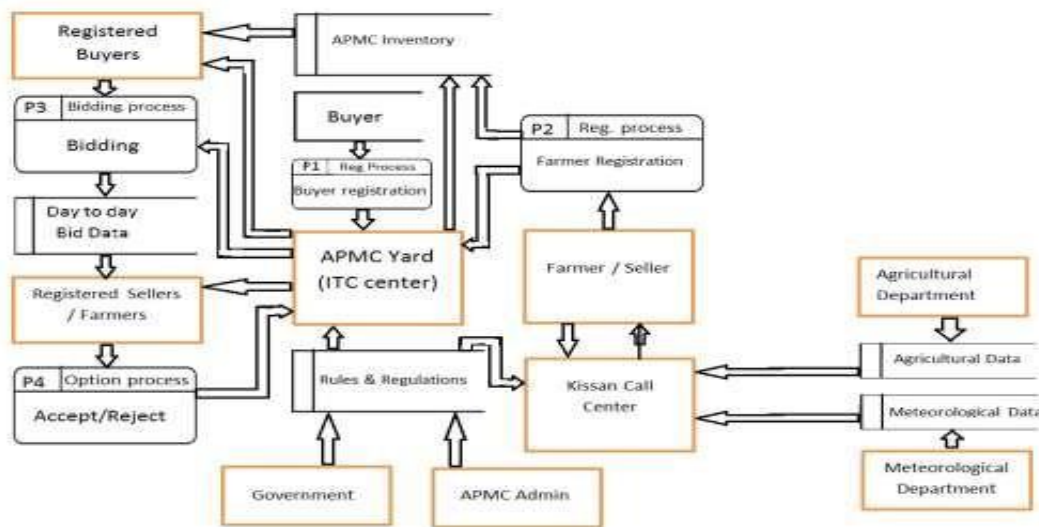


Figure 2: Procedure for Adoption of ICT

On detail study it is observed that the system is not reaching the large mass due to various factors. The study and understanding of these factors lead to reengineering the present system. The above procedure has been suggested.

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A Study on Consumer Perception Towards E-Retailing In Visakhapatnam City

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ABSTRACT

Today E-commerce is an epitome in Indian society and it has become an integral part of our daily life. The rapid growth of e-commerce in India Over the last two decades, rising internet and mobile phone penetration has changed the way we communicate and do business. Ecommerce is relatively a novel concept. It is, at present, heavily leaning on the internet and mobile phone revolution to fundamentally alter the way businesses reach their customers. Online Shopping has become the fastest-growing segment, in this context this paper deals with the consumer's perception, consumer preferences and attitudes towards e-retailing with special reference to Visakhapatnam District of Andhra Pradesh. The present study tries to analyse the various factors that can affect a consumer's perception acquainting e-retailing. Apart from this, the study also attempts to find out the influencing factors on customers adopting e-retailing in the city of Visakhapatnam. In this study it has been observed that most young generations who are educated and having some source of income are preferring online shopping than traditional shopping motivated by latest gadgets, convenience in browsing, availability of new products, new payment avenues and offer and discounts. It is suggested to the online shopping sites that they need to concentrate more on making customers purchasing process more convenience with easy payment process, more new products availability and with timely delivery.

Introduction

In the past purchasing pattern of the customers is directly from stores or from traditional market but with the advent of www it has been changed adding fire to fuel integration of internet with smart phones made accessibility to technology, information and interaction through internet to the common man has changed the entire scenario of business. This has created a paradigm shift business from traditional to modern or from offline to online stores. Usage of internet by the consumers has evolved them a convenience way of doing shopping when compared

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to traditional system of physically visiting a shop for selecting a product. Online shopping has provided consumers to search retrieve needed information through online.

Internet has changed the way consumers buy products or services and it is a global phenomenon. E-Commerce has provided the opportunity to the customer to shop online round the clock, and it even allows customer to select a product/ service of his choice without any geographical restriction this helped to increase the number of people adopting retailing through online. So today internet being a integral part of everyone's life we have to agree that without any second thought that internet has influenced our lives deeply in which it plays an vital and exceptional role. Keeping these changing circumstances many companies started to adopt the process of e-retailing in-order to sustain in the market and with the aim of cutting marketing costs, thereby reducing the price of their products and services in order to stay ahead in highly competitive markets. In addition to this the increasing potentiality of the E-commerce market, the Internet provides a unique opportunity for companies to more efficiently reach existing and potential customers.

Earlier e-retailing was done by the consumers who have laptops and computers with internet connection but today smart phones with internet being a common gadget with consumers they are easily adopting e-shopping and it has becoming more popular in our country too.

According to a report of IBEF (Indian Brand Equity Foundation) e-commerce market in India has grown from 4 percent in 2007 to 35.03 percent in 2017, registering a CAGR (Compound Annual Growth Rate) of 24.23 per cent between 2007 and 2017. And it was accepted that Indian e-commerce industry has been on an upward growth trajectory and is expected to surpass the US to become the second largest e-commerce market in the world by 2034 because the rising internet penetration is expected to drive ecommerce growth in India.

Consumer perception is all about the factors which influences the customer at the time of making a buying decision and forms opinion regarding what, when, where and how to buy a product or service. With the raising potential of e-retiling many retailers have been interested to see the changes that will be brought by e-retailing. To promote e-retailing in this competitive world the marketing managers are enthusiastic to identify its gains and limitations as compared to traditional shopping, and the factors influencing the adoption and usage of e-shopping (Aaker & Joachimsthaler, 2000).

Review of Literature

M. Rajesh and G. Purushothaman (2013) in their study on "Consumer Perception towards Online Shopping in Kanchipuram" found that the consumers are buying durable goods online rather than offline market due various factors like offers/ discounts, free home delivery, variety of options or products available on online, saves time and to avoid long ques.

Pooja Kansra and Diksha Rajiva (2013) stated that consumers were happy with security, privacy, product quality and they also suggested online seller if they want to

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attract more number of buyers they have to provide more convenience, offer variety of products at comparative prices and particularly after sales service will help them to increase their market share.

Pratiksindh Vaghela (2016) has conducted survey on 150 members and concluded that consumers feel that though they feel payment security and personal verification of product are barriers still they are more comfortable with online shopping as compared to manual or traditional shopping.

Rama Mohana Rao and Chandra Sekhar Patro (2016) in their study identified that consumers are satisfied with the present services offered by the e-retailers but still they are some indicators which must be improved to retain their customers and they also suggested that the traditional shoppers with the increasing competition with the e-retailers they have to improve their product quality and offer products at a comparative price to attract customers.

V, Krishna Kumar and Affreen Ara (2015) analysed if e-retailers can improve or upgrade their services in areas such as logistics and supply chain management, understanding security requirements of consumers, customer service and providing information in local languages will help them to retain and attract potential customers.

Gurvinder S Shergill, Zhaobin Chen (2005) stated that in their study had identified that website reliability, customer service, payment security and website design are the key determinants which will influence a customer towards e-retailing.

Riddhish Joshi and Pratiksindh Vaghela stated that many of the consumers purchase products online based on their previous experience and on the vendors' credibility, he also found that consumers while buying products or services through online consider trustworthiness of the e-retailer, price and range of products have a great influence on their purchasing decision.

Marwan Mohamed Abdeldayem (2010) after taking responses from 240 consumers he has stated that website traits, Channels traits and consumer traits are also important factors along with user friendliness usefulness of the product are the key factors which will influence decision making while doing online shopping.

A B Santhi (2017) concluded that the modern day consumers are more tech savvy they are more confident of buying goods online by looking the reviews posted in the website so it is the time for the e-retailers to carefully react to the feedback given by the customers or in the changing competitive world it would be difficult for them to retain or attract the potential customers for their websites.

Objectives of The Study

- To study the demographic profile of E-Retailing consumers in Visakhapatnam city.
- To analyse the gender differences in types of products purchased, usage of gadgets and amount of money spent per month on E-Retailing.
- To evaluate the consumers' perception towards E-Retailing.

- To determine the effect of qualification and income of respondents on amount spend on E-Retailing.
- To suggest the required changes in E-Retailing Business for its better Outreach.

Research Methodology

The sources of data for the present research paper are both primary and secondary data. A structured questionnaire has been designed to conduct a survey and was collected primary data Information from 100 respondents in Visakhapatnam city using convenience sampling. For the analysis of data descriptive statistics have been applied. All questions are closed-ended because all possible answers were given to respondents. Secondary data is collected from various text books, registers, magazines, journals. Dissertations, the information collected is carefully coded, computed, classified, analyzed and interpreted using SPSS 21.0 software.

Cronbach's Alpha has been used to find out the level of reliability of the data. The Value of Cronbach Alpha for twenty-two items was found to be 0.705.

Chi-Square test has been used to find the gender differences on type of products purchased, gadgets used for placing food order and amount spent per month for online shopping. The following hypothesis has been formulated to know the gender differences.

H01: There is no significant difference between male and female in using type of gadget for placing food orders through online.

H02: There is no significant difference between male and female on amount spent per month for online shopping.

H03: There is no significant difference between male and female in types of products purchased through online.

Multiple Regression has been used to determine the effect of qualification and income of respondents on amount spent on E-Retailing. The following equation has been used:

$$\text{Amount Spent} = \alpha + \beta_1\text{Qualification} + \beta_2\text{Income}$$

Analysis and Interpretation

Table 1: Demographic profile of Respondents

S. No	Variable	Options	Frequency	Percentage
1	Gender	Male	55	55
		Female	45	45
2	Age	18-25	73	73
		26-35	13	13
		36-45	10	10
		Above 45	4	4
3	Education	SSC	9	9

		INTER/DIPLOMA	13	13
		Graduate	44	44
		Post Graduate	29	29
		Post PG	5	5
4	Occupation	Private Employees	30	30
		Govt. Employees	22	22
		Business	19	19
		House wife	7	7
		Students	22	22
5	Income	Up to 10000	35	35
		10001-15000	17	17
		15001-20000	15	15
		20001-25000	20	20
		above 25000	13	13

Table 1 shows demographic profile of respondents in Visakhapatnam. From the above table it is observed that out of 100 respondents 55% are male and 45% are female. Maximum number of respondents belongs to 18-25 years. Only 4% of the respondents have more than 45 years' age. It also observed that almost all respondents are educated. Out of 100 respondents, 44% are graduates and 29% are post graduates. Regarding occupation, the respondents are with diversified categories of occupation. We can see from the above table that 35% of respondents fall under the category of Rs. 10,000 below income per month, 17% of respondents fall under Rs. 10001-15000 per month, 15% of respondents fall under Rs. 15001-20000 per month, 20% of the people fall under Rs. 20001-25000 per month category. Income of 13% of the people is having more than Rs. 25000.

Table 2: Gender differences in using gadgets while ordering food online

	GADGET TYPE				Total	Chi-Square Value
	Smart Phone	Laptop	Desktop	Others		
Male	47 (85.5)	3 (5.5)	2 (3.6)	3 (5.5)	55 (100.0)	1.781 (TV: 7.815)
Female	40 (88.9)	2 (4.4)	0 (0.0)	3 (6.7%)	45 (100.0)	
Total Count	87 (87.0)	5 (5.0)	2 (2.0)	6 (6.0)	100 (100.0)	

(Note: Figures in brackets shows percentage to row total)

From the above table 2 it is observed that irrespective of genders most of the people are using smart phone for placing food orders online. Nearly 90% of the respondents are using smart phones. Remaining respondents are using laptops, desktops and other gadgets. Calculated value of Chi-Square is 1.781. It is less than the table value (7.815). So we can't reject null hypothesis. It means there is no significant difference between male and female in using type of gadget for placing food orders through online.

Table 3: Gender differences in amount spent per month for online shopping

	AMOUNT SPENT	Total	Chi-
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Available on SSRN-Elsevier

	<1000	1001-1500	1501-2000	2001-2500	>2500		Square Value
Male	20 (36.4)	12 (21.8)	7 (12.7)	15 (27.3)	1 (1.8)	55 (100)	9.014* (TV: 7.779)
Female	14 (31.1)	11 (24.4)	9 (20.0)	5 (11.1)	6 (13.3)	45 (100)	
Total	34 (34.0)	23 (23.0)	16 (16.0)	20 (20.0)	7 (7.0)	100 (100)	

(Note: Figures in brackets shows percentage to row total)

(*Significant at 90%)

Above table 3 shows the amount of money spends per month for online shopping among male and female. Nearly 35% of the respondents spend less than Rs.1000 per month. 20% of respondents spent amount between Rs.2001 to Rs.2500. very few respondents spent more than Rs. 2500 per month. Calculated Chi-Square value is 9.014. It is more than the Table value (7.779 at 10% level). So we can't accept the null hypothesis. It means there is difference between male and female on amount spent for online shopping per month.

Table 4: Gender differences in types of products purchased through online

	PRODUCTSUSUALLYBROUGHTONLINE								Total	Chi-Square value
	Books	Clothes	Furniture	Cosmetics	Electronics	Groceries	Cinema / Travel Tickets	Others		
Male	1 (1.8)	10 18.2	4 (7.3)	0 (0.0)	24 (43.6)	0 (0.0)	15 (27.3)	1 (1.8)	55 (100)	27.733* (TV: 14.067)
Female	4 (8.9)	10 (22.2)	0 (0.0)	7 (15.6)	7 (15.6)	5 (11.1)	10 (22.2)	2 (4.4)	45 (100)	
Total	5 (5.0)	20 (20.0)	4 (4.0)	7 (7.0)	31 (31.0)	5 (5.0)	25 (25.0)	3 (3.0)	100 (100)	

(Note: Figures in brackets shows percentage to row total)

(*Significant at 95%)

Above table 4, shows the gender differences in products purchased through online. Calculated Chi-Square value (27.733) is more than table value (14.067). So we can't accept null hypothesis. It means there is a significant difference between male and female in products purchased through online. Male respondents mostly buys electronics, tickets and clothes whereas most of the female respondents buys clothes, tickets, cosmetics and books items through online.

Table 5: Perception of respondents towards online services

RESPONSE	Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly dissatisfied	Total
Accuracy of product quality	11	64	23	2	-	100
Timely delivery of product	20	57	20	2	1	100
About product warranty/ guarantee	15	52	30	3	-	100
Satisfaction in online shopping than traditional shopping	20	49	30	1	-	100
Payment method	34	54	9	3	-	100

Available on SSRN-Elsevier

Availability of new products	39	48	12		1	100
Secure Transactions	28	47	23	2	-	100

The above table 5 shows the satisfaction levels of respondents on various aspects related to online shopping. It is clear that 39% of the respondents are highly satisfied on the availability of new products and most respondents expressed satisfaction related to the factors in the order of product quality, timely delivery, payment process, warranty & guarantee and are preferred shopping online rather than offline shopping.

Effect of qualification and income of respondents on amount spend on E-Retailing

Regression analysis is also used to find the relationship between different factors while preferring online shopping and the following equation derived showing the Effect of qualification and income of the respondents on amount spent on e-retailing: Total Amount spent is generally depends on several factors. But we consider income and Qualification are most important factors influencing online expenditure. Qualification is an essential factor to motivate the people to use e-retailing. People with higher qualification generally opt e-retailing. Illiterates can't use or less likely to use online services. On the other hand, level of income also decides the amount of expenditure. Following equation shows the relationship between amount spends on e-trailing per month to qualification and income of respondents.

$$\text{AMOUNTSPENT} = 0.173 + 0.144 * \text{QUAL} + 0.701 * \text{Income}$$

$$(0.323) (0.0861) (0.0583)$$

$$n = 100, R\text{-squared} = 0.600$$

(Standard errors in parentheses)

(Source: Values retrieved using Gretel software)

From the above equation it is observed that 60% of the amount spent on e-retailing is due to qualification and income level of the respondents. Remaining 40% is due to other factors. It is also observed that one rupee changes in income leads to 0.701 percent change in amount spend. At the same time respondent with higher qualification may influence amount spend on online shopping by 0.144 times.

Conclusion

From the study it is concluded that there existed gender differences in type of products purchased through online and amount of money spent per month for online shopping. It is also observed that most young generations who are educated and having some source of income are preferring online shopping than traditional shopping motivated by latest gadgets, convenience in browsing, availability of new products, new payment avenues and offer and discounts. It is suggested to the online shopping sites that they need to concentrate more on making customers purchasing process more convenience with easy payment process, more new products availability and with timely delivery. Also they need to concentrate on how to attract the customers of different age groups to their sites.

The present study is considered only few aspects where as there is further scope for research areas like focusing on the online shoppers behaviour with respect to rural and urban purchase patterns, time and occasion of online shopping, attraction towards offers etc., can help to ecommerce sites to design appropriate strategies.

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Digital Branding –as building of consumer’s experiences

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ABSTRACT

The idea of branding has been developed over the years of factors in a far more extensive set of considerations. As well as this idea of visual identity we may also consider the thoughts, feelings, perceptions, images, experiences, beliefs, attitudes and so on that are associated with a brand. This set of consideration builds up our brand image and we may also talk about our experience of a brand as our brand experience.

The main objective of digital branding is to make aware customer about the product. Building your reputation online is similar to a networking breakfast, but it's not easy and it takes more time. It makes the marketer to think innovatively and present the idea through online work. It leads to learn the technology which is rapidly changing day by day. Adoption of such new techniques leads to great success in this digital world.

Digital branding develops a business Identity, visibility and credibility in the community that interacts with the business or through other digital mediums. This makes digital branding essential for creating and establishing a brand's story and presence in the digital world.

Digital branding discusses the professional implications of choosing to abstain from social media use and urge educators to recognize that the digital branding may be an emerging asset for young professionals in twenty-first century. "Digital channels, and assets are used to communicate a brand's positioning (or purpose) as part of multichannel brand communication or engagement program".

Introduction

“Taking the digital, direct-to-customer route is not without its challenges”.

Digital branding is a brand management technique that uses a combination of internet branding and digital marketing to develop a brand over a range of digital venues, including internet – based relationships, device based applications or media content. It is a big challenge for start-ups and it is a critical activity for the

successful establishment of any start-up company. It provides vital support in customer acquisition, maintenance and retention and to build a good reputation in the market. Digital brand building has become important for every e-commerce start-up to create an image in the customer's mind. Digital Branding is a vast and rapidly growing field. Digital branding is potentially a very powerful tool for businesses with low budget. Startups should make innovative, creative and unconventional branding activities like create positive word-of-mouth and develop populist digital branding campaigns. New ventures should instead focus to develop more creative, innovate and unconventional branding activities [2, 3] as for instance organize events, actively create positive word-of-mouth, and develop online branding campaigns using social media.

The study mentions that Branding is the process of creating value through the provision of a compelling and consistent offer and customer experience that will satisfy customers and keep them coming back. Contemporary definitions of branding transcend the simple transaction between the brand, organization and consumers, by including aspects of brand and relationship intangibles such as customer loyalty and preference.

Digitalization becomes part of our daily routines and is shaping the traditional ways in which consumers and business interact with each other. Digitalization, specifically social media has claimed to have transformed consumer behavior (Kaplan & Haenlein 2010), with significant consequences for brands and products (Muntinga et al. 2011). Consumers increasingly spend more time on online services to browse, store, play, email, access Facebook, Twitter and other social apps through connected devices i.e., tablets, smartphones, laptops and in this way transforming the way internet is used (Ericsson Consumer Lab 2012).

However, in the 21st century, with the development of digital media it is impossible to avoid the new ways of brand image building. The digital era has changed the relationships between brands and customers, due to the appeared possibility of two-way communication, when consumers are able to comment on any company's activities, discuss advantages and disadvantages, and, moreover, demand for interactivity.

In order to achieve a strong digital branding, a great deal of attention should be paid to the creation of brand identity. It is significantly important to use a well thought-out set of visuals created for a particular brand. Visual content and usage of graphics are strong tools for brand development. Due to the specific ability of the human brain to perceive graphic information faster than letters, it is increasingly effective to use visual content that should be applied correctly and consistently. In addition, it should also be original and reflect the brand's values. Visual storytelling that consists of visual elements is a helpful way in creating brand recognition and brand reputation, as well as a tool for attracting consumer attention.

Branding in Digital Age

21st century changed the perception of what actually brand is and divided brand into the New and the Old Brand Worlds. Bedbury (2002, 15) suggests that one main difference between these worlds “is that in today’s brand equation, the consumer to whom you are telling your story – the listener, the viewer, the customer – has more control than ever before”. According to Bedbury (2002, 16), Prahalad and Ramaswamy state that “a product is no more than artifact around which customers have experiences”

Wheeler (2009, 6) states that digital branding includes following areas: web, social media, search engine optimization, driving commerce on the web. Rowles (2014, 3) suggests that in the 21st century the idea of branding itself changed, so now there is two-way communication exists between brands and consumers by means of social media. For understanding of what consumer feels towards a brand, it is possible just to check reviews that are so popular nowadays. Facebook, Twitter, Trip Advisor and many other platforms are the ways to see what it is inside people’s mind related to concrete product or service and ability to compare these reviews to what a company thinks it does. However, with the appeared ability for consumers to express their feelings towards a brand in social media, there is also increased importance of creation a brand that will be worth talking about. Herbst (2015, 13) states that Digital branding is a part of brand management as a whole. It contributes to building the brand image by leveraging the attributes particular to digital media and digital technologies.” Rowles (2014) assumes that digital branding is the personality of the organization, service or product created by the sum of all experiences that an individual has with that brand. Additionally, it includes such factor as visual identity, however nowadays there are aspects exists that need to be taken into consideration in order to succeed in digital branding such as social media interactions and online reviews.

According to Herbst (2015, 12) when branding in digital age, companies should take into consideration following points: it is not enough to take their classical advertising ideas and shift them to the internet without understanding of unique, digital attributes. However, at the same time, it is important not to push technologies to the limit, so that brand image does not correspond the original advertising channels.

To sum up thoughts about digital branding, it can be assumed that the core difference between classical and digital branding is in the appeared ability of communication with consumers and the core idea is to give customer valuable experience by all suitable means such as: finding the fine line between old and new ways of branding, adequate usage of technologies, involvement and interactions in social media.

Digital tools Social media tools, such as Facebook, Twitter, Instagram, and Pinterest, have transformed the way that customers and brands interact with one another. Low cost analytics tools are allowing companies to understand customers better than ever before. For brands, these digital tools provide a free or low-cost way to connect and engage with the people who buy and use their products. For some

established brands, this can be the first time they’ve been able to connect directly with their customers.

Done effectively, social media-driven engagement efforts can help build brand loyalty and drive direct-to consumer sales. The social influence of individuals can now be measured and valued by their number of friends or followers, how likely their social network is to re-broadcast a message – their reach – and how likely those receiving the message are to convert to customers.

As a result, brands can more readily identify high value individuals and monetize their social equity through analytics. Brands can also use social media channels to deliver unique products and offers to followers – and in return, gather vital customer data that can be used to better target their sales and marketing efforts going forward.

Digital platforms

Having a digital platform is essential to ensure your brand is considered in the path to purchase and critical to winning today’s consumer. E-Commerce capability is table stakes – customers expect to be able to buy products online. For many new and emerging brands, e Commerce is the only way they sell their products or services.

Thanks to new digital platforms, including marketplaces, mobile apps, e-readers, and electronic kiosks, it is now significantly easier for brands to establish an e Commerce capability. These platforms allow companies to build a branded retail presence for a fraction of the cost of building physical store fronts. Critical capabilities, such as detailed reporting and analytics, same day shipping or the introduction of ‘Amazon Prime’ models and online/mobile customer service capabilities such as online chat tools, are instantly at the disposal of any brand. Digital tools go hand in hand with paid platforms, providing the customer facing presence that can establish a direct relationship and drive online traffic.

Digital branding- consumer perspective

The increasing number of personal devices used gives companies more ways of communicating with their customers. It also works the other way around and gives the customers a possibility to interact with the company in so many different ways than before. On top of this the customers can now also interact and share content with each other.

How does Internet marketing benefit consumers?

While increased visibility and access is definitely good for your business, Internet marketing also benefits your customers. Internet marketing is a way to lead consumers honestly toward your product or service based on their criteria. Presenting them with the right, useful information at the correct time lets them make the choice to engage you, instead of you going after them.

Internet marketing keeps consumers aware: If the digital era has shown the world anything, it’s that technology develops at incredible rates. We seek and consume information faster than ever. Consumers want relevant, engaging, and newsworthy content on demand. This means they expect to receive news about your industry as soon as it occurs, statistics about your industry, and other relevant information as it emerges.

Internet marketing ensures consumers can find what they need to stay up-to-date. This sets the bar high for business owners, but with the right strategy, your Internet marketing efforts have the potential to generate explosive growth.

Internet marketing gives consumers many options: The Internet offers consumers a greater variety and choice than they’ve ever had before. In this way, Internet marketing is a huge benefit to consumers on a global scale. People are able to find exactly what they need and have it arrive at their door faster than ever. Access and convenience are tremendous boons to consumers. You can now be a part of their information-seeking process by establishing yourself as an authority that freely gives away information to help them. You’ll build trust and establish yourself at the forefront of a growing market that increasingly looks to you for guidance.

Internet marketing provides 24/7 access: The Internet never closes. Consumers can find information about your business at any time of the day. This effectively gives them unlimited access to your brand, allowing you to engage potential consumers at 3:00 a.m., if they want. When they do it doesn’t matter — it only matters that you’re available.

Internet marketing reduces your carbon footprint: Sustainability is a growing hot-button topic. Fortunately, Internet marketing gives you a chance to reduce your company’s carbon footprint with no extra effort, primarily because:

- Society uses less paper as more marketing campaigns shift to digital.
- Marketers can work from anywhere, cutting down on fossil fuel use.
- Online shoppers don’t need to drive to stores to find what they want.

Internet marketing is beneficial for you and your customers:

Internet marketing is an effective tool for increasing the visibility and awareness of your business, but the most important part is that it creates a relationship that benefits you and your customers. As you take the time to prepare quality content that resonates with your audience and spend time appropriately analyzing your progress, they benefit from the information—and you benefit from positioning yourself as a trusted thought leader.

In the following ways it is beneficial for the customers in some other ways:

- Your Available 24 hours
- It’s Cheaper
- Your Customers Can Discover New Markets
- You Can Track Real-time Results and Display of Full Information

Digital Branding –as building of consumer’s experiences

- Improves Credibility
- Very Wide Range
- Get honest help with your advertising

Some Examples of Digital Branding

OMO’s smart peg

Washing detergent brand, OMO, recently partnered with J Walter Thompson to launch ‘Peggy’, a smart peg featuring light, humidity and temperature sensors, along with a Wi-Fi module, to provide consumers with information on the best time to do the washing according to various weather indicators.



The peg is synced to a user’s mobile phone and uses push notifications to update consumers of these changes in weather conditions. It also features a USB charging port and long life in-built battery. Users can see on their mobile screen a weather snap shot, approximate finished drying time, drying cycle and wash cycle timing, and also have the ability to set reminders on when to plan a wash.

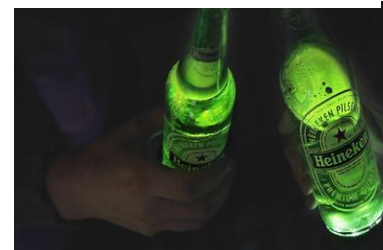
Tesco’s face scanning technology

British multinational chain, Tesco, created headlines when it announced the installation of face-scanning technology at its petrol stations, personalizing advertisements to individual customers once they reached the cash register. Created by Amscreen, the high-tech ‘Optim Eyes’ screens use a camera and facial recognition software to identify a customer's gender and approximate age, to then show advertising tailored to their demographic.



Heineken’s interactive beer bottle

In an effort to tap into the cool aspect of club culture, Heineken’s Ignite concept created headlines with its interactive beer bottles fitted with LEDs and motion sensors designed to light up during a partygoer’s night out.



With the help of eight bright LEDs, an 8-bit microprocessor and an accelerometer, a customer’s motions can trigger certain effects that light up the whole bottle, like cheering or taking a swig. The effects can also be remotely activated and controlled via software, so each bottle becomes a light source that can be synchronized to the music.

Pepsi’s interactive drink bottles

During the 2014 World Cup, Pepsi ran a football-specific augmented reality (AR) campaign as a flavor of the month with Blippar. It created 250 million interactive cans where users could play a football game with the world’s five leading players. Pepsi saw 60,000 hours of engagement on the cans within a month and a conversion of 2 per cent, where roughly 3.5 million people blipped their Pepsi cans.

Kit Kat’s interactive chocolate bars

Mobile app, Shazam, recently partnered with Nestlé to roll out a new marketing campaign enabling customers to visually interact with their KITKAT chocolate bars. The partnership saw millions of Shazam-enabled chocolate bars distributed as part of the brand’s latest consumer promotion, where The KITKAT team were on the search for people to join ‘The Breakers Party’ to have the chance to win ‘the break of a lifetime’.



<ul style="list-style-type: none">• What Are the Pros of Digital Marketing?	<ul style="list-style-type: none">• What Are the Cons of Digital Marketing?
<ul style="list-style-type: none">• Digital marketing is very low cost.• Digital marketing can access a massive audience.• Digital marketing caters to multiple demographics simultaneously.• Digital marketing is fast – like super ultra fast.• Digital marketing reaches decision-makers.• Digital marketing creates brand interactions.• Digital marketing offers you an opportunity to expand your customer service.• Digital marketing creates higher levels of brand loyalty.	<ul style="list-style-type: none">• Digital marketing is going to consume a lot of your time.• Digital marketing always creates negative public reactions.• Digital marketing sometimes takes control out of your hands.• Digital marketing can make it difficult to determine your ROI.• Digital marketing sometimes takes control out of your hands again.• Digital marketing campaigns are very easy to copy.• Digital marketing can get lost in the online white noise that exists.• Digital marketing judges you on first impressions.

Limitations of Digital Branding

- Direct mail is often seen as “junk” mail. So if your marketing doesn’t stand out and appeal in just the right way it might find its way straight from the letterbox to the bin.

- The law of 29 means you will need to do a direct mailing campaign many times before it has an effect.
- You risk annoying your customers by plaguing them with regular “junk” mail campaigns.
- Cold-calling, like junk mail, can have an unwanted effect as it has negative connotations. Unwanted calls are often dealt with harshly and you might risk damaging your reputation.
- Costs may be more expensive than other forms of marketing, depending on your plan.
- Unless you are targeting a specific audience, you might have to push your advert across a number of radio and television stations to reach everyone you need to.
- An obvious disadvantage of radio and television marketing is the temporary nature of the advert. Unlike print, potential customers cannot go back to look for your contact information. So you will need to run the advert many times to get the best effect.
- Listeners/viewers may stop paying attention during advert breaks, which are essentially a disturbance to their enjoyment of the show.

All the above disadvantages will effect very badly and gives a negative impression to customers and consumers addicted to the brand.

Conclusion

These pros and cons of digital marketing show the importance of being online, as well as the importance of having clear, precise message. If you can establish a tempting value proposition and then follow through on that promise, then you’ll be able to increase the chances of experiencing a successful campaign.

The successful completion of this paper indicates that the future of marketing is in the hands of digital. Digital marketing is not only concerned with placing ads in portals, it consists of integrated services and integrated channels. Marketers want to use these components in an effective way to reach target groups and to build a brand. In this digital era marketer is not the custodian for a brand, people who are connected across the digital platforms are the custodians. Brands want to build their presence over digital platform, because customers have high affinity towards digital media than other media’s.

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The Confronts & Prospects of Mobile Shopping

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ABSTRACT

With the thrill in globalization, the world is witnessing a greater challenge in the diverse facets of smart cities. Even though smart city is a designation given to a city that incorporates information and communication technologies (ICT) to enhance the quality and performance of urban services such as energy, transportation and utilities in order to reduce resource consumption, wastage and overall costs to increase operational efficiency, share information with the public and improve both the quality of government services and citizen welfare. In the current scenario of globalization, the smart cities have not only become digital but people in the smart cities also are getting converted themselves to the digital era. Individuals are not only consuming digital content on a daily basis but also companies and the business world, in general, have recognized the importance of getting digital in smart cities.

In smart cities, the most significant parameter of business progress happens to be attracting their stakeholders by designing irreplaceable advertisements or advertising strategies through digital media. Mobile shopping, on the other hand, can be defined as an umbrella term for the marketing of products or services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium. The concept of mobile shopping has become a fashion in companies to promote their products and services. While marketers with positive experiences would tend to believe that mobile shopping works and some would disagree in rural India, but one would be sure that magnitude of its impact is increasing in the rural market, when compared to urban and other markets. This paper studies and establishes the impact of mobile shopping in smart cities. The study also probes into the learning of confronting & prospects of mobile shopping in smart cities. Through research and analysis, the paper emerges some points which can be used as a blueprint criterion for smart cities. As the paper is the foundation brick of the impact of mobile shopping in smart cities, the paper also ends with few insights on the impact of mobile shopping to be considered for smart cities.

Introduction

Mobile shopping can be defined as an umbrella term for the marketing of products or services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium. The concept of mobile shopping has become a fashion in companies to promote their products and services.

The Importance of Mobile shopping in the current scenario

Whether it is a product or a service, we just can't under estimate the power of mobile shopping. The current age where we live, it is fully dedicated to digital media and so when you are marketing or advertising then you must not forget that there has to be online marketing too.

What makes a difference? Almost everyone would use the online and social media these days. Also, there have been many people who would just like surfing and checking what's on the web. Thus, you can see that almost everyone would come online once a day at least. In fact, some people stay the online the whole day. Keeping these facts in mind, you just can't leave mobile shopping alone when it comes to marketing the product or service.

Technology has put the business in the digital age. Some of the most common forms of mobile shopping are:

- Website (SEO content)
- Blogs
- Internet banner ads
- Online video content
- Pay-per-click advertising
- Email marketing
- Social media marketing (Facebook, LinkedIn, Twitter, etc)
- Mobile marketing (SMS, MMS, etc)

Advantages & Disadvantages of Mobile shopping

Advantages

- Advertisement on the internet is cheaper than (Low cost) the print advertisement. It is a two-way communication between the sales person and the potential customer which takes people to the company website. It has a much wider reach.
- It helps in spreading the business worldwide, with no geographical barriers, making it accessible from one country to another via the Internet.
- It is a 24X7 (365 days) open store where people are welcome to shop anytime from anywhere. This further directs the potential customer towards the company website.
- The Internet makes the product reach much more easy; while researching or getting accurate information on a product. It also adds value by adding a point of reference and a touch of individualized customer service.
- It also helps in creating credibility and gain the trust and confidence of the customers. Many people use the internet for the pre-purchase research so that they can find themselves a particular product which meets up to their requirements.
- It also helps in updating the subscribers through a fast mode of e-mails. Visitors get up-to-date information on each visit.

- In case of information sensitive business such as a law firm, newspaper or online magazine, or a newsletter, you can deliver the products directly to the customers online.
- Increased ability to measure and collect data.

Disadvantages

- Easier to have outdated information on the internet, update timing is a critical issue here.
- Many web visitors expect something for free. Do you have something to offer free?
- There is a lot of competition in the market and by the time visitor reaches the product they have already gone through many links and got the required product. Unless they find what they are looking for quickly.
- There are many pros and cons of internet marketing. It's important to consider each when creating an internet marketing strategy.

Smart City

A smart city is an urban area that uses different types of electronic data collection sensors to supply information which is used to manage assets and resources efficiently. This includes data collected from citizens, devices, and assets that are processed and analyzed to monitor and manage traffic and transportation systems, power plants, water supply networks, waste management, law enforcement, information systems, schools, libraries, hospitals, and other community services. The smart city concept integrates information and communication technology (ICT), and various physical devices connected to the network (the Internet of things or IoT) to optimize the efficiency of city operations and services and connect to citizens. Smart city technology allows city officials to interact directly with both community and city infrastructure and to monitor what is happening in the city and how the city is evolving. ICT is used to enhance quality, performance and interactivity of urban services, to reduce costs and resource consumption and to increase contact between citizens and government. Smart city applications are developed to manage urban flows and allow for real-time responses. A smart city may, therefore, be more prepared to respond to challenges than one with a simple "transactional" relationship with its citizens.

Confronts & Prospects of Mobile shopping in Smart Cities

Confronts of Mobile Shopping in Smart Cities

Standard of Living: Although the cities have attained the status of “Smart”, the number of people below the poverty line is more in such cities. Thus, such people of the smart cities are still yet to purchase smartphones or computers with internet access. Accordingly, mobile shopping is also weak and marketing strategies have to be different from those used with e-technology.

Literacy Levels: E-advertising media has less utility compared to the other media of advertisements because of the literacy level in smart cities is not the same; thus leading to a problem of communication.

Communication Problems: Facilities such as the internet, telephone, fax, and telegram are extremely good in smart cities. Quick communication is the need of the hour for smooth conduct of business, but it continues to be a far cry in smart cities due to lack of literacy rate in internet related systems. The literacy rate related to mobile shopping is rather low and consumer's behavior in these areas is traditional, which may be a problem for effective communication.

Traditional Life: Nevertheless, smart cities are developed or developing, Life is still governed by customs and traditions and people do not easily adapt new practices. For example, even the rich and educated class of people do not use digital media for shopping.

Buying Decisions: Consumers are cautious in buying and decisions are slow and delayed. They like to give a trial and only after being personally satisfied, do they buy the product, and sometimes they wait for other people to use the new product which is launched by the company, if the product has good feedback from those people who has used it then only most of the people like to go and buy that product and get satisfied.

Social and Cultural Challenges: The cyber café model has not worked in many smart cities due to socio-cultural issues.

Cultural Factors: Culture is a system of shared values, beliefs and perceptions that influence the behavior of consumers. There are different groups based on religion, caste, occupation, income, age, education, and politics and each group exerts influence on the behavior of people in villages through which people are not savvy with technology.

Many Languages and Diversity in Culture: Factors like cultural congruence (similarity), different behavior and language of the respective areas make it difficult to handle the customers. Traits among the sales force are required to match the various requirements of these specific areas. This factor is strongly not assisting mobile shopping in smart cities.

Distribution and Logistics: Infrastructure continues to be the biggest challenge in smart cities. Moreover, the lack of space and inefficient distribution network prevents penetration of products/services into smart cities. Although, the distribution chain is very well organized but requires a large number of mediators, which in turn increases the cost and creates administrative problems. Due to lack of proper infrastructure, manufacturers are reluctant (unwilling) to open outlets in these smart cities, but they are mainly dependent on dealers, who are easily available in smart cities. This is a challenge to the marketers.

Seasonal Demand: The demand or buying capacity is not stable in mobile shopping as compared to the common market. Demand for goods in common markets mainly depends upon circumstances like rainfall and agriculture. Therefore, constant efforts have to be made for mobile shopping strategies so that consumer should buy or sell only through online marketing.

Transportation: Transportation is one of the biggest challenges in smart cities. As far as transportation is concerned, about 50% of smart cities are connected by national highways and railways. But, during monsoon, the smart cities which are located in hilly terrains gets isolated as the roads of such cities become bumpy and patchy, and the roads become unserviceable. However, the rest of the smart cities have a proper road linkage which makes physical distribution a smooth task. The smart cities located in hilly terrains that make it difficult to connect them through roads. Most marketers use tractors or bullock carts in hilly areas to distribute their products. Warehousing is

another major problem in hilly areas, as there is hardly any organized agency to look after the storage issue. The services rendered by central warehousing corporation and state warehousing corporations are limited only to urban and suburban areas.

Prospects of Mobile Shopping in Smart Cities

Rapid Transformation: In the last 20 years, 40% of villages have been connected by road, in the next 10 years another 30% would be getting connected. More than 90% of villages are electrified, though only 44% of rural homes have electric connections. This rapid growth implies that even the rural India is in the state of getting transformed to digital India at the earliest.

Improved Telecommunication facility: The cell phone density has gone up by 300% in the last 10 years; every 1000+ population is having a cell phone and is accessing internet on their cell phone.

Rising ICT Literacy Level: The ICT literacy level has improved from 36% to 59% and shall reach 100% at the earliest.

Large Population: The population is large in smart cities and its growth rate is also high. Despite the rural-urban migration, the smart cities continue to be the place of the living majority of Indian youths.

Increasing Income: Because of the growing cities there has been a constant increase in the income of residents of smart cities, the improved results shown by the companies, industries, and organizations are paying extremely worthy rental charges to the residential owners who have provided their land on a rental basis.

More Loyal Consumers: Consumer before buying something they think a hundred times, they check out all the features of the product and also the price of the product. And they always ask their effectiveness or feedback of the product. After doing all this they again think many times to buy a single product, but once the consumer feels that they are getting more benefits from the product than the price paid by them, the consumer will always remain loyal to that product and it will be very difficult for the competitors to break that loyalty.

Conclusion

Indian market is undoubtedly complex but there are some simple truths that we need to accept. The consumers are very value-conscious. They may or may not have purchasing power, but they can make a difference to the company's growth if concentrated. Gone were the days when a consumer had to go to a nearby town or city to buy a branded product. The growing power of the consumer is an opportunity for the companies to flock to the markets. Gandhiji believed that India's future markets will have a significant contribution to India's economy.

Thus, looking at the confronts and the prospects of mobile shopping in smart cities, which markets offer to the marketers, it can be said that the future is very promising for those who can understand the dynamics of mobile shopping in smart cities and exploit them to their best advantage.

A radical change in attitudes of marketers towards the vibrant and burgeoning (growing) markets is called for, so they can successfully impress on the 230 million consumers spread over approximately hundreds of smart cities in India.

Any starting venture in Indian market must have to look into these aspects and after that, schedule their next steps, because one-step wrong from their side can ruin their whole brand image in other parts of the country also.

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Leveraging One's Impact Through Digital Persona and Image Management for Enhanced Effectiveness and Competitive Advantage

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ABSTRACT

The core essence of organizations is human capital and their prowess to consistently perform and effectively contribute to the growth of economies of the world. The dynamism in this age is rapid and rampant, be it technology, ideologies or self-management. This propels the need for every individual to reinvent oneself and be their best version continually. Industry has begun focusing on the pristine area of Persona and Image Management (PRIM) as a catalyst for strategic self-management. Digital PRIM (D-PRIM) is evolving in a significant way to cater to image enhancement of individuals in the digital era which also impacts the image and success of their organizations. Rule-based artificial intelligence can be incorporated into D-PRIM to make intelligent decisions based on observed features of a user. Machine learning and analytics can also be used to draw useful insights from an individual's data, which can be harnessed in multiple ways.

Introduction

Mankind has come a long way over time in terms of change and evolution. He has discovered solutions vigorously and invented concepts for enhanced living from the basics of fire and the wheel to gravity and computers. He has capacitated himself with a useful eco system of comfort and function; and continues to ameliorate his journey through constant reinvention in every way, to survive and excel in this competitive world of today where Darwin's theory of 'survival of the fittest' is the order of the day and prevalent across the globe. Each individual, group or organization aspires to impress and stand out in the crowd of zillions. Thus, one witnesses the flurry of skills related to strategic self management making headway into the lives of individuals so that they can be positively accentuated versions of themselves and project themselves in the best light professionally. In this rapidly changing scenario, the need however is to understand the relevant and pertinent skills to be absorbed by individuals which are long lasting, and not merely interim or superficial. Persona and Image Management

(PRIM) is making its advent into being accepted as part of an individual's lifestyle since it benefits a person in the long run on various critical elements of the image, personally and professionally (Uppaal, 2018; Uppaal, 2017). Research has shown that industry today looks beyond mere degrees and technical knowledge of their human capital, and also looks at their workforce being more effective and impactful in the way they present and carry themselves globally, where change is the order of the day. Thus emerge the research questions -

RQ1. If PRIM is an important means to enhanced personal and professional effectiveness and success of an individual, what are the crucial dimensions of this specialty?

RQ2. What is the relevance and importance of Digital PRIM (D-PRIM) in today's age, and what does it envelope as a conceptual strategy?

RQ3. Can Artificial Intelligence be a catalyst in augmenting the process enhancement of D-PRIM?

In the contemporary age, there is an enormous need for every individual to be notable in the middle of rigorous competition at local levels or globally, across industries and work profiles. An acute sense of continual contest prevails at a personal and social front equally, in a similar manner. Today's times entail individuals to look good, dress well, communicate effectively, possess elegance and manners and be wonderfully groomed at a personal level. At a professional level additionally, a person needs to have the prowess to communicate his/her technical knowledge aptly and effectively that highlights his/her proficiency levels. This needs to be coupled with impeccable behaviour, etiquette, grace and confidence such that he/she can create a positive impression and influence his/her way forward towards success. In short, by and large individuals with effectual persona that project strength, substance and consistency in a dimension that eventually adds to the impact they make for themselves as well as for their organizations on the global platform (Uppaal, 2017; Uppaal & Singh, 2017; Bye, 2011; Herskovitz and Crystal, 2010; Jobity, 2010; Gulati, 2010; Goldsmith, 2009; Rasband, 2001).

In the bygone years these aspects were of minimal importance since the focus was largely on an individual's technical skills and know-how for professional success. However, in today's era, it is very important to give oneself the value-add of PRIM to ensure rapid and consolidated professional growth and success. Today one needs an individual's personality to correspond to being a well acclaimed and respected brand with a remarkable image continually (Goteti and Kadavakollu, 2013; Blom and Saeki, 2011; Goldsmith, 2009). A person from this era requires being a composite package with multiple skills and facets and a splendidly managed image in order to chart his journey of development and advancement in life. An individual need to explore suitable ways and solutions in order to seal the gap in his/her present image vis-à-vis where he/she aspires to be (Uppaal, 2017).

The Dimensions of Prim as A Means of Enhanced Personal and Professional Effectiveness of Individuals

Persona and Image Management (PRIM) is a unique and novel subject area which has emerged out of scientific and legit bodies of work in management, psychology, sociology, design, aesthetics, language, semiotics and physiology and has employed

systematic research methods and emerged with pragmatic deductions (Uppaal, 2018; Uppaal, 2017). It envelopes six elements namely Self Concept, Verbal Skills, Body Language, Clothing, Etiquette and Grooming (Uppaal, 2018; Uppaal, 2017; Uppaal & Singh, 2016) that offer image management as a solution in entirety, for individuals of all ages, profiles, professions and life styles in terms of their systematic evolution and growth at a personal as well as professional level. Rasband (2001) refers to managing one's image as a ceaseless proactive progression that involves assessing and influencing the impact a person's appearance makes, on himself / herself and others.

The appearance of a person in the context of PRIM is not merely on the surface or external. It envelopes the sum total of a person's attributes in the way he/she presents himself/herself; from the external clothing and grooming to the inner thoughts and beliefs which manifest themselves through communication and emerge in the way a person behaves or responds. In other words, appearance is the depiction of the person as an entire brand. It is imperative in today's world, to comprehend and use the skills and elements of management of one's image to the fullest in order to create the desired impact, be it in terms of appropriateness in the choice of right words, occasion and people and saying those words perfectly with precision; or ensuring one's grace and poise at all times with immaculate manners; or being flawlessly and sensibly dressed for all occasions with grooming that is spot on; and behaving or responding to people seamlessly. Therefore, largely speaking, the factual machinery of a person's image wraps in peripheral as well as inner attributes of the individual, which cohesively can contribute towards positive fruition for an individual (Uppaal, 2017).

The image of a person can be deemed in three ways - self image, projected image and received image, as per Jones and Van Hool (2004). While received image is the opinion people have about an individual's image; self image is the assessment that the individual possesses about himself/herself right from the core of one's body image to the self actualization level; and projected image is the impression one exhibits to others about himself/herself.

The overall image of a person broadly speaking gets ascertained as a faction of the three perspectives. Right from creating a visual impact and behavioral bearing to the core fabric of a persona, every aspect is to be taken care of to uphold the image positioning continually, to create a permanent impression in the perceiver's mind. Persona and Image Management (PRIM) is an essential requirement for people from all walks of life be it students, professionals, public and social figures or home makers. People need to evaluate, control and manage themselves on all the six elements of image management, in order to create the desired impact on their environment. The repute and name individuals create for themselves is by and large the result of scrupulous and accurate handling of PRIM. A cumulative of positive image of various individuals of an organization leads to a positive image of the organization which can be catapulted to the next level with the utilization of D-PRIM.

The Pertinence of D-Prim as A Conceptual Strategy in The Digital Era

Today, the digital world introduces an individual to his clients first; only after which follows the one-on-one personal introduction of the person. Hence it is absolutely necessary to understand that there can be no compromise in the impact your message makes to people who perceive you. The message must be a single, positive, clear and concise one that makes the desired impact and impression as desired by the individual (Uppaal, 2017).

The internet today has altered the way people perceive others. There is an enormous revolution in the economics of perception (Uppaal, 2018). It is believed that the new age millennia's or digital natives were born after 1981 with their own mélange of idealism and prerogative and have spent their entire lives in the digital ambience (Bolton et al, 2013; Bennett et al., 2008; Wesner & Miller, 2008; Prensky, 2001). The hearts and minds of the masses today are thus sensitized differently, and requires rearrangement and repositioning. The connotations of precise brand positioning are insightful (Edelman, 2010). In this age, one requires concentrating on building and managing one's media presence constructively and continually, with quality content that champions appropriate value systems and ideologies for the perceived audience, thus sustaining one's relevance through continual management and improvisation (Holt, 2016). Today is the age of broadcast wherein the consumers of media in the yesterday years have now become producers of content for the masses, with minimal knowledge of the World Wide Web. Every person aspires to project oneself in the best possible manner through utilization of various forms of social media, be it blogs, websites, videos or social networking platforms.

Social media apps which were earlier modes of connecting with others are today vehicles to broadcast one's life and self promotion, with a fairly strong competitive spirit (Dominick, 1999). Users in the contemporary times seem to feel at ease and more comfortable handling their online presence across a screen, which they can carefully and comfortably plan at their own pace, when compared to a spontaneous live communication. However this trend brings with it the probable dilution of a person's communication goals since this kind of online communication is generally applicable to larger groups and not for interaction with a particular person. It also highlights the need for individuals to develop more stability and confidence amongst other personality attributes (Goffman, 1959; Kramer & Winter, 2008; Ellison, Heino & Gibbs, 2006). In other words at a holistic level, the pertinence of a good balance between live and digital presence of an individual is of paramount importance. And thus emerges the necessity for PRIM as well as D-PRIM for the masses.

In these digital times, an individual's personal and professional life can be accessed very easily thus making it extremely important to ensure that the content one puts up online is judiciously thought of and planned. If it is well managed and executed strategically, the probability of higher success comes into play for the individual.

Research has gone to show that human beings across all levels and geographic descriptions feel the need for self-esteem, in the midst of digital social comparison, since social media unfairly often feeds into an individual's insecurities (Schlenker, 1980) and it is vital to keep one's self esteem integral and elevated (Schlenker, 1985; Steele, 1988). In the contemporary times, it is exceedingly easy to become redundant and obsolete if one has not been fruitfully managing one's image and digital presence hands-on. Private

information, details and data in this digital age is akin to a two faced sword. While on one hand it aids easy leveraging of individuals, groups and organizations to the desired coveted altitudes; it also has the potential to devastate and demolish the image and repute in a meteoric manner, if not handled carefully. In a world where connectivity across the inches of the globe is burgeoning by the hour and one's reach is immensely extensive, there is a humungous necessity and requirement for PRIM to be adopted by individuals as part of lifestyle, be it on a one-on-one personal mode or digital mode. Embracing D-PRIM as a potent catalyst for enhanced effectiveness and competitive advantage is imperative across latitudes, in the contemporary times and market dynamism.

The masses are consumed by the digital world of social media which has become a huge influencer in several ways. From broadcasting and impacting decisions to fostering opinions, validations and strategies, every consumer of Gen X and Gen Y is a subscriber to the range of ammunition the digital era offers (Bolton et al., 2013 ; Uppaal, 2018). D-PRIM is akin to an investment an individual can make for the perfect persona and digital identity. Individuals are the valuable core of any organization; and an enhanced level of PRIM and D-PRIM of the human capital of an organization will chart new waters of its growth and success.

Uppaal (2018), the inventor of the concept of Digital PRIM attests the relevance and importance of the strategy in order to leverage the effectiveness of individuals from all walks of life, ages, profiles and professions. The uniqueness of D-PRIM along with a 360 degrees approach leverages it as a powerful strategic self management catalyst for individuals and organizations with regard to creating the best impact and positive image to the world.

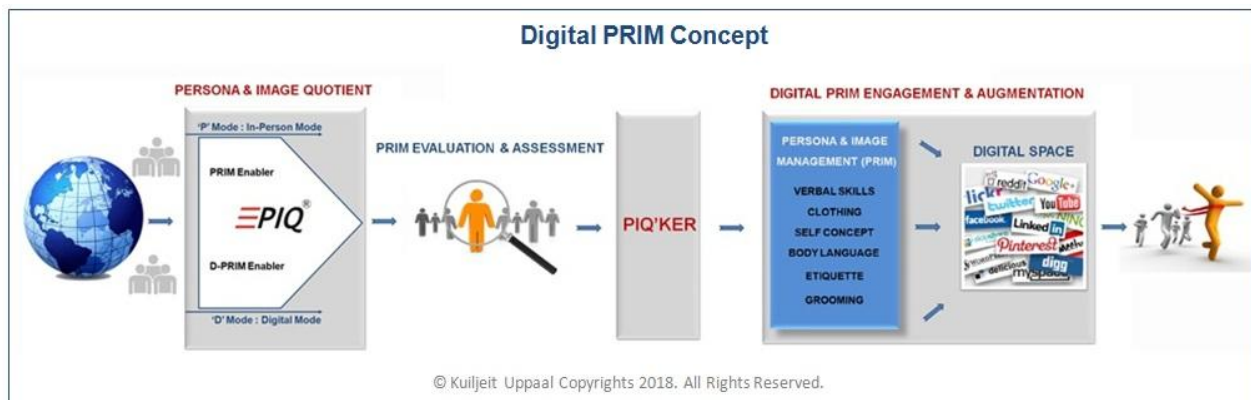


Figure 1. Digital Persona & Image Management (D-PRIM) Concept and Strategy

At the very outset of the D-PRIM concept and strategy, individuals need to understand where they currently stand on the various elements of their persona and image. Therefore, they need to go past a scientifically devised and legit assessment tool like PIQ which evaluates them in depth and presents their image assessment in the form of PIQ'KER. Once the persona and image analysis is made, gaps are identified; connotations are made for enhancement of ineffective or weak areas of the individual that have scope of improvement. The individual goes through PRIM Engagement and Augmentation which incorporates PRIM enhancement of the individual using systematic techniques, followed by Digital Augmentation of the individual across digital

space. The smooth and continual synchronization between the two, leads to enriched persona and image presence of the individual in the long run.

PIQ is an all-inclusive scientific measure of image that calculates, assesses and determines the competency of an individual on all the elements of image management that include self-concept, etiquette, verbal skills, clothing, body language and grooming (Uppaal, 2018). While it can be executed in P-Mode which is conducted one-on-one, giving the user a personal sense of comfort and ease, it ironically faces the limitation of scalability for masses. PIQ overcomes this challenge by facilitating execution in D-Mode using digital techniques and making it possible to reach every part of the world where the internet operates. PIQ assumes the form of a Web Application developed using PHP, and is functional from the assessment website. Keeping in line with the most futuristic vision, one needs to explore Artificial Intelligence to fine tune it further, as well as obviate the human intervention angle for assessing certain aspects of the elements of PRIM.

Exploring Artificial Intelligence (Ai) As A Catalyst in Augmenting Process Enhancement of Digital Prim (D-Prim)

Artificial Intelligence (AI) is a buzzword in today's technology industry. However, as strange as it may seem, it is often not very clearly defined in people's minds and time and again confused with other simpler or divergent concepts. There remains varied interpretation on what it means for a machine to be truly intelligent. To be able to understand the possible engagement of AI in D-PRIM, one needs to comprehend AI in the truest manner. To give a fair sense of this, a few popular definitions of AI have been included. Rich and Knight (1991) define it as "the study of how to make computers do things at which, at the moment, people are better." Luger and Stubblefield (1993) refer to it as "the branch of computer science that is concerned with the automation of intelligent behavior." Further definitions have been excluded for brevity; however, these definitions can be grouped into four major classes: systems that think like humans, systems that act like humans, systems that think rationally, systems that act rationally (Russel and Norvig, 2016).

Artificial Intelligence problems can be solved with numerous approaches. Some can be as basic as Rule-Based methods, for example, if rolling a die gives 6, turn left, otherwise, turn right. Other approaches using Logic Based AI, Symbolic AI and Knowledge Based AI also exist. However, traditional AI methods have fallen out of favour over the last decade, since a sub-field of AI, known as Statistical AI or Machine Learning (ML) outperforms other methods by a huge margin.

Machine Learning is essentially a process where a system is given vast amounts of data, and the system uses statistical techniques to identify structure in the data. This structure is then leveraged to make decisions and predictions based on varying use cases. More formally, a computer program is said to learn from experience E , with respect to some class of tasks T and performance measure P , if its performance at tasks in T as measured by P , improves with experience E (Mitchell, 1997). A sub-field of ML, namely Deep Learning (DL) outperforms even Machine Learning algorithms on a wide variety of tasks. However, DL algorithms require vast amount of data to reach their optimal performance levels, and are thus not always a practical solution in the real world (Good fellow et al., 2016). Here, we can use the term AI to define any intelligent use of a

system, and shall specify it as Machine or Deep Learning if ML and DL algorithms in particular are being used.

AI can be a catalyst in enhancing the use of D-PRIM and its components. While AI may be utilized to study digital analytics across social media, it can also help to enrich PIQ to the next level. The striking use of AI is to use it to automate parts of the PIQ Assessment. Each of the six elements of PRIM can be assessed using different AI algorithms and methods. Harnessing AI for PIQ allows the model to be scaled drastically, as the role of human intervention by experts is greatly reduced especially for assessing some PRIM aspects through audio and video inputs.

As part of the PIQ assessment, one of the critical elements of PRIM, Clothing is judged in part by human experts analyzing video footage of an individual; and parts of this can be automated using AI. A type of Deep Learning algorithm namely, Convolutional Neural Network (Krizhevsky et. Al, 2012) can be used to identify the colours of the clothing articles being worn by the person, to assess the colour, styling and cluster clothing aspects better. In future years, it may also be possible for the clothing articles themselves to be identified, to determine aesthetics and clothing values. The outputs of the Convolutional Neural Network, such as identification of the colours a person is wearing, can be passed to a Rule Based AI agent, which identifies whether the colours worn by the individual are an aesthetic match or not, or subscribe to the International Style Scale, thus assessing a part of the Clothing element.

Another important element of PRIM is Verbal Skills that consists of many critical factors. The grammatical correctness of a speaker can be checked using a Neural network which converts Speech to Text (Amodei et al., 2016), and this text can be passed to a grammatical error checker. Analysis of vocabulary can be done by keeping counts of word usage, and applying statistical techniques on the results. The pace of verbal communication can also be gauged by calculating the number of words spoken per minute, which can be estimated using Speech Processing techniques. Decibel issues like speaking too loudly, or with high variance in volume can be identified using signal processing techniques on the audio waveform.

Body Language which primarily deals with non-verbal communication can be assessed in part, using an algorithm called Pose Estimation (Toshev & Szegedy, 2014), which also uses Convolution Neural Networks in its workings. This can identify issues like bad posture while sitting or standing, and can also identify if the person's arms are crossed or not, highlighting communication barriers. This sensitive information can also be passed to a rule based system for further analysis, to understand positive body language skills of the person being assessed. Facial expressions of an individual can be studied with the employment of dedicated Convolutional Neural Networks which are trained solely to identify this. That apart, a field of Machine Learning known as Multimodal Learning (Ngiam et. Al., 2011) can be used to take both Visual and Audio cues and use these to create a joint interpretation of the level of courtesy in an individual's speech.

Etiquette is a very wide subject area and as a whole cannot easily be judged using AI, in the current age, as the types of etiquette are extremely varied and extensive. However, the system can be designed to have dedicated algorithms for certain types of etiquette. For example, pose estimation algorithms can be used to identify if a person is standing correctly in an elevator, thus maintaining good elevator etiquette.

Grooming is hard to assess using Intelligent Agents since red flags of bad grooming, for example, badly maintained nails or frizzy unkempt hair, are minute visual cues that current state of the art systems cannot successfully identify. Traditional computer vision techniques could be applied, however, the optimal performance of these methods cannot be guaranteed. However, the correct choice of hairstyle with regard to the face shape can be identified using further modifications of Convolutional Neural Networks, whose outputs are sent to Rule Based AI systems. One can also look at optimum selection choices of make-up colours for a particular complexion or skin tone using Machine Learning methods like Clustering, in conjunction with Computer Vision algorithms.

Self-Concept is the internal belief a person has about himself/herself and is a highly abstract element, which cannot be broken down into quantifiable parts that can be understood by a machine. For this reason, with the current technologies available in the world, assessment of Self-Concept using Artificial Intelligence or Machine Learning may not be possible.

Apart from this AI, Machine Learning in particular, can also be used to gain insights from mass data. For example, if a person is attempting to optimize their social image by gaining more followers or up-votes, ML can be used to identify the type of posts which get the most attention in the individual's demographic and socio-economic setting. This can be used to leverage the type of content the individual should share. Witten et al., (2016) and Ling and Li (1998) make use of Data Mining for solving marketing problems for an organization.

In recent years, there has also been a huge surge in the application of Machine Learning in digital marketing for an organization. The idea of using Data Mining and Machine Learning to optimize an individual's digital image, as part of D-PRIM, can also be introduced. It can be used to optimize Content Marketing, by identifying the type of content the consumers of an individual's social media content prefer; thus enabling the user to optimize the type of content they present. The same idea could further be extended as a tool for Search Engine Optimization (SEO). Machine Learning based Data Visualization methods can also be used to simplify the process of generating useful insights from an individual's data. Text Summarization methods can be used to generate a high level view of topics of importance to the individual, for example, ongoing trends or public opinion on the individual. In other words, online engagement and digital presence of individuals can be catapulted using AI and ensuring smart and strategic usage of D-PRIM.

Conclusion

It is an exceedingly dynamic world today, with competition at all levels, rampant across the hemispheres to stand out and outshine others. In order to be noticed by the world and make a favourable impression continually, individuals need to have the differentiating factor through PRIM. They need to comprehend and ensure that while their professional knowledge and technical know-how is definitely required, they must have the added advantage of a great persona and image to have a continual positive impact, both personally and professionally by evaluating and controlling the six

elements of PRIM in an intelligent, precise, well planned and sustained manner. In this digital age, where every person leaves digital footprints, it is very important that the message one communicates about oneself is authentic and well thought of, and properly managed in the digital space.

D-PRIM is a conceptual strategy that systematically aids an individual in enhancing his/her persona and image, as well as augments his/her digital identity. It encompasses the entire process of assessing, evaluating, controlling and managing one's persona and image with systematic tools and processes to help the individual reinvent and evolve to be the best version of himself/ herself continually. Since organizations comprise a work force who are the nexus of their operations, it is imperative for organisations to encourage the use of PRIM and D-PRIM amongst their employees from the base of the pyramid right to the apex in order to ensure enhanced effectiveness and competitive advantage for them as well as for the organization.

The advent of Artificial Intelligence in today's dynamism gives thrust to streamline many functionalities and aids businesses to thus become more effective. The landscape of D-PRIM looks at enveloping various forms of Artificial Intelligence to enhance the potency of one's persona and image and give individuals the winning edge in life, personally and professionally. The larger purpose of PRIM and D-PRIM is to create more confident, self-assured, poised and effective individuals and thus, a more accomplished and progressive global society at large.

Unique Contributions and Future Scope

D-PRIM is a unique 'first of its kind' global concept with regard to persona and image management and has the potential to make a humungous difference to the people and organizations of the world at large. PIQ as a scientific measure of persona and image is a remarkable invention and has created history in its own distinctive way. The entire gamut of components that are incorporated in PRIM and D-PRIM are realistic and operational at numerous levels of operation. The D-PRIM Strategy can be used efficiently and tactically to enhance the effectiveness of individuals and organizations to give them competitive advantage.

In the future, the PIQ Assessment could also be translated in various global and regional languages to increase its reach across the globe. That apart, as more advances are made in the field of AI, intelligent systems can be harnessed more efficiently as a tool to enhance D-PRIM and benefit the users of this strategy.

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E-Marketing Worked as an Effective Communication Between Consumer and Producer

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ABSTRACT

In comparison with traditionally widely used instruments, such as broadcast, direct mail and telemarketing, it constitutes a considerably more cost-efficient environment for enhancing interaction with customers.

The most established methods of communication used online is email. 99% of consumers use the internet for email which must place the medium as a one of few communication methods.

Waldow and Falls (2013) defined email marketing as “a marketing channel which allows companies to communicate end masse with their customers, prospects, fans and subscribers.”

Generally, e-mail marketing is a form of direct marketing which uses electronic mail as a means of communicating commercial or fund-raising messages to an audience. E-mail as a source for preparing data and information both in customer's mind and business owners was relatively attractive. Email marketing can be considering as an electronic mail which deliver commercial massages to email users and customers. This tactic is one the oldest and also one of the most effective tactics in E-marketing. It is a good opportunity for acquire new customers, increase sales and maintain current customer base and to understand full email marketing potential and provide ideas for redefining the strategic uses of email as an effective marketing device.

Introduction

The relatively recent development of email, in particular multimedia based email facilitated by HTML, as a marketing tool ultimately restricts the pool of previous academic research in the field. The rise of latest online communication tools as social media, email marketing remains one of the most credible and profitable tool from digital marketing. Based on different researches of more than 800 digital marketers, email marketing was seen as “excellent” or “good” in terms of returns on investment for 70% of the respondent. Email marketing is highly appreciated for its possibility of quick deployment, immediate and highly measurable results, advanced customer segmentation and personalization. But the biggest benefit for the company from email marketing is the cost-effectiveness. Many start-up companies benefit from Email marketing.

Email Marketing

Email marketing is the targeting of consumers through electronic mail (email). Email marketing can be used to impact consumers in a variety of ways. In general, email

marketing is a more evolved, digital form of traditional direct mail marketing. Email marketing is also known as direct email marketing. In a typical email marketing scenario, an organization builds an email list to reach or inform established and prospective customers. An email list may be complemented by a marketing database that allows for customization, data mining, precise targeting or other purposes.

Michael Williams (2011) defines email marketing as a direct digital marketing method, which is used to advertise products and services via email. While on the other hand Waldow and Falls (2013) defined email marketing as “a marketing channel which allows companies to communicated end masse with their customers, prospects, fans and subscribers.

Definitions Marketing

Before the research of Email marketing, it is important to define what exactly marketing is. Business is about attracting a group of people to pay at a proper price for products or services.

Marketing is everything a company does to gain customers and maintain relationships with them. Even the small tasks like writing thank-you letters, playing golf with a prospective client, returning calls promptly. Marketing refers to the activities of a company associated with buying and selling a product or service. It includes advertising, selling and delivering products to people.

Online Marketing

In terms of marketing activities, the new form of marketing has brought into existence i.e.



Types of Email Marketing



Objectives of Email Marketing

Email marketing objectives are statements that identify targets that should be achieved through electronic media communication efforts that may include such items as product sales, brand recognition, and customer engagement level. Marketing objectives for email marketing which may include direct sales, product awareness, brand recognition, list building, and relationship building.

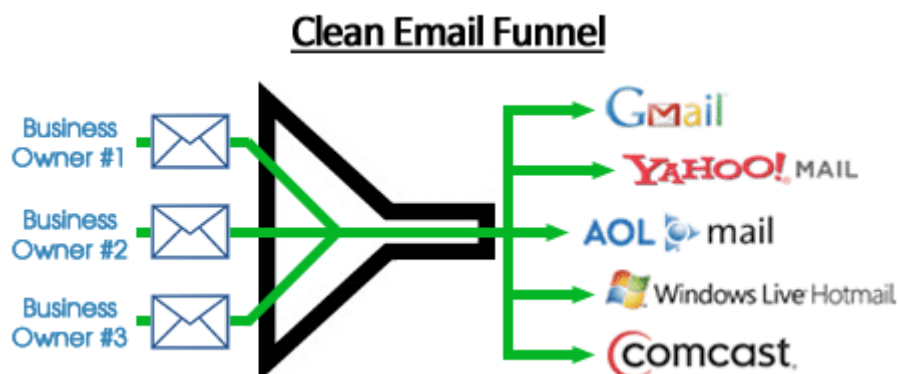
Brand and Product Awareness – Alert people of the availability of products or services that they may want or need

Reduced Marketing Costs – Email marketing is not FREE! – But it can cost much less to generate sales and leads than other marketing programs. This includes reduced media cost, mailing (transmission) cost, and response process (automated!).

The Main Elements of Email Marketing Are: -

- To begin with, you should always have a segmented database
- Try personalising the email
- Never forget the importance of the email subject
- The landing page must be coordinated

Types of Email Software



Email Marketing Analysis

Strength

- High Reachability
- High Cost Efficiency
- Data Collection
- Personalization
- Interactivity
- Go Viral

Opportunity

- Easy to Monitor

Weakness

- The Risk of “Spam”

Digital Marketing Integration

- Threats
- Intensive Attention Competition -
- Trust Problem

Email Marketing Strategy and Target

Build and grow your contact list

Define Your Email Marketing Goals – Like any other marketing tool, **email is nothing without a clear strategy.**

Plan Your Campaigns

The elements that you **MUST** include in every email are:

- Subject Line
- Your Name
- Preheader
- Call to action
- Designing Engaging, Responsive Emails
- Be Responsive
- Design for Deliverability
- Use User Psychology to Your Advantage
- Don't Forget Transactional Emails
- Test, Test, Test

Making Email Relevant

Benefits of Email Marketing

- Low costs
- Reach an already engaged audience
- Deliver targeted messages
- Drive revenue
- Easy to get started
- Easy to measure
- Easy to share
- Reach a global audience
- Instant impact
- Unrivalled return on investment
- Reduce time and effort

Conclusion

The main purpose of the paper is to understand email marketing which worked as an effective communication between consumer and producer. Before writing this paper

a literature study is done. The literature study clarifies the definition of Email marketing, as the marketing activity that adopts Email as the medium to discover, create, arouse and satisfy customer's requirement. With the help of Email marketing, a company is possible to deliver marketing information to a wide range of people at a lower cost. At the same time, customers' data is collected. The communication between recipients and marketers is interactive and is more targeted, which makes Email marketing easier to go viral. The Email marketing applications and other digital marketing campaigns such as social media marketing are possible to be integrated with Email marketing campaigns to attract wider attention and improve the effectiveness of Email marketing plan. Email marketing is a good opportunity for acquire new customers, increase sales and maintain current customer base. We carefully analysed marketing situation, in order to fit the email marketing in the overall marketing strategy. The another purpose of the paper was to understand full email marketing potential and provide ideas for redefining the strategic uses of email as an effective marketing device. After the analysis we can claim that suggested email marketing campaign will contribute to brand growth on digital market.

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Analysis on Organizational Strategy of two IT Intensive Online Insurance Companies

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ABSTRACT

The study analyzes strategic competency of two leading insurance companies providing their services on the online platform. The purpose is to investigate (1) critical success factors of online business; (2) to identify leading strategies of the firms; and (3) exploring the scope of future opportunity of setting secondary strategic needs by strengthening non-leading strategic parameters. The methodology follows a revisiting the case firms on pilot basis to verify the strategic parameters followed by propositions using alignment balance scorecard model that helps scanning the external environment; internal processes, dominant system, organizational structure, and information and growth. The conclusion drafted on the ground root of analytical results from the juxtaposition tabular format and the organization's online marketing strategy and the critical success factors for an insurance company is proposed.

Introduction

Marketing strategy of an organization defines the dimensions of its structure, resources, data structure, external and internal processes, information, and growth. The procedure of evaluation and the outcome of defining the strategy for an organization provides a crystal-clear picture about the different perspective of online marketing strategies being deployed in that specific organization. Complexity in the work process intervenes in the equation and Miles and Snow further stated that this complexity could be penetrated by scavenging the pattern in behaviour of organization [1]. The organization adopts the changes in its environment to sustain the existence in the competition. The thesis, analysis and synthesis of this adaptation process has given the incarnation of Miles and Snow's topology of organizational strategy. Adaptation process involves the encounters of administrative problems, entrepreneurial problems and the engineering problems. The inculcation of these factors involved in this research to re-justify the terminology of strategies in insurance company's internet service platforms.

These adaptations are the outcomes of decision-making process by the top management of an organization, therefore the necessity of taking steps for effective and efficient decision-making about technology, facilities, quality management and any other changes arises. This section can be co-related to Miller and Roth's theory of 'A taxonomy of Manufacturing Strategy' [2]. They divided these factors into clusters of two elements and conducted a survey where competitive capabilities delineated in the survey that were used as taxons in their research.

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The cluster analysis employed to identify the strategy of organization – caretakers, marketeers and innovators. In 1980, Michael Porter proposed generic strategies that can be applied to products or services in all industries and organizations of all scale size. This topology concludes of cost leadership, differentiation and focus based on competitive advantages an organization can possess [3]. Miles and Snow (1978) topology of strategy defines three types of organizational strategies - defenders, prospectors and analyzers. Each type has its own unique strategy for relating to its chosen market(s), and each has a particular configuration of technology, structure, and process that is consistent with its market strategy. A fourth type of organization encountered namely the reactor. The reactor is a form of strategic "failure" in that inconsistencies exist among its strategy, technology, structure, and process [1].

Table 1. Prevalent Strategic Topologies

Researchers	Proposed Topology
Miles and Snow (1978) – Organizational Strategy, Structure and Process	Defenders Prospectors Analyzers Reactors
Porter (1980) – Generic Strategies, Competitive Advantages: Creating and Sustaining Superior Performance	Cost Leadership Differentiation Focus
Miller and Roth (1994) – Cluster topology, A Taxonomy of manufacturing strategies	Caretakers Marketers Innovators

The core concept of including the diverse topology theories in this research is expansion of the concept of strategies for a clear vision for present case scenario as well as for future innovative perspective of profits and possible expansion of insurance sector. The methodology adopted for evaluating the insurance companies is align on the proposed general model balanced scorecard system for organization alignment (refer figure 1). The sub-divisional perspectives of these five elements of online marketing strategy evaluated for the purpose of research and identify the marketing strategy of the company and conclusion has drafted by defining their strategic topology.

Online marketing strategy is define as efforts employed to achieve predefined goals in the market by deploying the limited resources available within the organization and implementing them on the existing opportunities or by creating new opportunities or innovative ideas on the online platform. The combined cluster of theses sub-divisional perspectives helps in proposing the statement of conclusion by satisfying the criteria of Miles and Snow's, Miller's and Roth's and Porter's organizational strategy (refer table 1).

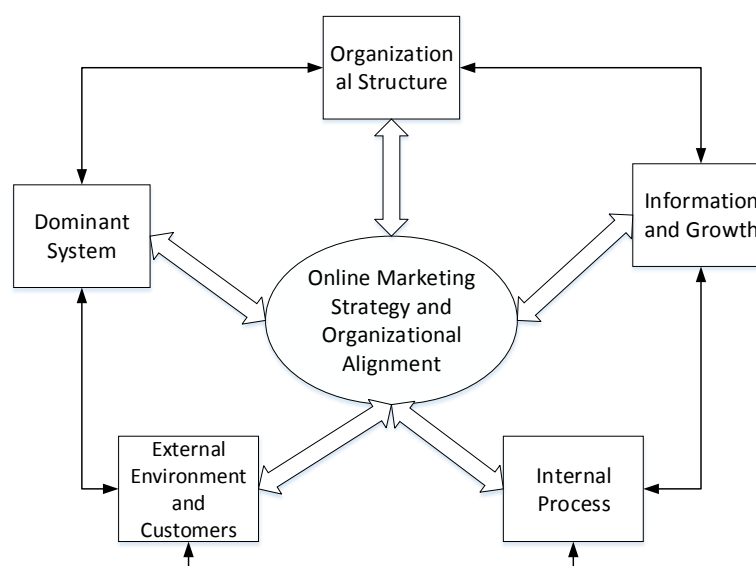


Figure 1: Organizational Alignment Balance Scorecard [4]

The balance scorecard analysis for each element of online marketing strategy of two insurance companies - company A and Company B based on their online marketing services is accomplished by taking sources from internet posts, company's official website, advisory from company's employee, policy comparison and the market share data.

Theoretical Framework

The aim of this research for defining (1) critical success factors of online business; (2) to identify leading strategy of the firm; and (3) exploring the scope of future opportunity by strengthening internal process, that is based on foundation of literature from insurance sector.

Insurer – An individual or company who, through a contractual agreement, undertakes to compensate specified losses, liability, or damages incurred by another individual. An insurer is frequently an insurance company and known as underwriter or insurance carrier. Company A, and the subsequent subjects under this research study are insurance companies/insurance carrier/underwriter.

Insured - A person or entity who buys insurance known as an insured or as a policyholder. The customers are the insured. If the insured experiences a loss, which potentially covered by the insurance policy, the insured submits a claim to the insurer for processing by a claims adjuster.

Insurance Policy - The insured receives a contract, called the insurance policy, which details the conditions and circumstances under which the insurer compensates the insured.

Participating Policy – In a participating policy the profits of the insurance company being shared with the insured in the form of bonuses or dividends paid on annual basis, thus also known as a with-profit policy. The bonus that is given to the insured in this policy is not guaranteed rather it is based on the performance of the company. The most important benefit of participating policies is that it not only provides protection, but also provides returns in the form of a bonus.

Non-participating Policy - In non-participating policies the profits are not shared with the insured and no dividends are paid to the. This type of policy is known as a without-profit or non-par policy. The pricing for premiums for these policies are lesser than those of participating policies.

Unit Linked Insurance Plan (ULIP) – A ULIP plan offered by insurance companies is a combination of investment as well as insurance under a single integrated plan. The payable premium for the policy after the deductions of charges are invested into funds of insured choice and the performance of fund depends upon the market. Each policyholder has the option to select a personalized investment mix based on his/her investment needs and risk appetite. The certain fund units of unit-linked plans of the policyholder has a net asset value (NAV) that is declared on a daily basis. The NAV is the value upon which net rates of return on ULIPs are determined. The NAV varies from one ULIP to another based on market conditions and fund performance. Fund Management Charges are deducted for managing the funds before arriving at the Net Asset Value (NAV).

Premium - The amount of money charged by the insurer to the insured for the coverage set forth in the insurance policy is called the premium.

Reinsurance - The insurance purchased by an insurance company to attenuate the possibility of paying a huge amount due to obligation of insurance claim by transferring portions of risk portfolios to other parties through agreements is called reinsurance. Reinsurance allows insurance companies to remain solvent after major claims events, such as major disasters like earthquake, heavy storms, floods, wildfires. General Insurance Corporation of India (GIC) is a state owned enterprise in India. It was the sole reinsurance company in the Indian insurance market until the insurance market was open to foreign reinsurance players by late 2016.

Marketing Mix in Insurance – The combination of marketing services that an insurance company is involved in with a vision of achieving the best possible outcomes and meeting the target is termed as marketing mix for insurance sector. The marketing mix involves 3Ps - product, price, place, promotion, people, process & physical attraction. The product here mentions the services that an insurance company provides. The pricing indicates the premium charges, default interests, commission for underwriting and consultancy thus making the pricing strategy and decision making a significant factor. The promotion is vital element for an insurance company for market expansion, the great example is the promotion policy of LIC in past years compared to ICICI prudential, the medium to communicate and appeal with your customer is game changer [5]. Agents play an important role in promotions apart from digital promotion; the strong agent network of LIC is a set example for that.

Physical distribution network can be expensive as well as time-consuming so then new distribution avenues and alliances are necessary. At this point, the introduction of internet marketing in the equation plays a dominant role as a remote distribution of information and resolving grievances. Buyers prefer a direct interaction, they place a high premium on brand names and reliability, and the internet is the very first platform choice by customers for elimination of information need and interaction with the companies. Telephonic services also play a major role after the need of information is replenished from internet. As the awareness increases, the product becomes simpler and they become off-the-shelf commodity products. The process

indicates all the decision-making processes, implication of set rules and regulations, process involved in building a new service and entire organization framework process. These processes are variable in nature and depends upon the set rules, regulations and norms of a company.

The insurance market in India has gone through the phase of regulatory changes in the recent years as an outcome the strategies and marketing for insurance sector especially private insurers had changed a lot. The life-insurance sector has gone through regulatory changes in 2013-14 and non-life insurance sector has gone through regulatory changes in 2001 and in 2007 [6]. In life insurance, the main objectives for companies were premium growth and gaining the market shares prior to regulatory changes. The regulatory changes have eliminated the concept of dependencies on single kind of services in the market and companies were looking for investment that is more balanced.

The life insurance is classified into two types of services -unit linked insurance plan (ULIP) and Pure or traditional insurance policy. ULIP is a market-linked product that aggregates the very best of investment and insurance. It is a plan, which is linked to the capital market and offers flexibility to invest in equity or debt funds as per risk appetite. Such dual benefit backed by the flexibilities of ULIPs turn them attractive in terms of investment. For the initial 10 years of the policy term, IRDA in 2010 capped the proposed annual charges of ULIPs at 2.25 percent [5]. At present, several insurance firms have cut commissions and other charges, and as a result, some of the ULIPs launched in recent years are cheaper than mutual funds. In traditional policies, the insurers provide the services of participating and non-participating policies. Post regulatory changes the companies are focusing on higher margins on non-participating and ULIPs policies to rebalance their portfolios. The elements of bancassurance and marketing mix Insurance sector is an opportunity hub with a widened scope of innovation and new ideas introduction in the game.

Methodology

Organizational Structure

Organizational structure can be analysed from the perspective of the major components that make up, of the variables, which define the construction, the architecture of an organization. Obviously, the organizational structure can clarify on organizational behaviour due to various situations, on the organization's trend to address different kinds of problems, on which are the strengths and weaknesses regarding the communication, the reaction speed to changes in its environment, on what kind of activities the organization should undertake. Analysing organizational structure can represent the diagnosis' main objective and can cause changes within management, organizational culture, personnel policies. The following table is presenting the main variables that based on the organizational literature, can define and describe the organizational structure (refer table 3.1).

Company A – Central government of India appoint a committee of key persons and board of directors. One person is appointed as chairman, there are four managing directors, three executive directors namely- marketing, investment operation and audit, one chief finance officer, one chief risk officer, one chief compliance office and one appointed actuary. It has four tier structure namely – central office, zonal office, divisional office and branch office. The administrative rules and regulations of the corporation and investment decisions are to be taken by central office. The branch

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office deals with the functions related to policy holders. Inspection of and financial audit of various offices is responsibility of central office [7].

Company B – As per the articles of association (AOA) of the company, the maximum number of directors, which the company can appoint, is 15 (excluding any alternate directors). Out of the total strength of the board of directors of the company, three directors at any one time shall be of the choice of parent company B and two directors shall be choice of company B. The company's board shall have an optimum combination of executive, non-executive and independent directors as required by the IRDA corporate governance guidelines. Committees of the board of directors appointed to act in the best interests of the company and its shareholders. The company has a central office or corporate office and several branch offices all over the country for work processing. The board should ensure that the governance principles set for the insurer comply with all relevant laws, regulations and other applicable codes of conduct. The board defines the corporate business policy, underwriting policy of the insurer, determine reinsurance policy, define the policy of the insurer in investment of its assets consistent with an appropriate asset liability management structure; define the insurer's policy on appointments and qualification requirements [8].

Centralization - Centralized organization can be defined as a hierarchy decision-making structure where all decisions and processes are handled strictly at the top or the executive level. Managers and employees lower in the chain of command are limited in the decision-making processes and can rarely implement new processes that veer "off course" without approval. As per the company A's and IRDAI annual report [9] the investment policy and investing of funds, policy related conditions, premium rates, drawing up to prospectus, reinsurance decisions are sole responsibility of central office. For company A the decision-making power and control, national promotional campaigning is concentrated in central office. Hence the inference is drawn based on these studies is that company A has high degree of Centralization as for such a largescale corporation operating in the entire country it is confined only to the central office. For the subsequent, the Board would be responsible to provide strategic guidance for implementation of business policy and structure a management information system for review and course correction, defining the policy, reviewing the branch offices and implementation of law. The inference is drawn based on these studies that company B has high degree of Centralization as the board of directors are sole beaer for decision making and control capabilities.

Specialization – The method of focusing on a specific subset of services or products to maintain the higher degree of efficiency in the market coined as the term specialization. The organizations take decision whether they want to focus on little specific type of services or on the entire domains of that particular kind of service or distinct kind of services at the same time. The first company has limited its domain in life insurance, health insurance and some special disease insurance plans such as for cancer. However, the company also provide of personal loans against their policy. The types of investment and ULIPs under this medium domains is huge, there are numerous of different policies under the parasol of these three categories [10]. Company A has limited the nature of policy hence on observations and data concluded that company A has moderate degree of specialization. The subsequent apart from covering life insurance and health insurance policies also cover special disease insurance policies. They cover these three domains however, the other

segments of insurance sector covered by the parent organization of the subsequent but the concerned subject is particularly company B. However, the company possess the feature of personal loans against their policy. Similar to the prior they also provide a numerous of investment policies and ULIPs under these limited domains [11]. Company B has limited the nature of policy hence reflects a moderate degree of specialization. Comparing the specialization of both the conclusion drafted that they have moderate degree of specialization.

Standardization - Standardization is a framework of agreements to which all relevant parties in an industry or organization must adhere to ensure that all processes associated with the creation of a good or performance of a service are performed within set guidelines. It refers to the degree of behavioural variation that can be tolerated by the rules and regulations that define the activities specific to each position within an organization. For prior company the guidelines and rules set for every single hierarchical level of organization is pre-defined, even the board of directors are bound to follow a certain set rules [10]. For later company the set guidelines are over a wider range because the company also have a segment of non-executive officials who are absent in prior. Hence inculcating all the information the inference drawn based on studies [10] [11] is that company A has moderate degree of standardization and company B has higher degree of standardization.

Work Flow Complexity - It refers to the number of specialized positions (division of labour), professional activities (standardization) and employees training activities that exists within the organization. The workflow from the board of director's level to the agent level is intermediated by branch officials, zonal officials and divisional officials. The number of officials working at the central office have the responsibility of flowing the information to the lowest level of administration. Since the core information involved in the process is the terms and conditions of policies and investments and the policy details, which are somewhat complex and demand for a keen attention to understand the same and flow that down the hierarchical level [10]. Hence, A has high degree of workflow complexity. Subsequent has a board of directors where the decisions made and information flows down in branch officials for its implementation. Each branch office has designated officials who perform duties in their specific domain of work, the information again is a complex one and the work flow becomes complex due to number of specialized positions involved in this large scale Insurance organization counting from central office to the agent level [11]. The company B reflects a higher degree of specialization.

Formalization – The formalized organizational structure focuses on roles and positions rather than the people in the positions. Formalization is the process of creating a formalized structure and includes the maintenance of that formal structure over time. It refers to the extent to which the employee's role is defined by formal documentation. Formalization in either subjects may be identified by the degree to which organizational roles are separated from the board of directors, managers and agents who perform these roles. The subjects consist of a hierarchical, top-down reporting and decision-making structure. It is recognized by the existence of explicit, codified standards and regulations. Both companies follows a structure that typically includes multiple layers of supervision, including top-level directors or department heads, middle managers and operational supervisors and the agents. The set of pre-defined rules and objectives needed to be followed by the officials [10] [11]. Hence, based on information collected from the annual report of either companies the inference is drawn that both the subjects cast a high degree of formalization.

Autonomy - Autonomy is the ability for employees to control their work situation. Depending on your company and industry, employee autonomy might involve a choice in the selection of projects, roles or clients. The higher authorities in either companies are involved in decision-making for a fixed set of perspective depending upon their position – the chairperson cannot share his responsibilities with anyone neither can ask for a choice of particular task. The MDs are also assigned pre-defined projects but can circulate the choice of projects depending upon their mutual understanding; they have to perform some specific tasks and based on their expertise they are free to select their choice from a given set of tasks. Similarly, if two managerial officials are at the same position and their work domain is same they have the firm to select a particular project with the consent of their higher authorities. The agents involved have a freedom of selecting their clients based on their preference and choices, some agent only deals with rich and wealthy clients while some develop a client base from urban areas or rural areas depending upon the demography of their work centre, some agent deals only in specific type of policies. The autonomy is subjective to the organizations depending upon the work culture of a specific branch or zonal or divisional office. The important factor taken into account is the human resource involved in the company, the first subject with huge network of agents, officials and information about the market over a longer duration of time and their number of policies that exist in the market have more options of choices in the projects as compared to later subject. Hence, the inference drawn based on the studies and data information collected from IRDAI annual report [9] describes that company A has a higher degree of autonomy as compared to the later that shows a moderate autonomy.

Table 3.1 Balance Scorecard based on Organizational Structure

Perspective	Company A	Company B	Construct of Explanation
Centralization	High	High	Decision making follow a hierarchical flow
Formalization	High	High	Highly defined specific task designation for officials
Complexity	High	High	Set of rules their implementation varies vastly with policies
Standardization	Moderate	High	Variation is nominal from the set rules to avoid disruption in B
Specialization	Moderate	Moderate	Specific work division and training period for employees
Autonomy	Higher	Moderate	Work control and employee's selection from specific tasks set flexibility is higher in A
Organizational Integration	Strong	Stronger	The IT security and technology deployed in B are highly updated and strong

Organizational Integration - Integration is a strategy whose goal is to synchronize information technology (IT) and business cultures and objectives and align technology with business strategy and goals. Business integration is a reflection of how IT is being absorbed as a function of business. The role of information technology includes network management, software development and database administration. IT specialists may also provide technical support to a business or an

organization's employees and train non-technical workers on the business's information systems. Company A has adapted the latest information technology system to manage their data information, for interacting with Insurers in much efficient way through online website and making the payment of premiums much easier, managing the salaries of employees, internal training processes and flow of information among officials [10]. IT based security system and attendance system has also been deployed by A. Company B has a more stronger IT based technology as compared to the prior as the security system deployed by Company B has much higher standards and security features if compared to prior subject [11]. Hence, the inference drawn based on these studies is that A deploys a strong integration of IT technology and but B inculcated even stronger base of organizational integration.

External environment

An organization does not exist in vacuum. The environment affects the performance and existence of organization in the market. External environment is synthesis of all the external factors and forces that affects every aspect of the organization and kick-start to establish relationship between company and customers. The dominant forces are competitors, technological evolution, flexibility of technology, stability in the system. The study of these perspectives help to draw a layout for the categorization in the topology as represented in Table 3.2.

Diversified Premium Payment – The freedom for Insured to come down in favour of a certain payment medium for their policy premium. Both companies provide a diversified payment method over internet banking, debit card payment, credit card payment system to ensure that the technology of networking is being deployed as a medium of convenience to their customers by making the premium payment method more hassle-free and paperless [10] [11] [12] [13]. Hence, the inference that is drawn based on these studies is that both Company A and Company B provide a diversified medium of premium payment to the Insured.

Social Networking Strategy – Marketing over the networking system via several social media platform has already evolved thus making it a very basic need for a company to advertise their product over the social media, promotions and a profile page for customer interaction on most common platforms such as twitter, Facebook is a crucial demand of market. Company A has a follow ship of 6.5 million on Facebook [14] and 36.8 thousand [15] on twitter. It can be easily observed that their posts and advertisement are no so frequent and appealing there are gaps of several days between their posts, which is a bad sign in social media marketing, as it demands fierce activeness. Company B has a follow ship of 6.9 million [16] on Facebook and 443 thousand [17] on twitter. When the observation made for the activeness of company B, the conclusion drafted that they are more active on social media platform and instead of being a new in insurance sector; they have developed a stronger social network. However, their post is also not that much frequent but certainly are at a higher rate in juxtaposition with the prior. Company A has fair social network strategy and company B owns a better interaction capability towards their customers and have a slightly better social network strategy with a scope for further development.

Flexibility, prototypical technology adaptation – The adaptation of the latest technology by studying and analysing the technological changes in the environment is necessary factor for success and withstand with competitors in an organization. The companies observe the market and introduce their own

prototypical technology in order to compete and ensure an enriched level of productive services to the customers. Subject A adapted the information technology sector into their work process in order to provide the best services and withstand in the competitive market however, the adaptation of technology is not that quick and the flexibility has been compromised due to certain set norms and regulations of the company. The subsequent company is new and want to compete in the market with a cutthroat attitude so they inculcate the latest and more secured technology and are flexible in experimenting the newbies technical innovations in their IT department. Hence, the inference drawn based on the studies that Company A has strong flexibility of technological adaptation and Company B inculcates a stronger attitude in flexibility of technology.

Commitment to Single type Technology – The Company A and Company B both are adaptive to new technology by analysing the technological changes in the work environment. Subject A might have a little flexibility for such technological prototypes but not for a long-term, they adaptive with the environment. On comparing the two company's commitment for a type of technology and how the company inculcated the IT system and added the online platform in their arsenal of online marketing strategy it observed that both companies follow a short-term commitment for a single technology, they keep on updating their system. However, these updates are more frequent and quicker for company B. Hence, the inference drawn based on these studies is that A has medium term commitment for a technology company B inculcates a stronger and more frequent updates in their technological commitment.

Creating Change in Market – This perspective defined as introducing revolutionary ideas through products or services in the market that set up a new trend or objective for competitors. The company A has been in the insurance sector for a longer period as compared to any other company in India. It has introduced numerous of ideas when there was no single competition for them in the market, has withdrawn over seventy-five policies [10], and replaced them with new ones. They already have created a stronger customer base and in present case scenario, they are not fierce with the new ideas of policies or revolutionary modification in existing one. Hence, the inference drawn that A has a lower tendency of creating a change in the market. The subsequent is new in the insurance sector and need to develop a much stronger customer base so they are keen and show fierceness in luring more customers via experimenting new policy plans with modified terms and conditions, B has a higher tendency of creating a change in the market.

Performance against Competitors – All the efforts and strategies adopted by an organization reviewed by the degree of their performance against the competitors in the market. Company A owns nearly seventy percent of the entire Insurance market and Company B and other Insurance companies own rest of twenty-nine percent [18]. However, B has been evolving rapidly among those twenty-nine percent of share, has a noticeable customer base among competitors, and emerged as a potential competition for others. The reason for company A's enormous customer base is because it has been a big player over the time in this game. The subsequent possibly cannot surpass the performance of A for a very long period or might never do that in future. Company A is the biggest performer in the insurance sector as compared to subject B or any other insurance company in the present equation.

Table 3.2 Balance Scorecard based on External Environment

Perspective	Company A	Company B	Constructs of Explanation
Diversified Premium Payment	Available	Available	Both companies provide a diversified payment methods over Internet Banking, Debit Card Payment, Credit Card Payment
Social Network Strategy	Fair	Better	Company A is does not put a much effort on Social Media as already own a stronger consumer base
Flexibility, Prototypical Technology	Strong	Stronger	The company B adopt more frequent and rapid changes in technology
Commitment to single type technology	Medium term	Short term	Being new and highly active company B upgrade technology more frequently and Company A adapt slightly slower process of upgradation
Creating Change in Industry	Low	High	Company B is evolving and eager to extend its range in market with luring policies and investments
Performance against Competitors	Excellent	Fair	Company A still holds the max consumer base of 23 Crores and biggest competitor in Insurance sector, Company B is emerging as a strong competitor among others (except A) in the market
Stability	Low	Low	Company A and B changed their insurance rates during demonetization on 2016, policies modifies with market variations and investments are subject to market risk

Stability - Financial stability is a somewhat elusive concept as is demonstrated by the absence of a widely recognized definition. While it is evident when a financial system is unstable or in a crisis, it is much more difficult to assess in normal circumstances whether or not the system is moving towards instability. Both subjects changed their insurance rates during demonetization on 2016, policies modifies with market variations. The IRDAI continued to provide views and inputs on the ongoing work in insurance sector related matters of the Financial Stability Board (FSB) to the Ministry of Finance and Reserve Bank of India (RBI). Financial Stability Board is the international body that has been mandated by the G20 to promote implementation of financial sector regulatory reforms in the world. Over the recent years, the system has faced many challenges especially during economic dropdown in 2008. The observations and findings favours the inference that both subjects have low financial stability and are subject to market risk and economy.

Internal processes

Internal process/environment is synthesis of internal factors and forces that affects the performance and efficiency aspects of the organization. This incorporates the resources, funds, fundamental operation analytics, data management, revenue growth mechanism, data management capabilities. The internal environment can be controlled by the organization and can be modified depending upon the external environment changes. Management theorist Peter Drucker believes that process improvements transform business and lead to innovation -- and that they represent "the change that creates a new dimension of performance" for organizations [19]. The structure needs to be determined by the organisation's objectives and the communications networks that need to be built up both internally and externally.

Analytics on Fundamental Operations - Covers the four data elements used in operational risk framework as well as processing risk taxonomy. The key topics in operational risk measurement and insurance, for example diverse methods to estimate frequency and severity models for effective and efficient results. It involves discussions on internal loss data and key risk indicators, which are both fundamental for developing a risk-sensitive framework, how operational risk can be inserted into a firm's strategic decisions. As per annual report by IRDAI In order to ensure better usage of modules implemented for all the insurance sector companies including A and B extensive trainings were provided to internal users on adhoc reporting facility. Training sessions conducted for insurance brokers on on-line submission of returns. Specialised team has been setup in IT department to look after each technical area of BAP system and the adhoc reporting requirements of user department. To make BAP system more up to date, change requests are being processed through a well-defined procedure [10]. The evaluation element for us was to observe how these training by IRDAI and companies self-training and process has given a positive result was by observing the outcomes and efficiency of both the companies from their respective annual reports for FY 2017-18 [10] [11]. The company A has better outcomes based on analytics on fundamental operation while company B reflected a moderate response.

Data Management Capability – Data management enables an organization to re-evaluate their strategies and policies in the market and provide a stronger base for market research and development. Company A has been managing enormous amount of data since their existence in the insurance sector and the methodology that they adapt for implementing these data information for market research is highly appreciable. Subject B is inculcating the best suitable methodology to manage these data information establishes themselves as a potential competitor in the market. The outcome based on these studies of annual reports [10] [11] is that either companies reflected an evolving data management capability.

Funds – Funds are the very foundation and crucial element for an organization. Fund management ensures how a company is going to perform in the market against competitors and what should be the major fund management response during an economic drop-down situation. Hence, the inference drawn on the study of annual reports [10] [11] that either of the subjects have no scarcity of funds for smooth functioning of their organization.

Problem Solving Resources - Insurance industry problem solving faces similar challenges as the financial services industry with the same complexity. This requires a strategic problem-solving decision-making framework built on proven principles of

business decision making. The problems can be financial, about transparency for insured, transparency within the organization, conflicts in organization. The problem-solving methodology requires a better and strong set of information about the market and internal conflicts require a good team and experience of tackling those problems in an effective manner. The prior has generated huge resources in the timeline and their skills are effective and immediate. Subsequent on the other hand is evolving the research and development sector and they might have not that many resources as compared to the prior but their performance is somewhat moderate and is upgrading rapidly. Hence, based on studies of annual reports [10] [11] and IRDAI report [9] the inference is drawn that company A has much better resources for problem solving and company B reflects to own a moderate one.

Framework Execution – The framework execution refers to the The Enterprise Risk Management (ERM) framework, management framework, and policy framework execution within the company operating as a feeding system to various internal and external stakeholders, management, and the board of directors. As discussed that company A has better resource management and information database with expertise and experience over longer period as compared to any other Insurance company thus reflects a better internal processing. The studies of annual reports [10] [11] and IRDAI report [9] favours that Company A has much better resources for problem solving and the next one reflects to own a moderate one.

Table 3.3 Balance Scorecard based on Internal Environment

Perspective	Company A	Company B	Constructs of Explanation
Analytics on fundamental operations	High	Moderate	Improvement in efficiency and meeting customers demand is high for Company A
Data Management Capability	High	Evolving	Company A has legacy data and systems stitched together in one large ecosystem
Funds	Strong	Strong	The funding is strong for both A and B
Problem Solving Resources	High	Moderate	Company A has a larger informational data resources on problem elimination methodology
Framework Execution	High	Moderate	Plans execution rate is much higher for Company A due to better resource management
Analytics to grow revenue	High	Moderate	Company A is generating much more revenue based on its strong network analytics

Analytics to grow revenue – Based on Annual Report of IRDAI [9] the inference is drawn that company A has much better analytics to grow revenue and Company B reflects a moderate structure.

Dominant system

A dominant system is a system where "a category of factors in organisations that have successively deployed and whose future elimination from the organization cannot be envisaged or is unlikely for the foreseeable future." Some of these perspectives are research & development system, information technology security, service information system, demand and forecasting system, accounting system, Available on SSRN-Elsevier

quality control, HR system, and production system. The observations from the study and findings represented in table 3.4.

Marketing and Research Development – Research and Development perspective of external environment study is very crucial source of data information for any organization. Company A has enormous amount of marketing data, consumer behaviour, and market feasibility data in timeline, strategic and technological adaptation success rates and every other type of data that is involved in the online marketing strategy for an insurance company. These sets of data play an important role in market research and development process for success. The company B has been in the insurance sector for past eighteen years, has developed a noticeable base of customers, and beholds sufficient amount of data from the Internet era for the purpose of market and research development. The intensity deployed by experts and officials appointed for this purpose is appreciable and that is why they have incorporated a flexible system for technological advancement in their system. Therefore, it is concluded that either companies have a strong base of research and development in the market.

Information System related to Service - Information systems, services and data administration is key to the daily business life of an organization. Collecting all data and information required to prepare financial reports, Balance Sheet and Profit and Loss Statement, submitting deviation report, preparing reports required by management to make financial decision, employee bonuses, special rewards, annual gratification, and allowances. The introduction of Information technology also ensures the cloud storage and server storage of each client's database and policy information that can be toggled by the officials from anywhere within the company with designated authority. Both company A and B had adapted the IT based technology in their online marketing strategy and has been upgrading it in parallel to the upgradation in technology. The inference drawn based on annual report studies is that both Company A and B have a strong base for Information system related to their offered services.

3.4.3 IT Security – Informational Technology being deployed in the organization demands for an IT based security system to ensure the safety and encryption of database information for any organization. Company A upgrade their IT security system on a regular basis whereas company B follows an upgradation process at much frequent rate as compared to prior. Hence, the IT security system of B is much stronger. As per the annual reports [10] [11] and user experience on either companies' web payment portal, A follows a slow upgradation process for IT security whereas B reflects a strong base for IT security system with more frequent and latest upgradation.

Demand and Forecasting System – Demand and forecasting system determines the future perspectives for policies and investment ideas for the insurance market. The forecasting system based upon the information database collected in the past and present scenario and information related to upcoming technologies and international market situation keeping in the vision for economic condition of the country and future scope assumption from market expert team of the organization. Hence drafted in the discussion that company A holds much diverse and enormous data control and database information hence their demand forecasting system is much more accurate in juxtaposition with the next company. The outcome based on Annual report studies [10] [11] and IRDAI report [9] suggests

that company A has more precised demand and forecasting system whereas the subsequent reflects to have a moderate one with low precision.

Table 3.4 Balance Scorecard based on Dominant System

Perspective	Company A	Company B	Constructs of Explanation
Marketing and research Development	High	High	Company A have more powerful base of marketing through television over the time period, Company is evolving rapidly in R&D and marketing
Information System related to Service	Strong	Strong	Both companies have adapted the IT based platform and upgrade it over technological changes
IT Security	High	Very High	The IT security system deployed by Company B is more secure and frequently upgraded
Demand and Forecasting System	Précised	Low Precision	The diverse data resources from different demographic regions are vital source of success for company A
Quality Control	High	Moderate	Company A has successfully maintained the service quality for their customers however, HDFC is still in progression

Quality Control - The inference drawn from Annual report studies [10] [11] and IRDAI report [9] is that Company A have more precised and higher degree of quality control for their policies and investments whereas company B reflects to have a moderate one as compared to company A with respect to prior.

Information and Growth

Information and growth accounts for data information and resources for managing and preparing IT based platform as a sub-element for further processes in an organization. The workload of managing the information demands a separate cell in an organization however, this is very vital for the growth of the organization and development of the market. Refer table 3.5 for the concerned constructs based on findings.

Financial Expertise Skills – The financial management team of the organization is responsible for carrying out the financial decisions for the company. The company B has reputation of having the best financial skillset in the market [10]. Based on the reports and online marketplace [20] [21] [22] [23] studies the A owns overall good skillset financial management whereas the next subject reflects to have even better financial skillset.

New Policy Introduction – Company A has been aggressively launching new and flexible (in terms of usage and ease) policies since the age of network evolution in India, thus making an empire from the notion of online marketing origin. The subsequent owns the best financial managerial skillset in the entire Indian market they have been very experimental with their policies to develop a stronger customer base. The inference drawn from Annual report studies [10] [11] and IRDAI report [9] is that company A have introduces much more policies with precision as per the market demand whereas company B is in evolving phase of aggression as A is

introducing new policies at the pace which is yet to be deployed by the further company.

3.5.3 Inventory Data – Inventory data refers to the amount or value of an Insurance company's current assets that consist of policy framework, policy terms and conditions, work in progress, and in progress and on-going policies. The inference drawn from annual report studies [10] [11] and IRDAI report [9] is that Company A have much more detailed and powerful description about their inventory data due to much experience whereas Company B falls short in this category as compared to A.

Market Related Data – Market related data mainly refers to the information and database about the competitors in the market. The focus is set for competition and other market factors are included prior to that. Company A holds a much larger data as it has been reviewing the companies over a longer period with huge customer base in the market. Company B on other hand is evolving rapidly with their data structure for expansion of their market. The studies of annual reports [10] [11] and online insurance marketplace [20] [21] [22] [23] supports the finding that company A acquires much more detailed and powerful data and information about the competitor's data due to their experience background whereas Company B is in evolving phase.

Data Transactions Handling Capability – Data of transaction mainly depends upon the customer base of the company. Company A has much greater capability to handle the transaction data with their powerful servers whereas company B have a much smaller customer base as compared to A so their servers are not as powerful as A due to less data transaction involved. As per annual report studies [10] [11] company A has higher capability and resources for handling the transaction data as compared to the other company.

Customer Interaction and feedback System – As discussed in 3.2.2 B has a slightly better social media interaction with the customers. However, the customer always like to have a face to face or a telephonic interaction for better experience and understanding of policies/ to register grievances. However, the feedback system and customer helpline system operated by company A are in much better improved phase and better and owns a larger network of agents and customer care executives for elimination of confusions and grievances at much higher pace. The support taken from the annual reports [10] [11] and online insurance marketplace helped in concluding that company A has more accurate and effective customer interaction and feedback system for their customer base.

Table 3.5 Balance Scorecard based on Information and Growth

Perspective	Company A	Company B	Constructs for Explanation
Financial Expertise Skills	High	Very High	Company holds the best Financial Experts in the Market
New Policies Introduction	Very High	High	Policies introduction rate is high for Company A due to market exposure over a long time
Inventory Data	High	Moderate	Enormous inventory data for Company A with experience and time
Market Related Data	Diversified	Evolving	Diversified data set for Company A with experience and time
Data Transactions Handling Capability	Enormous	Moderate	Both started online system at the same phase of time but due to large

			customer base Company A has a bigger data structure
Customer Interaction & Feedback System	Strong	Moderate	Company A established feedback system efficiently over its network and trust of years

Conclusion

In paper the analysis of the different perspectives deploying, the methodology by proposed general model balanced scorecard system for organization alignment on a prominent scale to identify the online marketing strategy of two insurance companies – The company A and company B. The identification of the critical success factors that are necessary for success in online insurance marketing and focusing on exploring the scope of future opportunity by strengthening internal process.

Critical success factors of online business – The critical success factors are those perspectives of this study that indicates company's success and have same score on the balance scorecard with common construct of explanation for both company A and company B. Hence, the critical success factors for online insurance marketing are –

Organizational Structure perspectives - Higher degree of formalization, centralization, specialization and organizational integration.

External Environment perspectives - Diversified premium payment system, deploying flexibility in adapting the rapid environment technological and trend changes, better social network strategy, short-term commitment to single technology system.

Internal process perspective - Abundance of funds, problem solving resources and data management capability.

Dominant System Perspectives - Strong base for IT implementation and strong IT security system, marketing research and development.

Information and Growth Perspective – Financial expertise skills, customer interaction and feedback System.

Identify leading strategy of the firm -

The company A satisfies the attributes of an analyser – higher degree of centralization, formalization, work-flow complexity studying market to plan a strategy, perform experiment and change in industry, prototypical Technology performs experiment with new policies and market opportunity, latest and prototypical technology adaptation with implementation of IT based security system, hence is aligned to be an Analyzer.

The company B is a marketer, they seek to obtain broad distribution of policies, to offer broad product lines and to be responsive to changing volume requirements. It reflected the ability of professional problem solving, and the rapid pace of digital and technological innovation, which means they have more ways for consumers to connect with brands than ever before. They have shown ability to adapt quickly to changes in consumer behaviour – such as regularly upgrading the network technology and developments in the apps for better customer experience, or the rise

of social media – a vital element as it requires brands to rethink how they present themselves to the world (refer table 4).

The scope of future opportunity by strengthening internal process -

This section briefly summarises the findings of research literature and methodology regarding the elements crucial for future opportunities by strengthening the internal process of online marketing system in Insurance sector. The important internal aspect to be taken into consideration is to introduce more enhanced and suitable drives for solution of administrative and entrepreneurial problems in the Insurance sector

Institutional Drivers for enhanced Analytics on fundamental operations - The literature discussed in this paper supports the implementation of i) diverse methods to estimate frequency and severity models for effective and efficient results. ii) Discussions on internal loss data and key risk indicators, which are both fundamental for developing a risk-sensitive framework. iii) Implementation of upgraded operational risk management into a firm's strategic decisions, implementing a strong IT based security system iv) arrangements that increase flexibility, including devolution of functional and fiscal responsibilities from central to state governments, enhanced intra-governmental coordination, human resource management and e-government. iv) Methods for strengthening the policy layouts and IT implementation technology terms and eliminating complexity in them and v) various workforce issues, including internal conflicts, problem-solving resources.

erspectives	Attribute of Organization to Strategic Alignment	Proficiency based on Research	
		Company A	Company B
Organizational Structure	Centralization Formalization Specialization Work-flow Complexity Standardization Autonomy Organizational Integration	High High Moderate High Moderate High Strong	High High Moderate High High Moderate Stronger
External Environment and Customers	Changes deployed in Industry, Competitors in market and performance rating, incorporation of type of technology, Social Networking Strategy, Stability	Convenient and flexible online payment methods services, Biggest competitor, outperforms others in market, low financial stability	Future trend analysis of social market and Customers, Technology preferred. Market identification, Feedback to policy and technical Innovation, low financial stability
Internal Processes	Low Premium, Quality Conformance, Quality Assurance, Internal stability, Policy Development System, Policy and Service Development Technology, IT Technology Patents, Effectiveness valuation, Policy and process innovation	Cost efficient and reliable technology, New Policy Development, expertise on fundamental analytics, sufficient funds, framework execution	Technology Innovation, New policy Development, Service Conformance and performance, data Management capability, sufficient Funds
Dominant System	Quality Control, Exception Reporting Information System. CRM System, R&D System, Marketing Research and Development, Marketing Information and Technology System, R&D System, Technology Patents System, HR	Efficient and effective information related to Policy Premium, customer satisfaction and fund allocation, Quality Control IT, Security System	Efficiency and Effectiveness Measurement, Information System, IT security System, Marketing and Research Development

	System, Customers management System, Information System		
Information and Growth	Financial Expertise Skill, Policy drafting Expertise Skills, Market data, Customer Interaction and feedback (CIF) system, Training System, Knowledge Management System	CIF System, Data transaction Information, Market related Data, Inventory Data, new policies	Financial Expertise, Trend analysis, new policies

Table 4. Proficiency table for company and company B based on research

Drives for enhancement of financial instability Mitigation – The insurance rates during demonetization on 2016, policies modify with market variations. The financial instability cannot be eliminated from the market but its effects can be reduced to some extent. The IRDAI continued to provide views and inputs on the ongoing work in insurance sector related matters of the Financial Stability Board (FSB) to the Ministry of Finance and Reserve Bank of India (RBI). The mitigation of financial stability with enhanced resources play a vital role in the future for an Insurance company to behold the roots in the market during financial crisis. The IRDAI is already working on framework for resisting this instability in the market. The IAIS works closely with other financial sector standard setting bodies and international organisations working to promote financial stability. The fund optimization plays a dominant role in resolving this resistance in the Insurance sector as the Insurance companies taken into this research have sufficient funds. With the combined effort from the IRDAI and company's own investment in resourced and worldwide database information, it is possible to mitigate the effects financial instability to certain satisfactory level.

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LIC Facebook official page - <https://www.facebook.com/LICIndiaForever/>

LIC twitter official page - <https://twitter.com/LICIndiaForever>

HDFC Life Facebook official Page - <https://www.facebook.com/HDFCLife/>

HDFC Life twitter official page - <https://twitter.com/HDFCLIFE>

Indian Insurance Industry Overview and Market Development Analysis – Indian Brand Equity Foundation (IBEF), (June 2018), Source - <https://www.ibef.org/industry/insurance-sector-india.aspx>

Improving Internal Process and your company's Competitive Advantages – Buffy Schnurbisch (March 24, 2010)

Bank Bazaar – LIC page - <https://www.bankbazaar.com/insurance/lic-life-insurance.html>

Policy Bazaar – LIC page - <https://www.policybazaar.com/insurance-companies/lic-of-india/>

Bank Bazaar – HDFC Life Page – <https://www.bankbazaar.com/insurance/hdfc-life-insurance.html>

Policy Bazaar – HDFC Life Page - <https://www.policybazaar.com/insurance-companies/hdfc-life-term-insurance-plans/>

Appendix

Company A: Life Insurance Corporation (L.I.C.) of India

Being a public sector company LIC holds a majority of market in the life insurance segment. The digitalization of data enhanced the Internet marketing strategies for insurance companies and the services are being offered over the network. The online services offered by LIC are online loan, online premium payment, online portal, pension and group scheme, agents/dev. Officers/bill pay enquiry, salary saving schemes (SSS) PA portal and corporate portal. For a customer who is comfortable using the internet and has some experience of having made an online purchase, buying life insurance online is an easy and a logical option. It is fast, easy and secure - just fill in the details and make the payment through internet banking. Apart from the convenience, online policy is also cheaper than the offline version as online rebate is also available. LIC has been a dominant Insurance company in the market and still enjoys the leisure of occupying the largest segment of market in life insurance as well as other insurances such as medical, certain diseases (LIC Cancer Cover). LIC is said to be the largest life insurance company in the world with twenty-three crore customers and counting. The key to success for LIC is years of trust in customers, strong agent network and offices, easy grievance resolving capacity. The company maintained the position in the market over long period of time and still counting because of their advance and efficient services over 2000 branch offices and 156 satellite branches. The company utilizes number of technologies for paperless dealing such as EDMs, LAN, IVRS, WAN etcetera that is a convenience source in modern age of technology. The organizational Structure of LIC followed the four-tier

structure – the central office, zonal office, branch office and divisional office. The headquarter (central office) of LIC is located in Nariman Point, Mumbai.

LIC on the Internet

They have displayed information about LIC & its offices. Efforts are on to upgrade the web site to make it dynamic and interactive. The addresses/e-mail Ids of your zonal offices, zonal training centres, management development centre, overseas branches, divisional offices and also all branch offices with a view to speed up the communication process. LIC has given its policyholders a unique facility to pay premiums through Internet free and view their policy details on Internet premium payments. There are 11 service providers with whom L I C has signed the agreement to provide this service.

Company B: HDFC Life Insurance

HDFC life is the merger of the HDFC limited and Standard life. It was established in 2000, HDFC standard life insurance company limited (HDFC Life/Company) is a leading long-term life insurance solutions provider, offering a range of individual and group insurance solutions that meet various customer needs such as protection, pension, savings, investment, and health. HDFC owns the 61.63% of the stakes. Standard Life owns the 35% and remaining are with others. HDFC standard life has established itself as one of the most trusted insurance firms in the country. It offers a wide variety of products and services for individuals as well as group entities. Whether you are looking for protection plans, women's or children's plans, pension plans or savings and investment solutions, HDFC life has it all. HDFC life covers total stock of 15% in the market share of private players based on premium collected.

HDFC Life on Internet

HDFC Life provides a variety of plans as online insurance. These vary across all categories – protection, saving and investments, health and retirement. These can be purchased and renewed on the online platforms thereby offering various online insurance policy options.

Impact of Demonetization on Consumer's Buying Behaviour towards Online Shopping

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ABSTRACT

After boldest step taken by the Modi's government in the form of Demonetization, study examined its impact on the people's buying behaviour towards online shopping. The study results as the initial sharp decline in cash on delivery purchases, gradually it forced the people to opt for online shopping through e-payment mode and recognize the customers view towards online purchases and the effect of demonetization on behaviour of purchaser i.e. how the general populace who have never utilized ATM, PAYTM, web-based shopping etc has progressed toward becoming digitalized. With the analysis of secondary data, the fundamental focal point of the investigation is to understand and analyze the effect of demonetization on consumer's frequency of purchasing item and consumer's mode of payment for online shopping post demonetization.

Introduction

Electronic commerce, ordinarily written as e-commerce or ecommerce, is the exchanging or help of exchanging items or services utilizing computer networks, for example, the internet or online interpersonal organizations Electronic commerce draws on technologies, for example, mobile commerce, electronic supports/fund transfer, production network management, internet marketing, online exchange processing, electronic information interchange (EDI), inventory management system and automated information collection systems. Modern electronic commerce commonly uses the World Wide Web for no less than one a player in the exchange's life cycle despite the fact that it might likewise use other technologies, for example, e-mail.

E-commerce businesses may employ some or the majority of the accompanying:

- Online shopping web sites for retail sales direct to consumers
- Providing or taking part in online market places, which process outsider business-to-consumer or consumer-to-consumer sales
- Business to business purchasing and selling
- Gathering and utilizing demographic information through web contacts and online networking
- Business-to-business (B2B) electronic information interchange
- Marketing to prospective and established customers by e-mail or fax (for example, with newsletters)
- Engaging in preparation for propelling new items and services
- Online monetary exchanges for currency exchanges or exchanging purposes

This is correct that 100% cashless society is never possible in a nation like India however people can make the begin with less-cash society, after this begin, the dream

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of a cashless society won't be a far away destination. Numerous young people are enjoying the process of teaching people and families how to conduct cashless transactions through mobile applications, mobile keeping money and debit/credit cards. In any case, with this, there are numerous problems which are to be tackled and it would take time to get emerge out of its effect. This great move has been taken for some essential purposes, for example, to reduce untaxed dark money, to reduce the wild corruption, to encourage cashless transactions etc. This move will definitely realize a whole measure of transition to no cash or low cash sort of transactions. India is one of the key development countries for the companies, with a huge potential for development in e-commerce. The cash crunch may expedite the cash delivery sales down altogether of e-commerce and increase the online payments.

For e-commerce companies, for example, Amazon, Flipkart, Jabong.com, Snapdeal etc. already have an advanced payment system, pointers to higher online payment which ultimately eliminates the troublesome cash on delivery options and there are e-wallets like paytm, oxizen, freecharge, mobikwik and plastic money (debit cards and credit cards) etc. for the advanced transaction system. In any case, with these positive things, there are numerous problems that the people are looking amid this cash crunch move. There are many misusing on the piece of the Banks and outsider who manage the ATMs. There is a shortage of liquidity whether it is a bank or other people.

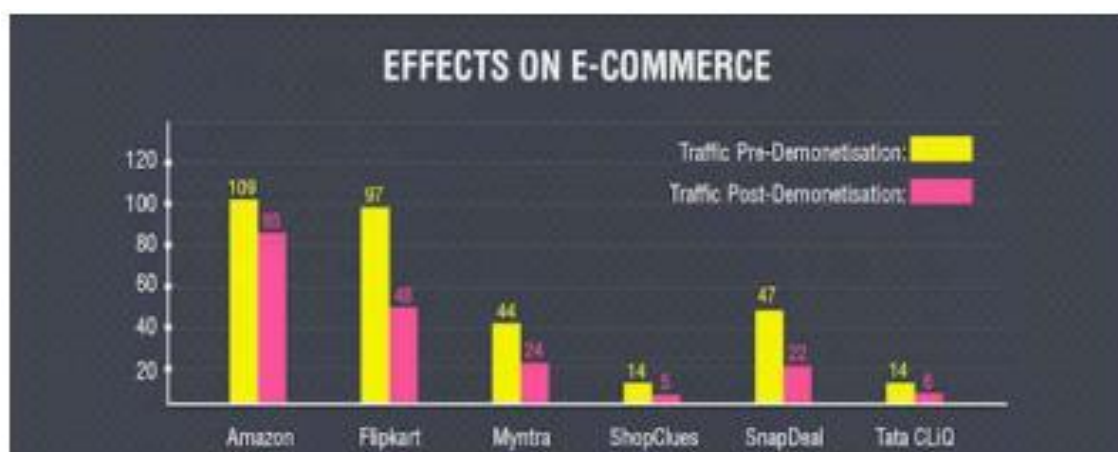
Impact of Demonetisation on E-Commerce:

Demonetization has the short and in addition long term effect in terms of the trend of online transactions. For the time being, because of this cash crunch/liquidity crunch, people are not able to meet their day by day expenses and this is creating a major problem for the lower income people/day by day wage earners, little traders and producers yet in the long term it is beneficial to the whole economy. These benefits are as per the following:

- Numerous people will move to keeping money including Jan Dhan, post office and mobile managing an account.
- Reduction in operational expenses of government and increasing profitability.
- Bringing more awareness regarding online transactions.

Hence, over the long haul it is very beneficial to the individual, society and additionally to the economy as a whole. The reasons why there is a generous increase/decrease in computerized transaction system. There are different reasons of a significant increase in the advanced transaction system.

- Reducing the volume of cash transactions is the best method to eradicate dark money.
- There is a consistent initiative to educate the gathering of people towards usage of online transactions.
- Different new and innovative ideas are being developed to draw attention in customers. Eg. my mobile, my bank, my wallet, Use mobile payment application for cashless transactions anytime and anywhere.



Source: Internet

From the above figure we can see that demonetization has negatively affected the E-commerce Industry and resulted in moderate development for some period of time. It has led to the accompanying consequences:

- **Undelivered Orders:** A COD order is the one where in your place an order online and agrees to pay on the spot when delivered at your doorstep. Be that as it may, due to the end on the usage of notes, this errand couldn't be completed. Hence, there had been a sudden decrease in the measure of purchases done online, turned out to be a negative effect and a critical misfortune for E-commerce businesses like Amazon, Flipkart, Snapdeal et cetera. The vast majority of the orders that were placed with the cash on delivery option couldn't be delivered because the online retailers couldn't accept old notes. Every one of the overheads and the expenses incurred in transportation the orders go a waste in case of undelivered orders. This is indeed a huge misfortune for the E-commerce players.
- **Reduction in the number of orders:** From the survey by different business insiders, 83 % of consumers in India settle for COD option. As a result of demonetization, it detrimentally affected the number of orders placed online as most consumers did not wish to settle for online transaction. As a noteworthy piece of orders placed on the online sites is paid with cash on delivery, demonetization detrimentally affected the number of orders placed. People only needed to hold up to get their old currencies to be exchanged and few of the customers are sceptical about online payments. This lead to a notable surge in the number of orders placed on the online shopping sites.
- **Expansion of Payment options:** Credit and debit cards are the existing options for online payments; however the additional option to fix this void would be the online wallet service: for example: the Amazon pay balance usage for purchase. This option made the consumers feel significantly more comfortable amid online transactions. Online payments are speedy, hassle free and time sparing. What's more, EMIs are the best part about online payments. This abstains from causing a money related strain when you make a large value purchase. Know that it is so easy to get moment credits for all your appliance, furniture and gadget purchases. So don't let the restriction on currency notes of higher denominations prevent you from purchasing everything that you wanted. Unified Payments Interface (UPI) will see a steady development. The help of the government has likewise been supportive of advancing UPI for

online payments. Banks like ICICI have introduced debit card EMI option for mobile and other purchases. This can likewise benefit customers making online purchases without a credit card. Imagine being to purchase all top of the line PDAs and PC on EMI even without owning a credit card.

- Go cashless to make payments: To encourage customers on the usage of online payment office, retailers additionally began to provide offers and rebates specifically to those consumers who decided to go for cashless payment. Subsequently, it helped in drawing in customers back to E-commerce websites. Online retailers likewise have introduced impressive rebates for all the cashless payments. This encourages more customers to choose a payment method other than COD and claim their rebates and thus helping the E-commerce businesses retain a reasonable cash stream.

Literature Review

Different scientists have talked about web managing an account idea in following way characterized Internet saving money as the utilization of Internet as a conveyance channel for saving money administrations which incorporate opening a store account, exchanging reserves, electronic bill presentment and instalment. Web saving money is an incorporated framework that gives their clients an adaptable, advantageous and reasonable stage with coordinated administrations including on the web bank adjust checking and investment accounts, currency advertise accounts, declarations of store, Master cards, home value advances, home loan, protection, venture administrations, portfolio administration, and other related monetary administrations (Bhattacharjee, 2001).

As per Siu and Mou (2005) the web (electronic) keeping money is conspicuous case of data innovation in the administration business; it is advantageous and efficient in contrast with conventional managing an account. In customary retail keeping money, one needs to visit branch to lead managing an account movement like cash exchange, to issue check book, DD and so forth yet with the utilization of web in saving money, client can direct these exercises from any piece of the globe, and it requires web association and PC as it were. Aside from these exercises client can buy/offer, pay bills and so on from any advantageous place.

Daniel (1999) additionally learned about e-managing an account and he portrayed electronic saving money as the conveyance of banks data and administrations by banks to clients by means of various conveyance stages that can be utilized with various terminal gadgets, for example, PC and cell phone with program or work area programming, phone or advanced TV.

Further, Zeithaml et. al, (2002) expressed about web keeping money as a wonder where clients can get to their financial balance by means of the web utilizing a PC or cell phone and internet browser. It has not just made open doors for organizations to connect with purchasers straightforwardly yet in addition permits shoppers a prompt access to the electronic markets (Gupta and Bansal, 2012). This outcome in development in the web managing account clients, all banks i.e. private, open and outside banks are giving this office to their client. The web has turned into another stage for electronic exchange all through the world, and it has altered the manner in which customers purchase merchandise and enterprises.

As indicated by an investigation led by Karayanni (2003), web customers tend to profit by web based shopping in three different ways and Benefits from plausibility of shopping on a 24-hour premise, time proficiency and the shirking of lines in shops. In any case, the examination done by a few specialists features that individuals tend to peruse and surf the web more to get data and not for shopping. Hoffman et al. (1999), featured in his examination that there is a crucial absence of trust between most organizations and buyers on the web. This go about as a noteworthy motivation behind why individuals don't have a tendency to give data to web suppliers and online vendors in return for access to data and furthermore don't like to shop on the web.

India is one of the key development nations with regards to web based business yet it is still at an incipient stage and has a gigantic potential for development. The Indian Government's sudden and phenomenal proceed onward November 8, 2016 to remove high-esteem money notes from flow sent the Indian economy worked up. Demonetization implied that Rs 500 and Rs 1,000 are currently no longer lawful delicate, wiping out about 86 for each penny of the money available for use, making an enormous trade smash out the economy. The impacts of this move have been seen at a person and also at an industry level. For web based shopping in India also, the effect has been major. Recorded are some feasible impacts of demonetization on web based shopping in 2017: (1) The Rise and fall of COD (Cash-on-Delivery) (2) Cashless Becomes the New Norm – Mobile Wallets Reign and so forth.

It has been discovered that pre demonetization the recurrence of shopping through retail shop was 48% and shopper used to purchase less items through web based shopping. Post demonetization recurrence of web based shopping has expanded radically from 27 % to 53%. Pre demonetization shopper used to receive money down choice to make instalment for purchasing items through online.43% of the respondents used to embrace COD office. Post demonetization COD choice for making instalment has diminished to 2% and purchasers began utilizing check card more to make instalment. Utilization of charge card has expanded from 14% to 43% post decentralization.

Research Objective

- To identify the impact of demonetization on online buys.
- To analyze the significance of digital literacy for consumer to make cashless payment/ digital payment.
- To identify the impact of demonetization towards method of instalment utilized by the clients.

Findings

Demonetization is the appearing of stripping a money unit of its status as legal fragile. Demonetization is fundamental at whatever point there is a difference in national money. The old unit of cash must be surrendered and supplanted with another money unit. India is one of the key advancement countries with respect to online business, yet it is still at a beginning stage and has an enormous potential for improvement. The Indian Government's sudden and uncommon continue ahead November 8, 2016 to expel high-regard money notes from spread sent the Indian economy worked up. Demonetization implied that Rs 500 and Rs 1,000 are currently never again legitimate delicate, taking out very nearly 86 for every penny of the

money available for use, making an immense trade crush out the economy. The effects of this move have been seen at a man and furthermore at an industry level as:

There are different changes happening in E-commerce business and these are classified as long term and here and now effects. Soon after currency banned in India E-commerce business were looking with a sudden fall yet it brings some fiery positive changes too which can be keep going for long time, these are: It causes break on cash on delivery payment.

- Many E-commerce marketers stop cash on delivery payment this gets a sudden falls marketing because a large portion of the people still have trust issues for online payment. Marketers quit accepting old currency of INR500 and INR1000 soon after demonetisation which results in tremendous number of deliveries returns for Cash on delivery order. This trend emphasizes on payment through advanced mode. Shortage of cash forced people to use online payment mode or E-wallet.
- Special offers are being given on online payments. It leads to increment in delivery returns because of absence of cash. A large portion of the user after COD delivery said to take old currency otherwise asked to return the delivery. This led to numerous orders getting cancelled and consequently results in heavy misfortune to marketers.
- E-commerce going towards offering heavy rebates and drive sale offers to increase sale by online payment. They likewise put rebates by means of online or card payment to increase engagement of users in selling and acquiring. Sudden increment being used of online wallet likes Mobikwik, pay money, Paytm, etc. Increase user activity on even little website, like: huge basket, grofers, etc., because these are accepting cards and online payment and shortage of cash forced people towards these online stores. Increase in application download and their use because it gives a stage for better experience of marketing with special rebates and offers. It provides an easiest method to track order with keep payment details safe for further use also. Every business man is looking towards E-commerce instead of commerce business because of demonetization. Since people are moving towards advanced payment and computerized marketing so businessman is likewise pushing forward appropriately.

To tackle the after-effects of demonetization, E-commerce stages have added credit card on delivery as one of the payment options to put customers coming up short on cash at some ease. Websites like Snapdeal and Flipkart have additionally been offering more rebates on online payments and zero cost EMI schemes. It will result in higher Gross domestic product, transparency and integrity in the system, provide security to work, employments for the young, cheaper credits to promote entrepreneurship and innovation, bolster farmers to double their income, provide affordable lodging for all and higher revenues to the Government which can spend it on poor people and marginalized sections of society. In particular, it has expedited a smile the face of every honest Indian.

Conclusion

In the nation like India which is a cash prevailing nation, when suddenly a huge transformation comes to change a cash transaction confronting a reduction, into a

cashless transaction, for example, online transactions and other modes of payments. In this examination, it is concluded that there is a surge in demand of online and other alternative modes of payments amid demonetization because of great shortage of liquidity in banks, ATMs and in addition in the hands of the people. Numerous banks are additionally advancing and propelling the applications for the easy online transactions like state bank of India has launched UBI application for mobile managing an account, paytm, free charge another mobile application have seen a tremendous hike in the online payment system. Customers are utilizing e-commerce or electronic payments at delivery and this has been seen as ten times more. development.

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Social Media a Marketing tool providing Awareness in Customers

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ABSTRACT

Social media has turned out to be pervasive and most imperative for social systems administration, content sharing and internet getting to. Because of its dependability, consistency and quick highlights, social media opens a wide place for organizations, for example, web based marketing. Social media marketing has made feasible for organizations to reach focused on shoppers effortlessly, adequately and in a split second. Other than that, social media marketing additionally faces a few difficulties in the field. Social media is a marvel that has turned into an essential angle in marketing blend and reforming the manner in which organizations communicate with clients. It is another examination field and a snappy writing check uncovers that relatively few investigations exist. In any case, these few existing investigations without logical confirmation with industry information have raced to infer that the development of social media has prompted the destruction of the conventional promoting predominant press.

Introduction

Social media marketing alludes to the way toward picking up site activity or consideration through social media locales. Social media marketing programs normally fixate on endeavours to make content that draws in consideration and urges peruses to impart it to their social systems. A corporate message spreads from client to client as WOM and apparently resounds on the grounds that it seems to originate from a trusted, outsider source, rather than the brand or organization itself. Consequently, this type of marketing is driven by listening in on others' conversations, which means it results in earned media as opposed to paid media. Social media has turned into a stage that is effectively open to anybody with web get to. Expanded correspondence for associations cultivates mark mindfulness and frequently, enhanced client benefit. Also, social media fills in as a moderately modest stage for associations to execute marketing efforts.

Today, we are in 21st century and individuals don't discover time to come and collaborate with each other. Social media helps in associating themselves with social systems administration locales through which presently individuals can remain far but stay associated. Aside from this media like Face book make a reliable association amongst item and person which prompts huge publicizing openings. Thus, other social media like Blogs make a stage to post remark on any occasion which should be pitched likewise can be used as a limited time strategy for client's selection and in addition for advancements. Presently clients/ customers are getting supporters and endorsers and guiding them to your social systems administration page. These media

has a focused edge over other prevalent open media like Television on the grounds that there is a period hole between social occasion event and the time it is being communicated. Other than look into apparatuses, there are numerous organizations giving particular stages/instruments for social media marketing, for example, devices for: Social Media Monitoring, Social Aggregation, Social Book Marking and Tagging, Social Analytics and Reporting, Automation, Social Media, Blog Marketing and Validation. Therefore, Social stages each have their very own biological system. Making a fundamental social media nearness is sufficiently simple; getting your locale to really accomplish something is more troublesome. Altering messages crosswise over locales enable the message to spread yet it shields clients from accepting numerous indistinguishable interchanges. By giving select coupons to your social network, you're fulfilling and advising them that you aren't just a brand to draw in with, yet in addition to purchase from. Exploiting these systems can enable you to assemble your locale, make your marketing more compelling, and boost purchasing. Social media can be set up anyplace with an Internet association, and it ought to be considered by advertisers, publicists, and online substance makers as an essential piece of their correspondences since social media influences all parts of the Internet and changes the part of Internet in individuals' lives.

Today, purchasers gain another part with social media. Purchasers are getting to be content makers and, hence, useful buyers rather than simply devouring, as before. Social media applications or apparatuses that encourage this are web journals, miniaturized scale blogging applications, (for example, Twitter), social systems administration locales, (for example, Facebook), web recordings, and video and photograph sharing destinations, (for example, YouTube and Flickr). Given this reality, it is helpful for organizations, particularly advertisers, to coordinate social media into marketing and their marketing procedures.

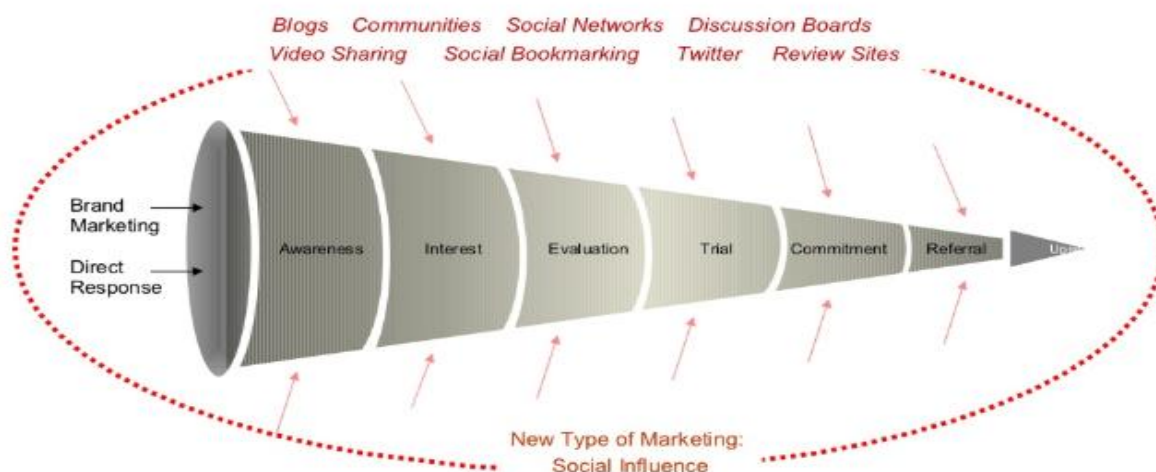
Social media is the cutting edge device for advertisers who attempt each mean to get their message out to their objective markets. The medium has numerous points of interest and burdens in view of their firm and numerous organizations still battle to locate the correct method to utilize it. The normal entrepreneurs or advertisers don't completely comprehend the dangers and difficulties in it. The field is still so crisp that it is hard to assess the capabilities of social media "specialists" who offer their administrations on the web. In this way, before an organization advance into the field of social media marketing, they need to finish full research on social media rehearses. An association needs to ace essential standards and strategies of utilizing social media as a compelling instrument keeping in mind the end goal to get by in the field of social media marketing. Fundamental objectives of an organization or association need to draw in clients, to ensure organization notoriety, to furnish clients with great nature of item and benefits and to fulfil client's need.

The point of the paper is to propose strategies through which awareness can be made through media for brands in the market. The pattern in the market that has been watched especially for customer items over most recent few decades is abnormal state of brand cognizance among buyer's conduct. The progression of the market regarding their insight and development gives new chances and roads to marketing too. The proposed paper focuses on this issue by furnishing organizations with ideal techniques for making awareness for their brand utilizing customary and also new media. Customers' conduct is unmistakable in each purchaser and is impacted by acquiring propensities and choices and tempered by mental through media and customary media. In this specialized period the three W's i.e. Internet is organized

around the general population where social and expert circles are powerful and prompts web based purchasing and furthermore online awareness. Web is composed around the people where social and master rings are powerful and prompts web based obtaining besides online awareness.

This world is a specialized world and in light of the unmistakable quality of instinctive media and latest advancements, routine marketing has changed as associations and customers have both changed; there is a transformation in marketing and exchange through giving different administration, for instance, trades, information get to and advance brand awareness, setting aside some cash, insurance, publicizing, preparing, buying and offering, which moreover opens up potential results in the zones of marketing, costumers conduct and feedback, bring down trades and asking for costs, and buyers support. The Internet has made channels for both business chief and shoppers to accomplish their own specific destinations as it enables associations to accomplish their customers around the world, and buyers of all age social events use this channel to inquire about, select, and buy items and administration from associations as far and wide as could be expected under the circumstances. Business and buyers must endeavour this information. By and by practically all business are doing their awareness conversely course by conventional media which is daily paper, magazines, announcement, print publicizing, TV, radio, and online by using their locales as live showrooms of their items and administration in light of the fact that associations have viewed an expansion in customer parts for web based shopping.

A new type of marketing is social media surrounds our marketing funnel which influences prospects at every stage and can move the forward.



Social media has power to influence consumer as some of the researchers show their result as 91% consumer say, content is the aid to buying decision, 87% trust a friend's recommendation over a review on social Networks. Thus, social network users are 3 times more likely to trust peer option over advertising when making purchase decision.

Why Businesses Need to Consider Social Media Marketing Services?

- Size: Face book has more than 250 million clients all inclusive. On a normal, 70-100 tweets occur constantly. A normal client on Face book has 120 companions.

- Transparency: No cheat code included. No dark cap procedures permitted. Everything that occurs in the social systems administration scene is secure. Organizations can't phony credibility trying to get more individuals included.
- Achieve: It is conceivable to make a check all inclusive and do it rapidly utilizing social systems administration destinations.
- Branding: Buying a sweet may have been incautious for your entire life, however on the off chance that it is examined on a social systems administration site, there is probability to get brand cognizant even with a treat. Social media is a keen method to construct brands. Social media stages are known to be a standout amongst the most intense and quick methods for branding. A portion of the huge brands like Coke, Ford, Dell, IBM, and Burger King are a portion of the outstanding brands that have effectively utilized social media stages to embrace themselves.

Role of Social Media in Marketing

- Social media gives advertisers a voice and an approach to speak with clients and purchasers. It customizes the "brand" and encourages you to spread your message conversationally.
- The greater part of us knows perspective of marketing is it's a device we use to advise customers about items, awe's identity and what we offer. Presently Social media does that.
- We can utilize social media to give a personality to our items or administrations that we offer.
- We can make connections utilizing social media with individuals who may not generally think about our items or administrations or what our organizations speak to.
- We can utilize social media to impart and give the collaboration that purchasers search for.

Literature Review

Social media marketing is another pattern and quickly developing manner by which organizations are connecting with focused clients effectively. Social media marketing can be just characterized as the utilization of social media channels to advance an organization and its items. This sort of marketing can be thought of as a subset of internet marketing exercises that entire customary Web-based advancement systems, for example, email bulletins and web based promoting efforts (Barefoot and Szabo 2010). By urging clients to spread messages to individual contacts, social media marketing has infused another term of exponential dispersal and trust to mass-correspondence and mass marketing (Hafele, 2011) by this new approach of effort and marketing, new apparatuses are being produced and expanded thus for organizations.

Social media advertisers are currently going better and more powerful understanding through the presentation of scientific applications by official social system site stages (Hafele, 2011). There are various distinctive social media destinations, and they take a wide range of structures and contain diverse highlights. Without a doubt, the most well-known social systems administration site that first strikes a chord is Facebook. Facebook was first propelled in February 2004, claimed and worked by Facebook, Inc. As of May 2012; Facebook has more than 900 million dynamic clients. Clients must enrol before utilizing the site; they may make an individual profile, include different clients as companions, and trade messages, including programmed

warnings when they refresh their profile (Facebook, 2012). Moreover, clients may join basic intrigue client gatherings; arrange their companions into records, for example, "Individuals from Work" or "Dear Friends". Facebook's principle mission is to enable individuals to share and make the world more open and associated (Facebook, 2012). Other social system destinations, for example, Twitter, Google furthermore, and LinkedIn may contrast in some ways, yet basically they work utilizing similar standards.

Marketing utilizing social media, for example, these can take numerous shapes. The conventional Facebook show, specifically, includes supplanting the idea of a human "companion" with a brand or substantial item or making a page or gathering (Facebook, 2011). A client who chooses to "like" an item or organization promotes that association with their own private system of contacts. This idea reaches out to different types of social media also. As per Bernie Borges (2009), Twitter is blend of smaller scale blogging and social system (Borges, 2009). Twitter, enables clients to get little updates and notices from favoured makers too (Hafele, 2011). Twitter offers chance to clients to include continuously sharing. A tweet is generally close to 140 characters, which devotees of the client can see (Borges, 2009). These two social media channels are among the most mainstream and intensely utilized alternatives now, yet they are a long way from being the main ones. As seen by Kaplan and Haenlein (2010) have recognized a few channels that fall under the classification of social media, every one of which has openings and one of kind points of interest for marketing use. Synergistic activities, for example, wikis, or editable information sources, are especially piercing roads of contact. Truth be told, patterns show that they are rapidly turning into the overwhelming wellspring of data among purchaser populaces (Kaplan and Haenlein, 2010) referred to by (Hafele, 2011). Online journals, overseen by either people or associations, are another vigorously utilized marketing gathering. Through websites, organizations can advance brand mindfulness by sharing insider data, refreshing clients on new items, and also giving connects to the primary deals channels. Fans will be refreshed time to time on any extraordinary occasions, challenges or advancement sorted out by the brand or item. Sites likewise encourage the posting of remarks and inputs, enabling fans and depreciators to present sentiments and inquiries on makers. This energizes the trading of thoughts amongst peers and can likewise advance legit talk amongst people and organizations to enhance their defaults (Hafele, 2011).

Social media approaches should be considered to guarantee the most noteworthy possibility of progress with social media marketing. As per Ray et al. (2011) stress the requirement for broadening a social media procedure to guarantee that messages are contacting proper groups of onlookers; there is no single right approach. The conduct of clients connect with their buy of items in the market is to a great extent in view of components of their esteem system (Oh, Haemoon, 2000). For shoppers in the commercial centre esteem structure is comprised of things like the brand picture, the class relationship, of the brand, its cost and its general awareness in the market in respect to other people. Work directed by (Farris et al., 2010) delineates that the buy choices made by purchasers on a subjective level are affected essentially by the brand picture and its awareness among the objective market. Research likewise gives that brands that have a larger amount of related brand picture and awareness among the buyer are probably going to be acquired over and over by buyers. (Hoyer, Wayne, D., and Steven P. Brown, 1990). Therefore, particularly to actuate rehash buy conduct in the customers, brand awareness can be considered as a noteworthy supporter (Macdonald, Emma, K. & Byron M. Sharp, 2000). New items can expand their

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awareness in the commercial centre among customers through various distinctive procedures utilizing new and in addition conventional media.

Customary media based publicizing and advancements utilizing ATL methods have the most extensive reach in the market yet can be costly to oversee for new items. Thus, new BTL dispatch procedures are imaginatively utilized by organizations to bring new brands into the commercial centre in a closer to home manner by which customers in the market can identify with the new brands all the more adequately while diminishing the general expenses brought about. Prevalent new media systems that are being utilized by organizations incorporate utilizing web and portable based system marketing methodologies (Jenkins, H., 2006). (Katona, Zubcsek, and Sarvary, 2011) found the electronic correspondences configuration being utilized inside online social media licenses examination into how one individual can hold affect over another. They in like manner found that these examples are of extraordinary usage to publicists "who check for new prevalent marketing systems to energize new item dissemination". Their goal was to affirm the presumption that system information can help perceive impacts to or a long way from potential client reception of a potential item. They also endeavoured to distinguish "how the system structure drives selection".

Findings

Media has significantly impacted the connection among shoppers and organizations, particularly the social media. They have countless with the most consideration directed from client base. The associations worked, in actuality, by systems administration have loads of potential. The goal of this examination is to make sense of which ways to deal with fulfil clients and how to advance awareness of its brand picture and recognize the factors affect customers conduct and basic leadership which can assemble the offers of the item and benefit; and the investigation results the same number of the people or data innovation purchasers rely upon survey and trust on social media in regards to an item or administration more than some other substance sources. In this manner, social media is about connections which people make or making another association and straightforwardly share, thoughts, encounters and alternative which results it is a major stage to make a constructive awareness or increase profound client knowledge in first view. The social media can be an essential channel of a brand.

Criticism on an organization's items is effectively gotten to. Social media clients say what the item intends to them around then thus the information gathered from such discussions is genuine. This is advantageous in the change of techniques for better consumer loyalty. . It will empower the business to know and comprehend the circumstance available for better strategizing. The media can; be that as it may, be sad as well. On the off chance that steady consideration isn't given to the site or the social media record with the end goal that the right data is posted and clients' inquiries are replied, it could prompt lost clients and a decline in piece of the pie. There must be somebody always on the web, which can be tedious. Now and again the specialist co-op loses arrange for some time. Contingent upon the term taken, the potential market could be procured by another person somewhere else. It is; in this manner, dangerous in some cases. With the current innovative advances, numerous individuals are presently hacking into other individuals' records on the social system. The business page could; in this manner, be hacked and the data messed with, which

could perhaps result in wrong data being bolstered to clients, who may forego any buying. In this manner, at long last social media as marketing device the normal outcomes from the investigation is use current marketing results, show signs of improvement brand awareness, better brand administration, better client sickliness, better quality items, more deals.

Conclusion

At whatever point a man begins a business whether disconnected or on the web, the main thing which comes into his psyche is the accomplishment of that business. The achievement and acknowledgment of the business brand are the most critical focuses which must be remembered while making a business arrangement. Today nobody can prevent the job from claiming social media marketing to set and market all through the globe. Social media is getting famous nowadays to advance different brands. The World is loaded with new media and digital correspondence innovations. There are numerous approaches to advance the brand with the assistance of social media. The effect of advancement through social media is gigantic and gives a blend of speed and importance. Brand awareness is one of the vital variables which help up the business proportion of the result of the organization. Accordingly, there is no getting away from the social media nowadays, either for people or for organizations. Today, it is difficult to isolate social media from the online world. Social media is a solid and strong specialized instrument. It presents brands with colossal reach and unending correspondence conceivable outcomes. It enables brands to rise into a universe of peer- - to- - peer exchange and hence the likelihood of outfitting the brand building capability of the most extravagant correspondence shape accessible. In any case, it is vital to do it right. The principle target of this exploration is to evaluate the effect of purchaser conduct by means of media on awareness of a brand. It was presumed that more than conventional media (radio, television, and so on.), new media (social media: face book and so forth) decidedly impact the brand awareness.

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A Study of Digital Shopping Behaviour of Women with Respect to Beauty and Personal Care Products

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ABSTRACT

The digital revolution has metamorphosised the way business to consumer (B2C) interfaces have been taking place. Extensive research has been undertaken to show that this is true of all industries and retail sectors with no exception. Even basic need industries like food, health care and education have now gone the e commerce way.

Until a few years ago certain industries like Beauty and personal care, thrived on the in, store experience of 'touch, feel and smell', making digital shopping in this industry a questionable alternative. However recent trends have proved that this industry is no exception to the digital storm.

This paper explores the Buyer behavior of Women consumers using online platforms with respect to their purchases of cosmetics and personal care products. It studies demographics of the women consumers in this industry, their buying patterns (product type, frequency etc) and customer needs and preferences that dominate this retail format. The paper establishes the demographic profile of the online consumer in this industry. It also explores the factors influencing choice of online medium of shopping for these products. It also identifies consumer expectations from an e Commerce website to make shopping a compelling experience.

The present study is timely and relevant as the beauty and personal care industry boasts of a customer base that is predominantly young and digitally plugged in. Hence these fashion connoisseurs are eager to explore the realm of online shopping that has distinct advantages of competitive pricing, convenient delivery, round the clock shopping, unlimited variety and most importantly information access. This industry has much to gain from an understanding of the buyer and her online shopping behavior.

Introduction

Internet is changing the way businesses work and function. With the introduction and popularization of the World Wide Web in the mid 1990s, online shopping has become popular and 'going digital' is the accepted trend. Every brick and mortar shop is now trying to create its own online presence to cope with the increasing competition. Even

consumers prefer buying products online just by clicking the mouse instead of the ordeal of wasting time and energy buying from stores. Earlier consumers were apprehensive to purchase online. This was especially true of **certain products that mandated a touch and feel experience** like beauty and personal care products. However time and trends have changed and today online buying is just as popular in this segment. **Internet is widely used not only for retail but marketing and creating a consumer community** as well (Bacon, 2014). It is being used as a Customer Relationship Management tool which deals with the fundamental issue i.e. customer needs (Hamstra, 2018). Building customer relationships is very crucial and it is not only about sending notifications and messages about product launches but also useful in getting feedback and understanding the customer's perspectives (Bacon, 2014).

Online shopping behavior

Online Shopping Behavior is a crucial part of e-commerce which is often given less importance when compared to the other factors like technology, digital marketing etc. "Behavior is the apparent, noticeable response in a given situation with respect to a given target. Online Shopping Behavior is a kind of individual's overall perception and evaluation for product or service during online shopping which could result in bad or good way" (Li & Zhang, 2002). Online Shopping Behavior is also called **Online Buying Behavior or Internet Shopping Behavior**. This behavior encompasses a whole lot of variables like preferred time of purchase, intention of buyer etc. For instance, studies on buyer behavior show that people tend to shop more on certain days and at a certain times on that particular day. Many shoppers say they have a specific product in mind and look just for that while a significant lot of shoppers say that they tend to browse different products on the same website to compare. Buyer behavior studies have also shown that consumers exhibit a behavior of putting products into shopping carts without purchasing them right away, which they use as some sort of comparison shopping tool. Hence, any study on online shopping behavior is not only interesting but also very relevant to businesses that want to have a significant presence on the internet.

Beauty and Personal Care Products

The term '**Beauty Products**' refers to cosmetics or materials and devices made and sold for the purpose of enhancing the physical attractiveness of users (www.yourdictionary.com). The term beauty products is often synonymously used with cosmetics and includes preparations applied externally to change or enhance the beauty of skin, hair, nails, lips, and eyes '**Personal care products**' and services includes products for the hair, oral hygiene products, shaving needs, cosmetics and bath products, electric personal care appliances, other personal care products, and personal care services for males and females. According to the US Drug and Food Administration Department, some "personal care products" meet the definitions of both cosmetics and drugs (FDA basics for Industry). This may happen when a product has two intended uses. For example, a shampoo is a cosmetic because its intended use is to cleanse the hair. An antidandruff treatment is a drug because its intended use is to treat dandruff. Consequently, an antidandruff shampoo is both a cosmetic and a drug, because it is intended to cleanse the hair and treat dandruff. This study pertains to both cosmetics as well as personal care products. The study covers online purchases of products as diverse as cleansing

pads, colognes, cotton swabs, cotton pads, deodorant, toilet paper, toothpaste, facial treatments, wet wipes, and shampoo etc.

Need for The Study

With increased consumerism, the rural lifestyle and habits have started mirroring urban aspirations and lifestyle. This has brought about a shift from homemade beauty solutions to branded products. **Beauty and personal care market in India is worth around US\$ 6.5 billion.** It grew at a Compound Annual Growth Rate of 17% over 2011-2016 (India Cosmetic Market Overview). **The market size is projected to reach US\$ 35 billion by 2035.**

Although Beauty and personal care industry contributed to less than 1% of the total online retailing revenue in the start (as observed by Euromonitor), this market has witnessed a growth of 32% during 2016 (Business Today, June 2018). The **domestic online beauty and personal care market is expected to cross \$3.5 billion by 2022** from about \$300 million now (Red-Seer Consulting, 2017). For Indian beauty brands such as Maybelline, Lakme and VLCC, ecommerce has become the fastest growing channel in terms of revenues. About 20% of Maybelline's total India sales in 2017 came from online marketplaces. World over a similar trend is being witnessed. Beauty was a strong category for Amazon as early as Q3 of 2012, according to One Click Retail, with U.S. sales totaling \$405 million, Canadian sales for the same period totaled \$10 million and the United Kingdom totaled £30 million (The Economic Times, 8 Feb 2018). Given that the Internet goes through fundamental changes almost every three years or so, and each change presents whole new opportunities for businesses in terms of how products can be marketed and how consumers can complete transactions, this study is timely and relevant.

Review of Literature

Many businesses across industries are developing their presence online. A research by UNT Skincare proves that it is possible for a beauty brand to scale internationally online. Earlier studies in this area have revealed several relevant and pertinent facts.

Demographic and cultural background of the consumers influence their online behavior (Bikram Jit Rishi, 2008). For instance, people in polychronic-oriented cultures (people who are spontaneous) tend to pay close attention to online social networking, while people in monochronic-oriented cultures (people who are focused, organized and concentrate on one thing at a time) are more favorable to adopting the Internet and online shopping (Cliquet et al., 2017). A research, using Factor Analysis, was conducted on how gender and education affect the online shopping behaviour, using 5 main factors i.e. convenience, security, personality, user experience and price showed that

- Online shopping is very convenient for both males and females.
- Both males and females are insecure due to increasing internet crimes in banks.
- Females are less emotionally satisfied with e-shopping than males.

- User experience has no significant affect on both males and females.
- If people are more educated, people tend to save more and price has a substantial impact on both males and females.

High education also showed an increase in online shopping because people spend more time in their workplace which decreases their shopping time and hence go for online shopping (Hui, 2007)

Motives for buying online are also varied from mere entertainment to better quality of life through saving of time and resources. CNNIC reported 303 Internet users had gone online for no particular reason—that is, just for fun. Time and time consciousness have emerged as important factors in understanding online activities and decision-making processes. With increased online competition, time management is becoming more important for online users globally. Time management is manifested at different stages of the buying process like search activity before buying, time spent transacting a purchase, and time spent after purchase. Modern Chinese consumers now care more about time management in their daily lives including shopping, which resulted in more use of online purchasing (Cliquet et al., 2017).

Studies have also revealed **patterns in online buying behavior**. Leffler, CEO of OneSpace said that most people also do not enter a brand name when they search for health and beauty products online. Instead, they more are likely to search for the attributes of the products or their ingredients. They also tend to go to shops and check out the products and get trials done and then they buy those products online instead (Hamstra, 2018). According to the Nielsen Global Online Consumer Survey, 90% of consumers trust recommendations from people they know, while 70% trust consumer opinions posted online (Legwinski,2012).Online browsing plays a major role in people's purchasing behaviour.

Studies have also been undertaken to show **popularity of e- tailers** in this segment. Three of the top-five largest retailers in the world are internet retailers which are Amazon, Alibaba and JD.com. According to data collected by Bloom Reach, more than 55% of consumers researching products online start at Amazon. Amazon has succeeded by focusing on “three very simple rules,”- “putting the customer first, investing in new opportunities and being patient” (Williams, 2018)

Research Methodology

Objectives of the Study

- To **study the demographics** of Women consumers in this industry and **understand their buying patterns** (product type, frequency, preferred e tailer etc.)
- To **identify the expectations** while shopping online for beauty and personal care products that make online shopping a compelling experience.
- To **identify the deterrents** or obstacles to shopping online in this segment
- To study the **influence of demographics** of the consumers **over their expectations** to online shopping

Sample Design

- Sample Unit – This study pertains to the perceptions of women shoppers only. The respondents are women who have bought beauty and personal care products online at least once.
- Sample Size – 167 responses were collected for this study.
- Sampling Technique – convenience sampling

Nature of Data used

This study has used both primary and secondary data. Primary data was collected through a structured questionnaire and secondary data has been collected from earlier studies that have been published in reports, journals, websites and newspapers and periodicals.

Research Instrument

The questionnaire comprises of four parts:

Part I – Personal Demographic variables of respondents (including age, occupation, level of education and level of income)

Part II – Usage pattern of customers including frequency of purchase of personal and beauty care products, preferred websites for purchase of the same and criteria of purchasing a beauty or personal care product.

Part III – Comprises 24 statements that represent the basic expectations of customer when they purchase beauty and personal care products online. The respondents have been asked to rate how these expectations were met during their online shopping experience against a 5-point scale.

Part IV – This part relates to the difficulties that customers may have encountered while trying to purchase a Beauty or Personal Care product from an E-Commerce site. 13 statements describing deterrents to further purchases have been stated and the respondents were asked for their agreement on a 5 – point scale.

Statistical Tools Used

This paper has used **Exploratory Factor Analysis** to identify expectations and deterrents to online shopping of beauty and personal care products. **ANOVA** has been used to identify the influence of demographics over expectations in this shopping experience. Besides percentages, charts, diagrams as well as mean scores have been used wherever required.

Limitations of the study

- The study examines the perspectives of women shoppers only
- It pertains to online buying behavior of beauty and health care products only
- The study was undertaken in the period of Oct-November 2018 which being the festival season may have impacted the responses.

Data Analysis & Interpretation

Respondents' Demographic Profile

The following are the profile of the respondents:

- **Gender:** 100% of the respondents were female.
- **Age:** From the respondents surveyed, majority of the respondents (56.9%) are in the 18-28 years age group, followed by equal representation from both 28-38 years and 38-48 years (19.8%).

AGE OF RESPONDENTS (in years)	FREQUENCY	PERCENTAGE
18-28	95	56.9%
28-38	33	19.8%
38-48	33	19.8%
48-58	3	1.8%
58-68	3	1.8%
TOTAL	167	100%

Occupation: Majority of the respondents of the survey is students (52.1%) and a small number of respondents belongs to the category of Entrepreneurs (1.8%).

OCCUPATION OF RESPONDENTS	FREQUENCY	PERCENTAGE
Private Sector	27	16.2%
Government Sector	5	3%
Professionals	24	14.4%
Entrepreneurs	3	1.8%
Home-maker	21	12.6%
Student	87	52.1%
TOTAL	167	100%

Level of Education: From the survey, 53.3% of the respondents are Undergraduates (UG) while only 6.6% do not have a basic degree This implies the online buyers in the sample are educated.

LEVEL OF EDUCATION OF RESPONDENTS	FREQUENCY	PERCENTAGE
High School	11	6.6%
Undergraduate (UG)	89	53.3%

Postgraduate (PG)	50	29.9%
Professional Qualification	17	10.2%
TOTAL	167	100%

Income level per Annum (in Indian Rupees): Majority of the respondents (48.5%) are in the lowest income group of Rs. 50,000-Rs. 4,50,000.

INCOME LEVEL PER ANNUM (in Indian Rupees) RESPONDENTS	FREQUENCY	PERCENTAGE
50,000-4,50,000	81	48.5%
4,50,000-6,00,000	22	13.2%
6,00,000-12,00,000	31	18.6%
12,00,000-24,00,000	22	13.2%
24,00,000-ABOVE	11	6.6%
TOTAL	167	100%

Respondents Buying Pattern

Frequency of usage of cosmetics: Most of the respondents use cosmetics only for special occasions (43.7%) and only 1/3rd use them daily.

Frequency of Usage of Cosmetics By Respondents	Frequency	Percentage
Daily	56	33.5%
Once or twice a week	22	13.2%
Only on occasions	73	43.7%
On weekends only	7	4.2%
Never	9	5.4%
TOTAL	167	100%

Preferred point of purchase for Personal Care Products: Although all the respondents have purchased personal care products online Majority of the respondents (58.7%) prefer to purchase these from Supermarkets. This could be owing to routine nature of these purchases on a monthly basis along with groceries etc.

Point of Purchase of Respondents	Frequency	Percentage
Supermarkets	98	58.7%
Exclusive Stores	50	29.9%
Internet	19	11.4%
TOTAL	167	100%

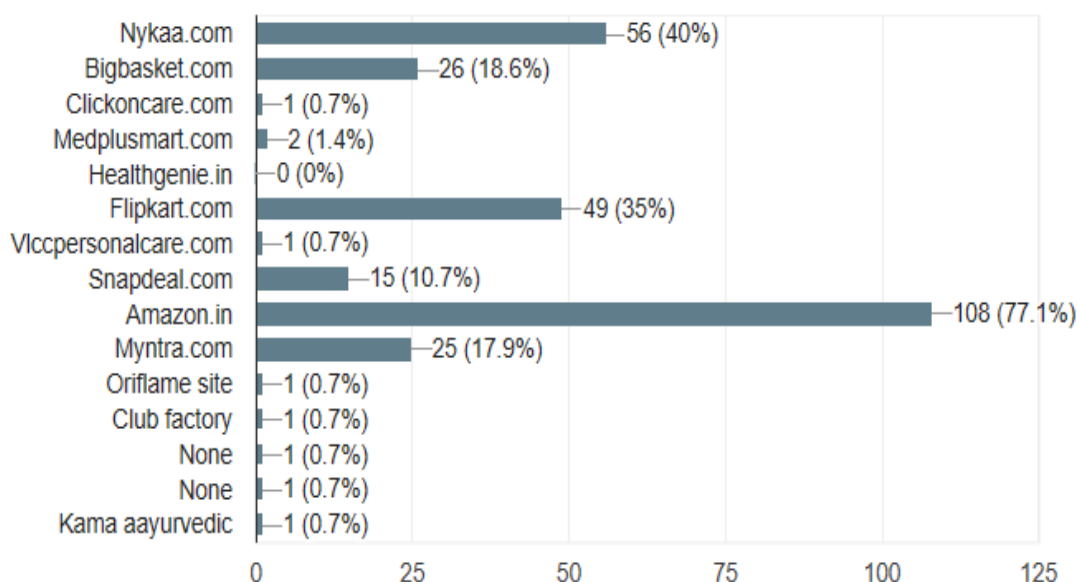
Preferred point of purchase for Beauty Products: Majority of the respondents prefer to purchase Beauty Products from Exclusive Beauty Care/Novelty stores (53.3%) followed by Brand Specific Outlets (22.8%).

Point of Purchase of Respondents	Frequency	Percentage
Exclusive Beauty Care/ Novelty stores(E.g.: Health and Glow)	99	59.3%
Brand Specific Outlets (E.g: BodyShop store)	38	22.8%
Internet	30	18%
TOTAL	167	100%

Website used to purchase Personal Care Products

Websites Used by Respondents	Percentage
Nykaa.com	40%
Bigbasket.com	18.6%
Clickoncare.com	0.7%
Medplusmart.com	1.4%
Healthgenie.in	0%
Flipkart.com	35%
Vlccpersonalcare.com	0.7%
Snapdeal.com	10.7%
Amazon.in	77.1%
Myntra.com	17.9%
Oriflame site	0.7%
Club factory	0.7%
Kama Aayurvedic	0.7%
None	1.4%

Fig. 1: Figure shows the graphical representation of the websites that are used by the respondents to purchase Personal Care products. Respondents were allowed to select more than one option from the list provided.

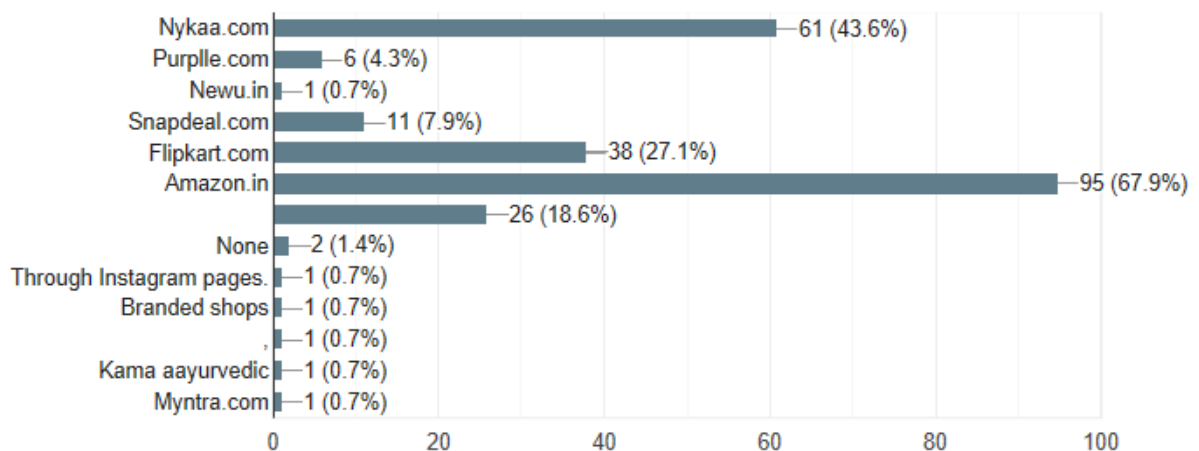


Websites used to purchase Beauty Products

WEBSITES USED BY RESPONDENTS	PERCENTAGES
Nykaa.com	43.6%
Purpille.com	4.3%
Newu.in	0.7%
Snapdeal.com	7.9%
Flipkart.com	27.1%
Amazon.in	67.9%
Brand Specific E-Commerce sites (E.g.: forestessentials.in)	18.6%
Through Instagram pages	0.7%
Branded shops	0.7%
Kama Aayurvedic	0.7%
Myntra.com	0.7%
None	2.1%

In both the case of cosmetics as well as personal care products Amazon and Nykaa seemed to be the most popular websites among the respondents.

Fig. 2: Figure shows the graphical representation of the websites that are used by the respondents to purchase Beauty Products. Respondents were allowed to select more than one option from the list provided.



Most relevant criteria while purchasing Personal Care Products: Majority of the respondents look at Customer Reviews (39.4%) followed by Product Information (26.5%). Advertisement (1.3%) was not at all relevant.

CRITERIA	FREQUENCY	PERCENTAGE
Customer Reviews	61	39.4%
Product Information	41	26.5%

Advertisement	2	1.3%
Product offers and discounts	12	7.7%
Product or Brand Name	39	25.2%
TOTAL	155	100%

Most important criteria while purchasing Beauty Products: Most of the respondents look at Customer Reviews (59.7%) while purchasing Beauty Products online followed by Product Information (48.3%).

CRITERIA	FREQUENCY	PERCENTAGE
Customer Reviews	89	59.7%
Product Information	72	48.3%
Advertisement	6	4%
Product offers and discounts	36	24.2%
Product or Brand Name	59	39.6%
TOTAL	149	

In case of both beauty and personal care products customer reviews and product information seemed to be the deciding criteria for purchase.

Buyer Expectations with Respect to Online Purchases of Beauty and Personal Care Products

The respondents were asked to rate their expectations represented in 24 statements on a 5-point scale of agreeableness. The responses were then subjected to exploratory factor analysis using principal component method. The sampling adequacy and statistical significance of sample was established as shown below:

Table 1: Table Showing KMO and Bartlett's Test Results:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.944
Bartlett's Test of Sphericity	Approx. Chi-Square	2532.349
	Df	276
	Sig.	0.000

Source: Computed Data

The data reduction of 24 variables and extraction using **Principal Component Method** revealed 4 factors of expectations from online buyers. These have shown below and appropriately named

Table 2: Table showing factors of buyer expectations for purchasing Beauty and Personal Care products online with Eigen Values

Factor No.	CP No.	Statement	Factor Loads	Factor Name
1	01	I have positive user-experience while shopping online	0.742	Convenience
	02	Online shopping is convenient	0.737	
	03	Websites give me more clarity with respect to products sold	0.684	
	04	I find online shopping easier than visiting a store	0.676	
	05	I get useful information while shopping online	0.663	

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		(E.g.: Customer reviews, Product information)		
	13	I prefer online shopping as I do not like to buy in crowded areas	0.564	
2	11	I prefer shopping online as my transactions are secure	0.821	Reliability
	10	I prefer online shopping as my purchases are private	0.721	
	14	I prefer shopping online to their quick delivery of goods	0.711	
	12	Online shopping for me is very reliable	0.636	
	07	I prefer online shopping due to the variety of payment modes available	0.587	
3	22	I prefer online shopping as I can earmark items to shop for later	0.772	Flexibility
	21	I prefer online shopping as I do not have a pressure to purchase products immediately	0.650	
	09	Online shopping offers convenient returns for me	0.622	
	06	I prefer online shopping as I get good offers and discounts	0.566	
	20	There is no fixed shop timings for online shopping	0.552	
4	24	Online shopping helps me buy rare products that are otherwise not available in brick and mortar stores	0.714	Variety
	23	I prefer purchasing online as there is variety of genuine products to choose from	0.601	

Statement cp 08 has grouped itself irrelevantly. However since it has lowest loading of 0.516 it has been excluded. According to Comrey and Lee (1992) items that load more than 0.55 are considered very good. Cp15, cp 16, cp 18 and cp 19 have been suppressed due to low variance. Cp 17 emerged as single variable factor and hence has been ignored for discussion.

Hence the data reduction of buyer expectation variables has revealed the **presence of 4 main factors of buyer expectations**. These have been grouped and suitably named as

- Convenience
- Reliability
- Flexibility
- Variety

Obstacles or Deterrents to Buying Beauty and Personal Care Products Online

Several obstacles or difficulties were stated in the form of 13 statements and respondents asked to rate their experience on a five-point scale. These were then subject to factor analysis to arrive at the deterring factors preventing people from buying beauty and health care products online

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Table 3: Table Showing KMO and Barlett's Test Results:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.875
Bartlett's Test of Sphericity	Approx. Chi-Square	972.086
	Df	78
	Sig.	0.000

Source: Computed Data

Table 4: Table showing deterrent factors while purchasing Beauty and Personal Care products online with Eigen Values

Factor Number	O No.	Statement	Factor Loads	Factor Name
1	12	I do not trust online shopping due to the mistakes in delivery of my order	0.782	Delivery and authenticity issues
	13	Products from Online shopping does not have proper packaging	0.767	
	08	I have received wrong deliveries from the online store	0.699	
	07	The website is misleading	0.614	
	11	The sale of non-branded products online makes me lose trust	0.608	
	09	The delivery time cannot be controlled when shopping online	0.527	
2	06	The website provides invalid or irrelevant information that is confusing	0.556	Perception problems
	04	I find the shades to be different online and in the actual product	0.854	
	05	I find the online images to be different in size from the actual product	0.841	
	02	I do not prefer shopping for beauty and personal care products online as I cannot try the products first hand	0.750	
	10	I do not find the specific shade that I look for while shopping online	0.554	

Ob 1 and ob 3 were suppressed variables.

Hence the **two main factors of obstacles / deterrents** preventing people from shopping for cosmetics and personal care online are

- Delivery and authenticity problems
- Perception problems

Influence of Demographic variables of Women on Consumer Expectations for Purchasing Beauty and Personal Care products online

One Way Analysis of Variance (ANOVA) is a tool to determine if a particular independent variable has a significant influence over the other groups of dependent variables. It is used to determine the significant differences in mean values of different groups chosen for analysis. In the present study, the influence of the demographic variables of respondents on the various factors of consumer expectations for purchasing Beauty and Personal Care products online is analyzed using One Way Analysis of Variance. Comparison of Consumer Expectations based on the various demographic factors has also been undertaken. The null hypothesis(H_0) in each case being taken as demographic variables of age, occupation, education or income level do not influence buyer expectations at the time of online purchases.

The One Way ANOVA results have been presented in the table below:

Table 4: Table showing results of One-Way Analysis of Variance (ANOVA)

Buyer expectation Factors	Age		Occupation		Education		Level of Income	
	F VALUE	P	F VALUE	P	F VALUE	P	F VALUE	P
Convenience	4.747	0.001	0.746	0.590	1.249	0.294	0.413	0.799
Reliability	4.576	0.002	1.999	0.082	1.102	0.350	0.705	0.590
Flexibility	2.073	0.087	1.131	0.346	1.267	0.287	0.612	0.655
Variety	3.281	0.013	1.454	0.208	1.236	0.298	0.075	0.990

Source: Computed Data

From the Table it is found that only Age has an influence over the following Consumer Expectations at the 5% level of Significance

- Convenience (F=4.747, P=0.001)
- Reliability (F=4.576, P=0.002)
- Variety (F=3.281, P=0.013)

Hence the null hypothesis is accepted in all other cases implying that the other demographic variables – occupation, income and education have no influence on buyer expectations.

Findings and Suggestions

Summary of Findings

- Majority of respondents belong to the age group 18-28. They are predominantly Students or young graduates with nominal income
- 43% of the Respondents use cosmetics only on occasions.
- While the preferred point of purchase of Personal Care products was Supermarkets, the preferred point of purchase was Exclusive Stores for Beauty Products.

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- For both Beauty and Personal Care products, Amazon.in emerged as the most popular site followed by Nykaa.com.
- Customer Reviews and Product Information were the most important criteria that were considered at the time of purchase. Brand name was also a significant criterion while buying Beauty products.
- Advertisement was the least important criteria that was considered for the purchase of both types of products.
- Online Buyers of cosmetics and personal care products had 4 factors of Expectations, namely:
 - Convenience
 - Reliability
 - Flexibility
 - Variety
- Online Buyers had 2 factors that acted as obstacles or deterrents namely:
 - Delivery and Authenticity Issues
 - Perception Problems
- Age was the only demographic variable that influenced buyer expectations. It had an influence over 3 factors namely:
 - Convenience
 - Reliability
 - Variety

Suggestions

- Websites that sell Beauty and Personal Care products must target the younger generation (18-28 and 28-38 Age groups) as they predominantly purchase online.
- Sellers must pitch their Beauty and Personal Care products as suitable for daily-wear also to increase consumption.
- It would be beneficial for Retailers to sell with Amazon.in and Nykaa.com also besides their own websites as these emerged as popular among buyers of Beauty and Personal Care products.
- E tailers can provide incentives to those customers who provide good Customer Reviews for products as this is the main criteria in the purchase decision of online buyers.
- Detailed Product Information will also seal the deal with online customers.
- Deliver issues have been identified as one of the major obstacles for online purchase of Beauty and Personal Care products. This can be overcome by having an efficient delivery system in place which provides adequate tracking facilities.

- New methods of Virtual trials and providing samples for products selected by the customer can help mitigate perception problems.

Conclusion

The present study comes at a time when this industry stands on the threshold of boom. With a large customer base of young tech- savvy fashion gurus, this industry has much to gain from making its presence felt in the virtual world.

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Factors Influencing Online Shopping Behaviour: A Study of Visakhapatnam Virtual Market

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ABSTRACT

The aim of the study is to identify the factors influencing online consumer behavior while shopping in a virtual market. The study attempts to identify the factors with respect to the buying process of online consumers. The various factors influencing the online shopping in three stages i.e. pre-shopping, during-shopping and post-shopping are identified from the review of existing literature. The online consumer expectations towards all these factors are recorded on a five-point scale with a structured questionnaire from a sample of 600 online shoppers in the city of Visakhapatnam who performs online shopping. These factors are analyzed by applying the statistical tool factor analysis in order to determine most influencing online shopping factors so that the online retailers can design appropriate marketing mix and retail mix strategies to attract and retain the online shoppers.

Introduction

The virtual marketing includes insertion of all sorts of social networking tools to form the brand image of the product or services. A virtual market whereby patrons and sellers do not communicate, as in a web market. Not like e-commerce sites that involve businesses commercialism their own product through an internet site, virtual marketplaces are wherever third-party sellers also can do business. They are referred to as e-commerce marketplaces, such sites might feature individual traders, large-scale makers of products, or something in between. Many sellers on virtual marketplaces sell on their own websites yet, however virtual marketplaces usually like higher traffic than individual business sites would possibly. For a few smaller businesses, listing on virtual marketplaces may be a thanks to promote each individual merchandise and also the overall whole. For tiny operations, marketing on virtual marketplaces will do away with the need of getting an avid web site, hosting, technology, payment entryway, accounting package, and different wants for marketing on-line. Time and resources will be cantered on product rather than on planning and maintaining your own virtual store. The most important virtual marketplaces have mobile apps still, increasing their reach and, again, the customer do not should worry concerning planning or maintaining an app. With the development of IT and its application in completely different spheres of business even the standard shopping for is challenged by on-line marketers. The development and

intensification of competition and increasing list of products accessible on-line is indicative of gaining patronage of on-line shopping for. As a result of acceptableness of web, dynamism in market and shopper's attraction towards on-line shopping for, researchers are keen to unearth the currents driving and determine leading indicators of future success of on-line shopping for.

Online shopping behavior could be a quite individual's overall perception and analysis for product or service throughout on-line shopping that may lead to dangerous or great way. The online purchase is growing daily. There are several advantages of on-line shopping like time saving, access from all over, convenience, availableness twenty-four hours daily, variety of products, varied choices accessible to check merchandise and types. Beside the advantages of online shopping shopper feel completely different style of perceived risk factors and psychological factors are concerned in on-line shopping. The perceived risk may be loss, product performance risk, delivery risk and psychological factors like trust & security and web site design. These perceived risk and psychological factors conjointly determents the consumers' behavior towards on-line shopping. Thus, this study focuses on the web looking factors effecting consumer's behavior towards on-line shopping. There are several perceived risk and psychological factors concerned in on-line shopping.

Internet searching could be a phenomenon that's growing speedily these days. A peep into the exponential growth of the most players in this business indicates there's still an outsized reservoir of market potential for e-commerce. The convenience of on-line searching rendering it associate degree rising trend among shoppers. The prevalence of on line searching has raised the interest of the retailers to specialize in this space. Therefore, this study was to see the link between subjective norm, perceived usefulness and on-line searching behavior whereas mediate by purchase intention.

Currently Indian e-tail market is also attracting international e-tail giants to set up their physical and virtual networks to sell goods online. In this scenario, an attempt has been made to provide assistance to Indian e-tailers as well as International e-tailers to know what exactly the online customers want. This study attempts to find out the factors influencing online shopping behaviour so that the online marketers can design their marketing strategies.

Research Gap

Plenty of research studies are available in retail consumer behaviour but there are few studies available in online consumer behaviour. A good number of studies are available in e-commerce and electronic retailing domain but those studies are only concentrated either on customer expectations or satisfactions/perceptions of Indian customers. But the studies that discuss the factors affecting online consumer bahaviour are missing. During the online consumer decision making process, a customer considers a number of online outlets to shop. But after evaluating them basing on certain decision attributes, the customer selects only one website to do shopping. This study concentrates on those decision factors that make consumer to choose the retail website.

Review of Literature

Zhang and Von Dran (2000) identified the attributes of e-store attraction are the colour and background images of web-pages. Zott *et al.* (2001) analysed value creation on e-business and proposed four main drivers of value creators as efficiency, complementarities, lock-in and novelty. Burke (2002) found out that online customers' desire to know the availability of inventory, and want fast and convenient check-out, secure ordering and the ability to track purchases. Zeithaml (2002) had identified the factors of successful e-tailing as efficient web site design, effective shopping and prompt delivery. Grewal et al (2002) opined that the Internet shopping fulfils several consumers need more effectively and efficiently than conventional shopping. Forsythe and Shi (2003) studied the risk factors of online shopping and proposed that there are four types of risk with online shopping they are financial, product performance, time/convenience, and psychological (privacy) risk impact. Value Added Services (Reichheld and Schefter, 2000), prompt delivery (Zeithaml, 2002), speed of accessing e-store and screen complexity (Kim et al., 2002), provision of comparative shopping (Grunert and Ramus, 2005) are other factors of successful e-tailing.

Table 1: Factors affecting Online Shopping		
S.No.	Determinants	Author(s)
1	Range of Products	Bakos (1991), Zeithaml et al.,(2000).
2	Complementarities	Gale (1994)
3	Costs of Shipping	Peterson (1997)
4	Access to Information	Peterson et al., (1997)
5	Minimum Transaction Cost	Liang and Huang (1998)
6	Value Added Services	Reichheld and Schefter (2000)
7	Color and Background Images	Zhang and Von Dran (2000)
8	Prompt delivery	Kolesar and Galbraith (2000)
9	Availability of Pricing Information	Burke (2002)
10	Online Tracking of Orders	Kolesar and Galbraith (2000), Burke (2002)
11	Psychological Risk Impact, Privacy	Cheung and Lee (2001)
12	Convenient Check-out	Betts (2001)
13	Value Creation	Zott <i>et al.</i> (2001)
14	Speed of Accessing e-store	Kim et al., (2002)
15	Screen Complexity	Kim et al., (2002)
16	Efficient Website Design	Zeithaml (2002)
17	Timeliness of Product delivery	Burke (2002)
18	Return and Replacement process	Zeithaml (2002)
19	Financial Security	Forsythe and Shi (2003)
20	Product Performance	Forsythe and Shi (2003)

21	Time/Convenience	Forsythe and Shi (2003)
22	Availability Of Product Information	Chen and Dubinsky (2003)
23	Comparative Shopping	Grunert and Ramus (2005)
24	Loyalty Programmes	Sita Mishra (2011)
Source: Review of Literature		

Objectives of The Study

The aim of the study is to identify the factors influencing online consumer behaviour while shopping in a virtual market. The study attempts to identify the factors with respect to the buying process of online consumers. The various factors influencing the online shopping in three stages i.e. pre-shopping, during-shopping and post-shopping are identified from the review of existing literature. The online consumer expectations towards all these factors are recorded on a five-point scale with a structured questionnaire from a sample of 600 online shoppers in the city of Visakhapatnam who performs online shopping. The detailed objectives of the study are

- To identify factors influencing online consumer behaviour.
- To study customer expectations towards online shopping.
- To evaluate the factors basing on customer expectations, thereby identifying most influencing factors of online shopping.
- To recommend the online retailers about factors influencing online shopping so that they can design appropriate marketing mix and retail mix strategies to attract and retain the online shoppers.

Study Design

This empirical study used both quantitative and qualitative data to identify most influencing drivers of e-tail outlet selection. The study is primarily based on primary data. The primary data is collected from 600 online customers after confirming that they performed online shopping for purchasing of goods. The study aimed at recording the expectations of the online customers on identified factors influencing online shopping in the phases of pre-shopping, during-shopping and post-shopping which are identified from the review of existing literature. A structured questionnaire is designed in such a way that it captures the expectations of online shoppers at each stage.

- Sampling technique: Purposive Sampling
- Sample Size: 600
- Study Area: Visakhapatnam
- Data Collection Instrument: A structured questionnaire.

Profile of The Study Area

Visakhapatnam is one of the North Coastal districts of Andhra Pradesh state of India and it lies between 17°-15' and 18°-32' Northern latitude and 83°-54' and 83°-30' in Available on SSRN-Elsevier

Eastern longitude. The population of the district is 4.28 million as per 2011 Census and this constituted 5.0 percent of the population of the state while the Geographical area of the District is 11161 Sq. Kms, which is only 4.1 percent of the area of the State. Out of the total population 2.140 million are Males and 2.147 million are Females. The Urban population is 3.53 million whereas rural population is 1.301 million. The Sex Ratio is 1003 Females per 1000 Males. The District has Density of population of 384 per Sq. Kms. The literacy rate is 67.7 percent in the District.

The questionnaire was administrated in such a way that it carefully records the customer expectations towards factors influencing online shopping. The customers were asked to provide their expectations on a five-point likert scale (Most-Expected [5], Expected [4], Slightly- Expected [3], Least-Expected [2], Not-at-all Expected [1]) regarding factors influencing online shopping. The Questionnaire also concentrates on demographic profile of online customers and also attempts to study shopping behavior of customers.

Materials and Methods

Tabular Analysis: Simple tabular analysis is used to analyze the socioeconomic profile of the respondents. This method is also used for analyzing associations among any two required variables.

Means, proportions and ranks: Most of the analysis is simple and relied on comparing means (average) and proportion. The most influencing factors of online shopping are ranked basing on factor loadings for different retail outlets.

Factor Analysis: It is a statistical technique used for determining the underlying factors or forces among a large number of interdependent variables or measures: (Krishnaswami and Ranganatham, 2007). In social sciences and especially in behavioral studies, variables cannot be measured directly. Such variables are usually referred as “latent” variables and can be measured by qualitative propositions to reflect the perceptions of the respondents. The factors generated are used to simplify the interpretation of the observed variables.

The factor loadings are the correlation coefficients between the variables and factors. Factor loadings are the basis for imputing a label to different factors. Like Pearson’s correlation coefficient “r”, the squared factor loading is the percentage of variance in the variable, explained by a factor.

Eigen values: The Eigen value for a given factor reflects the variance in all the variables, which is accounted for by that factor. A factor's Eigen value may be computed as the sum of its squared factor loadings for all the variables. The ratio of Eigen values is the ratio of explanatory importance of the factors with respect to the variables. Eigen Value or Latent root is the sum of squared values of factor loadings relating to a factor (Krishnaswami and Ranganatham 2007).

Chi-Square test: Using the information provided in each grouped factor Chi-square test is used to test the significance of the cumulative explanation of variance. If the Calculated Chi- square value is found to be significant (if it is above the table value) the factor/factors are considered as proper and used the factor scores as Indices for further analysis.

KMO Measure: Kaiser-Meyer-Olkin measure of sampling adequacy is performed in factor analysis to determine whether the factor should be considered for further analysis or not. If KMO measure is greater than threshold value of .5, then only the factor should be considered for further analysis: (Hair et al. 1998).

Bartlett's Test of Sphericity: In order to find out the appropriateness of factor analysis for the set of variables Bartlett's Test is used. It measures the correlation of variables where the probability of less than .05 ($p < .05$) is acceptable: (Akansha Anchaliya et al. 2012).

KMO and Bartlett's Test: In order to find out the appropriateness of factor analysis for the set of statements (variables), Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity is used. KMO measures the magnitude of observed correlation coefficients to the magnitude of partial correlation coefficients. A value greater than .5 is desirable. Bartlett's Test measures the correlation of variables. A probability of less than .05 is desirable: (Akansha Anchaliya et al. 2012).

Cronbach's Alpha: The value was calculated for the questionnaire administrated in order to determine the reliability of the data where the alpha value is greater than .70 is the recommended level: (Bernardi 1994). For this study, Cronbach's Alpha value is calculated as .777 for 600 sample which indicates that the data have relatively higher internal consistency (77.7%).

Demographic Profile of Online Customers in Visakhapatnam

In this section an attempt has been made to analyse socioeconomic profile of online customers. This analysis helps the e-tailers to plan for their merchandise in terms of style, type, brands etc depending on gender, age group, income, education, occupation and size of family. This analysis also helps in planning their marketing communications, media selection, promotional campaigns etc.

Table 2: Demographic Profile Online Customers			
Variable	Categories of variable	Frequency	%
Gender	Male	385	64.17%
	Female	215	35.83%
Age	15 - 20 years	15	2.50%
	20 - 30 years	365	60.83%
	30 - 40 years	170	28.33%
	40 - 50 years	35	5.83%
	above 50 years	15	2.50%
Occupation	Students	52	8.67%
	Unemployed	42	7.00%
	Employed	308	51.33%
	Business people	198	33.00%
Education	Less than or 5 th Class	5	0.83%
	5 th to 9 th Class	22	3.67%
	SSC / 10 th Class	61	10.17%
	Higher Secondary / Diploma / ITI	72	12.00%

	Graduation (UG)	259	43.17%
	Post Graduation (PG)	151	25.17%
	Higher than PG	30	5.00%
Income	Less than Rs.5,000/-	38	6.33%
	Between Rs.5,000/- and Rs.10,000/-	148	24.67%
	Between Rs.10,000/- and Rs.20,000/-	200	33.33%
	Between Rs.20,000/- and Rs.50,000/-	132	22.00%
	More than Rs.50,000/-	82	13.67%
Size of Family	Two	105	17.50%
	Three	225	37.50%
	Four	195	32.50%
	Five	55	9.17%
	Six	20	3.33%
<i>Sources: field data</i>			

In this section an attempt has been made to analyse the demographic profile of online customers as presented in table 2. Out of total 600 sample respondents, 385 (64.17%) are male and 215 (35.83%) are female.

Basing on their age, the respondents are classified into five groups. Out of total sample 600, 15 (2.50%) are from the age group of 15 – 20 years, 365 (60.83%) are from age group of 20 – 30 years, 170 (28.33%) are from early middle age group (31 – 40 years), 35 (5.83%) belong to late middle age group 40 – 50 years and 15 (2.50%) are from old age group (above 50 years).

Based on occupation, the respondents are classified into four groups, students 52 (8.67%), unemployed 42 (7.00%), employed 308 (51.33%) and business people 198 (33.00%).

Basing on the education, the respondents are classified into seven groups, 5 (0.83%) respondents completed elementary education, 22 (3.67%) have secondary education, 61 (10.17%) studied 6th class to 9th class, 61 (10.17%) completed secondary education, 72 (12.00%) completed higher secondary education, 259 (43.17%) are graduated, 151 (25.17%) have post graduation qualification and 30 (5.00%) are higher post graduates.

Basing on the income levels, the respondents are classified into five groups, 38 (6.33%) are having monthly income less than Rs.5,000/-, 148 (24.67%) have income between Rs.5,000/- and Rs.10,000/-, 200 (33.33%) have income between Rs.10,000/- and Rs.20,000/-, 132 (22.00%) have income between Rs.30,000/- and Rs.50,000/-, another 82 (13.67%) respondents have income more than Rs.50,000/-.

The family size attribute of online consumers is categorised into five groups, 105 (17.50%) have family size two, 225 (37.50%) have size three, 195 (32.50%) are having family size four, 55 (9.17%) have five and 20 (3.33%) of respondents are having size six.

Online Shopping Behaviour of Shoppers

The shopping behavior of online shoppers is analysed in this section as displayed in the table 2. The study of online shopping behavior enables the e-tailers to design and implement their marketing strategies so as to promote and sell goods online.

Table 3: Online Shopping Behaviour of Shoppers			
Variable	Categories of variable	Frequency	%
Frequency of online shopping	Daily	25	4.17%
	Weekly	85	14.17%
	Biweekly	64	10.67%
	Monthly	214	35.67%
	Bimonthly	11	1.83%
	As per requirement	201	33.50%
Most preferred week of e-shopping	First week of month	270	45.00%
	2 nd week of month	108	18.00%
	Last week of month	25	4.17%
	As per requirement	197	32.83%
Amount spent per month	Less than Rs.1000/-	246	41.00%
	Between Rs.1000/- to Rs.5000/-	194	32.33%
	Between Rs.5000/- to Rs.10000/-	100	16.67%
	More than Rs.10000/-	60	10.00%
Source of Information about E-tail site	News Papers	198	33.00%
	Television	199	33.17%
	Radio	55	9.17%
	Internet Ads	100	16.67%
	Social Networking Sites	48	8.00%
Internet Browser used while online shopping	Google Chrome	197	32.83%
	Internet Explorer	101	16.83%
	Mozilla Firefox	147	24.50%
	Opera	58	9.67%
	Any browser	97	16.17%
<i>Sources: field data</i>			

- The frequency of online shopping is observed in this section so that the e-tailers can plan for their merchandise procurement as per shopping frequency of customers. From the total sample 600, the frequency of online shopping is observed as daily 25 (4.17%), weekly 85 (14.17%), biweekly 64 (10.67%), monthly 214 (35.67%), bimonthly 11 (1.83%) and 201 (33.50%) of respondents are doing online shopping as per requirement of goods.
- In this segment, the most preferred week of shopping in a month has been analysed. The objective of this analysis is to assist the e-tailers in planning their promotional programs during that week. Out of 600 sample, online customers doing shopping in first week of the month are 270 (45.00%),

second week 108 (18.00%), last week of the month 25 (4.17%) and 197 (32.83%) of the respondents perform online shopping is as per requirement of goods.

- The monthly expenditure for online shopping by the customer are analysed in this section so that the e-tailers can take the merchandise decisions for their business how much stock levels should be maintained at BOM (Beginning Of the Month) to EOM (Ending Of the Month), out of the sample 600, 250 (41.67%) are spending less than Rs.1000/- for online shopping, 200 (33.33%) of the customers are spending an amount between Rs.1000 and Rs.5000, 90 (15%) are spending an amount between Rs.5000/- to Rs.10000/- and 60 (10%) are spending an amount more than Rs.10000/-.
- The concept of retail branding is also applicable to e-tail outlets also as it is applicable to physical retail outlets. An attempt has been made to identify through which media sources the customers are able to know about the e-tail websites so that the e-tailers can plan and promote their brand marketing programs. The source is as Newspaper for 198 (33.00%) customers, TV 199 (33.17%), Radio 55 (9.17%), Internet ads 100 (16.67%) and Social Networking sites as a source for 48 (8.00%) respondents.
- The types of internet browsers used by the online customers are identified in this segment. This analysis can be used to recommend to the online customer by the e-tailer through which browser the online shopping can be better performed and also to perform testing process by the website maintenance team while designing WebPages. In the study area, out of 600 respondents, 197 (32.83%) are using Google Chrome as browser, Internet Explorer by 101 (16.83%), Mozilla Firefox 147 (24.50%), Opera 58 (9.67%) and remaining 97 (16.17%) are using any available browser for performing online shopping.

Data Analysis – Factors Influencing Online Shopping Behaviour

In this section an attempt has been made to analyse the factors influencing online shopping by performing multivariate analysis (factor analysis for data reduction). The situations where more than one dependent variable is influencing the decisions then factor analysis is considered to be appropriate tool for data analysis. Factor analysis was performed on the data of customer expectations on factors influencing online shopping that motivate the customer to shop in an online store (24 determinants presented in table 1). The customers were asked to provide their expectations on a five point likert scale (Most-Expected [5], Expected [4], Slightly-Expected [3], Least-Expected [2], Not-at-all Expected [1]) regarding twenty attributes which were derived from previous studies. To determine the data reliability, Reliability test was performed on the data of customer expectations towards selected determinants. The value of the Cronbach's Alpha is found to be .777, which shows the data of pre-purchase-attributes is 77.7% reliable which ensures to proceed for further analysis.

Reliability of Data: Kaiser Meyer Olkin (KMO) and Bartlett's Test for Determinants of Customer Patronage

Table 4: KMO and Bartlett's Test for Selected Determinants		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.668
Bartlett's Test of Sphericity	Approx. Chi-Square	6790.68
	Df	190
	Sig.	.000
<i>Source: Factor Analysis Data Reduction</i>		

To know about which most influencing factors impacting online consumer behaviour, factor analysis was performed on the data of customer expectations towards those factors. To determine the appropriateness of application of factor analysis, Kaiser Meyer Olkin (KMO) and Bartlett's Test was performed as shown in table 4. The KMO measure is observed to be .668 which is higher than the threshold value of .5 (Hair et al. 1998). So it can be interpreted that there is no error in 66.8% of the sample and remaining 33.2% there may occur some sort of error. Bartlett's Test of Sphericity ($\chi^2 = 6790.68$) is found to be significant ($p < .001$, df 190). Finally, it can be concluded that the data collected on factors influencing online shopping is appropriate for factor analysis.

Factors Analysis– Factors influencing online shopping

Table 5: Factors influencing online shopping			
Factor	Eigen Values	% Total variance	Cumulative %
WEBSITE DESIGN	5.456	29.29	29.29
PRICING	2.874	12.77	42.06
MERCHANDISE	2.125	11.25	53.31
RISK	1.456	7.16	60.47
DELIVERY	1.417	6.78	67.25
BENEFITS	1.201	5.21	72.46
<i>Source: Factor Analysis Data Reduction</i>			

Factor analysis was used to remove the redundant variables from the survey data and to reduce the number of variables into a definite number of dimensions. The application was done in SPSS. The factor analysis was performed using principle component extraction method with varimax rotation. After performing factor analysis, the twenty-four variables were reduced to six factor dimensions, which explained 72.46% of overall variance which is indicating that the variance of original values was well captured by these six factors as shown in table 5. The six factors are provisionally named Website Design, Pricing, Merchandise, Risk, Delivery and Benefits.

Factor Scores Matrix – Factors influencing online shopping

The factor scores matrix of factors influencing online shopping shows the associated variables in all the six factors and their relative factor scores as presented in table 6. The factors, factor loadings and their associated variables are as follows.

- **FIRST FACTOR - WEBSITE DESIGN:** The first factor formed is website design with an Eigen value of 5.456, variance of 29.29% and four associated variables. The associated variables are Access to information (.901), speed of accessing e-store (.807), color and background images (.715) and screen complexity (.534).
- **SECOND FACTOR - PRICING:** The second factor formed is pricing with an Eigen value of 2.874, variance of 12.77% and four associated variables. The associated variables are Minimum transaction cost (.801), Availability of pricing information (.778), Value Creation (.615) and Costs of shipping (.545).
- **THIRD FACTOR - MERCHANDISE:** The third factor formed is merchandise with an Eigen value of 2.125, variance of 11.25% and three associated variables. The associated variables are Comparative shopping (.811), Availability of product information (.738) and Range of products (.518).
- **FOURTH FACTOR – RISK:** The fourth factor formed is risk with an Eigen value of 1.456, variance of 7.16% and four associated variables. The associated variables are Financial Security (.819), Privacy (.648), Online Tracking of Orders (.568) and convenient check-out (.537).
- **FIFTH FACTOR – DELIVERY:** The fifth factor formed is risk with an Eigen value of 1.417, variance of 6.78% and three associated variables. The associated variables are Reliability of product delivery (.818), Timeliness of product delivery (.701) and Return and replacement process (.612).
- **SIXTH FACTOR – DELIVERY:** The sixth factor formed is risk with an Eigen value of 1.201, variance of 5.21% and two associated variables. The associated variables are Secured Complementary Benefits (.779) and Value-Added Services (.618).

Factor	Items converged	Factor loads
Website Design	Access to information	0.901
	Speed of accessing e-store	0.807
	Color and background images	0.715
	Screen complexity	0.534
PRICING	Minimum transaction cost	0.801
	Availability of pricing information	0.778
	Value Creation	0.615
	Costs of shipping	0.545
MERCHANDISE	Comparative shopping	0.811
	Availability of product information	0.738
	Range of products	0.518
RISK	Financial Security	0.819
	Privacy	0.648
	Online Tracking of Orders	0.568
	Convenient check-out	0.537
DELIVERY	Reliability of product delivery	0.818
	Timeliness of product delivery	0.701
	Return and replacement process	0.612
BENEFITS	Complementarities	0.779
	Value Added Services	0.618
<i>Extraction Method: Principal Component Analysis.</i>		

Rotation Method: Varimax with Kaiser Normalization.

ELIMINATED FACTORS: While performing factor analysis, four determinants from the total list of twenty four were eliminated. They are time/convenience, product performance, efficient site design and loyalty programs.

Discussion and Suggestions

Hence it is suggested to the online retailers to concentrate on the determinants in the order of factors scores from highest to lowest i.e. Website Design, Pricing, Merchandise, Risk, Delivery and Benefits. In order to attract new customers and to retain existing customers of the e-store, the e-tailers have to take care of these determinants. The website must be user friendly and its design must be in an approachable manner with good speed of transactions. Pricing of the merchandise must be fair when the shipping charges are included along with product price. The merchandise available in the e-store must reflect according to the socioeconomic profile of target customers i.e. basing on age, income, gender etc. The website must ensure that the safety and security for online payments and other transactions. The delivery must be prompt, in-time and products should be in good condition after reaching the customer. The complimentary benefits to the customer must be well informed and the e-store must be offering time-to-time sales promotion schemes to retain the customer.

It can be observed that women are not participating actively when compare to men in online shopping (refer table 1). They are contributing to only about 35.83%. The e-tailers have to create awareness and educate the women about the usage and performance of online shopping. Most of the online consumers are belonging to 20 to 40 years of age (about 89.17%). The e-tailers have to concentrate on the needs of this age group and offer merchandise with which this age group can be more attracted.

On the basis of education, majority of the online shoppers are graduates and post graduates. The e-tailers have to concentrate on other education groups i.e. from less than 5th class to higher secondary level, which represent about 26.67%, certain computer literacy programs and campaigns must be organised. In the website itself some online tutors must be made available so that less educated / non-graduate customer segment can also participate in online shopping. Most of the online customers belong to Rs.5000/- to Rs.20000/- income group. The e-tailers are advised to bring/offer such merchandise so that this group of customer can afford to purchase.

Conclusion and Scope for Further Research

From this empirical study it can be observed that the online customers are expecting Website Design, Pricing, Merchandise, Risk, Delivery and Benefits. The e-tailers must provide these attributes first and concentrate on others later in order to motivate the customers to log on to the websites. The study was organized in Visakhapatnam city only, the sample size may not be representing the entire study area properly so that the chances of occurring sampling error is moderate to high. The same virtual market research can be organized on sectors like banking,

insurance, travel, tourism etc. Basing on the previous studies, the present study is concentrated only on twenty-four factors influencing online shopping, but there may be more number of factors. The same study can be organized across the world because online shopping exists every part of the world.

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Challenges Faced by Adecco Employees in Handling Employee Lifecycle

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ABSTRACT

Employee lifecycle is very important for any organization. Employee lifecycle includes every step an employee goes through; from the time they enter an organization until they leave. Through by maintaining a proper lifecycle, the organization can achieve its objective and can retain employee for longer period of time. This research is directed towards the employee lifecycle which is being followed by "The Adecco Group", Lucknow branch. It is a consultancy firm which acts as a third party and deals with recruitment, hiring, outsourcing, etc. The Adecco Group is a Fortune Global among 500 companies and is one of the world's leading providers of HR solutions. As a consultancy company the employee lifecycle is mentioned in this paper and what are the challenges faced by the employees in handling it. Basically, the employee lifecycle which is being followed by Adecco consists of five steps- Recruitment, On boarding, Payroll, Separation, Exit interview. The details of the steps followed is being discussed further and what are the challenges faced during employee lifecycle is also been discussed.

Introduction

As we all know that employees are considered as a valuable asset of the organization. So, for retaining employee long in the organization we have to maintain properly the employee lifecycle. The employee lifecycle can be defined as employee's journey with the company. It is sometimes also called as HR lifecycle or simply HR cycle too.

The employee lifecycle differs from organization to organization. But in general the employee lifecycle of an organization is - Talent acquisition, Recruitment, Onboard, Develop, Payroll, Retention, and Separation. Employee life cycle management is considered a crucial function of HR department because it deals with most valuable asset of the organization - its employees.

Literature Review

Available on SSRN-Elsevier

In rapid competitive business environment, the procedures of outlining the role, function and process of Human Resource management within a dynamic and uncertain environment are ongoing for many decades. In the early 1980's numerous books and articles were published by American Business Schools professors to support the widely recognition of HRM concept and the environmental volatility in today's contemporary business that specifically identify conflict and heterogeneity (Soderlund and Bredin, 2005).

Due to its diverse origins and many influences, HRM covers essential aspects of central concern in organizations such as individual, practice, educational theory, social and organizational psychology, sociology, industrial relations, and organizational theory (Soderlund and Bredin, 2005)

"A philosophy of people management based on the belief that human resources are uniquely important to sustained business success. An organization gains competitive advantage by using its people effectively, drawing on their expertise and ingenuity to meet clearly defined objectives. Human resource management is aimed at recruiting capable, flexible and committed people, managing and rewarding their performance and developing key competencies".

HR is essentially crucial in today's contemporary organization because it induce high performance management through use of employees, by enhancing their levels of customers service, productivity, growth, profits and quality control (Armstrong, 2000).

Objective

The general objective of the project is to find out the procedure and process right from the recruitment of a candidate till his/her separation from the organization-THE ADECCO GROUP.

- To study the current lifecycle at Adecco Group.
- To study the challenges in handling employee lifecycle in Adecco, Lucknow.
- To analyze the views of employee towards lifecycle in the organization (Adecco).

Research Methodology

The data is being collected from primary and secondary method of data collection. The primary data is being collected through a well-designed questionnaire, which was personally administrated to the selected sample. And the secondary data is being collected from the Adecco's website.

Convenient sampling technique is being used in the paper, as it was easy way to collect the data from the employees of the Adecco.

The tools used to present the data in easy and simple way is pie chart, bar chart, and percentage method. The scope of study of paper is limited to Adecco Group, Lucknow branch only and the paper only focus on the employees currently working in Adecco, Lucknow. The number of respondents taken for study is 50.

Employee Life Cycle

- Employee lifecycle is an HR model that identifies stages a workers advance through in an organization and the role HR plays in optimizing that progress.
- In short, it refers to an employee's journey with the company.

At ADECCO, the hiring process for a Client is given below:

1. Recruitment
2. Onboarding
3. Payroll
4. Separation
5. Exit Interview

Recruitment

- Recruitment forms the first page in the process which continues with selection a cease with the placement of the candidate.
- Recruiting makes to acquire the number and types of people necessary to ensure the continued operation of the organization.
- Recruiting is discovering of potential applicants for actual or anticipated organizational vacancies.

In Adecco, the sources of recruitments are:

- Job portals: Career portal, Naukri, etc.
- Social Media: LinkedIn
- Print Media Advertisement
- Walk-ins

Information regarding selection

The candidates were informed about their selection and were called for completing their joining formalities along with their documents such as:

- Qualification Certificates
- ID proof
- Address proof
- Bank proof
- Photographs
- Relieving Letter of Previous Employer

Filling of joining kit

The joining kit is made filled by the candidates. The kit includes following:

- Adecco Staffing (HRIS FORM)
- Declaration form (form 1)
- Gratuity Nomination Form
- Feedback form
- ESIC form
- EPF form

On boarding

- After completion of joining formalities, Onboarding is done.
- The Onboarding of the associates (candidate) is done on the RAMP software of ADECCO.
- All the relevant information about the employee is being entered.
- After completion of information, all the required documents have to scanned through DMS (Database Management System) and send to the head office.
- The verification is done by the DMS team at Adecco head office, Bangalore.

Payroll

Payroll can be simply defined as computation of wages / salary.

Adecco India makes the payment on the dates mutually agreed by the client, which will be intimated by the reporting officer of the client. All the payments are made by the bank transfers in the employee's bank account.

Once the employee starts working their attendance is recorded by the reporting officer and according to it salary is defined.

Payroll process

- Firstly, the attendance is collected from the client.
- After collecting attendance, all the leaves/holidays taken by the employee is thoroughly being checked.
- Then the data is uploaded in the "RAMP" Adecco site.
- Then it is being informed to the client.
- The client then generates the Net Pay.
- Generation of ICR (Invoice Control Report) is a rough Performa of invoice in which any kind of editing can be done.
- Then lastly the generation of final invoice is being done.

Separation

- Separation means end of Employment with the employer.
- After separation, the employees are not the part of the organization.
- All the dues are settled through full final process.
- Employees are not allowed to take leave in Notice period.
- Employee can either withdraw their PF amount or can apply for PF transfer.

The separation can be in many ways, they are

- Retirement
- Resignation
- Termination
- Completion of Contract

Exit Interview

Every associate after the separation has to go through the exit interviews in order to give his suggestions/feedback because feedback is the essential thing for any organisation as it helps the company to grow and to make the required changes. Beside this the relieving /experience letter is also given to the associate.

Associates can transfer their PF to the new company they are joining by getting Form 13 from Adecco or if associate decide to close PF account, he /she would need to fill in form 10C & 19 along with cancelled cheque leaf and submit after 60 days of getting relieved from Adecco. It will take 21 days from then to get your settlement transferred to your bank account.

Challenges Faced by Adecco Employees in Handling Employee Life Cycle

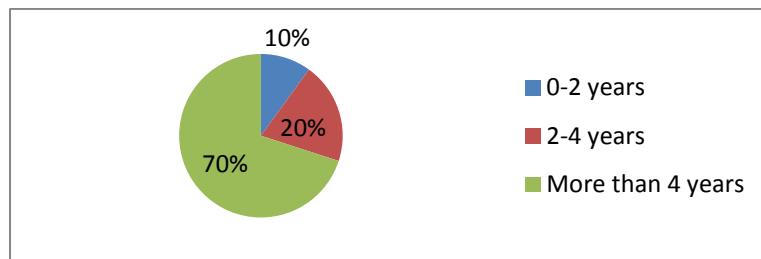
- In recruitment, the challenges faced in hiring employees in northern region because most of the candidates are not well qualified, due to which it takes more time in giving training to them.
- Incomplete family details in joining form is major challenge for employees because then the associate fails to attain the criteria of getting an ESIC benefit.
- Sometimes even an incomplete joining form is being submitted by the associates, which turns to major challenge for employees of Adecco in filling their personal details too.
- Incomplete information about PF is also a big challenge.

Data Analysis and Interpretation

Since how many years have you been working in Adecco?

Tabular Representation of respondent (employees)

Options	No. of Respondents	Percentage
0-2 years	5	10
2-4 years	10	20
More than 4 years	35	70
Total	50	100



Graphical representation of data from respondents

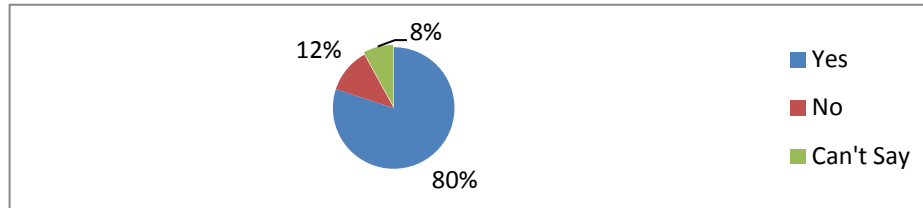
Interpretation: It is found that 70% of employees are working in Adecco for more than 4 yrs, which means their level of satisfaction is high towards the organization that's why they are retaining for long term.

Is the organization is doing timeliness recruitment and selection process?

Tabular representation of respondents (employees) regarding timeliness recruitment and selection process

Options	No. of Respondents	Percentage
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Yes	40	80
No	6	12
Can't say	4	8
Total	50	100



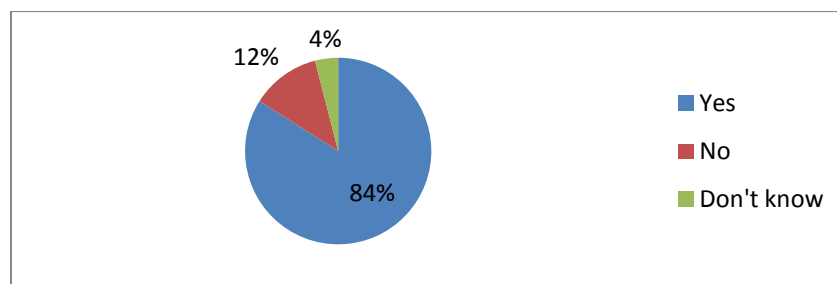
Graphical representation of data from respondents

Interpretation: It is found that 80% of the employees agree that the organization is doing timeliness recruitment and selection process, the company should minimize the time by making clear strategy, while 12% says that they don't think so.

Does the company have proper settlement policy (i.e. company gives salary and experience letter to the employees who are leaving the organization)?

Tabular representation of respondents about settlement policy

Options	No. of Respondent	Percentage
Yes	42	84
No	6	12
Don't know	2	4
Total	50	100



Graphical representation of data from respondents

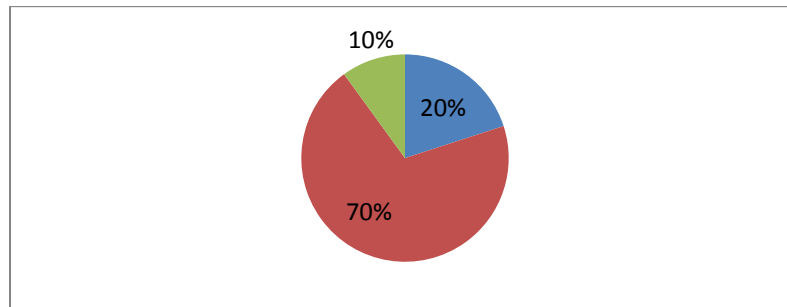
Interpretation: It is found that 84% of the employees agree that the organization gives the salary along with their experience letter to employees at the time of leaving the organization which makes the employees satisfied about the settlement policy of the organization, while 12% of respondent don't think so.

Are the hired employees are familiarized about the ESIC benefits?

Tabular representation of respondent about ESIC benefits

Options	No. of	Percentage
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	Respondents	
Yes	10	20
No	35	70
Sometimes	5	10
Total	50	100



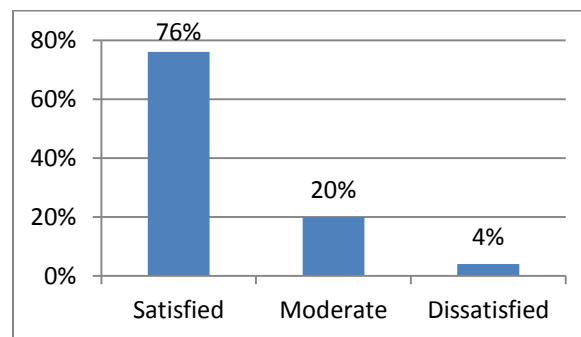
Graphical representation of data from respondents

Interpretation: It is found that 70% of employees are not familiarized about the ESIC benefits which are being rendered to them, due to which they don't fill their family details at the time of joining due to which they fail to get their ESIC benefits, while 20% agree that employees know about the ESIC benefits.

Are you satisfied with your job role and working hours of the organization?

Tabular representation of respondents about their job role and working hours

Options	No. of Respondent	Percentage
Satisfied	38	76
Moderate	10	20
Dissatisfied	2	4
Total	50	100



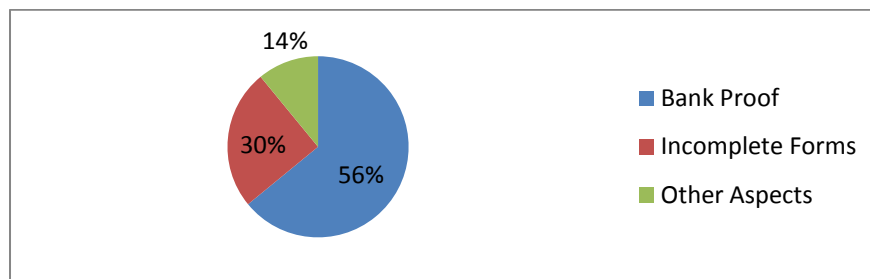
Graphical representation of data from respondents

Interpretation: It is found that 76% of employees are satisfied with their job role and working hours of the organization which makes them stress free and hence work effectively, while 20% says it moderate.

What criteria is being wrongly attached in joining forms, when send through post?

Tabular representation of respondent about criteria wrongly attached in joining forms

Options	No. of Respondents	Percentage
Incomplete Forms	15	30
Bank Proof	28	56
Other Aspects	7	14
Total	50	100



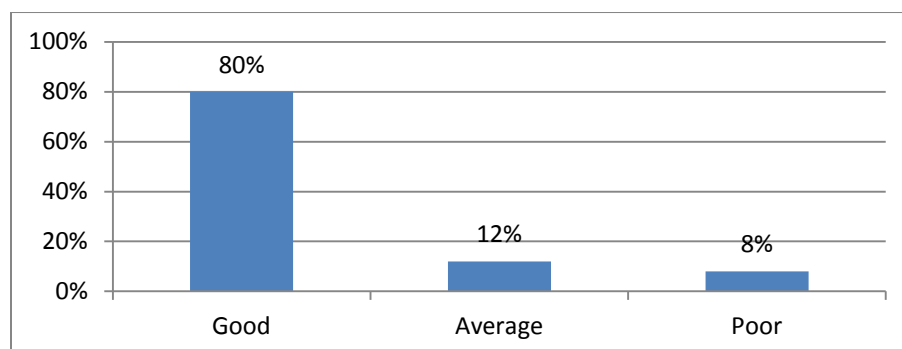
Graphical representation of data from respondents

Interpretation: It is found that 56% of bank proofs are wrongly attached i.e. Invisible IFC code or unrecognized bank name, when the forms are sending through post. The bank proof is the mandatory aspects which need to be entered while Onboarding of employees into Adecco software i.e. RAMP software. And also 30% of incomplete forms are being received.

How do you rate the Employee Lifecycle in the organization?

Tabular representation of respondents about how they rate the employee lifecycle in Adecco

Options	No. of Respondents	Percentage
Good	40	80
Average	6	12
Poor	4	8
Total	50	100



Graphical representation of data from respondents

Interpretation: It is found that 80% of the employees rate the Employee Lifecycle followed in the organization is good, while 12% rate it as moderate.

Observations and Findings

- 70% of forms are found with incomplete family details due to which employee fails to get the ESIC benefits.
- Employee satisfaction is high and 70% of employees are satisfied with their work.
- 80% of employees agree that organisation is doing timeliness recruitment and selection.
- Regular increments are being given to the employees in the organisation.
- 76% of the employees are satisfied with their job role and working hours of the organisation.
- 56% of the bank details are wrongly attached i.e. invisible IFC code or Unrecognised bank name, when the joining forms are sent through post.
- 80% of the employees agreed that the Employee life Cycle in their organisation is satisfactory.

Recommendations

- The company should give the compensation as per to the skills, so that the employees could do the efficient work.
- Organizations must enhance work force motivation to improve productivity. Workers must be encouraged and motivated to develop a customer satisfaction mind set.
- Interdependency of different departments should be well studied, co-ordinate for effective output.
- Recruitment process should be optimised, so as to consume less time.
- The employee goals should well study and structured. The Key related areas should properly design & clearly mention to employees.

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Management- Ethics and Values

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Management in
religious text.

ABSTRACT

“Ethics is knowing the difference between what you have a right to do and what is right to do- *Potter Stewart*”. A good manager is recognised by the number of correct decisions he makes in his career. As per the studies till date, the decisions are made based on the analysis of all the possible alternatives. This thought is being proven correct by many researchers but another thought now a day is also taking its place in decision making. A thought of manager being ethical and analytical will make him take decisions which not only are beneficial to the organisation but are morally correct. *Kent* believed that a moral person bearing “good will” will render decisions based on what is right without caring for a decision. *Aristotelian* has contributed in the moral virtues which acted as a rule for taking ethical decisions. These rules are: Courage, Self- control, Generosity, Magnificence, High mindedness. Now in modern era, as we are depleting the value of a relation in the organisation and focussing sole heartedly into profits, it is of utmost important to bring back the values and ethics taught by our ancestors. The objective of this paper is to discuss the significance of religious text and ethical values in management decisions. Some light will be shed on techniques of inculcating the values in managers. The sole purpose of the research is to provide an insight into how to make a manager decision more effective and ethical and maintain harmonious environment in the organisation. A new era of digitalization is making its mark along with being ethical and religious in management.

Introduction

Management is the word which starts with “Man” a human being who manages the entire organisation. An organisation which is been made up of values and ethics, a vision which its employees strive hard to achieve. In the same context, the role of manager becomes very crucial and the quality of the manager is judged on the basis of the correct decisions made by him. In the world of internet, the probability of taking correct decisions are quite high. Numerous applications and techniques are already been developed and in practice which distinguishes a normal and analytical decision. However the point of discussion in the field is: Does only being analytical helps you in developing “Good” organisation culture. This part cannot be left ignored as employees are complaining a lot about not having proper work life balance and

poor organisation culture. Thus again the job of manager comes into the picture. How to take decisions which are not only analytical but also are morally correct. In the global market, the tables are already turned and now it is not advisable for every organisation to perform industrial activities on economic and physical strength of a corporate. It is important to set missions and vision for a company based on the human values i.e. ethical system.

There are certain theories also developed to support ethical decision making:

1. Tele logical Ethical System.

2. Deontological Ethical System.

Tele logical Theory: This theory deals with an ethical decision by measuring the probable result or consequences. This theory is utilitarian which searches at its end the greatest “good” (or utility) for the greatest number, the system is analysed by application of cost benefit analysis i.e. to tally the costs Vis-a Vis benefits (utilization) for the given decision. After analysis the best and most effective decision is finalized which also provides maximum, overall gain.

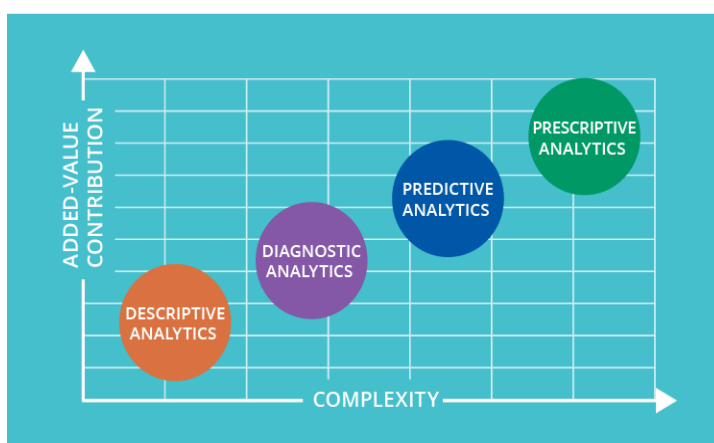
The theory also has its own complex drawback as it is difficult to measure exact benefit. There is possibility of injustice in the distribution of goods.

Deontological Ethical System: This theory embraces the rules which govern decisions. Kent during 1752- 1804 developed rules based ethics, which explains the rightness of an act depends little on the result of the act.

There are, some other theorists who have also contributed supporting ethical decision making such as Aristotle, Plato who talked about the character of the manager and building a good character may leads to desired level of ethical decisions. There ethic is “what is the best sort of life for human being to live?”

Ethics are no doubt important for every human being and building a good moral character will definitely help in building an amicable work environment. Now, let’s take a look on how technology has changed the game of decision making in the managers world.

Types of Data Analytics

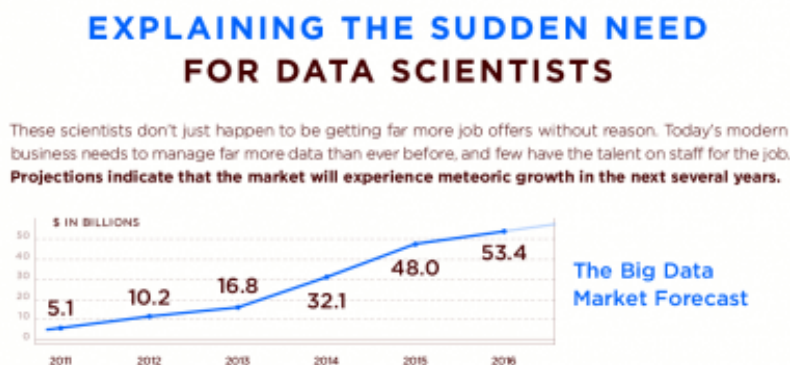


1. *Descriptive Analytics:* It answers the questions of what happened. It cumulates the raw data from multiple sources and then analyse it with the past stories. However, these insights will only give you an analysis of what was

done right and wrong. It may not give you the reason why the certain results were achieved.

2. *Diagnostics Analysis*: This analysis is completely opposite of the descriptive analysis. It explains the reason why something happened. This study will go in depth the data and will finding the reasons for the actions.
3. *Predictive Analysis*: In this scenario, an insight is built to analyse what is going to happen in future. It may contain data from history and also can be based on the surveys and new information generated. It may also be called as “advanced data analytics”.
4. *Prescriptive Analysis*: The purpose of prescriptive analytics is to literally prescribe *what action to take* to eliminate a future problem or take full advantage of a promising trend. This type of data analytics requires not only historical data, but also external information due to the nature of statistical algorithms. Besides, prescriptive analytics uses sophisticated tools and technologies, like machine learning, business rules and algorithms, which makes it difficult to implement and manage.

Statistics on Decision Making



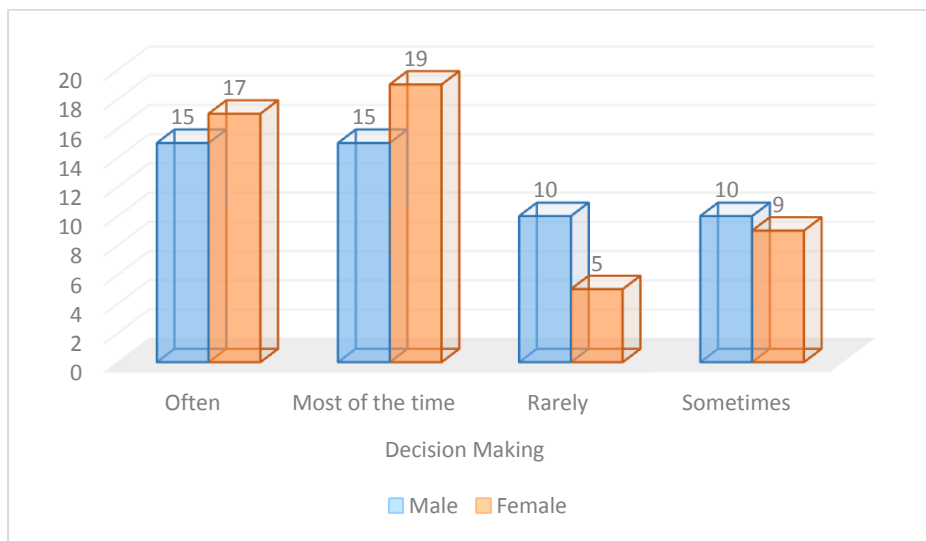
Sustainable development is seen in is graph. As discussed earlier, it is the need of the hour to have managers who are expert in the analyses of the data. In the graph also we can see that in the gap of ten years the job opening for analysts has grown from 5.1 dillions to 53.4 dillions. This data proves that taking decisions based on analysis have helped the companies to grow and make maximum profit in their businesses.

Another graph here explains how many times an individual is involved is taking decisions at their workplace. Also the employees are categorised here on the basis of gender, which gives us clear picture that woman are mostly involved in decision making. The possible reason can be managing the work life balance.

It is undoubtedly quoted by Steve Jobs also

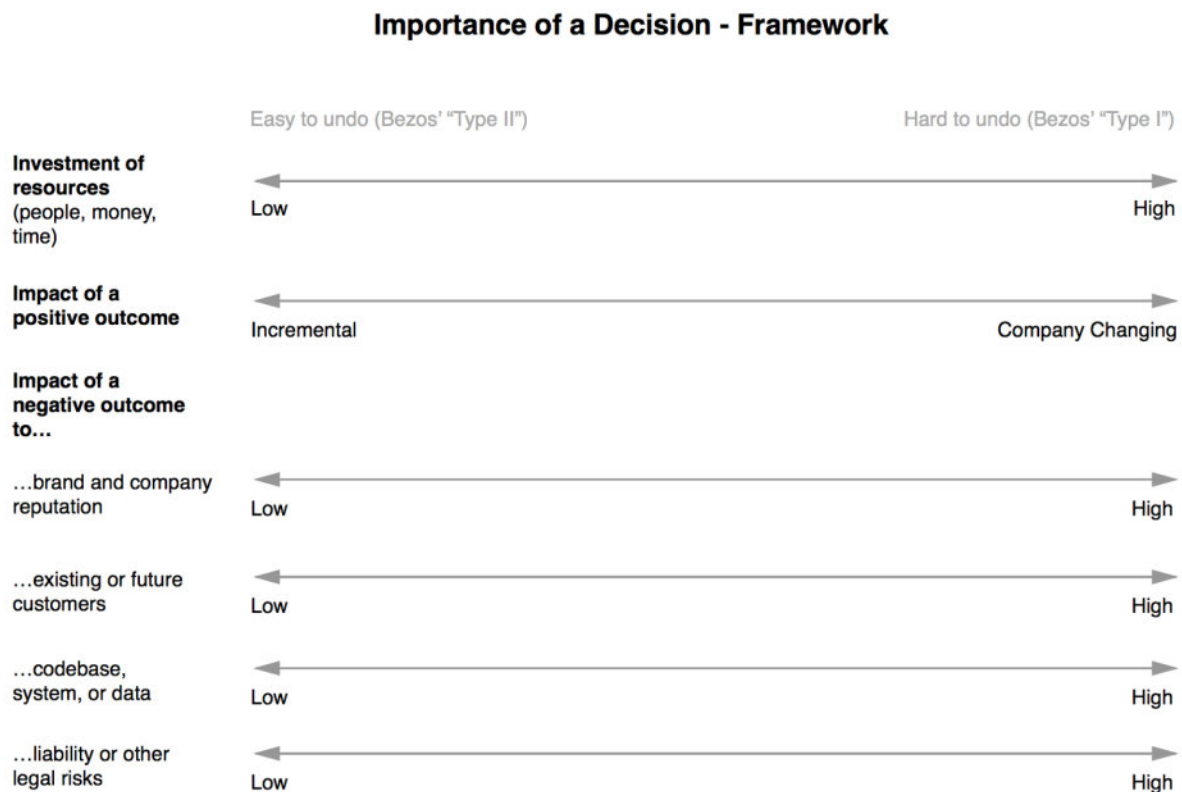
“Good Managers are the pillars of the company”. However, the definition of good is in doubt here, Good can be described in various ways. A manager who is courageous, analytical and has inculcated ethics and values in his system. A

manager job is not only to maximize the profit but ensuring the employee happiness.



How important is it to make a good decision in business?

I was stoned to know the fact that how a business is affected by the decision making, though the surprise was to understand how a negative decision can adversely affect a business. There are usually two ways to run a business, take a decision and wait for the outcomes of it and second do not take any decision and just sit back and react to whatever situation comes in. However the best way is to take a positive decision and run a business smoothly. There is always a better decision than not making a decision. A good decision comes from a successful leader and a decision can propel a business forward or can ruin a business.



As noted in the image, every aspect of the business is related to the decision making.

Ethical and Decision Making by Laura Nash

The Twelve Questions Model

Laura Nash, an ethics researcher, has talked about the Twelve Questions Model as a basic approach to ethical decision making. Nash, L. (1981). In this model, the initial step is asking yourself questions to determine if you are making the correct ethical decision. This model asks people to reframe their perspective on ethical decision making, which can be helpful in looking at ethical choices from all angles. The model consists of the following series of questions:

1. Have you defined the problem specifically?
2. How would you define the problem if you stood on the other side of the story?
3. How this situation did came up in the first place?
4. To whom and what do you give your preference as a person and as a member of the company?
5. What is your moral intention in making this decision?
6. How does this intention compare with the likely results?
7. Whom will be affected by your decision or action?
8. Can you ask for the contribution from affected parties in a discussion of the problem before you make your decision?
9. Are you confident that your position will be as valid over a long period of time as it seems now?

10. Could you disclose without qualms your decision or action to your superior, your family, or society as a whole?
11. What is the symbolic potential of your action if understood? And what if misunderstood?
12. Under what conditions would you have exceptions to your decision?

As you can see in this model, foremost an analysis of the problem itself is important. Finding out your true intention while making a decision is an important factor in making ethical decisions. In other words, what is your aim to accomplish from the decision and who can it hurt or harm? If in case affected parties are the part of your decision then it is telling the decision whereas if you have kept it secret, then it will be considered as wrong ethical decision. The major perspective of this model is to understand the situation from others perspective.



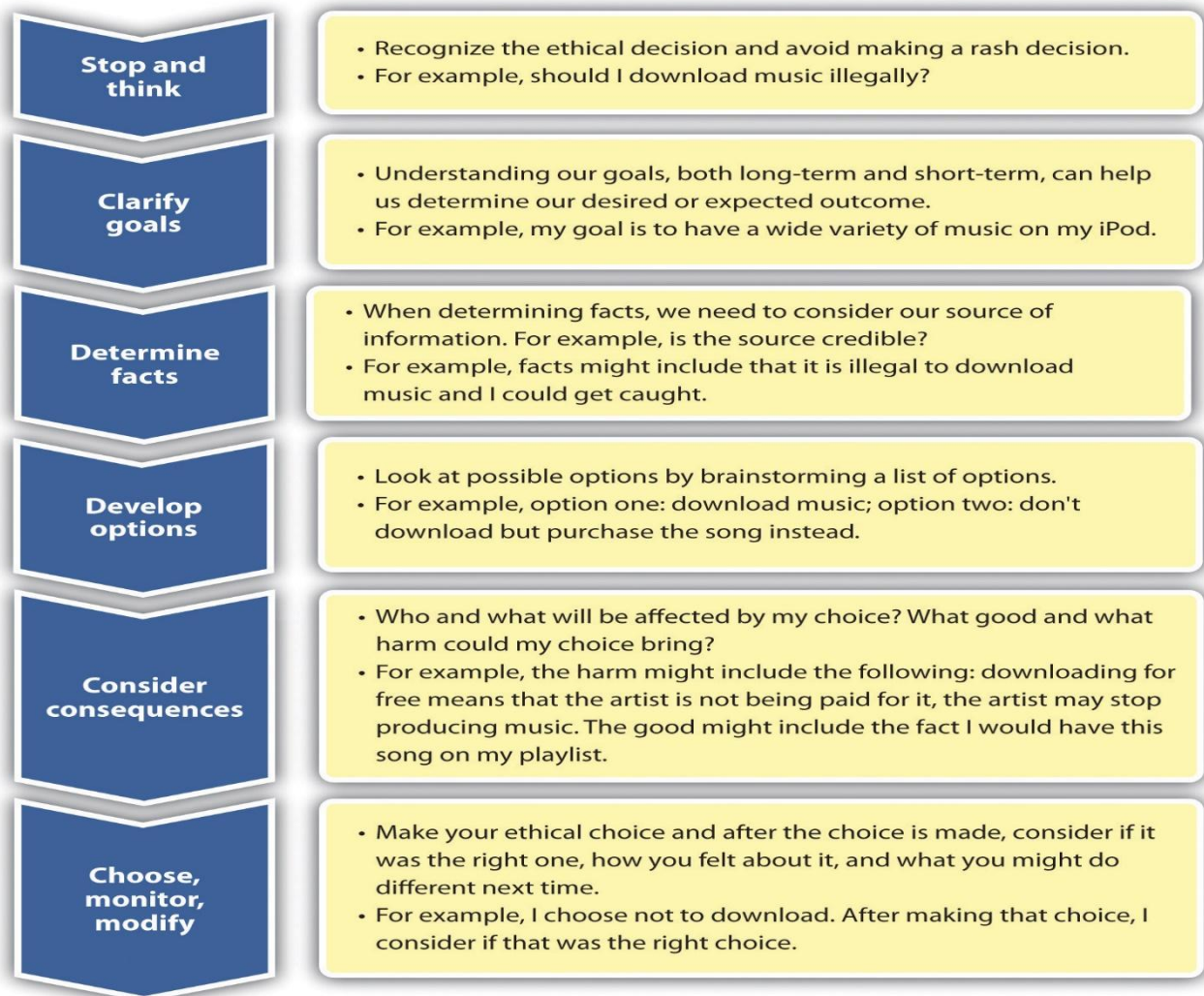
Here we have given some of the possible approaches to ethical decision making. It would be wrong to say this is the best model as it depends upon the possibilities and situation of the respondent.

Josephson Institute of Ethics' Model

Josephson Institute of Ethics defines a model that focuses on six steps to ethical decision making. The steps are as follows:

1. Analyze, stop and think
2. Clarify goals
3. Determine facts,
4. Develop the all possible options
5. Consider consequences
6. Choose, and monitor/modify.

An Example of Josephson's Model while making an Ethical decision of Downloading Music from Share Websites.



Conclusion

The whole businesses all over the world are now a day's dependent on decisions taken on data analysis and moreover ethical decisions. A manager is responsible to gather all the possible information and analyse the situation from all the perspective. Many a times I have mentioned in the paper about how much a correct decision is significant in the lifecycle of the business. A correct decision is taken once a manager also feels responsible for the outcomes of the decision taken. In this context an ethical decision plays a crucial role as to decide who is getting affected by one decision. In a nutshell, Nash twelve question model can be useful in making an ethical decision. It talks about all the possible perspectives. It is totally abed on the moral intention and the moral behaviour of the manager.

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Women Lifestyles and Their Buying Behaviour in Digitised Economy

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India, Women,
Lifestyle industry,
digitised economy,
Buying behaviour.

ABSTRACT

Purpose: The purpose of this paper is to identify, understand and analyze women buying behaviour towards their lifestyles in digitized economy.

Design/Methodology: Research design is based on exploratory and descriptive research from India on the basis of convenience sampling; with the sample size of 50 women's & data is analysed using simple tools like averages, percentages and measurement scales.

Findings: This paper contributes on a major objective to understand women buying behaviour towards lifestyles in digitised world and their influencing factors and found that awareness levels of women towards lifestyle products and brands are too high and frequency of purchase is also very high, they get influenced by their peer groups, friends, colleagues, family, relatives, ads etc.

Research limitations/implications: The study is restricted to Indian women.

Originality/value: This paper revolves around the buying behaviour of women towards lifestyles and the influencing factors which influences her to buy in this digital world. We could know how demographics of women play a major role in purchasing and buying patterns also frequency of purchases.

Introduction

Indian Women has grown tremendously in last one decade majorly due to the changes in societal norms are concerned. She is more educated, ambitious and empowered. She is involved in many of the decisions taken by the family. She is earning and her disposal income is also growing rapidly thanks to higher incomes from their professions.

Life styles of indian women has changed rapidly and their purchasing behaviour is largely dependent on digital instruments and gazettes. This paper highlights the Lifestyle behaviour of indian women in digital world.

Statement of The Problem

To identify, understand and analyze women buying behaviour towards their lifestyles in digitised economy.

Objective of The Study

1. To identify, understand and analyse women buying behavior towards their lifestyles in digitized economy.
2. To analyze the influential factor on their purchase behavior.
3. To analyse the frequency of purchase.

Research Methodology

Research Design: Descriptive and Exploratory

Sampling Method: Convenience Sampling

Sampling Size: 50 Women

Data Collection Tool: Questionnaire

Literature Review

Dr. Sriparna Guha, in their research paper “The changing perception and buying behaviour of women consumer in Urban India” worked particularly on women workforce are vital part of buying behaviour and found that working women are more involved with the purchasing activities. They are more price conscious as compared to the non-working married women and working women are more Store loyal than non-working married women. In case working women are more quality conscious than non-working married women. But non-working unmarried women are quality conscious, also prevails that there is a significant difference in buying behaviour of working women depending on what type of organization they work. Women are apt to be more involved with purchasing than men, since women have traditionally been the family purchasing agents (Davis 1971, Wilkes 1975) and perceive purchasing as being associated with their role in the family. Woman's role as the family purchasing agent, however, seems to be changing, due primarily to the large increase in the number of working women in recent decades.

Ramprabha, in their research paper “Consumer Shopping Behaviour and the Role of Women in Shopping – A Literature Review”, argued that any person, who buys a product/service, may not be necessarily user or consumer.

Adeel Maqbool, Rizwana Atiq, in their research paper “Changing Lifestyle of Women – An Empirical Study” found that there has definitely been a change in the lifestyle of women. This change is probably due to the fact that the women are earning more now and have increasing financial power. In the previous decades the salary of women constituted a small part of the total annual household income. But the earning of women holds a greater proportion in the annual household income now. The women feel more confident in spending now because of a greater discretionary income which women use to satisfy their wants. Her criteria for family purchases have been modified by her increased exposure to new ideas and information. Now she is playing a new role as a facilitator. Previously, the Indian women concentrated on purchases that based on family needs and wants. The marketers should understand the changing perception of

women so that they are able to sell products more suited to the needs and wants began to gain ground.

Indian Lifestyle Sector: An Overview

Lifestyle is an important aspect when looking at consumer choices. Just because there may be two women with similar age and income, does not mean they're likely to purchase the same products (Hickey, M Nader, T Williams, T 2012). Below will be some examples of why lifestyle is an important aspect to consider.

Social status

Social status is one of the key elements to how and why people buy certain products and services. It affects the quality and quantity of what people buy (boundless.com). The rich have more money to spend on higher quality products. They may aim for brand names like Carla Zampatti and Valentino. (Tanner, J Raymond, M 2012) Though the lower class will focus more on necessities and focus on buying one nice outfit, but then spend more on food and their home (Boundless.com).

If we compare the higher class and lower class in buying cars. The higher class have more money to spend, they think about style, brand, comfort, safety and anything that heightens their status. This might make them choose an Audi. But the lower class have less money to spend so need to focus on what's most important. They'll focus greater on safety and reliability, so they may end up buying an older Toyota Camry.

Product involvement

People's lifestyle comes into play especially when they come to high involvement products. These products carry high risk, are complex or have high price tags. Friesner, (2014) They may be a car, home or insurance policy (Tanner, J Raymond, M 2012) lifestyle comes into play here. Take for example buying a home. Some people might be outdoorsy, love gardening and want quiet. Whereas another couple may love fresh air, need a medium sized home and love the beach. Each will go through an extensive problem solving process in order to find their home. The first person might find a farm, and the other a beach shack. Everything a consumer buys will reflect their lifestyle in some shape or form.

Activities

The activities people undertake vitally determines how their money will be spent. For example: if a person is dedicated to the gym and works in a gym, then they're likely to spend most of their money on gym clothes, weights, exercise machines and healthy food.

For me I go to the gym a couple of times a week and work at David Jones. So part of my wardrobe consists of gym clothes, then the rest is black clothes for working, or clothes that I've purchased from work. Which I think a lot of people who work in retail could relate to.

Self-image

Self-image is a strong aspect when thinking about how lifestyle affects purchases (Schiffman, L et al., 2014, pp.133). The way someone feels they should look will strongly

affect what they buy. Take for example a mum who may not always eat the best but feels that they're healthy and fit and enjoys coffee with the girls. This mum's more likely to wear Lorna Jane. She can go from the gym or just home and go out, while feeling good about herself and staying stylish.

There are so many factors which can influence people's buying habits, and lifestyle is definitely a strong one. How people want to look mixed with the amount of income they earn, defines how their spending habit forms.

Recent Highlights

2018 is shaping up to be an exciting year for online marketing, as the rise of data analytics, live video streaming and native advertising permeate a wide variety of business strategies. With online marketing becoming more crowded, businesses are looking for more effective ways to reach their target market, making segmentation more critical than ever before.

One of the biggest demographics that marketers are tapping into are women, who make up more than half of the global population and are by far the biggest users of most social media sites. Women also exhibit different consumption trends and behaviours than their male counterparts, which means marketers must spend more time and energy dissecting this large and growing segment of the market. That's the view of marketing expert Robert Craven, who believes firms must change their approach to marketing to women or risk getting left behind.

The female demographic offers huge opportunity for marketers, and brands that understand what women want are in a better position to capitalize while purchasing lifestyle products. Brands looking to tap into the female demographic should keep the following tips in mind:

- Build relationships. Women are more likely to respond to campaigns that are personalized, conversational and are in tune with their psychology. And don't just stop at the surface. Use data analytics to really dig into your female audience. That will help you develop a campaign that speaks directly to your target market.
- Avoid negativity. Women are much more likely to respond to positive campaigns rather than negative comments about why they should avoid a competitor. In other words, give women positive reasons for doing business with your brand.
- Respect women's buying habits. Women are much more likely to shop around before making a purchase. If your product is better than your competitor's, be sure to spell out in detail why that's the case. Make sure you also provide information about warranties and after-sales service. Women will look into the painstaking details to make a decision about a product.
- Avoid extremes. Women are rarely extreme in their shopping habits. Your marketing campaign should therefore avoid going to any extreme in reaching out to your audience. Remember, the goal is to cater to all their needs.
- Avoid stereotypes. I mentioned earlier that advertising to women isn't some uniform strategy or a blanket process that will suddenly transform all women into potential customers. The goal is to speak to their unique needs using

language and themes that resonate with them. As such, you should avoid stereotyping women (positive or negative).

Marketing to women doesn't have to be overly complicated. Depending on your business, you know which demographics are more likely to consume your products and services. Nobody is telling you to deviate from that demographic or disregard everything you already know about your target market. However, marketing to the female splice of your market in unique and original ways will help you get a more favourable response from your female audience.

There is no one-size-fits-all method for reaching out to women. Marketing to them requires the same level of research, trial and error and due diligence as other marketing campaigns. If your goal is truly understanding your target market, you should be prepared to do everything necessary to uncover their needs and motivations. One of the best places to start is to acknowledge there are differences between men and women, and to begin marketing on that basis.

Data Analysis and Interpretation

- It is being proved that women usually purchase as per the need, discounts and during special or festival occasions and she doesn't waste any money just like that.
- Surprisingly majority of the women purchase apparels or lifestyle products every month and others purchase twice in a year.
- Working women's and college going girls usually prefer medium shaded apparel purchase and interior purchases.
- It is found that the influencing factor for women in shopping are friends and siblings.
- Price and quality are the major factors which prompts women to purchase lifestyle products.
- Women love wearing or trying lifestyle clothing and accessories.
- 85% of the segment spend 1000 and above on lifestyle purchases and dependent girls spend 500 and above.
- Women are fonder of purchasing branded products.
- Women are basically loyal in nature when compared to men if they are satisfied with the any lifestyle purchase.
- Women will not switch from one brand to other brand very easily based on the necessity and requirement they may switch very rarely in various lifestyle purchases.
- We could find different set of customer who purchases lifestyle products weekly, yearly and also on some special occasions.
- There is equal opportunity for both local and branded dealers as the population is huge and different set of customers are available.
- As per the data collected we could see that the last purchases made by these women were 2000-5000 on lifestyle purchases.
- There is a huge demand for online purchases by women from top most brands like Biba, Zara, Allen Solly, Levi's, Flying Machine, Fabindia, Rangriti, Global Desi, Soch, etc.

Findings

- Working women prefer purchasing branded products as their disposable income is high and non-working women prefer purchasing from local outlets.
- Women are fashionable and trendy irrespective of her financial status she would love being trendy in social gathering.
- The awareness levels of women are too high and as she is exposed to the different sources and market trends.
- Women usually get influenced by their peer groups, friends, colleagues, neighbors, children's and adapt themselves to the changing environment when they involve in lifestyle purchase.
- We could find that women usually look for lifestyle segment event when she in on social media, while reading books, magazines, newspapers, TV ads etc.

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A Study On Role of Sales Promotion On Consumer Planned Purchase Behavior: With The Reference of Future Lifestyle Fashion

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ARTICLE INFO

Keywords:

Sales Promotion,
impulsive Buying
Behavior, t-test,
ANOVAs,
promotional tools.

ABSTRACT

In present scenario consumers' are king of the market and marketers taking advantage to understand behavior of consumers' though they can capture market in terms of market share or number of buyer's. Promotional activities are playing major role to make huge change in sales figures. Promotional mix carrying 5 different tools to attract consumer but researcher believe sales promotional activities are directly make impact on consumer's planned purchase behavior. Through this research paper researcher trying to provide necessary information about the role of sales promotion on planned buying behavior of the consumers with the reference of apparel industry under the brand of Future Lifestyle Fashion named- Central, Brand Factory and fbb (Fashion at Big Bazaar) respondents from Madhya Pradesh and Chhattisgarh states. Around 220 respondents helped to researcher through provided necessary information which was collected by the arranged questionnaire (questions are based on Likert Scale) and after tabulation applied t-test and ANOVAs. Researcher made few hypotheses based on the relationship between sales promotion and buying behavior, social surroundings and buying behavior and other factors influencing consumer's buying behavior. Outcome will help to understand the acceptance and rejection parameters of buying product by the consumers'

Introduction

Sales Promotion- it's a one of the important element of marketing-mix. Sales promotion activities are to be used for very short period of time like activities for few hours and/or few days. The advantage of this tool is it's directly influence the customers' for product trial. It is unable to built long term customer loyalty. Sales promotion is a marketing activity for manufacturers as well as for retailers. Sales promotion includes several communications activities that attempt to provide added value to customers, retailers or wholesalers.

The main sales promotional tools which is used by Future Apparel Stores under different outlets such as Central, Brand Factory, fbb are as following-

1. Big Bazaar Profit Club
2. Loyalty Program
3. T24 program
4. Weekly Promotional Event
5. Wednesday Bazaar

6. Public Holiday Sale
7. Independence Sale
8. Sabse Saste Din
9. Future Group Shopping Festival
10. Various promotional events
11. Cross promotional

Types of sales promotion strategy

1. Push Strategy- through below diagram it is easy to understand under push strategy Companies/manufacturer trying to push to different market intermediaries for increase sales force by the trade sales promotional activities to create consumer demand for a product. The company promotes the product through a reseller or the final consumer. In different words the producer promotes the product to wholesaler, from wholesaler to retailers and the retailers to consumers.

Manufacturers \Longrightarrow Wholesalers \Longrightarrow Retailers \Longrightarrow Consumers

2. Pull strategy- this is the strategy where consumers are create demand of the product from retailers, retailers inform to wholesalers and wholesales pull it from manufacturers.

Consumers \Longrightarrow Retailers \Longrightarrow Wholesalers \Longrightarrow Manufacturers

3. Combined promotional strategy which includes both pulls and push strategies.

Objectives of the Study

1. To understand the impact of sales promotion on consumer's planned purchase decisions and behaviour.
2. To identify the role of store display, discounts coupons and free sample in order to enhance brand switching and purchase acceleration.
3. To find out role of demographic characteristics in sales promotion schemes.
4. To find out role of social surroundings in Consumer Buying Behaviour.

Hypotheses of Research

1. Free sample has a significant impact on Buying Behaviour.
2. Coupons have a positive impact on Buying Behaviour.
3. Buy One Get One Free has a significant impact on Buying Behaviour.
4. Prices discount in the most significant tool on Buying Behaviour.
5. There is relationship between sales promotion and demographic characteristics of consumer's.
6. Sales Promotion motivates customers to switch brand.
7. Social surroundings play important role to influence consumer's buy more.

Research Methodology

Research entails the collection and assembling of relevant data and extracting from that data relevant findings to refute an argument or draw valid conclusions.

Population can be defined as individuals and manager of apparel retail stores and conditions to which that population is exposed. The population of application for this study was randomly selected from apparel stores of Future Group's from Bhilai and Raipur cities of Chhattisgarh. The sample may be viewed as a suitability sample as per the requirement of the research. Sample size is approx 220 walk-ins from selected apparel stores and store managers in different cities (Bhilai and Raipur) in Chhattisgarh. Primary data for the purpose of the research paper collected by systematic questionnaire and observation. Sources of secondary data for the inputs for research paper is collected by various articles published in marketing, magazines, newspapers and other promotional journals. Observations are providing information for measure the number of footfalls, quantity of purchase, switching behaviour, social surrounding and shopping experience of consumer's.

Buying behaviour of consumer's towards sales promotion scale has been developed for the elementary buyers of apparel. Selection of the item in the present scale was done by the producer of item analysis. The first draft containing n statement with 5 alternative responses was administered 220 elementary consumers. CR values were calculated for each statement between upper most 27% high group and bottom 27% lower group. Only those statements were retained in the final draft which has yielded highly significant C-R Value ($P < 0.01$) only n items related to five dimensions were randomly recorded in the final format of the scale. The range of 't' value obtained which is a measure of the extents to which a given statement differentiates between the high and low group is 0.01 to 8.32. The items were arranged in their rank order according to their 't' values dimension wise. The value of 't' which is a measure of the extents to which a given statement differentiates between the high and low groups is given in Table below. The distribution is given in Table No. 1.

Table No. 1: Showing t-value between items of high and low group

Dimension	Item no. in Initial Form	Value of 't'	Level of Significance	Item Evaluation
SECTION I				
Buying Behaviour of Consumers' at Future Apparel Stores				
Factors Influencing Consumers' Buying Behaviour				
	1	5.76	0.01	Accepted
	2	6.17	0.01	Accepted
1	3	6.41	0.01	Accepted
	4	6.76	0.01	Accepted
	5	6.95	0.01	Accepted
	6	7.19	0.01	Accepted
	7	7.27	0.01	Accepted
	8	8.34	0.01	Accepted
	9	8.52	0.01	Accepted
	10	8.84	0.01	Accepted

Planned/ Impulsive Buying Behaviour				
	1	8.93	0.01	Accepted
	2	9.137	0.01	Accepted
2	3	9.17	0.01	Accepted
	4	9.19	0.01	Accepted
	5	9.2	0.01	Accepted
	6	9.277	0.01	Accepted
	7	9.32	0.01	Accepted
	8	9.55	0.01	Accepted
	9	9.74	0.01	Accepted
	10	9.97	0.01	Accepted
	11	10.07	0.01	Accepted
	12	10.22	0.01	Accepted
	13	10.36	0.01	Accepted
	14	10.44	0.01	Accepted
	15	10.452	0.01	Accepted
	16	10.67	0.01	Accepted
Purchase Decision				
	1	10.68	0.01	Accepted
	2	10.71	0.01	Accepted
	3	11.025	0.01	Accepted
3	4	11.06	0.01	Accepted
	5	11.16	0.01	Accepted
	6	11.43	0.01	Accepted
	7	11.56	0.01	Accepted
SECTION II				
Role of Sales Promotion Activities on Consumers' Buying Behaviour at Future Apparel Stores				
Impact of sales promotion on consumers' buying behaviour				
	1	10.68	0.01	Accepted
	2	10.71	0.01	Accepted

	3	11.025	0.01	Accepted
	4	11.06	0.01	Accepted
	5	11.16	0.01	Accepted
4	6	11.43	0.01	Accepted
	7	11.56	0.01	Accepted
	8	10.68	0.01	Accepted
	9	10.71	0.01	Accepted
	10	11.025	0.01	Accepted
	11	11.06	0.01	Accepted
	12	11.16	0.01	Accepted
	13	11.43	0.01	Accepted

Only 25 items related to the five dimensions were randomly recorded in the final format of the scale. The distribution of items over five dimensions is given in Table No. 2.

Table No. 2: Selected number of items in each dimension

S. No.	Dimension	Item Number	Total Item
1	Factors Influencing Consumers' Buying Behaviour	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	10
2	Planned/ Impulsive Buying Behaviour	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26	16
3	Purchase Decision	27, 28, 29, 30, 31, 32, 33	7
4	Impact of sales promotion on consumers' buying behaviour	34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46	13
	Total Item		46

Reliability

The reliability test of the (ISPCBB) was established on a group of 220 consumer respondents selected randomly (systematic sampling) on whom item analysis was done. The total score and two half scores (odd – even) were calculated for each teacher. The difference between the odd and even scores for each consumer was also calculated. On the basis of this split-half reliability was computed by using Karl Pearson Formula. This is to be 0.884752 Test – Retest method was adopted to determine the internal consistency for the tool and the reliability is 0.714574.

Validity

1. *Face and Content Validity* – An extensive exercise was done to establish face and content validity of consumer' buying behaviour towards sales promotion

scale in the initial stage of the tool construction with the help of subject experts.

2. *Item Validity* – The items for the final scale were selected taking the ‘t’ values between high and low groups of the items and having a significant of 0.01 level. This indicates the high items validity.
3. *Concurrent validity*- was determined by computing the consumers’ buying behaviour towards sales promotion scale with other tests. In the present study the other tests taken were Social Problem Scale (SPS). The correlation between impact of sales promotion on consumers’ buying behaviour scale and Social Surrounding (family & friends) Scale was found to be 0.2229 which was found not significant.

Demographic Characteristics of respondents

1. Gender
2. Occupation
3. Family Size
4. Annual income
5. Age
6. Marital status
7. Education
8. Amount spent p.a. by the entire family (in Rs.) for Apparel at any Future Apparel Store.

Data Interpretation & Analysis

Attributes	Strong ly Disagr ee	Dis agr ee	Neutral / Undeci ded	Ag re e	Stron gly Agree	T ot al
Factors Influencing Consumers' Buying Behavior						
I prefer shopping mostly on Day of Sales Promotion	16	19	17	110	58	220
	727.27 %	863 .64 %	773%	50 %	18%	100 %
I prefer to come for shopping with my family members/ friends /relatives	31	42	40	72	35	220
	14%	19.09 %	18.18%	32.73 %	15.90 %	100 %
My social surrounding influence me to buy more	28	17	32	100	43	220
	12.73%	7.27 %	14.55%	45.46 %	19.55 %	100 %
I give preference to buy apparel from Future Apparel Stores due to availability of apparel as per fashion and trend	25	43	32	81	39	220
	11.37%	19.5	14.55%	37	17.73	100

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		5%		%	%	0%
I found my saving habits positively affected by sales promotion schemes	23	35	33	88	41	220
	10%	15.90%	15%	40%	18.64%	100%
I can easily switch brand due to sales promotion schemes	28	25	48	82	65	220
	12.73%	11.37%	21.82%	37.27%	29.55%	100%
I always suggest others to buy apparel from Future Apparel Stores	27	31	27	96	39	220
	12.27%	14%	12.27%	43.63%	17.73%	100%
Store display influence me to buy more	24	33	52	76	35	220
	10.91%	15%	23.64%	34.55%	15.90%	100%
I never found any complaint with respect to services provided by Future Apparel Stores	22	22	23	107	46	220
	10%	10%	10%	48.64%	20.91%	100%
I discuss with my friends and colleagues/other known people about quality of dress for costly purchase	18	20	21	100	61	220
	8.18%	9.09%	9.55%	45.46%	27.73%	100%
Planned/ Impulsive Buying Behavior						
I carefully plan before my buying decision	23	25	51	97	24	220
	10%	11.37%	23.18%	44.09%	10.90%	100%
I am very meticulous when purchasing Apparel	14	50	38	62	56	220

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	6.36%	22.73%	17.27%	28.18%	25.45%	100%
Often I make careless purchase and later I wish I had not	26	13	19	98	64	220
	11.81%	5.90%	8.63%	44.54%	29.09%	100%
I take time to shop carefully for best buy	16	21	20	105	58	220
	7.27%	9.55%	9.09%	47.72%	26.36%	100%
I carefully watch how much I spend money on Apparel	17	25	40	91	47	220
	7.27%	11.36%	18.18%	41.36%	21.36%	100%
I always collect information about recently selling brands and design	19	36	47	81	37	220
	8.63%	16.36%	21.36%	36.81%	16.81%	100%
I give preference Planet Sports store to buy sporty dress	21	32	58	69	40	220
	9.55%	14.54%	26.36%	31.36%	18.18%	100%
I do shopping during festivals only at future apparel stores	22	35	46	74	43	220
	10%	15.90%	20.90%	33.63%	19.54%	100%
Frequently/regularly I visit future apparel stores	25	24	45	80	46	220
	11.36%	10.90%	20.45%	36.36%	20.90%	100%
I found best quality of apparel in very short span of time even without extra effort at Future Apparel Stores	19	24	47	77	53	220
	8.63%	10.90%	21.36%	35%	24.09%	100%

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I found apparel as per my high standards and expectation at Future Apparel Stores	21	23	51	81	44	220
	9.55%	10%	23.18%	36.81%	20%	100%
I am buying apparel due to quality of product	20	10	25	106	59	220
	9.09%		11.36%		26.81%	100%
I usually buy casual dress from Future Apparel Stores	17	29	38	92	44	220
	7.27%	13.18%	17.27%	41.81%	20%	100%
I always collect information about price at Future Apparel Stores and other Stores/Brands	20	26	33	89	52	220
	9.09%	11.81%	15%	40.45%	23.63%	100%
I buy partyware dress from Future Apparel Stores	21	36	53	71	39	220
	9.55%	16.36%	24.09%	32.27%	17.72%	100%
Only because of status symbol I prefer to buy apparels from Future Apparel Stores	28	58	31	59	44	220
	12.72%	26.36%	14.09%	26.81%	20%	100%
I am often feel confused because there are many brands to choose	20	33	40	95	32	220
	9.09%	15%	18.18%	43.18%	14.54%	100%
The more information about dress I learn, it is harder to choose the best	12	39	37	92	40	220
	5.45%	17.72%	17.27%	41.81%	18.18%	100%
It always confuses me when I have much information on different brands	16	40	38	92	34	220
	7.27%	18.18%	17.27%	41.81%	15.45%	100%

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I look carefully to find clothes with the best value for money	11	11	24	11 1	63	2 2 0
	5%	5%	10.90%	50.45%	28.63%	100%
Purchase Decision						
I carefully calculate how much I spent for shopping dresses	11	22	35	95	57	2 2 0
	5%	10%	15.90%	43.18%	25.90%	100%
I am decision maker in my family for purchasing of Apparel	15	34	46	71	54	2 2 0
	6.81%	15.45%	20.90%	32.27%	24.54%	100%
I always compare the quality proportionate to the price	11	14	26	11 5	54	2 2 0
	5%	6.36%	11.81%	52.27%	24.54%	100%
Impact of sales promotion on consumers' buying behavior						
stores provide Gender wise sales promotion offers/ Schemes	19	33	36	97	35	2 2 0
	8.64%	15%	16.36%	44.09%	15.90%	100%
Wednesday Bazaar offers influence me to buy more	24	36	45	76	39	2 2 0
	10.90%	16.36%	20.45%	34.54%	17.72%	100%
Sabse Saste Din sales promotion scheme influence me to buy more	23	38	34	82	43	2 2 0
	10%	17.27%	15.45%	37.27%	19.54%	100%
Future Group Shopping Festival sales promotion scheme influence me to buy more	18	32	41	88	41	2 2 0
	8.19%	14.55%	18.63%	40%	18.63%	100%

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I experienced that my shopping habits affected by sales promotion schemes	21	44	30	80	45	220
	9.55%	20%	13.64%	36.36%	20.45%	100%
I found positive change in my buying behavior with respect to promotional schemes	19	23	44	96	38	220
	8.64%	10%	20%	43.64%	17.27%	100%
I prefer shopping mostly on the day I get more discounts or offers	18	33	28	92	49	220
	8.19%	15%	12.72%	41.82%	22.27%	100%
I am buying goods due to only sales promotion schemes	31	46	29	68	46	220
	14.10%	20.91%	13.19%	30.91%	20.91%	100%
I found total satisfaction after buying decision at Future Apparel Stores with respect to price, quality and offers	20	23	45	92	40	220
	9.09%	10%	20.45%	41.82%	18.19%	100%
I give preference to buy apparel from Future Apparel Stores due to sales promotion activities	19	32	41	88	40	220
	8.64%	14.55%	18.63%	40%	18.19%	100%
I feel sales promotional offers/ schemes easily understandable here	17	27	35	99	42	220
	7.73%	12.27%	15.90%	45%	18.19%	100%
Offers /Schemes clearly mention at store	20	26	40	104	30	220
	9.09%	11.82%	18.19%	47.28%	13.64%	100%
offers/ schemes attract my impulsive buying behavior	19	35	32	93	41	220

	8.64%	15.91%	14.55%	42.8%	18.64%	100%
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Findings & Conclusion

Above calculation shows that approx 47% consumers' get influenced by friends and social surroundings. They gave their consent as agreed with the factors influence consumer's buying behaviour including motivation, perception learning and by family & friends. As well as 52% consumers are taking their purchase decisions in terms of price comparison, fashion availability at stores. And 42 % to 48 % are agreed about their buying behaviour get affected by sales promotion.

1. Walk-ins at Future Apparel Stores they generally come for window shopping. Regular customer is also come but in very less in numbers.
2. Consumers of fbb, Central and Brand Factory are very loyal about the purchasing. Regular customers are satisfying the services from above outlets.
3. Promotional offer is motivating the consumers to switch brands.
4. Some customers are very serious about the safety of environment because the carried their own cloth bags for purchased goods.

Limitation of the study

Every research is bounded by some elements. These elements play very important role in research process. For each stage these element influence or/and affect research process, which is unavoidable.

1. Research study is restricted to only impact of sales promotional activities by the FUTURE GROUP (Future Fashion Limited)
2. Sales promotion activities available in apparels stores of Future Group's is base of this research study.
3. Research study restricted only two cities (Bhilai and Raipur) Chhattisgarh state.
4. Research study will be carried only consumers' of following outlets- fbb- Fashion at Big Bazaar, Central and Brand Factory.
5. Research study will only evaluate impact of sales promotion by Future Group on consumers' buying behaviour in selected apparel store.
6. Data collected from these stores in different time intervals, such as festive season, maha bachat offers, Wednesday- more saving day, etc.

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Talent Analytics for Organizations of 21st Century

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ABSTRACT

Organizations have since long tried to overshadow each other in a competitive bid by being unique and available to stakeholders. Personnel department is one the most significant function yet mostly ignored, recently took notice as one a strategic and effective game changer. It has been entrusted with the most crucial function of acquiring the talent resource pool, training and development, performance appraisal or else, for performing various strategic roles under the ambit of the organizational vision. Advanced technological systems have however added credibility and value to its functions tracing the roadmap for organizational success limiting the chances of failure attached with intuitive judgments. Analytics have brought a significant difference bringing an element of quantifiable outcome and predictability to enhance performance and productivity of work force. Recently it has grabbed the attention of top management in developed countries and gradually taking a front row in developing countries like India with nearly 32% following predictive analytics based people management models to gain useful insights about employees from immense historical or current data for synchronizing and personalizing in the mutual interest of both the employees and employers. The paper highlights the impact of organizations using data analytics and their practices. Moreover it also outlines the opportunities and challenges faced by such organizations in implementation and set up like top management approach and training the employee mind set and skills set equally for achieving the expected outcome.

Introduction

Digital transformation led by advancements in field of Big Data and Data Analytics have evolved the business processes whether be it marketing, production or recently Personnel management. Talent analytics have emerged as a game changer in organizations moving beyond identifying or selecting right candidate but effectively planning for mapping the career progression through customized training and development modules, performance appraisal and rest. Jose Bersein in his article for Forbes.com highlighted the improvement in impactful sales performance (\$4 million in six months) by strategic implementation of a new candidate screening and selection

process same as Xerox Corporation reduced the attrition rate. IBM, Citi, Accenture are some more big names using employee's data from recruitment process to attrition. These advance organizations have built dedicated systems for creating superior reports in MIS Systems extracting useful results for superior performance of both individuals and corporate.

Talent Analytics uses data analytics compiling huge digital footprints from varied sources to transform them into intelligent and useful information taking crucial business decisions through statistical and mathematical models rather on relying on intuitive or previous experience. In the current times of service economies, Human resource capital is an asset which distinguishes the businesses on superiority of intellectual and behavioural aspects rather products. The complex jobs and diverse workforce (with reference to age, gender, ethnicity, aspirations, cultural norms etc.) have necessitated strategic transition to dynamic organizational goals and vision.

Research Objective

The primary motive of conducting this study was to find out the advancement in the field of data analytics in Personnel and human resource function. The research will draw an elaborate outline of inception of talent analytics, its nature and scope. It will further focus on the models followed of the same along with growing significance in current globally competitive world. Thus, it will analyse opportunities and challenges furthering investigating probability of enhanced productivity and reduced attrition rate in organizations as available in data available.

Research Methodology

As Talent Analytics is still a new subject for Indian Business world thus it lately making its significant economic impact in restricted industries. It is used in transnational organizations like Accenture, Linked in, Amazon and others country head offices. Thus due to limitation of diversified access in the nation the study is based upon secondary data available in form of articles, research papers in Journals etc.

The researcher accumulates information available online in books, journals, videos (Ted Talks), Course description to know of the recent advancements, scope and limitations faced domestically and globally.

Review of Literature

Global organization setting its footprints on world map empowered by technological advancements and changing workforce pattern have taken organizations on a futuristic trajectory. It inspired organizations for using their available resources and information more intellectually, converging business intelligence, analytical statistical tools and HR function for making informed and productive decisions at operational and strategic levels.

Laszlo Bock, the former SVP of People Operations at Google, wrote in the Harvard Business Review "By analyzing behaviors, attitudes, personality traits and perception

over time, we aim to identify the biggest influencers of a satisfying and productive work experience.”

He further elaborated, Metrics describe concrete measures of past performance like basic information, like how many candidates applied, how many employees left the company and other descriptive measures, while analytics uses data to gain insights or predict future patterns answering questions such as what educational background best helps indicate future high performers or why top performers are leaving.

Tandon, director, Workforce, Analytics and Planning, WTW says “Organizations that have been able to leverage people data have been able to tangibly add value to their stakeholders, their employees and management, and this is the one single thing that gets the chief human resources officer (CHRO) a seat in the boardroom where he can factually present findings on the people and talk about how he can improve performance by improving people quality,”.

“Employee experience programs used to take months to develop and to collect useful information,” says Webb Stevens, head of product at Qualtrics. Their Qualtrics iQ is a simple, drag-and-drop interface that lets users quickly scan millions of response records and gain from the outcome, in a matter of days. Earlier average cost per attrition stood at US\$ 3,000 having a four times impact on bottom line. Predictive analytics takes historical data to unearth possible attrition before it happens. "Predictive Analytics analyzes an organization's data to identify the factors that have the biggest influence on employee flight risk. Managers are now able to address potential issues before they become unmanageable," said Ceridian's VP of Product Management, Eric Schuster.

Bhushan Kapoor (California State University, Fullerton, California, USA) and Joseph Sherif (California State University, Fullerton, California, USA and The Jet Propulsion Laboratory, Caltech, Pasadena, California, USA) in their work “Human resources in an enriched environment of business intelligence” stated Multinational enterprises willing to adapt their human resource practices to the changing global labour market conditions and complex systems facing the global competitive pressure will be able to attract and retain high performing employees. BI and data analytics can aid in making informed decisions based on knowledge extracted from the data and options at hand. Organizations that have successfully implemented BI are able to make decisions quickly and with more accuracy. They have better and faster access to the key activities and processes that the organizations and its functional departments must pursue to meet their goals and objectives.

Evolution of HR Analytics

The modern age organization mightier and complex in globally competitive dynamic environment are often fixated in cases of abundant data from disparate company systems. Organizations maturing for customer aspirations were unable to use the human capital productively requiring enhanced analytical systems for subordination of individual interests towards group goals.

The People Analytics Maturity Model



Globally progressive firms have moved from being reactive to proactive taking absolute precedence building analytical platform incorporating piles of data for not only generating standard reports rather using MIS Systems to identify problematic areas, quantifying the impact and aligning the organizational goals with workforce plans by customized analytical and statistical research systems (such as Success Factors, Workday, PeopleSoft, Lawson, CareerBuilder, etc.) to make effective decisions. Thereby predicting the employee progression in organization integrating operational, behavioral and strategic data which optimizes the personnel systems and processes creating meaningful future plans for both employer and employees (WIN-WIN Strategy) harnessing the productive energies in right direction.

MIS systems and HRMS web Portals collating big data on employee performance and opinion on policies / procedures (related to workplace culture, motivation and incentives, retention, employment contracts, job description, retention, employee engagement programs, person specifications, disciplinary procedures, grievance procedures, authority and accountability, functions, health and safety in work place, compensation, Absenteeism, etc.) was applied to simple statistical test like correlation, regression etc. was further customized and specialized in software systems : SPSS, XLSTAT, Revolution R Programming, Qlikview, Cognos , Oracle , SAP ,Oracle OBIA, SAP Workforce intelligence, workday, oracle fusion HCM for generating valuable insights on creating productiveness and employee satisfaction with the primary objective of reducing cost per person or increasing the revenues or profits per person.

Scope of Talent Analytics

- Recruitment
- Selection
- Performance Appraisal
- Training and Development
- Compensation and Benefits
- Employee Engagement
- Employee Attrition

Significance of HR Analytics

Technology has been a forerunner in last decade continuously evolving the ways of conducting businesses and spoiling customers for individualized choices. The new age generation of millennial employees are regarded not only as contributors rather stakeholders of the organization. Many previous research studies have cemented the fact that a proactive and highly motivated workforce is a barometer for high productivity and performance index. “One size fits for all” is an old adage as technological advancement has given away with usage of standard systems or procedures followed since medieval ages.

Big Data and research in field of Data Analytics has bridged not only the geographical spaces but also collaborated the diverse segments – geographic, psychographic, behavioural and user experiences to suggest strategies for corporate succession and development modules optimizing workforce utilization.

Talent Analytics have fulfilled a systematic and dynamic necessity of recognizing the organizational talent force and strategic deployment of the same for driving the energies to fulfil business outcomes. It has assisted the team efforts and experience for reengineering the talent reservoir developing a mutually beneficial ecosystem through a personalized network of analytics software and reporting systems to make the most of their customized work systems for enhanced outlook.

Opportunities

Xavier Parkhouse-Parker, co-founder and CEO of PLATO Intelligence says the functionality in a talent analytics application can be expected to be divided roughly into three categories,

- Hiring Analytics – provides informative and useful insights of prospective hires (automated resume screening), skills set for a judicious decision eliminating wasteful costs.
- Ongoing Feedback Analytics – monitoring the performance of teams and alignment to organizational goals, using the right person and right place and right time.
- Optimization Analytics – it works with the results of above two in cooperation for ensuring robust process systems and environment to initialize innovation.

Deloitte Insights writes, “Tools can now analyze hourly labor and immediately identify patterns of overtime and other forms of payroll leakage, enabling improvements of millions of dollars through improved practices in workforce management.” It further referred to its predictive abilities to gauge patterns for frauds, trust networks, engagement and time management tools and else by useful apps suggesting honesty and personalities through software.

Thus role of HR analytics can be further elaborated as:

- It assists the HR Managers to gauge quick and accurate collection of useful information for developing the training and development modules. Organizations as a part of useful scope of work spend sizeable resources in identifying and train

employees for future leadership roles which can be brought down to a sizeable number.

- The grey areas with high turnover or attrition rate of employees can be analyzed through predictive analysis tools which greatly influence the employee flight risk, to address the issues before they turn unmanageable.
- Employee management and engagement in a productive and cost effective manner have always been a challenge for HR Managers. It's a right mix of the employee empowerment and promotion of better work culture which continuously monitors the performance to identify any deviations. Data analytics have eased the complex process to a seamlessly adoptive process by customizing the point of user social and cultural experience working with unique objectives.
- Predictive analysis can be a key to futuristic leading organizations allowing HR Managers to understand employee trends, interest and skill sets, predicting their output and needs to adopt strategies for better outcomes, critical roles and flight reasons to mark the risk areas and shielding strategies for the same. Companies reporting improved recruitment efforts and leadership roles through analytics have significantly improved their margins by 30%. Effective Hiring and placement is an essential process which not only looks for recruiting successfully but fitting the talent at right place. It primarily involves transition to new job roles through training and induction process. Analytics can leverage the effectiveness of the system putting in place further performance and training outlines. It also identifies future restructuring requirements compiling and comparing data to reveal gaps for strengthening the basics, to positively mentor and motivate employees complementing their personality and qualification traits.
- It has brought the management and employees closer to each other sharing the same set of goals for career and professional development. The information sharing limited to one end prior is enlarged to multi-directional with peer team reviews of team participation and involvement and top – bottom approach, which further measure and recognize the impact of leading performers financially and strategically in development and growth. Employers of various cadres have made previously unsuccessful attempts to communicate their benefits and employee linked schemes. This end can further be leveraged providing useful insights and adjust future needs as emphasized in a study of IFEBP, claiming only 20% understood benefits.

Challenges Faced in Talent Analytics

HR Function until now have been restricted to limited responses and taken a back seat in significant decision making. Thus HR people have to adapt the set forth changes in environment, mind set and managerial decision making for leveraging data to break the earlier chains. The knowledge or awareness of HR analytics among employees and prospective employees is a big question that needs to be answered apart from getting the right talent pool having right skill set. O'Hanlon (Board member - Institute of Analytics Professionals) says "it is critical to find the people who can combine the people understanding with data and analytics skills."

One of the biggest limitation with HR Analytics is collecting a lot of Data from different sources and combining it together to present useful and informational reports to right people at right time. These reports should lead to predictive and proactive HR functions instead of giving lagging indicators or stand-alone reporting. However, data credibility and security is a matter of concern for most of the organizations apart from integrating this with organizational teams and work culture.

Aaron McEwan, (HR advisory leader –CEB) “The three challenges: criticality, capability and credibility, are common to most organizations, however, they are unique for each business - Right now HR suffers from a credibility issue,”

The next big challenge is the ROI (Return on Investment) and economic affordability of Data analytics systems in Organization which needs to seamlessly plugged. Thus the barrier of cost and usage of the perceived technology has limited its spread in corporate circles.

Lastly, many thinkers are of the view that data analytics will pull Human out of the resource as decisions related to diverse set of people from varied cultural background exposed to different complex set of problems and personality is largely based on Gut or intuitive feeling instead of machine generated numbers.

Conclusion

Hr analytics undoubtedly gives the organizations a competitive advantage to make decision making more authenticated. However, it faces the problems of data credibility as it integrates data from lot of social media sources and other public portals apart from available with the company. While generating useful insights largely depends on the skills set and knowledge of the analytical team to bring in efficiency and effectiveness meeting the ROI Expectations. HR teams will need to harness the analytical skills in current and potential use from various disciplines by organizing lot of development modules, knowledge sharing sessions and trainings for employees of various levels.

Suggestions

Talent or Workforce analytics can no longer be ignored it's a futuristic trajectory of the HR function limited with inefficiency and unpredictability to give way to effective decisions and improved profitability. HR Function from Top to Bottom have to observe change in perceptual mindset to evolve itself with automated reports and technology.

Organization investing huge monies in building the organizational network and technology has to monitor the performance of its employees at all levels. Continuous up skilling of workforce as per their personality traits, skill sets to customize as per individual requirements.

“As other parts of the business continue to invest heavily in their analytics capabilities, HR risks being pushed aside and overlooked by leaders who want to make accurate but agile decisions.” said McEwan. Building systems secure and credible will finally get the trust of all the stakeholders putting checkpoints at various levels of accumulating data and integrating into useful reports. However further research and diversity of competent

people with different capabilities will pave the way for economic and productive ecosystem which harness the potentialities in a judicious way.

Data Analysis (secondary sources) Outcomes

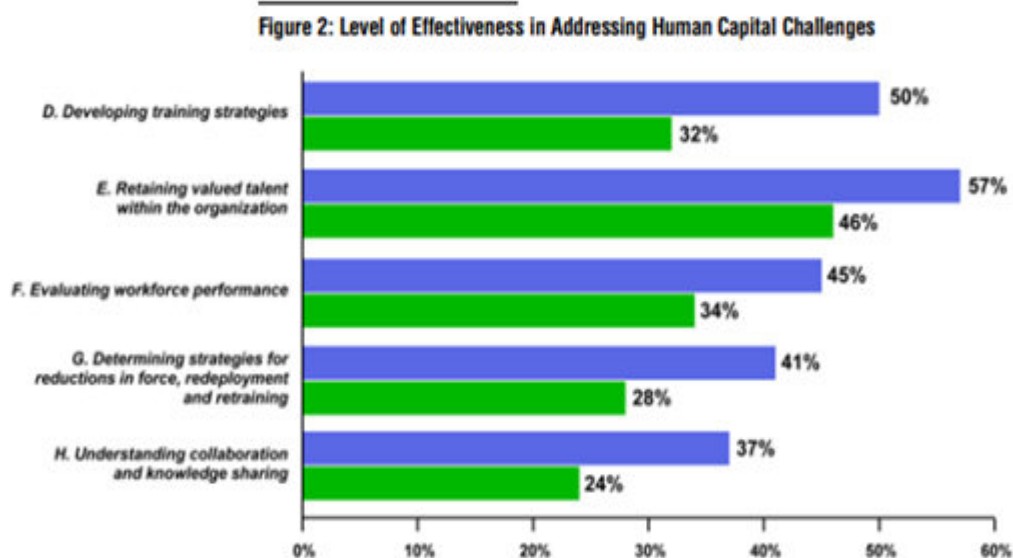
Workforce analytics is relatively a new innovation in modern organizations looking for leveraging their resources for incrementing their top and bottom line. Talent analytics is relatively in nascent stage in India with mostly IT giants, foreign / private banks have put it to use and realized increased profit potential and value addition for all the stakeholders.

The state of talent analytics

According to the WTW report, 11% of the organizations (among the companies surveyed) are satisfied with the level of talent analytics in their organizations while 74% are still at a nascent stage. says

collect about their workforce has increasing weight and importance for numerous internal and external stakeholders.

The findings emphasize high level of effectiveness in all personnel aspects in organizations employing talent analytics to retain them through personalized strategies, collaborations and knowledge sharing with enhanced workforce performance.



Organization implemented analytics are successfully using it for developing succession plans and career progression strategies while 43% use the data for developing training strategies and retaining talent. While 42% use data for collaboration and knowledge sharing and 39% for redeployment and retraining to combat external forces.

Figure 4: Percentage of Organizations Able to Obtain Basic Workforce Data for Specific Human Capital Issues

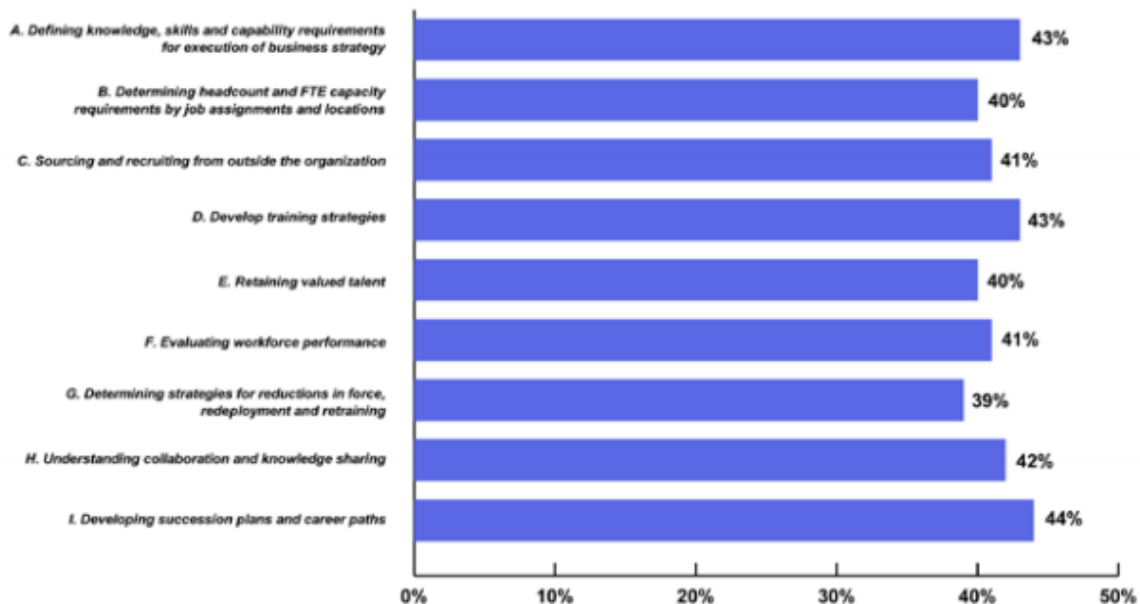
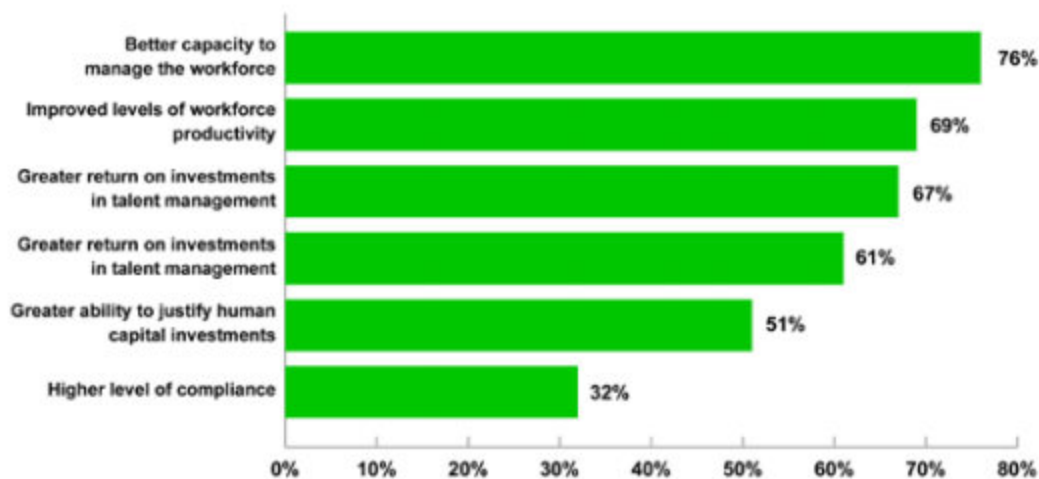


Figure 10: Potential Benefits of Workforce Analytics



76% organizations believe it has equipped them with better capacity to manage workforce and enhanced productivity of workers generating higher returns on investment (67% companies opinion) while nearly 32% companies opine it has improved compliance indirectly by direct benefits and motivation.

Figure 5: Percentage of Organizations Using More Advanced Analytic Approaches

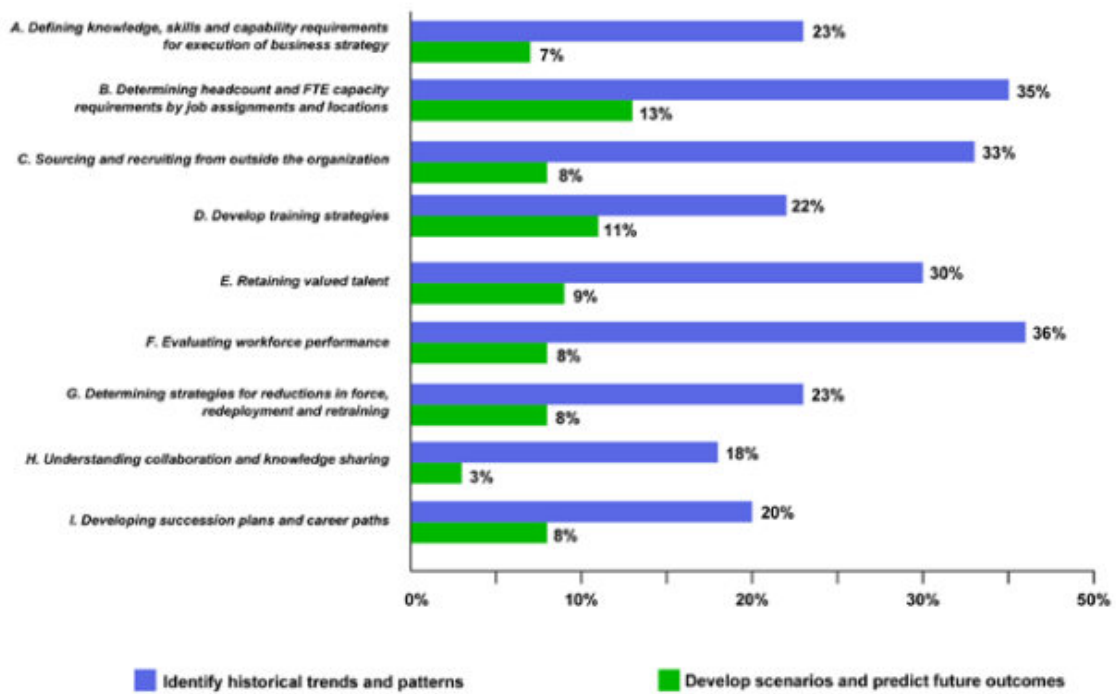


Figure 7: Current Plans for Developing and Deploying a Workforce Analytics Capability

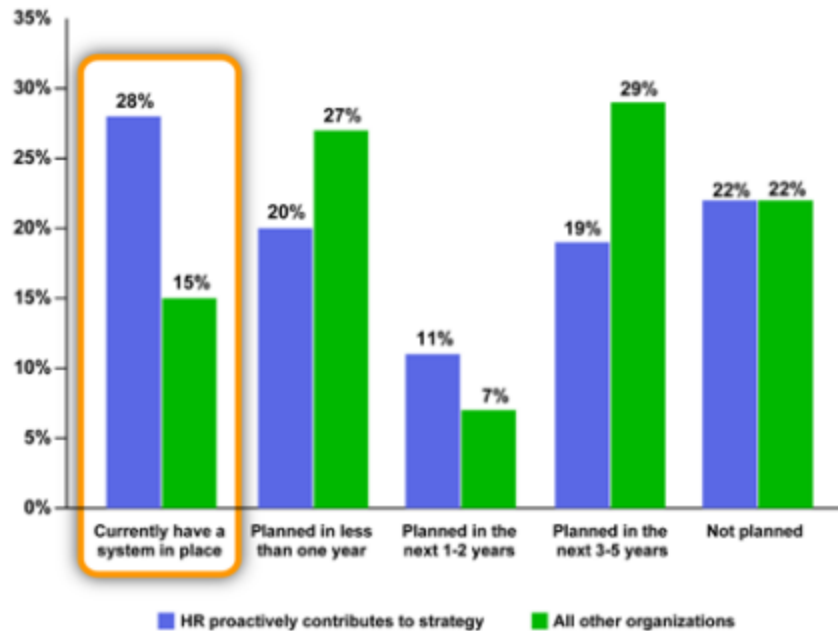
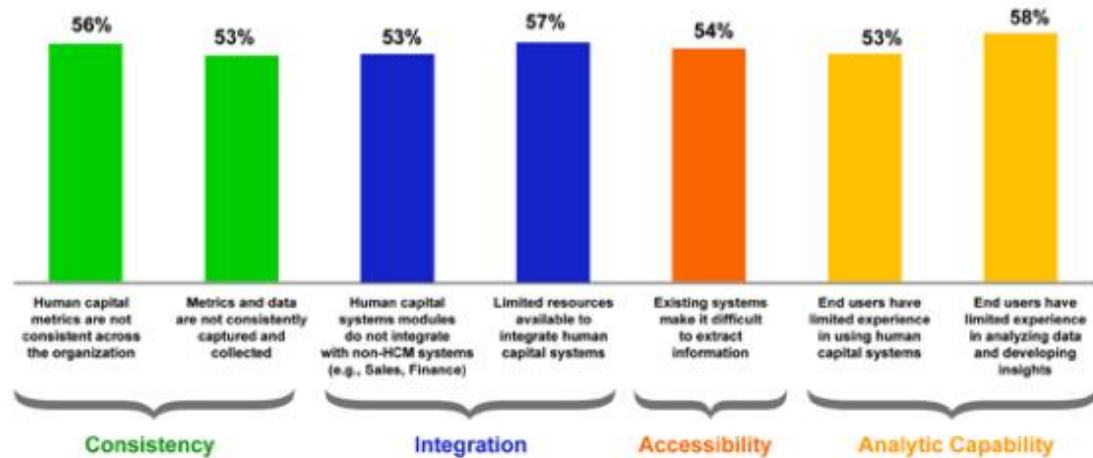


Figure 11: Primary Barriers to Implementing A Successful Workforce Analytics Capability



* Percentages responding to '4' and '5' with '1' being "not a challenge" and '5' being a "significant challenge"

The state of workforce planning

According to the report, only 24% of the organizations are satisfied with the current level of WFP in their organization. While 53% of the organizations do resource, headcount and strategic planning, they do not have a strategic view of their workforce plans as they tend to focus on the short term. Tandon says that 74% of the organizations have less than a 12-month view of the workforce plans, 17% organizations have a 2-3 years' view of the workforce plans and only 11% organizations have a 3-5 years' view of their workforce plans."

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Forecasting Short-Term Relationship Between Futures & Spot Price of Pepper & Cardamom Using Vector Error Correction Model

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ABSTRACT

The process of determining the price of a commodity based on supply and demand factors is the Price discovery function. The Futures markets play an important role in the price discovery of agricultural commodities. The importance of commodity derivatives markets is increasing every day, especially for a developing nation like India, as the economy becomes more aligned with the global economy.

This paper has examined the Price dynamics of Pepper & Cardamom in spot and futures market. The ready market prices and futures prices of pepper released by IPSTA in Kochi from January 2006 to March 2012 have been retrieved from their website in case of pepper.

MCX has launched cardamom futures on February 2006. The spot and futures prices from February 2006 to March 2012 released by MCX Ltd., are utilized for the study. The ADF test is used in testing the stationarity levels. The VECM test used provides empirical evidence that there exists a short term relationship between the spot and future prices of Pepper and Cardamom.

Introduction

India is an important centre for spices producing more than 2.7 million tones of spices out of which it exports about 8 to 10%. India's share in world trade of spice is about 40 to 50% in volume and 25% in value terms. Thus, India's supply and demand play an important role in the world market. As a result, spices are all set to become a very lucrative investment option.

The process of determining the price of a commodity based on supply and demand factors is the Price discovery function. Futures contracts are new financial instruments originally developed for price discovery and risk transfer. The Price Discovery function lays the foundation for the existence and development of futures market to enable the market participants to make relevant decisions by using futures market price discovery function in order to improve their ability to adapt to the market. Thus Futures markets play an important role in the price discovery of agricultural commodities.

A speculation, hedging and arbitrage activity of futures markets largely influences the movements of spot market price. This present study aims at investigating the short-term price relationships between the futures and spot market of two spices pepper and cardamom.

Review of Literature

M.C. Minimol (2018) examined the relationship between Spot and Futures Prices of Crude oil using Co-Integration Analysis and VECM and found that there existed a Long-run relationship between the spot and futures prices, but there was no short-term relationship between the spot and futures prices of Crude oil.

Jyothi Shivakumar N.M and Dr. G. Kotreshwar (2017) examined the long term and short term relationship between spot and futures market of Maize and found that maize spot and futures market are co-integrated in a long run and have causal relationship in short run from spot to futures market.

Dhineshni and Dhandayuthapani (2016) in their study on Price Discovery Mechanism of Spot and Futures Market in India attempted to study the price discovery relationship for five of the top traded agricultural commodities on NCDEX namely chilli, coriander, zeera, pepper and turmeric. The co-integration results validated the existence of long-run relationship between spot and futures prices. The Vector error correction model verified bidirectional causality between the spot and futures prices suggesting that both spot and futures market plays a leading role in price discovery process.

Mengyuan(2015) on the study on relationship between corn futures prices of China and the United States by employing Johansen Co-integration test and VECM found that corn futures prices in America had a significant effect on prices of China establishing a long term relationship between the variables. The researcher also found that the US corn futures market plays a leading role by transferring the information at a faster pace.

Sharma (2015) investigated long and short run causality between Spot and Future prices of Chana, Soyabean, Soya refined, Gurgum, Potato and Pepper of NCDEX in India and found co-integration between spot and futures prices of chana, soyabean, soya oil and

pepper. It was also found that future lead to spot in case of soyabean and soya oil, whereas a bi-directional relationship existed between the prices of Chana and Pepper.

Objectives of The Study

- To Check the Futures and Spot Price series of Pepper and Cardamom are stationary series or not.
- To ascertain the Short-run equilibrium relationship between the Futures & Spot Prices of Pepper and Cardamom.

Hypotheses

Ho₁ = Futures and Spot Prices of Pepper and Cardamom are not Stationary

Ho₂ = There is no significant relationship between the spot and futures prices of Pepper and Cardamom in the Short-run.

Data and Methodology

The data for establishing price discovery and relationship between spot and futures prices of Pepper and Cardamom were collected from IPSTA and MCX.

The India Pepper and Spice Trade Association the only regional exchange in the south doing futures trading in pepper without break since 1957 started its online trading from 2004. The ready market prices and futures prices of pepper released by IPSTA in Kochi from January 2006 to March 2012 have been retrieved from their website in case of pepper.

MCX has launched cardamom futures on February 2006. The spot and futures prices from February 2006 to March 2012 released by MCX Ltd., are utilized for the study. The data relating to price series have been taken from their website www.mcxindia.com.

Analyzing the short-term between the spot and futures prices of Pepper and Cardamom will throw light pertaining to the possibility of acting spot or future prices as an efficient price discovery vehicle and will be immensely useful for the traders to hedge their market risk.

Empirical Analysis & Results

Table 1: Descriptive Statistics for Pepper & Cardamom

Particulars	Pepper		Cardamom	
	Futures Price	Spot Price	Futures Price	Spot Price
Mean	16971.18	16586.18	763.5821	721.7685
Median	14300.00	13900.00	689.7500	645.7000
Maximum	115305.0	42400.00	2038.200	1770.000
Minimum	6454.000	1390.000	218.9000	229.4000
Std. Dev.	8169.142	7790.325	352.9841	338.5025
Skewness	1.985155	1.262108	1.012676	1.056481
Kurtosis	14.52026	3.790786	3.746582	3.726639
Jarque-Bera	11309.21	532.9387	353.1466	378.3982

Probability	0.000000	0.000000	0.000000	0.000000
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Source: Computed Secondary Data

The table 1 presents summary statistics of futures and spot prices of pepper and cardamom.

Unit root test is to determine whether the series is consistent with an I (1) process or if it is consistent with an I (0) process, that is, it is stationary, with a deterministic trend. The early and pioneering work on testing for a unit root in time series was done by Dickey and Fuller.

In the effort to confirm such requirement, a standard unit root test known as Augmented Dickey-Fuller (ADF) test is applied to examine whether futures prices and cash prices (in natural logarithm) are non-stationary.

Phillips-Perron Test (PP Test)

Philips and Perron (1988) developed a generalization of the ADF test procedure that allows for fairly mild assumption concerning the distribution of errors. The test regression for the Philips Perron Test is $\Delta Y_t - 1 = a_0 + \beta Y_t - 1 + e_t$,

Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests have been used to test the stationary of the data series.

Table 2: Augmented Dickey-Fuller and Phillips-Perron Test

Variable	ADF TEST		PP TEST	
	At Levels	1 st Difference	At Levels	1 st Difference
Futures Pepper	-0.098054	-22.80707*	-8.500139	-311.7967*
(p value)	0.9478	0.0000*	0.0000	0.0001*
Spot Pepper	1.303959	-39.66717*	1.010394	-63.28623*
(p value)	0.9987	0.0000*	0.9968	0.0001*
Futures Cardamom	-1.754549	-42.15810*	-1.688247	-42.22716*
(p value)	0.4035	0.0000*	0.4371	0.0000*
Spot Cardamom	-1.627686	-17.89182*	-1.531474	-37.16968*
(p value)	0.4681	0.0000*	0.5175	0.0000*

Source: Computed Secondary Data | *- denotes the significance at the one percent level.

The table 2 gives the estimates of the ADF & to double check the robustness of the results, PP test has also been applied for the prices at the levels and difference of the series. The ADF Statistics at level for cardamom futures (-1.754549), spot (-1.627686) and the PP Statistics for cardamom are -1.688247, -1.531474. While the ADF Statistics at level for Pepper (-0.098054), spot (1.303959) and the PP Statistics for futures (-8.500139), spot (1.010394) indicates that the computed value of statistics is all insignificant at the 5% significance level for both ADF and PP tests. The results fail to reject the null hypothesis of unit roots in their level form. Thus, implying that there is no possibility of the series to be stationary around a constant mean or around deterministic

linear trend. Therefore the first difference of all series is tested for stationary of the series.

The results revealed that the value of statistics for both pepper and cardamom are significant at the 1% level indicating the rejection of null hypothesis of the existence of a unit root for each of the price series in their first difference.

Thus all the prices series need to be differenced once in order to achieve stationarity and they are confirmed to be integrated of order one.

All the results of the Dickey & Fuller and Phillips Perron unit root tests of the price series for the two selected spices showed that both the spot and futures price series are not stationary at their initial levels but became stationary at the first difference.

Though in the long run, series may be integrated, but these series may digress in the short-term which can be interpreted as permanent adjustment process toward an equilibrium process is called Vector Error Correction Model (VECM). The use of VECM is an important element for at least two reasons. First the VECM allows to examine how the spot and futures price move over time. Secondly, it allows to determine where price discovery is occurring (is it spot or futures) of spot or futures price follow each other.

VECM is applied to evaluate the short run properties of the co-integrated series. A VECM was estimated in order to describe the short-run deviations from the long-run equilibrium that has been shown to exist due to the presence of co-integration.

Table 3: Short Term Relationship between Futures and Spot Price of Pepper & Cardamom

MCX-CARDAMOM			IPSTA-PEPPER		
Error Correction:	D(FP_PR)	D(SP_PR)	Error Correction:	D(FP_PR)	D(SP_PR)
Co-int Eq1	0.001682	-0.001532	Co-int Eq1	0.253725	-0.003865
	(0.00042)	(0.00025)		(0.01237)	(0.00219)
	[4.00794]	[-6.08682]		[20.5081]	[-1.76698]
D(SP_PR(-1))	0.195473	0.054287	D(S_PR(-1))	-0.272550	-0.404340
	(0.04356)	(0.02612)		(0.13408)	(0.02370)
	[4.48762]	[2.07809]		[-2.03280]	[-17.0596]
D(SP_PR(-2))	0.054007	-0.050038	D(S_PR(-2))	-0.044704	-0.113818
	(0.04131)	(0.02478)		(0.13255)	(0.02343)
	[1.30721]	[-2.01945]		[-0.33726]	[-4.85744]
D(FP_PR(-1))	-0.012878	0.140841	D(F_PR(-1))	-0.156851	-0.003693
	(0.02747)	(0.01647)		(0.03163)	(0.00559)
	[-0.46885]	[8.54986]		[-4.95865]	[-0.66042]
D(FP_PR(-2))	-0.070026	-0.028432	D(F_PR(-2))	-0.075645	-0.001181
	(0.02757)	(0.01654)		(0.02346)	(0.00415)
	[-2.53968]	[-1.71937]		[-3.22511]	[-0.28477]
C	3.084673	1.442244	C	28.04841	26.24604
	(2.56720)	(1.53965)		(57.8733)	(10.2307)
	[1.20157]	[0.93674]		[0.48465]	[2.56542]
R-squared	0.027493	0.106655	R-squared	0.453880	0.149524

Source: Computed Secondary Data

The above table 3 shows the results of VECM between spot and futures prices of pepper and cardamom. The size of error correction in spot prices of pepper and cardamom are

negative and significant, implies that decrease in the previous period's equilibrium error leads to a decrease in current period spot price. Whereas the size of error correction in futures prices of pepper and cardamom are positive and significant, it implies that increase in the previous period's equilibrium error leads to an increase in current futures price. Both the error correction coefficient suggests that a sustainable long-term equilibrium is achieved by closing the gap between futures and spot prices. In other words, spot prices rise to meet increase in futures prices while futures prices return to spot prices. The error correction coefficient in spot and futures is

-0.001532, 0.001682 in case of cardamom and -0.003865, 0.253725 in case of pepper respectively. This measures how quickly the dependent variables, such as, spot and futures prices absorb and adjust themselves for last period disequilibrium errors. In other words, it measures the ability of dependent variables, such as, spot and futures prices to incorporate shocks or news in its prices. It also reveals that the variables are co-integrated to fit an Error correction model. If the error correction Model is negative and significant then there exists long run equilibrium relationship among variables which correct the disequilibrium of yesterday's price by today's price. This shows that there exists short run relationship between futures and spot price.

Vector Error Correction Model was employed to investigate the short-term relationship between spot and futures prices of pepper and cardamom, as Vector Error Correction Model is a superior technique to investigate the possibility of short-run equilibrium between future and spot markets. Further it is important for investors and traders for trading in the leading market in the short-run, as they can make arbitrage profit. The Error Correction Model estimates the leading market between spot and futures market of pepper and cardamom. These results clearly indicate that futures price has its influence on spot price of both pepper and cardamom. Hence, futures' trading on Pepper and Cardamom is a viable opportunity for the traders and farmers.

Conclusion

The relationship between the futures and spot prices is of great significance to those who wish to hedge the price risk using futures contracts. This paper finds that there is short-term equilibrium relationship between the futures and spot prices of Pepper and Cardamom. The findings indicate that the futures markets are able to meet their intended objectives of price discovery and hence aid in price risk hedging. Hence, it can be observed that the efficiency of the markets in the price discovery process has improved during recent years.

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The Digital Revolution in Africa: Opportunities and Hurdles

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ABSTRACT

The digital revolution is the widespread diffusion of information and communication technologies, and the transformation towards an entirely digitized society. The digital revolution has the capacity to radically develop and change Africa like what first industrial revolution has done to the western countries in the 19th century. Although, for two decades, Africa benefited of steady economic growth sustained by commodity exports and increasingly by structural factors such as demographics, growing internal markets, urbanization and technological developments, Africa still lags behind other regions in providing many of the essential ICTs infrastructures and internet and online services. In this paper, we assess the current trends of the digital transformation in Africa to explore the opportunities and challenges that are encountering the African region in that matter. This study finds that despite that digital revolution in Africa is having many drivers to success and holding bright future opportunities especially in matters of poverty alleviation and business development, still many challenges are hindering its ongoing process.

Introduction

Information and Communications Technologies (ICTs) is considered as substantial sector for job creation and economic development, especially in developing countries with growth challenges and unemployment problem. The OECD defines ICTs as a “combination of manufacturing and service industries, whose products electronically capture, transmit or display data and information. The production (goods and services) of a candidate industry must primarily be intended to fulfil or enable the function of information processing and communication by electronic means, including transmission and display” (OECD, 2009).

Since the 1990s, the world is witnessing major advances and innovations in ICTs sector accompanied with a tremendous growth of global networks connections. The new wave of what so-called “digital revolution” has introduced new technologies that have shifted governments, businesses and markets focuses towards a new globally digitalized economy.

Digital transformation process requires setting up a complete development strategy that encompasses different pillars such as: Competitive ICTs sector, free market mechanisms, competitive business sector, highly qualified human capital, and an independent regulatory authority. Making the digital transformation a story of success requires inclusive, coherent and well-coordinated policies, reflecting all the involved stakeholders: government, business, and development partners.

Africa has started its digital transformation by the end of the 1990s where it has begun by the -so-called- the mobile or telecommunications revolution. The progress of the ICTs sector in Africa is remarkable since the last two decades. However still lots of efforts need to be deployed to make African countries more capable of following the steps of other regions in coping with digital revolution demands. This paper aims to assess where Africa stands between the other regions in matter of digital transformation, to recognize the main drivers of success that are shaping its opportunities for future expansion, to determine the main challenges that are facing the African countries and finally to give policy recommendations of how to accelerate the digitization progress in Africa.

This paper is structured into five main parts: At first place, we start by defining what is digital economy by clarifying all its related main concepts and relations. Then we move to the second place where we explain the role of governments in the digitization process. At third place, we consider the question of the economic impacts of digital revolution and here we have explained the impact from different two point of view: (a). the impact on the economic growth and (b). the impact on the labor market. Then at fourth place, we start discussing the digital transformation in developing countries by exposing the policy framework that is needed to be implemented and the main challenges that are encountering developing countries in their digitization process. At fifth place, we analyze and assess the digital revolution in Africa from different perspectives: Major ICTs trends, digitization progress (measured by the Networked Readiness Index, and the United Nations E-Government Survey) and the main challenges of digital transformation in Africa. And finally, we conclude and recommend policies and actions for a faster and effective African digital transformation.

Digital Economy: Definition and Main Concepts

The digital economy can be defined as “the entirety of sectors that operate using Internet Protocol (IP)-enabled communications and networks” irrespective of industry (ISOC, 2015). The Internet and IP-enabled networks have created a universal platform to shape the basis of the digital economy for all sectors.

The digital economy relies on enriched interconnectivity of networks and the interoperability of digital platforms in all sectors of the economy and society to offer convergent services. Lovelock. P. (2018) has emphasized the importance of interconnectivity and interoperability as key elements for the establishment of a digital economy:

Interconnectivity of networks: It means that traffic can travel across and between networks. This allows economies of scale since the fixed costs of infrastructure rollout are extended across a greater level of output bringing about a fall in unit costs.

Interoperability of digital platforms: It means that traffic can run effectively across different types of networks (e.g., from telecommunication, to banking, to educational, to health networks and other sectors/networks). This allows economies of scope, since fixed costs are spread across a broader range of output of different products and services.

Interconnectivity and interoperability have created two major economic impacts as it has been shown in chart (1):

1. **Economies of scale:** that result from the vast spread of networks usage across all over the society.
2. **Economies of scope:** that results from the recent rise of the industry 4.0 which has making it easily possible through the accelerated innovation to benefit from the cross-fertilization of opportunity across sectors (e.g. the emergence of FinTech “finance + technology” and AgriTech “agriculture + technology”, ... etc.).

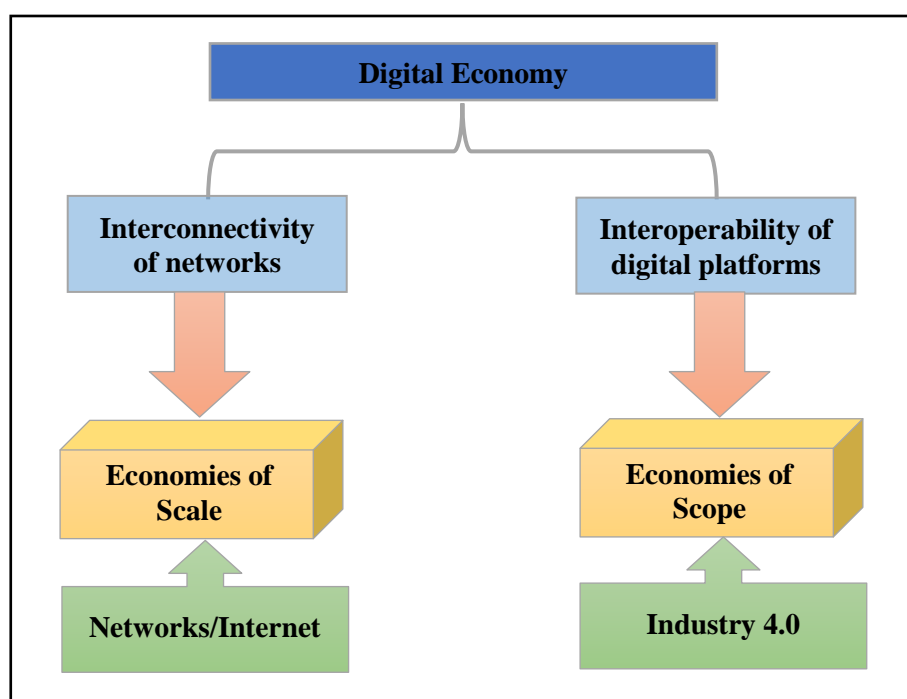
Industry 4.0 or what is also called the Fourth Industrial Revolution¹ reflects a shift in economic value from manufacturing (2.0) and services (3.0) to information and intellectual property, new technologies, digitization, and robotization. Industry 4 can be defined as “a new level of value chain organization and management across the lifecycle of products” (Kagermann 2014). Industry 4.0 has the potential to affect the entire industries by transforming the way goods are designed, manufactured, delivered, and paid for (Stock and Seliger 2016; Hofmann and Rüsch 2017).

The industry 4.0 is offering a wide range of growth opportunities for economies, for instance we mention the following:

- Creation of new jobs and skills development
- Creation of new business models based on the digitization of products and services
- Creation of new models for the industrial management of small and medium enterprises (SMEs) with lower start-up costs.
- Upgrade competitiveness: increases in cost and time-efficiency and improves in product quality.

Creation of new markets: innovative technologies (or the so-called fusion of technologies) are combining different scientific and technical disciplines to create a new type of product or service (e.g. FinTech).

Chart1: Digital economy's key elements analysis



¹ Also known as “smart manufacturing”, “industrial internet” or “integrated industry”.
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Role of Governments in The Digitization Process

The government is responsible to manage and architect the development and growth of the digital economy. Policy makers are constantly challenged to set up the most appropriate policies and regulation to enforce the digital economy transformation. As it is shown in chart (2), governments should establish and develop the following basic digital infrastructure and policies: (Lovelock. P., 2018).

Creating a National Broadband Network: It is highly important to create an accessible and reliable national high-speed broadband infrastructure.

Promoting the interoperability of Platforms: It is crucial to guarantee that key networks (e.g. telecommunications and banking systems) interconnect, and that platforms become interoperable so that apps and services work across all systems, and are accessible by all, as much as possible at any time (e.g. interoperability among mobile money services).

Monitoring and legitimizing the “Sharing Economy”: Sharing economy - also known as collaborative consumption or peer-to-peer (P2P) based sharing or peer economy – refers to an economic model where economic agents prefer to rent or borrow certain types of goods rather than to buy and own them (e.g. cars). Sharing economy transactions are often facilitated via community-based online services². In sharing economy, government and policy makers have to monitor and manage three types of challenges that are facing the sharing economy: (a). Conflicts between traditional sectors and newly emerging platforms, (b). Reliability of reputation ratings in the shared economy, (c). Consumer protection concerns (e.g. user’s data protection, liability and insurance).

Ensuring privacy and data protection: In a digital economy, economic value shifts increasingly to data, therefore, governments have to work on ensuring: (a). Personal data privacy, via data legislation and regulations that require permission of citizens before data about them can be collected. (b). Data protection, also via data legislation and regulations that ensure the security of data and its protection from loss or misuse.

Developing cybersecurity policies: It is vital to protect critical national information infrastructures (CNII)³, and promote rapid information sharing about cyber-attacks.

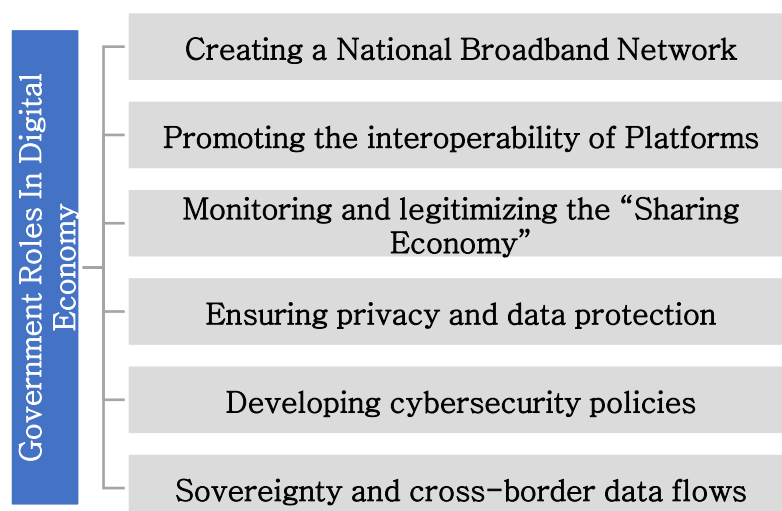
Sovereignty and cross-border data flows: It is important to place restrictions on the overseas transfer of personal data under personal data privacy laws, such as sensitive financial data held by banks or medical data. And when the data is transferred overseas, the international community has to unify to set up cross-border harmonization policies to face related security issues that can affect national and international security (e.g. Anti-Money Laundering / Counter-Financing of Terrorism (AML/CFT) regulations, detecting cybercrimes and anti-terrorist surveillance).

² Uber, the world’s largest taxi company, owns no vehicles. Facebook, the world’s most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory

³ Critical National Information Infrastructure (CNII) are those assets (real and virtual), systems and functions that are vital to the nations and that their incapacity or destruction would have a devastating impact on: (1) National economic strength, (2) National image, (3) National defense and security, (4) Government capability to functions, and (5) Public health and safety.

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Chart2: Government's roles in Digital economy



Source: Author's own construction

The Economic Impacts of the Digital Revolution

The digital revolution is fuelled by the use of innovative multiple digital technologies like: telecommunications networks, computer and hardware technologies, software engineering (operating systems, machine learning and artificial intelligence) and the spill over effects resulting from their use (common platforms for application development, electronic delivery of government services, electronic commerce, social networks, etc). The fourth industrial revolution has led to a massive technological disruption that have affected the economy in different levels: Economic growth, and labour force. (Raul L. Katz, 2017)

Impacts of the digital revolution on the economic growth

Digitization has contributed immensely in boosting the productivity growth and the economic competitiveness. The economic growth has been accelerated by the introduction of new services and products risen from the digital revolution, such as:

- Internet information searches, electronic commerce, distance education and social networks.
- Sharing economy services (such as Uber).
- Distribution and management of a local content digital industry.
- Online B2B and B2C platforms allow domestic businesses to address international markets.

Moreover, the advancement in digital technologies has developed platforms and applications that, when adopted on a mass scale or when adopted jointly, should have a significant impact on operating costs and the productivity growth (Economies of scales and Economies of scope impacts).

Nevertheless, economies are facing a potential risk associated with the negative economic effect of an Internet disruption as a result of natural emergency, cybercrime, technological failure, or politically motivated blackout.

Impacts of The Digital Revolution on The Labor Force

Major technological innovations have always been accompanied by extensive transformations in the labour market. By increasing labour productivity, innovation enables the production of more goods and services with less labour, thus leading to the possibility of technological unemployment. At the same time, innovation creates new employment opportunities in different industries and in newly created markets. (OECD, 2016)

We can summarize how digital revolution has affected the labour market in two types of effects that are varying by industry type and skills level:

1. Job creation: As digital technologies have diffused across a broader range of occupations and industries, the demand for workers with analytical, interactive, and problem- solving skills has emerged.
2. Job destruction: Especially for low and middle- skilled workers resulting from task automation. This effect is more obvious in developed than in developing countries as they using extensively digital technologies in their manufacturing and service sectors.

These effects will accelerate over time powered by the accumulation of intangible capital of firms (organizational changes, reengineering of business processes due to digital transformation) and the increasing potential of digital technologies linked to the fourth industrial revolution. (Raul L. Katz, 2017)

Digital Transformation in Developing Countries

Digital transformation is a long run social learning process that is involving multiple stakeholders. It aims to harness the global digital revolution to meet a country's specific socio-economic priorities. This process is driven by vision, leadership, innovation, learning, and partnerships among government, business, and civil society. (Hanna Nagy K., 2016)

To make digital transformation work successfully, governments need to implement an integrated policy framework that combine three main pillars (OECD, 2017):

Table 1: Governments' digital transformation integrated policy framework

1. Building the Foundations for the Digital Transformation	<ul style="list-style-type: none"> ▪ Enabling environment for free market policies and trade openness. ▪ Ensuring accessible digital infrastructures and services for everyone at an affordable price (including efficient, reliable and widely accessible broadband communication networks, data, software, hardware, as well as the services that are provided over the networks).
2. Making the Digital Transformation Work for the Economy and Society	<p>Include all actions needed to enable the effective use of digital technologies by people, firms and governments, such as:</p> <ul style="list-style-type: none"> ▪ Transformation to E-government ▪ Firms use of new technologies in production activities. ▪ Supporting innovation and research activities ▪ Labor market adaptation to new needed skills and new jobs ▪ Fostering citizens trust and acceptance in the digital economy

	<ul style="list-style-type: none"> ▪ Ensuring more equitable digital transformation
3. Policy Coherence and Strategy Development	Setting one coherent and strategic national digital agenda which depends on: <ul style="list-style-type: none"> ▪ Actions coordination among ministries other governmental bodies, and key stakeholders.

Source: Table constructed by the author based on:

OECD (2017), Going Digital: Making the Transformation Work for Growth and Well-Being, OECD Council Ministerial meeting Paris, 7-8 June 2017, p. 12-13

Countries differ in the amount of time and efforts needed to make an adequate digital transformation because of their differences in many factors such as:

- The level of economic development
- The market openness state
- The structural composition of the sectors and their level of competitiveness
- Government institutional capacities
- Private sector capacities
- Education system advancement and Research and development position.

Considering the digital gap between the developing and developed countries, developing countries need to work harder on ensuring their fast integration in the digital revolution by expanding their local access to mature technologies to improve their productivity growth and competitiveness. Digitalization can empower developing country firms to move up the value chain, become less dependent on the innovation and coordination functions of lead firms in GVCs, and produce globally competitive and compatible products on their own.

There are three main challenges to digital transformation are facing the developing countries, especially in least developing countries where complementary assets and coordinating institutions are weak or missing: (Hanna Nagy K., 2016)

Digital technologies are highly interdependent and constitute a dynamic ecosystem: which includes: communication infrastructure, digital platforms, digital economy skills, local ICT services and content industries, service transformation for all sectors, cyber policies, and ICT sector leadership and regulatory institutions. Maximizing output requires fostering this digital ecosystem and tapping into its synergies at the national, local, and sector levels.

Leadership and institutional capabilities in the ICT sector are needed to plan and implement digital transformation strategies: These capabilities are increasingly important to create shared vision, integrate ICT opportunities and investments into development strategies, associate complementary policies concerning competition and skills, and set up strong partnerships between government, private sector and civil society.

Digital transformation requires extensive investment in organizational capabilities, process innovation, and institutional learning: Best practice suggests that every dollar invested in ICT should be matched with a \$4 or \$5 investment in process improvement, training, change management, etc.

Digital Revolution in Africa

ICTs trends in Africa

The latest data on ICTs development published in 2017 by the ITU (The United Nations specialized agency for information and communication technologies – ICTs) in its annual report “Measuring the Information Society” shows that Africa continues to be the region with the lowest in ICT Development Index – or IDI performance. In 2017, the average value for Africa has reached 2.64 points which is little more than half the global average of 5.11.

Mauritius is the only African country that ranks in the upper half of the global IDI distribution, while the rest of African countries (28 of the 38) included in IDI 2017 fall into the lowest least connected countries (LCCs) quartile. Nevertheless, two African countries - Namibia and Gabon – are between the three countries which achieved the most dynamic progresses in their IDI value over the year. (ITU, 2017)

Table 2: IDI* 2017 Africa, group of countries and world comparison

Global IDI and Sub-Indices values	Africa	Developed	Developing	World
IDI 2017 Value	2.64	7.52	4.26	5.11
IDI 2016 Value	2.48	7.4	4.07	4.94
IDI ACCESS SUB-INDEX	3.28	7.83	4.8	5.59
Fixed-telephone subscriptions per 100 inhabitants	1	38.07	8.54	13.57
Mobile-cellular telephone subscriptions per 100 inhabitants	74.6	127.27	96.25	101.53
International internet bandwidth per Internet user (Bit/s)	51000	140000	53000	74464
Percentage of households with computer	9.6	81.53	34.35	46.61
Percentage of households with Internet access	16.3	82.85	40.43	51.46
IDI USE SUB-INDEX	1.74	6.91	3.32	4.26
Percentage of individuals using the Internet	19.9	79.55	38.98	45.91
Fixed (wired)-broadband subscriptions per 100 inhabitants	0.4	30.31	8.71	12.39
Active mobile-broadband subscriptions per 100 inhabitants	22.9	94.39	43.58	52.23
IDI SKILLS SUB-INDEX	3.16	8.12	5.05	5.85
Mean years of schooling	5.24	11.67	7.4	8.52
Secondary gross enrolment ratio	50.48	109.79	74.88	84
Tertiary gross enrolment ratio	9.49	68.18	28.25	38.69

Source: Table constructed by the Author from the ITU World Telecommunication/ICT Indicators database, ICT Development Index 2017, <https://www.itu.int/net4/ITU-D/idi/2017/index.html#idi2017comparison-tab>. Seen 25th of Oct. 2018

First time developed in 2008, the ITU Information and Communication Technology Development Index (ICT Development Index, or IDI), is a composite index that combines 11 indicators into one benchmark measure that can be used to monitor and compare developments in ICTs between countries and over time. The IDI is divided into three sub-indices:

Access sub-index: It captures ICT readiness, and includes five infrastructure and access indicators (fixed-telephone subscriptions, mobile-cellular telephone
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subscriptions, international Internet bandwidth per Internet user, households with a computer, and households with Internet access);

Use sub-index: It captures ICT intensity, and includes three intensity and usage indicators (individuals using the Internet, fixed-broadband subscriptions and mobile-broadband subscriptions);

Skills sub-index: It seeks to capture capabilities or skills that are important for ICTs. It includes three proxy indicators (mean years of schooling, gross secondary enrolment, and gross tertiary enrolment). As these are proxy indicators, rather than directly measuring ICT-related skills, the skills sub-index is given less weight in the computation of the IDI than the other two sub-indices.

Table 3: Average IDI and sub-index values, Africa vs. Regions and World, IDI 2017, IDI 2016 and Percentage change 2017-2016

Region*	IDI 2017				IDI2016				Percentage Change 2017-2016			
	Access	Use	Skills	IDI	Access	Use	Skills	IDI	Access	Use	Skills	IDI
Africa	3.28	1.74	3.16	2.64	3.18	1.48	3.07	2.48	3.1%	17.6%	3.3%	6.5%
Arab States	5.51	3.96	5.26	4.84	5.41	3.78	5.17	4.71	1.8%	6.9%	1.9%	3.4%
Asia and the Pacific	5.27	3.99	5.65	4.83	5.12	3.63	5.48	4.6	2.0%	7.2%	1.8%	3.5%
CIS	6.6	4.79	7.47	6.05	6.48	4.39	7.44	5.84	1.5%	5.9%	1.3%	2.7%
Europe	7.8	6.94	8.02	7.5	7.73	6.62	7.97	7.34	1.3%	3.9%	1.3%	2.2%
The Americas	5.64	4.21	6.34	5.21	5.54	3.86	6.24	5.01	1.8%	6.7%	1.6%	3.2%
World	5.59	4.26	5.85	5.11	5.49	3.95	5.75	4.93	1.8%	6.6%	1.7%	3.2%

Source: Table modified by the Author from: ITU (2017), Measuring the Information Society Report: 2017 – Volume1, The United Nations specialized agency for information and communication technologies – ICTs, Switzerland Geneva, 2017. P (66).

Number of economies per each region: Africa (38), Arab states (19), Asia and the Pacific (34), CIS (10), Europe (40), The Americas (35), World (176)

Table 3 shows that Africa has showed the highest proportional rate of improvement for the IDI as a whole, and for all three sub-indices, with an average improvement of 6.5 % overall, and of 17.6 % for the use sub-index that is measuring the ICT intensity by three usage and intensity indicators: individuals using the Internet, fixed-broadband subscriptions and mobile-broadband subscriptions.

The African Development Bank is publishing the Africa Infrastructure Index (AIDI)⁴ to monitor the status and progress of infrastructure development across the continent. The ICTs is one of the four major components of AIDI. In the AIDI latest report (2018), the ICT sector arises as the main driver of AIDI improvements over the last decade.

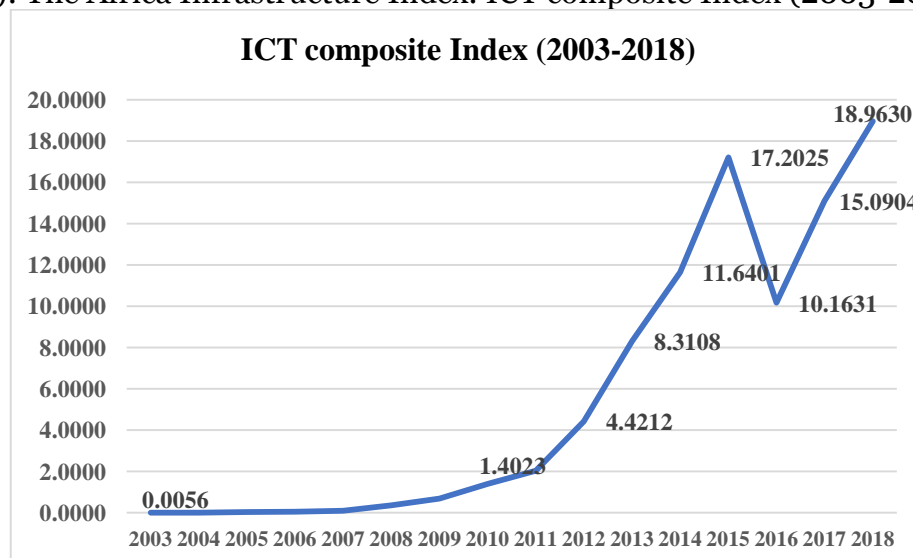
Graph (1) is showing the tremendous evolution of the ICT composite sub-index of AIDI over the time period (2003-2018). The ICT composite index value has increased 338.5 times in 2018 in comparison with its value in 2003.

Internet users per 100 inhabitants in Africa has grown remarkably from 2000 to 2014. It has reached for 21.4 users per 100 in 2014 against only 0.5 user in 2000 (Graph 2). The majority of web traffic in leading digital markets in Africa originated

⁴ The AIDI Index's major components are: (i) electricity; (ii) transport; (iii) ICT; and (iv) water and sanitation. Available on SSRN-Elsevier

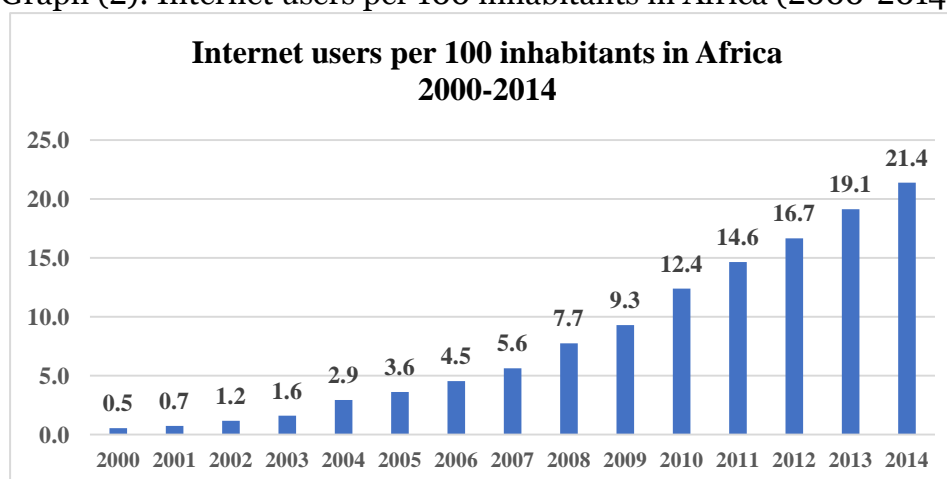
from mobile devices. For instance, in Nigeria, one of the countries with the largest number of internet users worldwide, 81% of web traffic was engendered by smartphones and only 16% by computers. This situation can be explained at first place by the low cost of mobile connections and at second place by the fact that internet by mobile connections doesn't necessitate that amount of infrastructure that is needed for traditional fixed-line internet connections.

Graph (1): The Africa Infrastructure Index: ICT composite Index (2003-2018)



Source: Graph constructed by the author of data collected from: African Development Bank Group (2018), <http://infrastructureafrica.opendataforafrica.org/pbuerhd/africa-infrastructure-development-index-aidi-2018>

Graph (2): Internet users per 100 inhabitants in Africa (2000-2014)



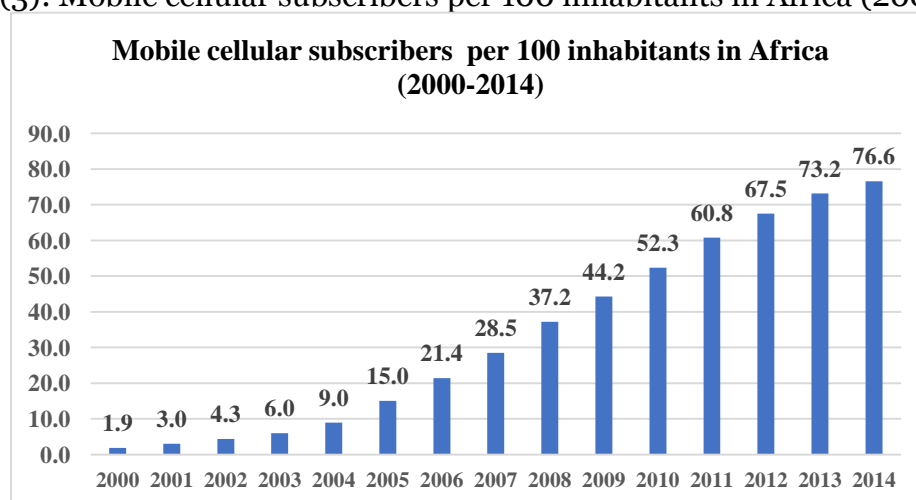
Source: Graph constructed by the author of data collected from: African Development Bank Group, AFDB Socio Economic Database, 1960-2016 <http://infrastructureafrica.opendataforafrica.org/kjxrpbg/afdb-socio-economic-database-1960-2016>, website seen on 21 Oct. 2018.

That remarkable improvements in the ICT sector in Africa is due to the rapidly expanding mobile phone market. The mobile cellular subscribers per 100 inhabitants in Africa has increased from 1.9 subscribers in 2000 to 76.6 subscribers in 2014 (Graph 3). During the last decade, the mobile phone market in Africa has been marked by many growth-led changes, for instance: (AFDB, 2015).

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- Emergence of new operators in the market,
- Massive growth in coverage extensions,
- Higher broadband speeds,
- Increase in subscriptions
- Fall in prices: As networks have expanded, competition has intensified and operators have increasingly tracked new customers from low-income households, which has made mobile prices to decrease.
- Development of new submarine and regional overland cables, which provided huge new capacity around coastal Africa, as well as facilitating mobile operator consolidation.
- Large investments by the private sector and the emergence of public-private partnerships (PPPs) in some African countries.
- Pervasive regulatory reform has been a key factor in the growth of the ICT sector in Africa. The continuing shift from a politically driven decision-making process to a more rules-based, technocratic one has enhanced investor (especially Foreign investors) confidence and allowed competition to intensify.

Graph (3): Mobile cellular subscribers per 100 inhabitants in Africa (2000-2014)



Source: Graph constructed by the author of data collected from: African Development Bank Group, AFDB Socio Economic Database, 1960-2016
<http://infrastructureafrica.opendataforafrica.org/kjxrbg/afdb-socio-economic-database-1960-2016>, website seen on 21 Oct. 2018.

The GSM Association (GSMA, 2016) report about the Mobile Economy in Africa shows that the overall adoption rate for mobile phones in Africa relative to the population is 46% in 2015, and it is expected to continue to grow by approximately 6% yearly. The “Mobile economy,” which is composed of both the economic effect created by mobile communications and its related services industries, is continuously contributing to overall economic growth and development in Africa. The added value created by the mobile economy accounted for 6.7% of the overall GDP of Africa (153 billion US dollars of economic value). The GSMA (2016) anticipates that by 2020, the contribution of mobile economy in the Africa’s overall GDP will grow to reach 7.6% (214 billion US dollars).

We can summarize that changes in the ICTs sector in Africa has been driven by the explosion in the access to mobile telecommunications services. Other segments of

the telecommunications market have not developed nearly as quickly as the mobile businesses (i.e. fixed broadband subscriptions and internet access).

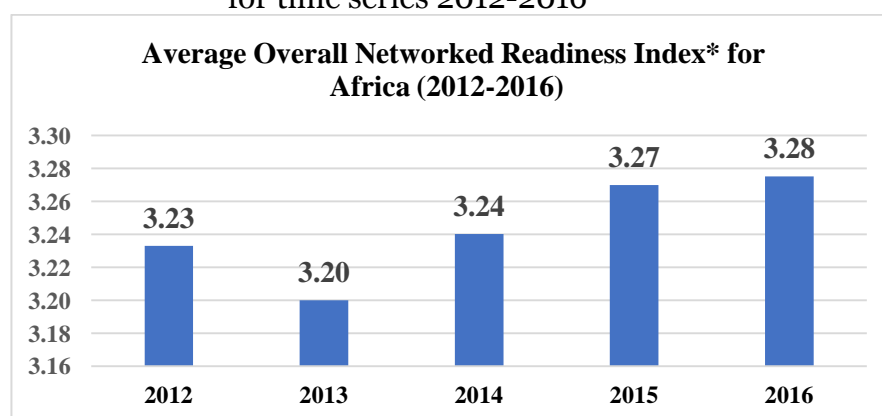
Digitization progresses in Africa

1. The Networked Readiness Index

The digitization progresses are related to the infrastructures of the digital revolution: the availability of global, digital communications; low-cost processing and high-density data storage; and an increasingly connected population of active users of digital technologies. The World Economic Forum (WEF) is publishing yearly the “Global Information Technology Report” that focuses on measuring the drivers of the ICT revolution globally, using the Networked Readiness Index (NRI)⁵ which assesses the factors, policies, and institutions that enable a country to reap the benefits of emerging technologies and capitalize on the opportunities presented by the digital transformation. (WEF, 2016)

The average of the overall Networked Readiness Index (NRI) for African countries has slightly change during the time period from 2012 to 2016, it has scored 3.28 in 2016 showing an increase of 0.05 compared by its value in 2012 (3.23) (Graph 4). In 2016, for the 36 African countries included in the report, the Max NRI value is 4.38 (Mauritius), the Min NRI value is 2.20 (Chad) and the Median is 3.23 (Graph 5).

Graph (4): African countries average of overall Networked Readiness Index for time series 2012-2016

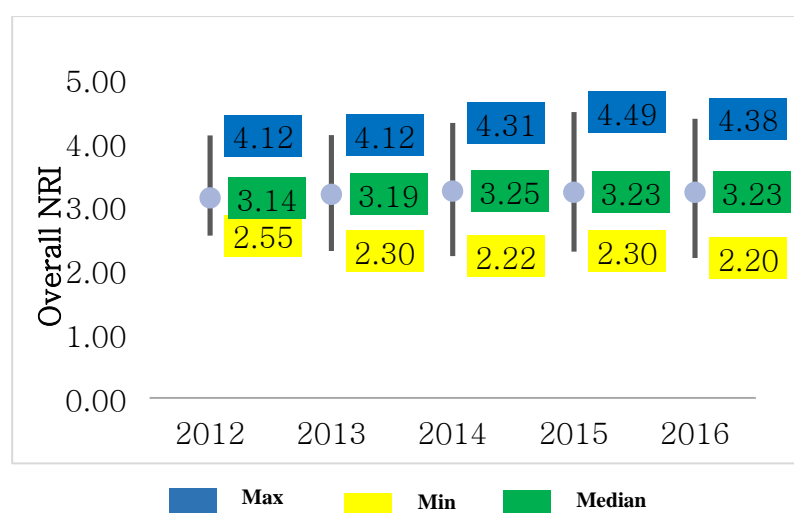


Source: Graph constructed by the author of data collected from: World Economic Forum, The Networked Readiness Index Historical dataset (2012-2016), http://www3.weforum.org/docs/GITR2016/WEF_NRI_2012-2016_Historical_Dataset.xlsx, website seen on 25 Oct. 2018.

Note: The number of countries included in the calculation of each year average is: 32 countries for 2012, 35 countries for 2013, 36 countries for 2014 and 2016, and 32 countries for 2015. The details of these countries' lists are in Appendix 1.

Graph (5): Max, Min and Median of Africa's overall Networked Readiness Index for time series 2012-2016

⁵ Countries are assessed over four categories of indicators: (1) the overall environment for technology use and creation (political, regulatory, business, and innovation); (2) networked readiness in terms of ICT infrastructure, affordability, and skills; (3) technology adoption/usage by the three groups of stakeholders (government, the private sector, and private individuals); and (4) the economic and social impact of the new technologies. Available on SSRN-Elsevier



Source: Graph constructed by the author of data collected from: World Economic Forum, The Networked Readiness Index Historical dataset (2012-2016), http://www3.weforum.org/docs/GITR2016/WEF_NRI_2012-2016_Historical_Dataset.xlsx, website seen on 25 Oct. 2018.

Note:

The number of countries included in the calculation of each year average is: 32 countries for 2012, 35 countries for 2013, 36 countries for 2014 and 2016, and 32 countries for 2015. The details of these countries' lists are in Appendix 1.

The Overall Networked Readiness Index (2016) covers 139 countries with main statistics (Min 2.20; Max 6.04; Median 4.83)

The top ranked African country in the NRI 2016 is Mauritius that ranks the 49th in the overall NRI. Lagging behind is South Africa, which has still recorded a significant improvement compared to the previous year, moving from 75th to 65th place. Other African countries not between the top ranking but are considered between the top upward movers in 2016: Ethiopia (120th, up 10), and Côte d'Ivoire (106th, up 9). (Table 4)

Table (4): Top 10 ranked African countries in the Networked Readiness Index (2016)

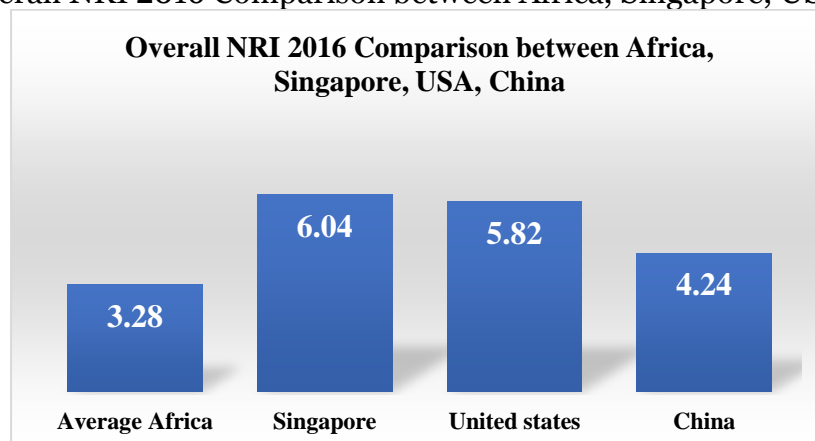
Country	Africa Rank	Overall NRI Rank (2016)
Mauritius	1	49
South Africa	2	65
Seychelles	3	74
Morocco	4	78
Rwanda	5	80
Tunisia	6	81
Cape Verde	7	85
Kenya	8	86
Egypt	9	96
Namibia	10	99

Source: Table constructed by the author of data collected from: World Economic Forum, The Networked Readiness Index Historical dataset (2012-2016), http://www3.weforum.org/docs/GITR2016/WEF_NRI_2012-2016_Historical_Dataset.xlsx, website seen on 25 Oct. 2018.

Note: Total number of countries in the NRI 2016 is 139 countries from which 36 African countries.

Apart from the few exceptional countries, the African continent continue to occupy marginal positions in new wave of digitization. They still need to work on improving their technological responsiveness to adapt with the needs of the fourth industrial revolution. In comparison with examples of best performers in developing and developed countries, Africa's average of the overall Networked Readiness Index (3.28) still lay behind their scores by a difference of 2.76, 2.54, and 0.96 with the sample countries Singapore, USA and China consequentially. (Graph 6)

Graph (6): Overall NRI 2016 Comparison between Africa, Singapore, USA, China



Source: Graph constructed by the author of data collected from: World Economic Forum, The Networked Readiness Index Historical dataset (2012-2016), http://www3.weforum.org/docs/GITR2016/WEF_NRI_2012-2016_Historical_Dataset.xlsx, website seen on 25 Oct. 2018.

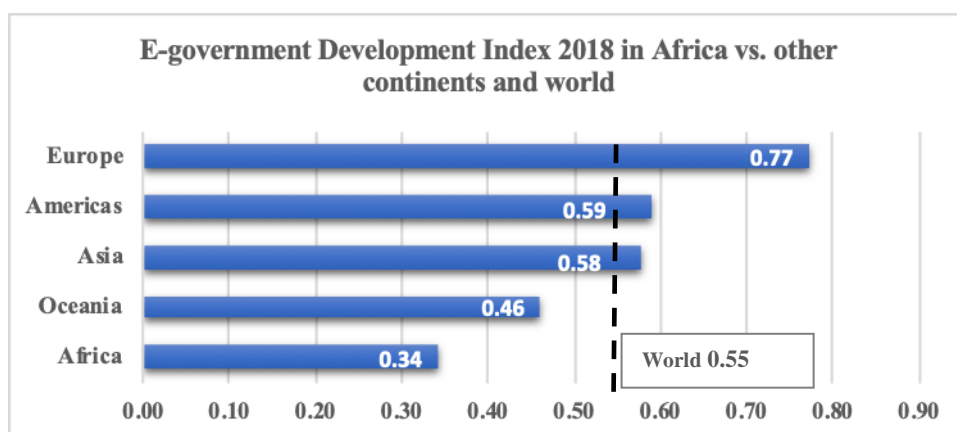
2. The United Nations E-Government Survey

Published since 2001 by the United Nations Department of Economic and Social Affairs (UNDESA), the United Nations E-Government Survey assesses the E-government development status of all member states of the United Nations. It combines three basic dimensions that are indispensable to allow people to benefit from online services and information: (1). The adequacy of telecommunication infrastructure, (2). The ability of human resources to promote and use ICTs, and (3). The availability of online services and content.

The United Nations E-Government Survey use the E-Government Development Index (EGDI) as a composite indicator to track countries e-government progress.

The Africa region overall lags in e-government development compared to the rest of the world (Graph 7). With an average of 0.34, Africa ranks at last in comparison to the other continents (Europe 0.77, Americas 0.59, Asia 0.58 and Oceania 0.46) and to the world average (0.55).

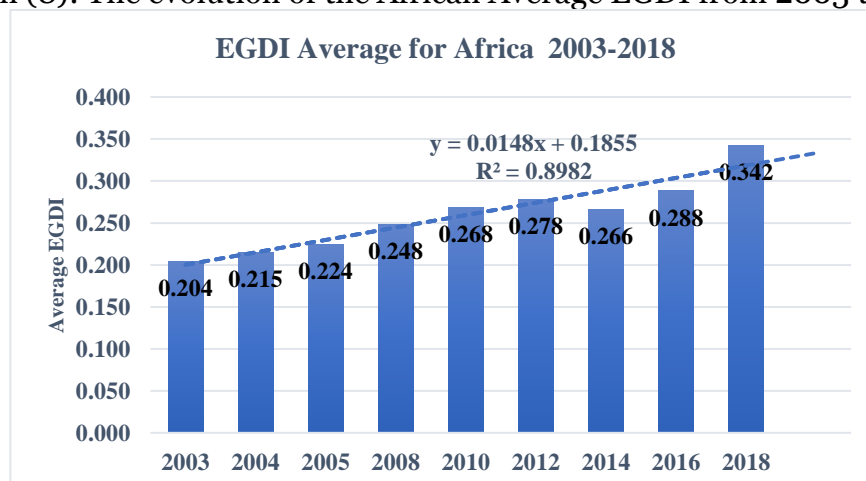
Graph (7): E-government Development Index (EGDI) 2018 in Africa vs. the other continents and the World



Source: Graph constructed by the author of data collected from: United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>. Website seen on 26th of Oct. 2018

For the time period 2003 – 2018, the regional average EGD Index scores for Africa has increased moderately (Graph 8). The African average EGD Index has increased by 67.6% in 2018 (0.342) compared to its value in 2003 (0.204). Using regression analysis, we can forecast promising future increases in the African average EGD Index.

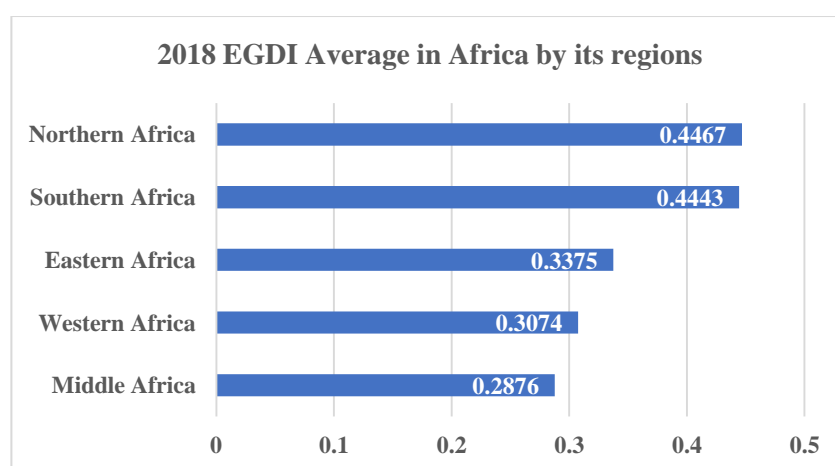
Graph (8): The evolution of the African Average EGD Index from 2003 to 2018



Source: Graph constructed by the author of data collected from: United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>. Website seen on 26th of Oct. 2018

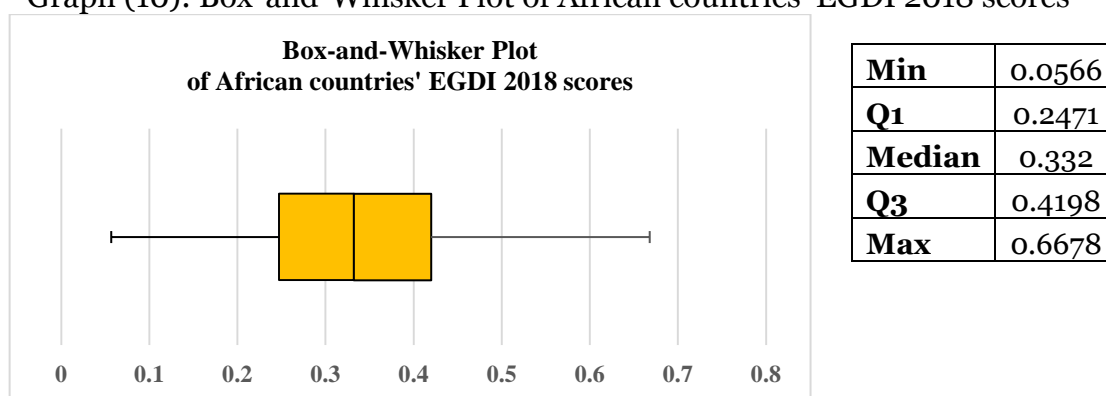
Northern and southern Africa are the best performers regions in Africa in 2018 assessment by an average EGD Index 0.4467 and 0.4443 respectively (Graph 9). For the 54 African countries included in the E-government Survey 2018, the analysis of their EGD Index scores shows that they are having a box plot relatively tall indicating the high variability in their EGD Index scores. The range is 0.6112 (Min. is 0.0566 (Somalia) and the Max is 0.6678 (Mauritius)) and the inter-quartile range 0.1727. (Graph 10)

Graph (9): Average EGD Index 2018 for the different African regions



Source: Graph constructed by the author of data collected from: United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>. Website seen on 26th of Oct. 2018

Graph (10): Box-and-Whisker Plot of African countries' EGDI 2018 scores



Source: Graph constructed by the author of data collected from: United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>. Website seen on 26th of Oct. 2018

The top ranked African countries in the EGDI 2018 are same countries in the Networked Readiness Index African rank. Still Mauritius (1) and South Africa (2) are the best performers in the continent (Table 5).

Table (4): Top 10 ranked African countries in the E-government Development Index (EGDI) 2018

Country	Africa Rank	EGDI 2018
Mauritius	1	0.6678
South Africa	2	0.6618
Tunisia	3	0.6254
Seychelles	4	0.6163
Ghana	5	0.539
Morocco	6	0.5214
Cabo Verde	7	0.498
Egypt	8	0.488
Rwanda	9	0.459

Namibia	10	0.4554
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Source: Table constructed by the author of data collected from: United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>. Website seen on 26th of Oct. 2018

Only 4 countries (Mauritius, South Africa, Tunisia, and Seychelles) out of 54 in Africa score higher than the world average of 0.55, while 4 countries, namely Central African Republic, Chad, Comoros, Djibouti, Equatorial Guinea, Eritrea, Guinea, Guinea-Bissau, Mali, Mauritania, Niger, Somalia, South Sudan, and Sudan have very low EGDI scores. These countries are categorized as low-income countries. They are facing serious socio-economic challenges for development, which is adding restrictions on implementing successfully their ICTs strategy and allocating consequently resources for e-government development (Table 5).

The majority of the African countries (34 countries out of 54) are in the middle EGDI group (between 0.25 to 0.50). Rest are distributed between the low EGDI (14 countries) and the high EGDI (6 countries) groups. Graph (11) shows the percentages of the African countries grouped based on EGDI in 2018, and table (5) lists these countries.

Ghana is the only African country that has transitioned from middle to high EGDI level group (ranks the 5th in the African countries EGDI list). The government of Ghana⁶ has made significant progresses in the development of the ICTs sector under the e-Ghana and e-Transform implemented projects. The Ghana Shared Growth and Development Agenda (GSGDA) includes a promising ICT strategy that aims to maximize the usage of the ICT by all economic sectors, and to set up an e-government mechanism to serve the needs of a stable growth and to create a favourable environment for sustainable development.

Table (5): African countries grouped by EGDI levels*

High EGDI 2018 (Between 0.50 and 0.75)	Middle EGDI 2018 (Between 0.25 to 0.50)	Low EGDI 2018 (Less than 0.25)
Mauritius	Cabo Verde	Senegal
South Africa	Egypt	Ethiopia
Tunisia	Rwanda	Sao Tome and Principe
Seychelles	Namibia	Angola
Ghana	Kenya	Benin
Morocco	Gabon	Mozambique
	Botswana	Congo
	Algeria	Burkina Faso
	Zambia	Burundi
	Uganda	Lesotho
	Cameroon	Gambia
	Togo	Madagascar
	United Republic of Tanzania	Côte d'Ivoire
	Libya	Liberia
		Somalia

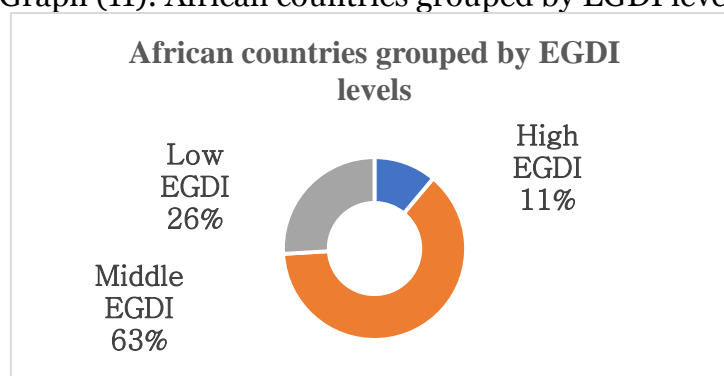
⁶ Ghana's economy has achieved a dramatic growth in 2017 when its GDP increased by 8.5%, compared with 3.7% in 2016.

	Eswatini	Sierra Leone	
	Nigeria	Malawi	
	Zimbabwe	Democratic Republic of the Congo	
6 countries	34 countries		14 countries

Source: Table constructed by the author of data collected from: United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>. Website seen on 26th of Oct. 2018

*EGDI levels: Three levels: Very High EGDI (Greater than 0.75), High EGDI (Between 0.50 and 0.75), and Low EGDI 2018 (Less than 0.25).

Graph (11): African countries grouped by EGDI levels



Source: Graph constructed by the author of data collected from: United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>. Website seen on 26th of Oct. 2018

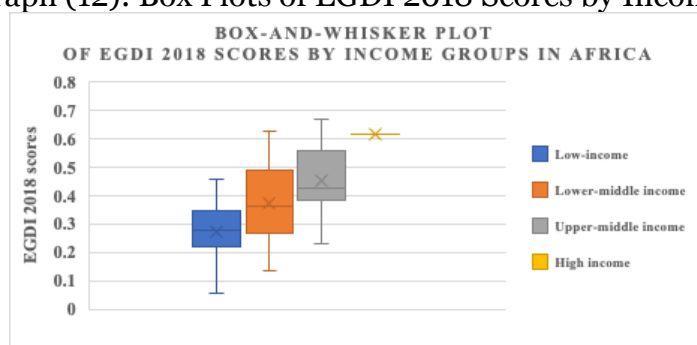
The analysis of 2018 EGDI index scores by income groups in Africa shows an obvious difference between the box plots of the four income groups⁷ (Graph 12): (1). High income, (2). Upper-middle income, (3). Lower-middle income, and (4). Low-income. The disparity is higher between the countries belonging to the lower-middle income group (Inter-quartile range is equal to 0.197). Table (6) is summarizing the main descriptive statistics of the analysis of the EGDI 2018 Scores of the Income Groups in Africa.

- World Development Indicators, THE WORLD BANK (Last updated date 09/18/2017), <http://wdi.worldbank.org/table/WV.1#> (Website seen on 26th of Oct. 2018)
- United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center> (Website seen on 26th of Oct. 2018)
- The details of these countries' lists are in Appendix 2.

⁷ The new country classification by income level that have been adopted by the World Bank since the 1st of July 2017. (<https://blogs.worldbank.org/opendata/new-country-classifications-income-level-2017-2018>)

* According to the new country classification by income level that have been adopted by the World Bank since the 1st of July 2017, the different income groups are classified as following: (1). High income: GNI/Capita (current US\$) = > 12,235. (2). Low-income: GNI/Capita (current US\$) = < 1,005. (3). Lower-middle income: GNI/Capita (current US\$) = 1,006 - 3,955. (4). Upper-middle income: GNI/Capita (current US\$) = 3,956 - 12,235

Graph (12): Box Plots of EGDI 2018 Scores by Income Groups* in Africa



Source: Graph constructed by the author of data collected from:

Table (6): Main descriptive statistics of the analysis of the EGDI 2018 Scores of the Income Groups in Africa

Descriptive statistics	Low-income group	Lower-middle income group	Upper-middle income group	High income
Min	0.0566	0.1337	0.2298	-
Q1	0.2339	0.2824	0.3833	-
Median	0.27645	0.36155	0.4253	-
Q3	0.341325	0.479525	0.4554	-
Max	0.459	0.6254	0.6678	-
Average	0.27268846	0.37326667	0.45104444	0.6163
Interquartile range	0.107425	0.197125	0.0721	-
Range	0.4024	0.4917	0.438	-
Nb of Countries	26	18	9	1

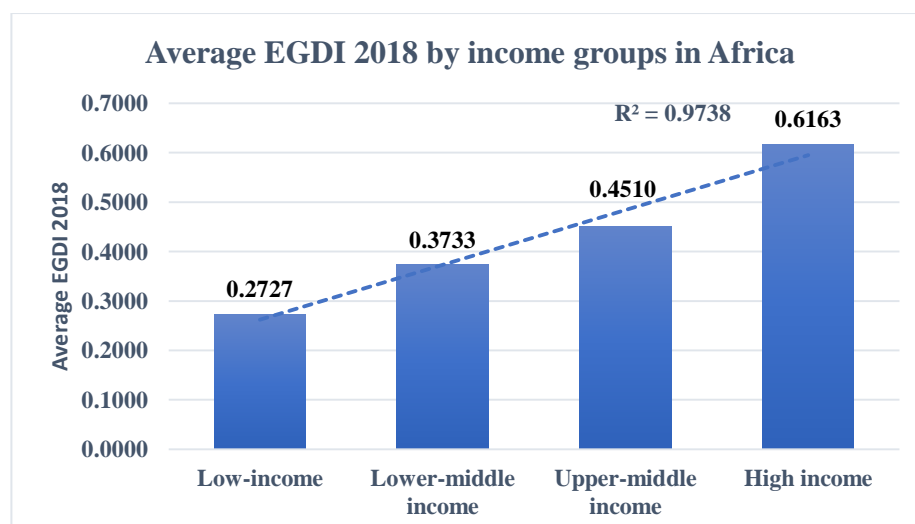
Source: Table constructed by the author of data collected from:

- World Development Indicators, THE WORLD BANK (Last updated date 09/18/2017), <http://wdi.worldbank.org/table/WV.1#> (Website seen on 26th of Oct. 2018)
- United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center> (Website seen on 26th of Oct. 2018)

There is a strong positive correlation ($R^2 = 0.9738$) between the country's income level and its e-government ranking, as presented in (Graph 13). Most countries in high and upper middle-income groups tend to have higher than average EGDI scores⁸.

Graph (13): Average EGDI 2018 by income groups in Africa

⁸ The only exception being Equatorial Guinea, which has a low EGDI score (0.2298) despite being an upper middle-income country.



Source: Graph constructed by the author of data collected from:

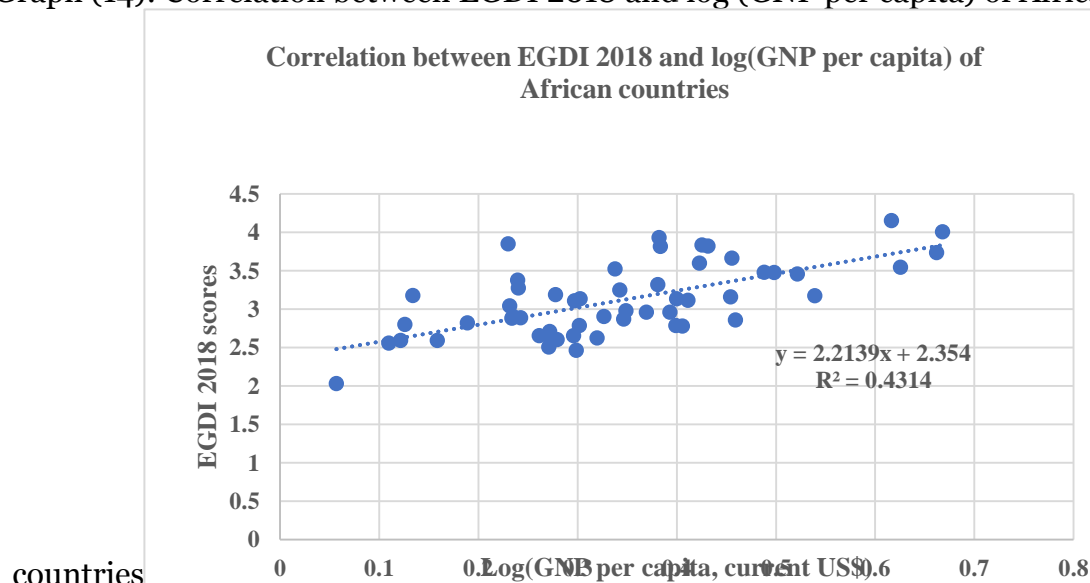
- World Development Indicators, THE WORLD BANK (Last updated date 09/18/2017), <http://wdi.worldbank.org/table/WV.1#> (Website seen on 26th of Oct. 2018)
- United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center> (Website seen on 26th of Oct. 2018)

Moreover, the analysis of the correlation between the EGDI 2018 and log (GNP per capita) for the 54 African countries reveals a positive correlation between the EGDI 2018 scores and log (GNP per capita, current US\$). Advanced levels of telecommunications infrastructure, human capital development, online services have a positive impact on the economic progress of countries. (Graph 14)

Main Challenges of Digital Transformation in Africa

Although the overall performance of Africa's ICT's sector over the past two decades has been remarkable, still Africa lags behind other regions in the digital transformation progress and more specially in the use of core digital platforms for the service of the needs of development. The assessment of the digital transformation progress in Africa reveals that despite the successful actions that have been taken so far, many challenges are yet facing the African countries to cope with the digital revolution demands. We can define these challenges in the next main points (World Bank, 2011): (Table 7 summarizes main opportunities and challenges)

Graph (14): Correlation between EGDI 2018 and log (GNP per capita) of African



Source: Graph constructed by the author of data collected from:

- World Development Indicators, THE WORLD BANK (Last updated date 09/18/2017), <http://wdi.worldbank.org/table/WV.1#> (Website seen on 26th of Oct. 2018)
- United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center> (Website seen on 26th of Oct. 2018)

1. **Access to communications:** Despite the increased availability and access of telecommunications services in African countries, but still the expansion in number of subscribers to fixed-line networks is not sufficient relatively to the size of the population. Moreover, access to internet and online services in Africa still lags far behind that in other parts of the world.
2. **ICTs infrastructures:** Although in the last two decades, Africa has witnessed an increased expenditure on telecommunications infrastructure, the used network architecture in African countries is becoming obsolete compared to the other regions of the world. Furthermore, rural areas in Africa still lack from networks coverage.
3. **Institutions and Market Reform:** Since the 1990s, liberalization of markets, rise of competition and market regulation have intensely increased the performance of Africa's ICT sector. However, still the state of market liberalization across the region is incomplete (few countries have more than three operators, rest mostly two or some cases only one). Moreover, applied licensing framework is restricted to only a predefined set of activities which makes the operator inflexible in meeting market needs or exploited new services and market opportunities.
4. **Investment and sector financing:** Since the end of the 1990s, investment in telecommunications in Africa have been remarkable. The private sector accounted for the most of this investment. However, more investment is needed especially in rural areas in which mobile networks are not commercially viable. Governments have from one part to encourage full

market liberalization and increased competition to encourage investments, and from another part to provide public subsidies or financial incentive schemes to finance network expansion in most needed rural areas.

Table (7): Opportunities/Drivers to success and Challenges of digital transformation in Africa

	Opportunities/Drivers to success	Challenges
Access to Communications	<ul style="list-style-type: none"> - Remarkable increase in the availability and access of telecommunications services. - Expanded networks and less prices 	<ul style="list-style-type: none"> - Low number/high cost of subscription to fixed-line networks. - Low internet online access/high cost compared to rest of the world. - Low internet service quality (average bandwidth is low compared to the other regions in the world)
ICTs Infrastructure	<ul style="list-style-type: none"> - Expansion in communications infrastructure (fixed and mobile networks) - Rapid growth of mobile network infrastructure in urban areas mainly. 	<ul style="list-style-type: none"> - Africa's communications infrastructure is becoming obsolete compared to the used technology in rest of the world (Fixed wireless networks are becoming mobile, wireless networks are being upgraded to fiber, and networks that were once used to provide voice services are increasingly being used to provide a full range of ICT services). - Rural areas are not getting sufficient access to telecommunications in Africa.
Institutions and Market Reform	<ul style="list-style-type: none"> - Market liberalization - Increased competition in mobile market - Growth of private investment (+Privatization of formerly state-owned operators) - Regulation and reform of the ICTs sector by complete reform of the legal framework, new telecommunications laws, new national regulatory institutions - Attraction of FDI in telecommunications (Few countries restricted FDI: Comoros, Djibouti, Eritrea, and Ethiopia) 	<ul style="list-style-type: none"> - Incomplete market liberalization (few countries have more than three operators, rest mostly two or some cases only one) - Less level of competition among mobile operators decreases the market performance (less service/low quality with high prices) - Low performance in fixed-line market because of absence of competition (Exception: Nigeria has liberalized fixed-line market) - Restricted licensing framework: the licensee is permitted only for defined set of activities (such as network construction, mobile voice service provision, and Internet service provision). Providing a new service or new type of infrastructure usually has to have previously the permission of the regulatory authority.
Investment	<ul style="list-style-type: none"> - Remarkable growth of private 	<ul style="list-style-type: none"> - Most of the investment is

	Opportunities/Drivers to success	Challenges
and sector financing	investment (in mobile infrastructure specifically).	concentrated in urban areas. - More investment is needed in rural areas. - Governments needs to mobilize funds to subsidize / finance investments in rural areas in which in which mobile networks are not commercially viable.

Source: Author's own construction

Conclusion and Recommendations

Market reform, regulation and liberalization were the main drivers to the progress of the ICTs sector in African countries during the last two decades. Yet still Africa lags behind the other regions in networks coverage and in its use of core digital platforms and services. Expanding network coverage to deprived rural areas, guaranteeing universal access to affordable internet online services, and developing e-government online services are vital policies that African countries have to speedily take serious steps to undertake in order to catch fully the benefits of the digital revolution.

To master the digital transformation progress in Africa, we recommend the following policies and reform to be implemented by the African governments:

1. Full liberalization of the telecommunications market: Expanding mobile market license to more than two operators, and reforming the licensing framework itself.
2. Privatization of the state-owned telecommunications operators to increase market efficiency by increasing competition.
3. Improving regulatory authority performance by ensuring its independency of government, and strengthening its legal power to design and implement sector decisions.
4. Improving the human skills to adapt to the digital revolution needed job qualifications, such as telecommunication engineering, entrepreneurial and management skills.
5. Governments needs to mobilize funds to subsidize / finance investments in rural areas in which in which mobile networks are not commercially viable.
6. Governments should invest more in digital technologies to upgrade the existing obsolete networks and telecommunications infrastructures: Such as setting Submarine fibre-optic cables infrastructure, expanding investments in wireless broadband access networks.
7. Accelerate and promote public-private partnership investment in digital infrastructure and service providing.

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Appendix 1
Overall Networked Readiness Index (NRI) for African countries (2012-2016)

Country	2012	2013	2014	2015	2016	Overall NRI Rank 2016
Algeria	3.01428717	2.78277509	2.98282334	3.08664739	3.2057467	117
Benin	3.04842292	2.96859819	2.82301182	N/A	2.88634706	128
Botswana	3.5832413	3.49842346	3.43340943	3.42993346	3.53227897	101
Burundi	2.57334671	2.30482395	2.30600438	2.41386741	2.39695255	138
Cameroon	2.93481326	2.94970841	2.94366363	2.9878204	2.98217529	124
Cape Verde	3.71155927	3.7782262	3.73370308	3.78350462	3.82630028	85
Chad	2.55303686	2.53281004	2.2237678	2.29794552	2.19769772	139
Côte d'Ivoire	2.97828057	2.99720867	3.13544304	3.23096761	3.38570905	106
Egypt	3.76605908	3.77938419	3.71262105	3.62673421	3.66133686	96
Ethiopia	2.85312248	2.85304043	2.94933398	2.86584377	3.10775058	120
Gabon	N/A	2.97179877	2.98480275	3.03759855	2.94150555	125
Gambia	3.40879757	3.47191843	3.38243672	3.32123796	3.30807129	113
Ghana	3.44253997	3.51117372	3.64734349	3.48970576	3.5070749	102
Guinea	N/A	2.60986653	2.48367479	2.39095987	2.64872864	134
Kenya	3.51444491	3.53870415	3.71036825	3.81711673	3.82595378	86
Lesotho	2.77507477	2.68413548	2.88381261	2.99060049	3.2761689	115
Liberia	N/A	3.48491737	3.1883241	N/A	2.80852736	130
Malawi	3.05447515	2.82879105	2.90321655	2.78058379	2.72869684	132
Mali	2.92971547	2.97133548	2.99688312	2.98083069	2.90295315	127
Mauritania	2.5464707	2.70860212	2.61209433	2.54040963	2.50121711	136
Mauritius	4.0601376	4.12393733	4.31435212	4.48502633	4.37917533	49
Morocco	3.55529772	3.64200276	3.60656451	3.93170617	3.94604914	78
Mozambique	2.98671418	2.76424874	2.77414391	2.91839779	2.99660769	123
Namibia	3.34992857	3.29483705	3.41220133	3.46851673	3.59676524	99
Nigeria	3.22328981	3.26561979	3.3119252	3.16962094	3.15120258	119
Rwanda	3.70015636	3.68165778	3.77953	3.87170431	3.92170507	80
Senegal	3.41556819	3.3340951	3.29641163	3.33515311	3.37972609	107
Seychelles	N/A	3.80339223	4.02284297	3.99830505	4.0016851	74
South Africa	3.86983478	3.87436234	3.97562601	3.9901659	4.15929394	65
Tanzania	2.94770271	2.92108614	3.03851207	3.00324656	2.90918109	126
Tunisia	4.11649066	N/A	3.77113752	3.87951611	3.91543322	81
Uganda	3.25492622	3.30441328	3.25374558	3.22270939	3.08939011	121
Zambia	3.25650957	3.19413925	3.33853815	3.24364581	3.24740361	116
Zimbabwe	2.93603309	3.17025771	3.23781505	3.05143428	3.0345336	122
Average Africa	3.23	3.20	3.24	3.27	3.28	

Source: World Economic Forum, The Networked Readiness Index Historical dataset (2012-2016), http://www3.weforum.org/docs/GITR2016/WEF_NRI_2012-2016_Historical_Dataset.xlsx

Appendix 2

African countries GNI per capita (current US\$, 2017) and E-government development index (EGDI) 2018

Country	Gross national income per capita, Atlas method \$ 2017	Income level	EGDI 2018
Seychelles	14,180	High-income	0.6163
Mauritius	10,140	Upper-middle income	0.6678
Eswatini	8520	Upper-middle income	0.382
Equatorial Guinea	7,060	Upper-middle income	0.2298
Botswana	6,820	Upper-middle income	0.4253
Gabon	6610	Upper-middle income	0.4313
Libya	6540	Upper-middle income	0.3833
South Africa	5,430	Upper-middle income	0.6618
Namibia	4,600	Upper-middle income	0.4554
Algeria	3,960	Upper-middle income	0.4227
Tunisia	3,500	Lower-middle income	0.6254
Angola	3,330	Lower-middle income	0.3376
Egypt, Arab Rep.	3,010	Lower-middle income	0.488
Cabo Verde	2,990	Lower-middle income	0.498
Morocco	2,860	Lower-middle income	0.5214
Sudan	2,380	Lower-middle income	0.2394
Nigeria	2,080	Lower-middle income	0.3807
Djibouti	1,880	Lower-middle income	0.2401
Sao Tome and Principe	1,770	Lower-middle income	0.3424
Cote d'Ivoire	1,540	Lower-middle income	0.2776
Eritrea	1500*	Lower-middle income	0.1337
Ghana	1490	Lower-middle income	0.539
Kenya	1440	Lower-middle income	0.4541
Cameroon	1,360	Lower-middle income	0.3997

Country	Gross national income per capita, Atlas method \$ 2017	Income level	EGDI 2018
Congo, Rep.	1,360	Lower-middle income	0.3024
Zambia	1,300	Lower-middle income	0.4111
Lesotho	1280	Lower-middle income	0.2968
Mauritania	1100	Lower-middle income	0.2314
Senegal	950	Low-income	0.3486
Tanzania	910	Low-income	0.3929
Zimbabwe	910	Low-income	0.3692
Benin	800*	Low-income	0.3264
Guinea	800	Low-income	0.2348
Mali	770	Low-income	0.2424
Comoros	760	Low-income	0.2336
Ethiopia	740	Low-income	0.3463
Rwanda	720	Low-income	0.459
Guinea-Bissau	660	Low-income	0.1887
Chad	630	Low-income	0.1257
Burkina Faso	610	Low-income	0.3016
Togo	610	Low-income	0.3989
Uganda	600	Low-income	0.4055
Sierra Leone	510	Low-income	0.2717
Congo, Dem. Rep.	450	Low-income	0.2612
Gambia, The	450	Low-income	0.2958
Mozambique	420	Low-income	0.3195
Madagascar	400	Low-income	0.2792
Central African Republic	390	Low-income	0.1584
South Sudan	390*	Low-income	0.1214
Liberia	380	Low-income	0.2737
Niger	360	Low-income	0.1095
Malawi	320	Low-income	0.2708
Burundi	290	Low-income	0.2985
Somalia	107*	Low-income	0.0566

Source:

Income level: World Development Indicators, THE WORLD BANK,
<http://wdi.worldbank.org/table/WV.1#>

EGDI 2018: United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>

Available on SSRN-Elsevier

* For these countries (Somalia, South Sudan, Benin, and Eritrea), their GNI per capita was taken from the source because it was not available from the original source (World Bank): United Nations E-Government Knowledgebase (UNeGovKB), E-government Development Index 2018, <https://publicadministration.un.org/egovkb/en-us/Data-Center>

Impact of Human Capital Management Practices on Employee Job Performance

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ABSTRACT

The objective of the article is to analyze the relationship between the practices of Human Capital Management and its impact on the performance of the employee's work. Human Capital Management includes Recruitment & Selection, Training & Development, Performance Appraisal and Employee Performance in the private academic educational institute. To find out the influence human capital management practices on employee performance within private educational institutes. This is a survey based study. The sample of the study is employee who is working in private academic institute. The sample size of the study is 150 where as data collected from 138 employees of private academic institute. Therefor descriptive statistics and analytical tools have been used for hypothesis result of the study which show's that human capital management has a significant impact on the employee performance.

Introduction

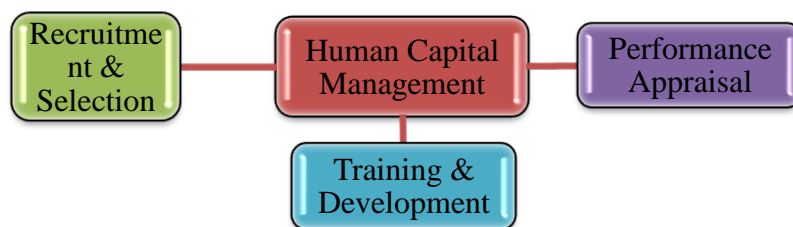
There are many arts among men, the knowledge of which is acquired bit by bit experience. In the new economic era the human capital management and knowledge based industries are emerging as the key to wealth creation. Every human has intrinsic value. This idea is as old as the written history employees are human capital of organization and their performance is a key indicator for organization to achieve its goals. Employee performance is on the of the most important constructs in both organizational psychology and human resource management. Now a day the importance of employee performance for the success of organization cannot be overstated. Employees are the most expensive asset for any organization as they can build up or destroy status of company and they can affect profitability. Employee performance plays a significant role in the competitive environments where good performance leads to success while bad performance led to failure. Employee performance can be measured by the various ways like satisfaction, performance/productivity and employees absenteeism. It is a function that an individual can successfully perform within framework or normal constraints and available resources.

Literature Review

In the highly competitive market scenario has made firms to work a competitive advantage in their conduct. The only in imitable competitive edge is firm human capital.

Armstrong (2006) defines human capital as all human abilities whether innate or acquired attributes whose value could be augmented by appropriate development investments. According to resource based view of the firm is commenced by the work. The competitive advantage is dependent on the valuable rare hard to imitate resources that reside with an organization i.e. human capital so it is apparent that management of the human capital tool (the collections of employee capabilities) through human resource process is now become the strategic aims of the organization. If the types and levels of skills are not equally distributes such that some firms can obtain the talent they require and others cannot then that from of human capital can be a basis of sustained competitive advantage. According to Transfield, Denyer & Smart (2003) a systematic review identifies the key scientific contributions relevant to a subject by using extensive literature searches of published and unpublished studies.

The human capital management practices are: -



In this study that lead to the formulation of the hypothesis for the study.

1. Recruitment & Selection
2. Training & Development
3. Performance Appraisal

Recruitment & Selection- It is one of the most important factors that can affect the employee job performance. The implementation of Recruitment & Selection process which is not in accordance with the effective plan that has been set will cause a lot of problems such as high level of employee's absenteeism and low employee performance. Recruitment & Selection is very important functions of human capital management for any type of organization. There are basic terms that refer to the process of attracting and choosing outstanding employees for organization. According to Gamage (2014) the general purpose of Recruitment & Selection is to provide the organization with a pool of potentially qualified and job candidates. Patimah S (2015) suggest that Recruitment and Selection have positive relationship with employee productivity, employee's commitment and work quality in the organization. Foot and Hood (2010) argue that when they recognized the key stages of any orderly style of staffing and selection as job analysis, job explanation and specification of person and encourage interviews through the several approaches of staffing. The three main phases according to the research to the researcher job analysis, job design and individual requirement. Bohlander Gand Snell (2010) suggested that selection as a well-organized procedure of selecting applicant who have required experience and qualification to fill vacant position in an

organization. This investigation explains recruitment & selection as the procedure choosing the persons from the pool of probable applicants who meets the prerequisite of the vacant position recognized in the institute. Recruitment & Selection in small and medium size organization have stated in may inspection that to find our capable workers is one of the most important problems.

Training & Development- It is frequently used to fill the existing gap between present and future performance of the work force. Training & Development is a human resource improvement function requiring being appropriately deal with. The main of objective of the training and development to train employee to work in current competitive environment, training & development programs also create creative behaviour among employees for expected job performance. Elnaga A and Imran A (2013) training and other human resources management practices have been positively related with employee's job performance specifications of the need for training programs for such purpose are part and parcel included in the activities of this function. Gordon B (1992) training is a sort of activity that is designed loaned and systematic in nature. Arumstrong M (1995) Training improves the level of skills information and competency which are usual in performing work efficiently that training ensure job performance. The growth and development of an organization is affected by multiple factor. However, training plays an important role in enhancing the productivity of individuals in an organization. Training bridges the gap and removes deficiencies in performance which results into improving performance. Krishnaveni R and Sripirabaa B (2008) identification of training needs design and implementation of training programmes, transfer of training and evaluation of programmed benefits are key activities.

Performance Appraisal- Thwala W.D Ajagbe M. A (2002) The success of performance evaluation system depends on the idea of any firm that performance evaluations practice is associated to firm purposes and the capabilities and selective perception of concerned individuals for adaptation of this tool. Belcele AZ Shiguta AD and Tensay (2014) suggested that performance appraisal has positive and significant relationship with employee performance. Performance appraisal system is used to gather information about employees of the organization and also drives organizational and individual achievements towards their common goal. Productivity and commitment progress evaluation method. Brown M and Heywood JS (2005) suggested that a well-organized clarification and management of performance evaluation leads to greater professional commitment and job satisfaction among worker. When employees are more committed to work so it is best approach toward performance assessment programme. Performance appraisal programme will be developed in organization and employee when there is availability of balance human capital management factor like training and development, compensation and the production will be spontaneously increased.

Objective

1. The main objective of the study is to impact of the human capital management practices (i.e. Recruitment & Selection, Training & Development and Performance Appraisal) on employee job performance.

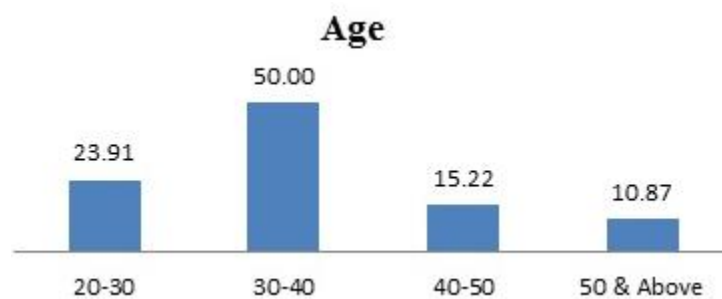
2. Another objective of the study is to explore the literature and descriptive the human capital management.

Research Methodology

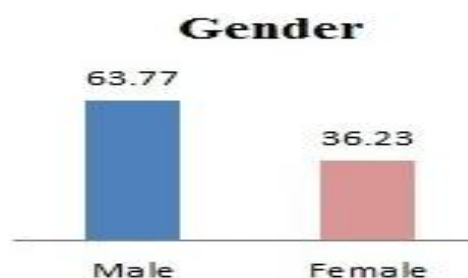
In this study the Recruitment & Selection, Training & Development, Performance Appraisal are independent variable and Employee Performance is dependent variable. The sample size of the study is 150 whereas data collection from the 138 employees of the various private educational institutions. Data are collected through questionnaire with the help of Likert scale. The statistical and mathematical tools are used for the data analysis.

Data Analysis & Interpretation

Age	Frequency	Percentage
20-30	33	23.91
30-40	69	50.00
40-50	21	15.22
50 & Above	15	10.87



Gender	Frequency	Percentage
Male	88	63.77
Female	50	36.23



Educational Qualification	Frequency	Percentage
Ph.D	33	23.91
Post Graduate	77	55.80
Under Graduate	28	20.29



Job Type	Frequency	Percentage
Regular	102	73.91
Temporary/Adhoc	36	26.09



Work Experience	Frequency	Percentage
Less Than 5 Yrs	38	27.54
5-10 Yrs.	83	60.14
More Than 10 Yrs.	14	10.14



Hypothesis Testing

It is a very important part of the research work because without the testing of hypothesis on the available data it is nothing more than guess. There are various statistical tools for

testing the hypothesis but in this study to use the Chi-Square (χ^2) test. The chi-square test is used in goodness of fit to assess whether a particular set of observation is sufficiently reliable for the purpose for which it is been collected. Chi-square involves calculating the probability that an observed value randomly picked from the population equals a normal curve frequency of the hypothetical population.

H₀ There is impact of Recruitment & Selection on Employee Job Performance.

H₁ There is No impact of Recruitment & Selection on Employee Job Performance.

Variables	O	E	(O-E)²	(O-E)²/E
S.A	54.00	28.00	676.00	24.14
A	34.00	28.00	36.00	1.29
N	19.00	28.00	81.00	2.89
D	11.00	28.00	289.00	10.32
SD	20.00	28.00	64.00	2.29
Total	138.00			40.93

H₂ There is impact of Training & Development on Employee Job Performance.

H₃ There is No impact of Training & Development on Employee Job Performance.

Variables	O	E	(O-E)²	(O-E)²/E
S.A	52.00	28.00	576.00	20.57
A	36.00	28.00	64.00	2.29
N	21.00	28.00	49.00	1.75
D	15.00	28.00	169.00	6.04
SD	14.00	28.00	196.00	7.00
Total	138.00			37.64

H₄ There is impact of Performance Appraisal on Employee Job Performance.

H₅ There is No impact of Performance Appraisal on Employee Job Performance.

Variables	O	E	(O-E)²	(O-E)²/E
S.A	50.00	28.00	484.00	17.29
A	43.00	28.00	225.00	8.04
N	16.00	28.00	144.00	5.14
D	15.00	28.00	169.00	6.04
SD	14.00	28.00	196.00	7.00
Total	138.00			43.50

Particulars	Mean	Std. Dev.	χ^2 Value
Recruitment & Selection	1.49	0.9	40.93
Training & Development	1.40	0.5	37.64
Performance Appraisal	1.37	0.5	43.50

The degree of freedom (n-1) (i.e. 5-1), here n=5 because using the 5 scale of Likert scaling technique. The Tabulated value of the Chi-square (χ^2) at 0.05% level of significant, the tabulated value of chi-square (χ^2) for 4 degree of freedom in 14.860,

now in that case (χ^2) Calculated Value > (χ^2) Table value in every section. Hence the null hypothesis is rejected and the alternate hypothesis is accepted. That indicates the impact of the HCM practices on the Employee Job Performance.

Discussion

After the exclusive and extensive research study, results show that there is proper system of human capital management practices in private academic educational institute. Analysis of the results is suggested that are proper steps and remedies for increase the employee performance in private academic institute. Human Capital Management practices (Recruitment & Selection, Training and Development, and Performance Appraisal) plays a crucial role in increasing employee performance so that it is necessary to every organization for revise their HR policies by keeping in view the above factors in order to attain the targeted goals. After the literature review the Human Capital Management practices has a positive role to increase the employee performance so it is important for the every organization to improve & implement this practices for achieve the desire goals.

Limitations

The study is very limited because the present study only focus on the very small sample of the organization So the results of this study is very limited. Convenient sample used for the study. The data collected for the study from the respondents on the basis of availability and willingness to participation on the survey.

Conclusion & Suggestions

As per the finding we can say the employees are totally dependent on the Human Capital Management Practices. If the organization are implanting & improving their Human Capital Management Practices for the organization it will surely improve the employee performance.

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The Impact of Brand Trust, Brand Values and Acceptability of Non-Vegetarian Brands Available in Gwalior Region

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Brand Trust, Brand Values, Brand Acceptability

ABSTRACT

The study was conducted to determining the Impact of Brand Trust, Brand Values and Acceptability of Non-Vegetarian Brands available in Gwalior Region. The study was conducted to identify the cause and effect relationship among brand trust, brand values and acceptability of non-vegetarian brands in Gwalior. The causal research was focused primarily on identifying the underlying factors that determined the relationship among brand trust, brand values and acceptability of brands. The survey method was used for data collection. For the study of this research work non probability sampling technique was used on 250 respondents. The final results of analysis confirmed that Brand Trust, Brand Values were having significant cause and effect relationship with Acceptability of Brands so with the help of it we came to the conclusion that organizations must focus on the Brand Trust & Brand Values so that Brands can be Accepted.

Introduction

The Indian market has given an opportunity for consumers to select one out of several similar brands available in the market. Nowadays, the Indian market has become highly competitive and consumer driven.

From the producer's point of view, it is a very difficult task to understand "Consumer satisfaction" upon "Acceptability of Brands". This understanding helps the producer to remain competitive in the market. In this competitive era, the consumer has become the focal point of marketing. Goods are designed according to consumer's perceptions and distributed as per the consumer's convenience.

Conceptual Framework

Brand trust is a research and strategy firm that utilizes applied social and behavioral sciences to solve complex business challenges. Our methodologies are designed to unlock the non-conscious needs and desires of customers, providing insight-driven strategic direction for brand development, innovation, customer experience, and behavior design.

Trust has to be considered as the cornerstone and as one of the most desirable qualities in the relationship both between a company and its customers and in the relationship between a brand and its consumers.

Elliott and Yannopoulou (2007) Brand trust are considered as the main ingredient for generating an intense bond between the consumer and the brand.

Delgado (2003), brand trust is defined as the “Feeling of security held by the consumer in his/her interaction with the brand, that it is based on the perceptions that the brand is reliable and responsible for the interests and welfare of the consumer.”

Moorman, Zaltman, and Deshpande (1992,) defined brand trust as “a willingness to rely on an existing brand in whom one has confidence.”

Brand values

Leek and Christodoulides (2011) argue that brand value contains both functional benefits and emotional benefits (including increasing purchase confidence and satisfaction as well as reducing perceived risks and uncertainties).

Del Vecchio et al (2003) demonstrate that strong brands enable companies to hire better people cheaper, which lowers human resource (HR) costs. Because employees need not be prospective consumers of the company's products, it follows that any value added through reduced HR costs (or other overhead items) are not directly affected by customers or consumers in general, but they do affect the profitability (and thus the value) of the company's brands.

Jean-Noel Kampferer, 2008 is brand value the ability of a brand to deliver profit. The brand value can be expressed as a net discounted cash flow attributable to the brand after paying the cost of the capital invested to produce and run the business and the cost of marketing.

Acceptability of Brands

A brand which takes longer to be accepted by consumers will require more promotion to convince people of its merits.

Acceptability of brands is subjective and can be influenced by many different constituents. The concentration at which constituents are objectionable to consumers is variable and dependent on individual and local factors, including the quality of the brands to which the community is accustomed and a variety of social, environmental and cultural consideration.

Battye et al. (1999) have also suggested that, in arriving at an opinion on whether some developments are useful, respondents will draw on their lifetime of experience. They will assess the impact of the technology not only on their own lives but also on the lives of people known to them, future generations, their environment, their nation, and even the globe. Therefore, these additional dimensions need to be assessed if a full picture of acceptability is to be obtained.

Montouto-Graña et al. (2012) acceptability of new food product determines a product's success sensory acceptability of a newly developed recipe should be conducted to establish if the enhanced products would succeed in the market.

Literature Review

D'Alessandro et al., 2012 Brand trust are regarded as one of the key issue that the buyer considers when making a purchase decision and has been frequently acknowledged as “confidence” in product or services.

Ballester and Aleman (2001) argued that brand trust is a multi-dimensional concept comprising two main components, namely brand reliability and brand intentionality.

Brand reliability reflects the customer's confidence on the brand's technical ability whereas; brand intentionality signifies the good intention of the brand with respect to consumers' interests and welfare.

Rampl and Kenning (2014) have extended the study of brand trust to employer branding by determining the relationship between brand trust and organizational personality. Following this line of thinking, it is logical to postulate that the brand trust is considered by both researchers and marketers as an important ingredient in the customer-brand relationship. However, it is only recently that marketing studies stressed the importance of identifying the dimensions of brand trust since trust in a product brand could be different from trust in an interpersonal relationship.

Wang, 2002 Brand trust is defined as "the consumer's willingness to rely on a brand in which he or she had confidence with regard to the brand's reliability, honesty, and altruism "

McAllister (1995) defined as "the degree to which an individual is confident and eager to act on the basis of the words, actions, and results of others".

Arjun & Morris (2001) narrated that the brand trust is a consumer would like to trust on his/her own initiative and trust the product that the brand provides. Trust can reduce the consumer's uncertainty because the consumer not only knows that brand can be worth trusting but also thinks that dependable, safe and honest consumption scenario is the important link of the brand trusts.

Li et al. (2015) emphasise, measuring brand trust as a unidimensional construct yields an incomplete portrayal and ignores the conceptual richness of brand trust. Their work proves the multi-dimensionality of the construct by introducing competence and benevolence as relevant components of trust.

Anderson and Narus (1990) echo this sentiment by explaining trust in terms of the strength of one party's assurance in the response of another. They describe this confidence as capable of motivating one party to enter into a relationship in which a certain loss is possible.

Doney and Cannon (1997) proclaimed that trust may form through the consumer's transference process. This routine involves the consignment of confidence from one trusted party to a third party. For example, a new stylist who joins a highly regarded hair salon may find the customer's confidence in the salon quickly transferred to him/her as his/her behavior aligns with the salon's repute. In this instance, the actions of the new stylist form the foundation for the consumer's assessment of the legitimacy of the transference. In each of the trust-building processes, Doney and Cannon (1997) implicitly reference the role of behavior in the consumer's ability to discern the brand's authentic nature.

Keller and Lehmann, 2006 brand value, the dominant branding model, indicated the antecedents and consequences of brand value by incorporating key constructs including marketing activities, customer mindset, and brand performance.

Zeithaml, 1988 Brand value is, however, a concept that is not really well defined in general, it relates to the influence of a brand in the marketing mix or the impact of the brand name on reactions to other features of the marketing mix, such as the reactions to the actual product.

Chu and Keh (2006) investigate the effects of advertising, promotion, and R&D expenses on brand value. They find that these lagged expenses yield diminishing returns to brand value.

Baltas and Saridakis (2009, 2010) implement a hedonic model to study price premium as indicators of brand equity in the car market. But price premium alone cannot explain all the trade-offs between brand value determinants, because price can reflect the product's strategic positioning in the market, rather than the cumulative success of previous marketing strategies. For this reason, this paper extends those works--proposing both price and revenue premium measures to study the effects of strategic alliances on brand values.

Melin (2008) mentions, a common denominator for brand values is that the consumer and his or her needs have been central in the choice of brand values. Through satisfying the consumer's needs, the organisation creates value.

Jean-Noel Kampferer (2008) brand value the ability of a brand to deliver profit. The brand value can be expressed as a net discounted cash flow attributable to the brand after paying the cost of the capital invested to produce and run the business and the cost of marketing.

Aaker and Keller (1990), brand extension is a strategy that uses an established brand name to enter a new product category. Brand extension enjoys good reputation for bringing practical advantages to companies, whilst it faces disrepute at the same time because of a relatively high percentage of failures.

Keller and Aaker 1992, Smith and Park (1992) brand that has high perceived quality affords more profitable opportunities for growth through extensions brands are seen to possess a bundle of attributes, which contribute to the perceived quality and ultimately their acceptability.

Gupta and Gould (1997), ethically-charged products were looked at less favourably in terms of product placement in movies than other products, such as soft drinks, automobiles, sunglasses and cameras.

Gupta, et al (2000), found that different countries have different attitudes toward ethically-charged products, with Australian consumers finding cigarettes to be the least acceptable whereas American consumers found guns to be the least acceptable.

Bridges (1990) stated that the research on brand extensions should consider not only product feature similarity such as price, design and look, but also brand concept consistency like brand equity, brand image, personality, etc.

Rationale

Through extensive literature survey it was identified by the researcher that very few researches were carried out in the past which examined acceptability of Non-vegetarian brands in the Gwalior region. This helps us understand to the buyer of availability of brands in this region.

This study is also used to find out trust, value and availability of brands in region. This helps to know that how much brands are available.

Objectives of the Study

- To identify the impact of independent variable Brand Trust, Brand Values on dependent variable Acceptability of Brands in Gwalior region.
- To find out underline factor of brand trust, brand values and acceptability of brands.
- To identify the cause and effect relationship among brand trust, brand values and acceptability of brands.
- To open new vistas for further research.

Research Methodology

The Study

The study was casual in nature and survey method was used for data collection.

Sampling Design

Population: The population was including all the people who are loving to eat Non-Vegetarian brands in region.

Sample Size: Sample size was 250 Respondents.

Sample Element: Individual respondent was sample element.

Sampling Technique: Non probability purposive sampling technique was used to select the sample.

Tools for Data Collection

For the purpose of data collection, two self-design questionnaires was used. One questionnaire on the basis of Likert type scale of 1 to 5 where 1 indicates minimum importance and 5 indicate maximum importance was used for evaluating the Brand Trust, Brand Values on Acceptability of Non-Vegetarian Brands in region.

Brand Trust- Chaudhuri et al (2001)

Perceived Value- Holbrook (1999)

Brand Acceptability- Chernatony et al. (2003)

Tools Used for Data Analysis

- Reliability test- Reliability test was applied to evaluate the reliability of items of questionnaire.
- Factor analysis test- Factor analysis test was applied to identify the underlying factors of past experience on destination selection.
- Regression was applied on data collected from the respondents to evaluate the relationship among Brand Trust, Brand Values and Acceptability of Brands.

Hypotheses

- H01: There is no significant relationship between Brand Trust and Acceptability of Brand.
- H02: There is no significant relationship between Brand Values and Acceptability of Brand.

Results & Discussion

Introduction

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The purpose of this chapter was to examine results of the study the impact of Behavioral biases and financial literacy on Investment performance. This chapter contains the data collected from the survey of stock market investors, the statistical treatment, and analysis of the data. The statistical package SPSS (18.0) was used to analyze the data received from the questionnaire. This also confirmed that the design of the questionnaire was suitable for such analysis. Each questionnaire was individually numbered, with first variable on the SPSS package reflecting this. Likert type scale was used to collect the data. Where, 1 indicates least preferred and 5 indicates most preferred.

Demographic and Profile of the Respondents

There was a sample of 250 respondents comprising in the below given Tables, which shows the demographic profile of the respondents and it included investors gender, age, education & brand.

Sample Descriptive

By using sample of 250 respondents the study was carried on. The Respondents included both Males and Females. Table below mentioned explains the descriptive of respondent further.

Table 1: Sample Descriptive

Variable	Category	Frequency
Gender	Male	160
	Female	90
Age	18 to 25	60
	26 to 35	55
	36 to 45	75
	46 to 55	33
	>55	27
Brand	KFC	145
	NANDO'S	105

Reliability Discussion

Cronbach's Alpha Reliability Coefficient was calculated using PASW 18. The Cronbach's Alpha Coefficient represents internal consistency reliability. The results of Cronbach's Alpha Reliability of all the Questionnaires of the study are given below:

Table no. 1: Reliability analysis

Dimension	N of Items	Cronbach's Alpha Value
Brand Trust	10	0.791
Brand Values	10	0.880
Acceptability of Brands	3	0.799

Interpretation

It is being considered that the standardized reliability value should be more than 0.7, and it can be seen that reliability value is higher than the standard value, so all items in the questionnaire are reliable.

KMO and Bartlett's Test and Explanatory Factor Analysis

S. No.	Variable Name	KMO Value	Bartlett's Test (Chi Square Value)	Sig.
1	Brand Trust	0.822	574.721	.000
2	Brand Values	0.888	1050.740	.000
3	Acceptability of Brand	0.709	231.814	.000

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is an index used to evaluate the appropriateness of factor analysis. High values (between 0.5 and 1.0) indicate factor analysis is appropriate. Values below 0.5 imply that factor analysis may not be appropriate.

Bartlett's Test of Sphericity: Bartlett's Test of Sphericity is a test of statistics that was used to examine the null hypothesis that the population correlation matrix is an identity matrix. The Bartlett's Test of Sphericity was tested through Chi-Square value represented in the table significant at 0.000 level of significance. Therefore, the above hypothesis is rejected which indicated the collected population were not an identical in nature and the data was suitable for factor analysis.

Underlying factors

Principle component factor analysis with Varimax rotation and Kaiser Normalization was Period details about factors, the factor name variable number and convergence and that Eigen Values are given in the table.

Factor Analysis for Brand Trust

Factor Name	Eigen value	Items converge		Factor Loading
	Total	% of variance		
Brand Expectation	3.565	35.649	2. This brand meets my expectation.	.810
			3. I feel confident in this brand.	.775
			1. I obtain what I look for in this brand.	.665
			4. This brand never disappoints me.	.580
Product Safety	1.290	12.900	5. This brand is constant in satisfying my needs.	.811
			7. This brand would make my effort to satisfy me.	.744
			6. This brand would be honest and sincere in addressing my concerns.	.623
Brand Satisfaction	1.071	10.707	10. This brand would compensate me for some way for the problem with the product.	.843
			9. This brand would be interested in my satisfaction.	.609
			8. I could rely on this brand to solve the problem.	.494

Description of Factors

Brand Expectation: This factor emerged as the first important determinant of the research with a Eigen value of 3.565 and Percentage of variance explained was 35.649. Here the result indicated that the statement 2 "This brand meets my

expectation” is with highest loading value 0.810 and statement 4 “This brand never disappoints me” with lowest loading value 0.580.

Product Safety: This factor emerged as the important determinant of the research with a total variance of 1.290 and Percentage of variance explained was 12.900. Here the result indicated that the statement 5 “This brand is constant in satisfying my needs” is with highest loading value 0.811 and statement 6 “This brand would be honest and sincere in addressing my concerns” with lowest loading value 0.623.

Brand Satisfaction: This factor emerged as the important determinant of the research with a total variance of 1.071 and Percentage of variance explained was 10.707. Here the result indicated that the statement 10 “This brand would compensate me for some way for the problems with the product” is with highest loading value 0.843 and statement 8 “ I could rely on this brand to solve the problem” with lowest loading value 0.494.

Factor Analysis for Brand Values

Factor Name	Eigen value	Items converge		Factor Loading
	Total	% of variance		
Brand Association	4.839	48.389	3. I would experience emotional loss if I had to stop using brand	.810
			2. This brand success is my success.	.790
			1. I am very interested in what other think about this brand.	.751
			5. I perceive myself as valuable partner of this brand.	.656
			4. I believe other respect me for my association with this brand.	.644
Brand Importance	1.230	12.294	8. I really enjoy this brand.	.780
			9. This brand could increase my social relationship, self esteem & status.	.775
			7. Quality of brand satisfies me.	.691
			6. The price of the brand is acceptable.	.659
			10. Brands are not at all important to me.	.628

Description of Factors

Brand Association: This factor emerged as the first important determinant of the research with a Eigen value of 4.839 and Percentage of variance explained was 48.389. Here the result indicated that the statement 3 “I would experience emotional loss if I had to stop using brand ” is with highest loading value 0.810 and statement 4 “ I believe that other respect me for my association with this brand” with lowest loading value 0.644.

Brand Importance: This factor emerged as the important determinant of the research with a total variance of 1.230 and Percentage of variance explained was 12.294. Here the result indicated that the statement 8 “ I really enjoy this brand” is with highest loading value 0.780and statement 10 “ Brands are not at all important to me” with lowest loading value 0.628.

Factor Analysis for Acceptability of Brands

Factor Name	Eigen value	Items converge	Factor Loading
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	Total	% of variance		
Customer Willingness	2.143	71.463	3. I felt that acceptability of brand is successful in the market.	.848
			1. I feel the brand acceptability has quality control.	.846
			2. There is willingness to try acceptability category.	.832

Description of Factors

Customer Willingness: This factor emerged as the first important determinant of the research with a Eigen value of 2.413 and Percentage of variance explained was 71.463. Here the result indicated that the statement 3 “I felt that acceptability of brand is successful in the market” is with highest loading value 0.848 and statement 2 “There is willingness to try acceptability category” with lowest loading value 0.832.

Regression Analysis

The regression is calculated by taking the total of Brand Trust, Brand Values & Acceptability of Brands by using SPSS software, In this Brand Trust & Brand Values is independent variable and Acceptability of Brands is the dependent variable. Therefore, regression is calculated by taking dependent and independent variable.

Model Summary ^b					
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
dimensiono	1	.671 ^a	.450	.446	2.09580

a. Predictors: (Constant), VAR00002(BRAND TRUST), VAR00001(BRAND VALUE)

b. Dependent Variable: VAR00003(ACCEPTABILITY OF BRANDS)

Model Summary ^b					
Change Statistics					Durbin-Watson
R Square Change	F Change	df1	df2	Sig. F Change	
.450	101.054	2	247	.000	1.770

b. Dependent Variable: VAR00003(ACCEPTABILITY OF BRANDS)

From the above model summary table, it is observed that the value of R is .671 and value of R Square is .450, which indicates that 45% of variance in dependent variable (Acceptability of Brands) is attributed to independent variable (Brand Trust & Brand Values).

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	887.732	2	443.866	101.054	.000 ^a
	Residual	1084.912	247	4.392		
	Total	1972.644	249			

- a. Predictors: (Constant), VAR00002(BRAND TRUST), VAR00001(BRAND VALUE)
- b. Dependent Variable: VAR00003(ACCEPTABILITY OF BRANDS)

The model predictability is stated by F value. The F statistics is the mean square divided by the residual mean square. Here, the value of F is 101.054 and the p = .000, which is less than 0.05(i.e. the regression model is a good fit of the data) indicating a high predictability of model.

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.162	.706		1.647	.101
	VAR00001	.099	.023	.254	4.302	.000
	VAR00002	.171	.021	.487	8.254	.000
a. Dependent Variable: VAR00003(ACCEPTABILITY OF BRANDS)						

The linear regression was applied between Brand Trust & Brand Value (independent variable), Acceptability of Brand (Dependable variable) has positive cause and effect relationship with the dependent variable. However, the relationship is significant as indicated by Beta value of .254 & .487 which is significant at 0% and “t” value is 4.302 & 8.254.

Therefore, there is a positive effect of independent variable (Brand Trust & Brand Value) on dependent variable (Acceptability of Brand). And regression equation for the same is given below:

$$Y = 1.162 + .099X_1 + .171X_2 + .706$$

Suggestions and Implications

Suggestions

- This study has been done in a very narrow prospective by taking respondents from India only as the sample size is only 250. So it is suggested to take large sample size so that more appropriate result can be obtained.
- This research can be done in other cities also.
- This study can be done in other sectors as well.
- This study can be done by including more demographic factors as well as gender and destination.

Implications of the Study

To the Students

- This study can be a useful contribution for the students to assess the effectiveness of integrated marketing strategy in developing customer base brand equity.
- The students can use the standardize questionnaires developed in this study for their researches in similar area.
- References of the study can also be helpful for the students for their research.

To the Organizations

- This study will be useful to assess the effectiveness of integrated advertising message strategy in developing customer base brand equity.

- The study can be useful for the organizations so that they can concentrate on the factors that increase purchase intention in case of product purchase decision.
- This study will be beneficial for further research in similar areas.

Discussion

The study has been divided in six chapters; the first chapter of the study is Introduction, which include Conceptual framework. In conceptual framework all definitions and introduction about the topic and its variables are written.

Second Chapter is Review of Literature, which includes all research related to the study is written which is done previously. Rationale helps to understand the need and importance of the study. Then next part is Objectives which includes all the objectives of this research.

Third chapter is Research methodology, which includes the framework in which the research is being conducted. This part included the nature of the research population, sample design, tools used for data collection and tools used for data evaluation.

Fourth chapter is Results and Discussions in this chapter the results of different tests are included. Different test were applied on the data which was collected through questionnaire such as Item to total correlation which identifies the internal consistency of the questionnaire, reliability was applied to check the reliability of the questionnaire, factor analysis was applied to find out the underlying factors of the questionnaire & Regression was applied to find out independent and dependent relationship. Then the results were interpreted.

Fifth chapter of study is Implications and Suggestions. The implication part includes the applicability part of the study and suggestions include suggestion regarding further improvements in the study that can be made to improve the study further.

Sixth chapter includes the Summary of report & Conclusions and in the end References and Annexure.

Conclusion

In today's era the most important challenge faced by the organizations is the brand switching behaviour of the customers. In this study we have focused on the Brand Trust, Brand Values & Acceptability of Brands. Reliability was applied to check whether the questionnaire is reliable for the study or not. KMO Test was applied to check the normal distribution and sample adequacy and Bartlett's Test has been applied to check the identity matrix and to find out whether data is suitable for factor analysis or not. Regression was applied to check the cause and effect relationship between the variables, as in this study we can see that Brand Trust, Brand Values were having significant cause and effect relationship with Acceptability of Brands so with the help of it we came to the conclusion that organizations must focus on the Brand Trust & Brand Values so that Brands can be Accepted.

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Content Marketing: Concepts and its Relevance in the Tourism Industry

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ABSTRACT

Introduction of information technology have changed the way organizations market their products, especially with the advent of web 2.0 technologies the whole scenario has been changed. This has given rise to the concept of content marketing as it is the content which is being marketed these days by the organizations directly or indirectly. This paper attempts to put light on the basic concept behind content marketing along with the definitions. Content marketing has been in use but still there is no classified structure found yet. This paper attempts to give more clear insights about what content marketing is all about and it also classifies the various categories of content marketing. As tourism industry is an information-based industry content marketing has significant role to play that we have discussed in this paper.

Introduction

With the advent of information technology especially the internet there has been a shift in marketing strategies of companies from product oriented to customer oriented strategies. The introduction of digital technology and the widespread of the Internet have led to radical changes in the way firms meet the expectations and interests of its stakeholders (Rancati, 2010; Wertime & Fenwick, 2008). Earlier companies took care about the needs and preferences of the consumers mainly for product development strategies but now the needs and preferences of consumers are being included in the marketing strategies also. All thanks to digital media that has enabled the flow of information to the consumers even faster. Digital media are any media that are encoded in machine-readable formats ("Digital Media", Technology Brief, University of Guelph, September 2006). When digital media is used in marketing, it becomes digital marketing, and when companies market its content through digital media, it becomes digital content marketing.

Concept

Content marketing is a much broader term than it seems because actually, it is all content which is being marketed whether through a traditional medium or any digital medium. Information becomes a dominant element in the marketing exchange (Rowley, 2008; Rancati Elisa, 2014). Content marketing is not a new concept it was there even before the internet came in existence. The Internet has just made it a buzzword in the modern marketing era. The digital dimension, in particular, has given birth to terms such as digital content marketing which focuses

on the changes that technological innovation has produced on creation, delivery and content (Rakic et al., 2014; Koiso-Kanttila, 2004; Rowley, 2008; Rancati Elisa, 2014). Content marketing can be classified into two phases or types on the basis of the time period:

1. Traditional Content Marketing
2. Modern Content Marketing (digital content marketing)

Traditional Content Marketing

Traditional content marketing includes all forms of content marketing that were used before the internet or various online technologies came into existence for e.g. magazines, brochures, editorials, newspaper ads.

Modern Content Marketing

Modern content marketing can also be called “digital content marketing” as it is done through digital media. Digital content marketing includes providing relevant content to consumers through digital media sources like blogs, websites, videos, social media posts, web pages, search engine optimization, review sites etc.

In traditional content marketing practices, companies directly tell about the product or services they are selling and persuade to buy them whereas in digital content marketing companies do not directly sell the product or services instead they provide all the relevant and useful information to help them solve their problems. In this way, companies create brand awareness.

Definitions

Although content marketing is not a new concept it has gained popularity in the digital age. Therefore, definitions include the modern approach to content marketing.

Content marketing (CM) attracts potential consumers and increases their engagement and empowerment (Kucuk & Krishnamurthy, 2007; Rancati Elisa, 2014) through the creation, dissemination, and sharing of free content, and is relevant, meaningful, valuable and able to inspire confidence in existing and potential customers.

According to (Rowley 2008; Rancati Elisa, 2014) content marketing can be defined as a management process where a firm identifies, analyzes and satisfies customer demand to gain profit with the use of digital content distributed through electronic channels.

Content Marketing means to produce quality content, unique, significant, valuable, dynamic and more relevant than its competitors' competitors (Handley and Chapman, 2010, 2011; Lieb, 2011; Jefferson and Tanton, 2013; Rose and Pulizzi, 2011; Rancati Elisa, 2014).

According to Gagnon, 2014; Pazeraite, & Repoviene, 2016), content used in content-based marketing programs is defined as a base of substantive, reasonably objective information, developed by or for a company.

According to the Content Marketing Institute, 2015, “content marketing is the marketing and Business Procedure for creating and distributing significant and valuable content to attract, acquire, and engage a clearly defined and understood target customer - with the objective of driving profitable customer action.”

Effective Content Marketing

Content is a road by taking that consumers reach to the website or buy the product. The key is organisations do not directly tell them to take that road, but they provide content, the more clearly road defines the goals of the consumers the more likely they will take that road. Content marketing is not merely providing information, but it is equally essential that the information provided is relevant to the needs of the consumers. Information to be sufficient it has to be quality information which should be relevant, reliable, value adding and unique (Ružkevičius, Guseva, 2006; Chasser, Wolfe, 2010; Gagnon, 2014; Abel, 2014; Creamer, 2012; Schui- Nanni et al., 2014; Pazeraite, & Repoviene., 2016). Reliability determines the correctness of information whereas adequacy of information is determined by completeness (Chasser, Wolfe, 2010). Some Lithuanian authors (Ružkevičius, Guseva, 2006) perceive valuable content as an ability of the given content to comply with the consumer's aspirations, goals, and interests. The unique content can draw not only the attention of consumers but also spreads word of mouth about the company's unique skills. Unique content could be foreseen as a positioning tool of the company in order to become a unique and desirable market participant in comparison to its competitors. (Gagnon, 2014). In order to content marketing be effective an entertainment factor can also be included to retain the consumers' interest alive. A study prepared by J. Berger and K. Milkman (2012) showed that positive content has a stronger viral effect than a negative one. Nevertheless, deeper analysis showed that the content, which has an emotional character (positive or negative), is more interesting to customers, than the neutral content. A company has only ten seconds to attract consumer attention to the offered content. Therefore, every possible way should be used to tell the client why he needs the company (Berkley, 2010).

Review of Literature

Content marketing may seem a new concept but it has always been present in marketing but not as separate concept. Its presence can be traced back from 1895 when "John Deere launched The Furrow magazine focusing on providing solutions to farmers in order to make their work more profitable. Today, it is sold in 40 countries and 12 different languages" (Kuenn, 2013). The content was not only provided in the form of a magazine. Content marketing was done through Guide and Cookbook also. In 1900, André Michelin with his brother Édouard published the first edition of the Michelin Guide. At that time, there were less than 3000 cars in France, but the guide was published in over 35000 copies. "This Guide, distributed for free to drivers, contained much practical information on the use and repair of tires, the list of fuel depots, hotels, city maps, a list of mechanics (there was less than 600 for all France), etc. In 1904, Jell-O salesmen went door-to-door, distributing their cookbook for free as a means of associating deserts with their product. Two years after, the company's sales rose to over \$1 million.

Although the concept of content marketing was there, but there was no established theory or definitions until online technologies were introduced. The term "content marketing" was used as early as 1996 when John F. Oppedahl led a roundtable for journalists at the American Society for Newspaper Editors. In 1998, Jerrell Jimerson held the title of "director of online and content marketing" at Netscape. The digital dimension, in particular, has led to the birth of terms such as digital CM (Rakic et al., 2014; Koiso-Kanttila, 2004; Rowley, 2008) which focuses on the changes that technological innovation has produced on creation, delivery and content management. Social media marketing can be defined as using social media channels

to promote a company and its products (Barefoot & Szabo, 2010). Content marketing is also known as story marketing (Sullivan, 2013) It enhances the purchasing process by adding values to customers (Odden, 2013).

There are various media through which content can be disseminated to the target consumers. Some of them are virtual communities (Illum, Ivanov, & Liang, 2010), positions of social media in search engines (Xiang & Gretzel, 2010), and social media adoption in national markets (Gretzel, Kang, & Lee, 2008) and social media impact on destination branding strategies (Munar, 2011). One area of extraordinary internet innovation over the past 2 years has been in user-generated content and peer-to-peer applications variously known as Web 2.0 (O'Reilly, 2005). Consumers are active participants and equal partners in these conversations who co-create value together with marketers by exchanging resources and information (Vargo & Lusch, 2004). Blogs tend to be interactive, and readers post comments (Pan et al. 2007; Cobanoglu 2006; Kelleher and Miller 2006; Ellion 2007; Reactive 2007). The activities of blogs and bloggers have become known as the “blogosphere” (Carson 2008). Consumers trusted more sites with reviews than professional guides and travel agencies (eMarketer 2007) in Canada, Sweden, Austria, and New Zealand, for example, blogs have been provided on official destination websites (Schmollgruber 2007; Thraenhart 2007).

The Web has also been regarded as a threat to the power of organisations (Shih, 2009). For instance, the importance of destination organisations in marketing and promotion may alter due to Internet-related transformations, even if their position is often taken for granted (Cai, Gartner, & Munar, 2009; Morgan, Pritchard, & Pride, 2009; Munar, 2011). Internet has also challenged the role of intermediaries by enabling the consumers to get directly engage with the suppliers (Buhalis & Law, 2008). Prior to web 2.0, internet worked in ‘read –only’ format in which only one-way flow of information was allowed and that was generally from organisations to the consumers (Buhalis, 2013; Hay, Page & Barges, 2009). This two-way information flow could become possible with the rise of social media technologies. Social media allowed users to share their thoughts, opinions and pictures with others at anytime and anywhere in fractions of time. Since tourism is an information-intensive industry, social media is particularly relevant to this industry (Hays, Page & Buhalis, 2013; Gretzel et al., 2000, p.147; Wang, Quaechee, & Fesenmaier, 2002).

Table 1. A literature review of content marketing

	Author (year)	Aim/ source	Description
Before the internet era			
	John Deere (1895)	The Furrow magazine	focusing on providing solutions to farmers in order to make their work more profitable
	André Michelin, Édouard (1900)	Michelin Guide	This Guide, distributed for free to drivers, contained much practical information on the use and repair of tires, the list of fuel depots, hotels, city maps, a list of mechanics.
	Jell-O (1904)	Cookbook	The salesmen went door-to-door, distributing their cookbook for free as a means of associating deserts with their product.

After the introduction of the internet	John F.Oppedahl (1996)	Led a roundtable for journalists at the American Society for Newspaper Editors	The term "content marketing" was used for the first time.
	Jerrell Jimerson (1998)	Netscape	Held the title of "director of online and content marketing" at Netscape
	(Rakic et al. (2014), Koiso-Kanttila (2004), Rowley(2008) Rancati Elisa, N. G. (2014)	Gave birth to the terms such as digital content marketing	The term focuses on the changes that technological innovation has produced on creation, delivery and content management
	Barefoot & Szabo, (2010), Gretzel, U., & Yoo, K. H., (2013)	Used the term "Social media marketing"	Social media marketing can be defined as using social media channels to promote a company and its products
	Sullivan (2013)	Defined content marketing	Content marketing is also known as storytelling marketing
	Gretzel, Kang, & Lee (2008), Illum, Ivanov, & Liang (2010), Xiang & Gretzel (2010), Munar (2011)	Given various media through which content can be disseminated to the target consumers.	Social media adoption in national markets, virtual communities, positions of social media in search engines, social media impact on destination branding strategies.
Introduction of web 2.0 technologies	O'Reilly (2005)	Mentioned about extraordinary internet innovation called web 2.0	User-generated content and peer-to-peer applications variously known as Web 2.0
	Carson (2008)	Used the term "blogosphere."	The activities of blogs and bloggers have become known as the blogosphere."
	Cai, Gartner, & Munar(2009); Morgan, Pritchard, & Pride (2009); Munar (2011).	Power of organisations reducing	Focused on the changing role of destination organisations due to Internet-related transformations
	Hays, Page & Buhalis (2013); Gretzel et al. (2000), p.147; Wang,Quaechee, & Fesenmaier (2002).	Focused on the role of social media in Tourism industry.	The one-way flow of information i.e. "read-only" format changed into two-way flow of information allowing tourism consumers to share their thoughts, opinions and pictures with others about any destination.

Content Marketing in Tourism Industry

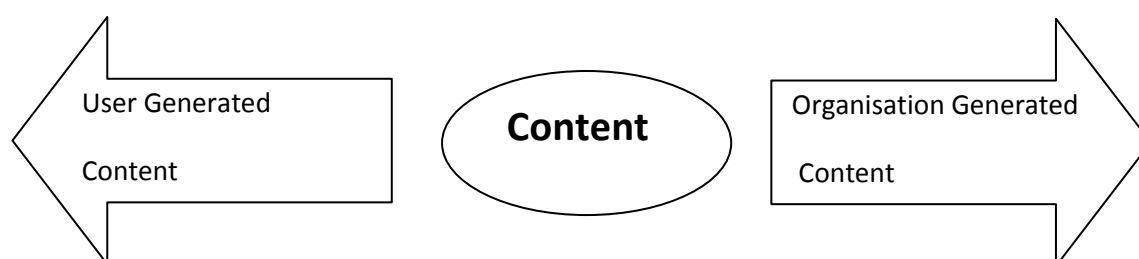
Maximum online transactions are done in the tourism industry (Werthner and Ricci 2004) which shows how much digitisation has been accepted in this industry. The tourism industry is a service-based industry which is a combination of several other

industries like hotel industry, transport industry etc. These industries need to interact in order to provide a better tourism experience. Information is considered the lifeblood of the tourism industry. Therefore, it is important to use information technology effectively (Buhalis, 1998). In the age of digital media, there has been a shift in the purchasing patterns of consumers in the tourism industry. Evolution of web technologies has enabled travellers with more content which has been a significant factor in changing patterns of tourist purchase and travel experience behaviour (Munar & Jacobsen, 2013). Not only the purchasing behaviour but the decision-making process of consumers in the tourism industry has also been changed. Now consumers have more information available on just one click. Therefore, they no more rely only on the tourist organisations for information about any destination. Since tourism is an information-intensive industry, social media is particularly relevant to this industry (Hays, Page & Buhalis, 2013; Gretzel et al., 2000, p.147; Wang, Quaechee, & Fesenmaier, 2002). Social media allowed tourism consumers to look for information and reviews from their sources instead relying only on the organisations. In this regard personal recommendation sites have been very influential (Hays, Page & Buhalis, 2013; Buhalis, 1998; Gretzel et al., 2000; Litvin, Goldsmith & Pan, 2008). Hence it becomes critical for tourism organisations to adopt social media in their marketing strategies and provide useful content to their consumers (Hays, Page & Buhalis, 2013; Gretzel et al., 2000; Hjalager, 2010; Ruzic & Bilas, 2010; Schegg et al., 2008). The tourism industry is based on intangible products mostly as it is based on selling experiences.

Earlier this intangible factor was a challenge as tourism products cannot be shown to the consumers as in other industries. They cannot try them out before buying and this created a risk factor in the minds of consumers. Digital media technologies have reduced that risk up to a much significant level as it has enabled consumers with broad content about tourist destinations and services provided there. Digital content marketing has played a significant role in the tourism industry. Content marketing is especially important in the tourism industry as it is the content only (written, audio or visual) that is the deciding factor about any destination. There is a lot of content available on the digital media that can be used for marketing.

Based on its origin, content can be classified into two forms:

- 1) User-generated content 2) Organisation generated content



User-Generated Content: The text, pictures, videos, audio files, etc. created and shared through social media are called user-generated contents (UGC) (Gillin, 2007). In this corporate users have also been included but in the context of this paper user only consumers have been included. There are virtual communities, which enable people to share their experiences with others all over the world (Waldhör, 2007). Review sites like TripAdvisor provide an opportunity to the consumers to share their travel experiences and also rate the destinations and the services provided there. As this content is made available by the travel consumers, they influence the consumers

who are planning for a trip. Consumers are active participants and equal partners in these conversations who co-create value together with marketers by exchanging resources and information (Vargo & Lusch, 2004). The sharing of experiences through social media has also been considered as an integral part of tourism experiences (Gretzel et al., 2011).

Organisation Generated Content: organisation generated content includes the content which is made available by organizations on the digital media platforms directly or indirectly (blogs, forums, websites, web pages, review sites etc.). Directly they provide content on their websites and portals. Organizations may be indirectly involving in generating content about their products by writing blogs by the members of the organization, operating virtual community sources etc. VCs are in most cases operated by organizations, which optimize their content with regard to the different search engines. In addition, features like feeds, trackbacks, cross-linking, etc. make those Web sites much more powerful tools. (Waldhör, 2007).

Content is available in abundance in this digital age the need is how organizations market that content in order to gain the trust and loyalty of consumers. As tourism products are intangible in nature by providing relevant, adequate and valuable content some degree of tangibility can be given to the products which can be done by employing effective content marketing strategies. Instead of focusing on tangible resources, embedded value, and transactions, fully embraces intangible resources, co-creation of value, and relationships (Vargo & Lusch, 2004).

Conclusions

In general, “content marketing is a marketing practice in which consumers are not directly persuaded to buy a product or service instead valuable content in the form of solution to the issues faced by consumers provided which in turn create the awareness about the product or service through media which may or may not be digital.”

When content marketing is done through digital media it is called digital content marketing which is in vogue these days.

Content marketing can be broadly classified into two types first, is traditional content marketing that was mainly used before the digital age and second, is modern content marketing which also called digital content marketing that is being presently used through various forms of digital media.

Content marketing especially digital content marketing plays a pivotal role in the tourism industry. Content is created through two sources in the tourism industry one is by users (consumers) and second is by organizations (tourist organizations).

Tourism products are often seen as status symbols and important elements of identity construction (Lee et al., 2009). Therefore, consumers are very much motivated towards sharing their travel experiences through various media like blogs, forums, videos, reviews etc. which create user-generated content. Through these media, consumers have become co-creators of content which earlier only organizations used to be. There was a one-way flow of content from organizations to consumers but now there is two-way content creation.

Consumers are not only co-creator but in a way, they have become co-marketers as they can promote a particular brand by posting or reviewing about it on digital media.

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Review Paper on Quality of Work Life

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ABSTRACT

Quality of work life (QWOL) has been considered important to motivate employees, enhance their commitment towards the organization and also a tool to improve their performance. QWOL. The paper reviews twenty articles from various backgrounds and enhances the understanding of the concept of QWOL. The article also attempts to recognize the numerous factors affecting QWOL. The paper identifies that leadership style, pay, nature of job, job security, assistance programmes and interestingly total quality management (TQM) practices affect QWOL. The paper also identifies various behavioural outcomes of QWOL result in harmony, less stress and conflict among the employees.

Introduction

Quality of Work Life (QWL) is a comparatively new concept which is well-defined as the whole quality of an person's working life. QWL is occasionally is measured as a sub-concept of the comprehensive concept of quality of life, which denotes to the general quality of an individual's life. The paper analyses 20 articles published in the past and discovers the various factors and consequences among various settings and presents conclusion at the end.

Review of Literature

Johnsrud (2002) examined empirical literature devoted to quality of work life and developed a framework which conceptualized studies into three groups: those that describe and explore differences in the quality of work life, those that determine the impact of work life on attitudes, and those that attempt to explain behavioural outcomes. The authors author argued that site leaders who want to increase the performance and retention of faculty and managerial staff must recognize and address the specific issues that matter to those working on their sites.

Srivastava and Rooma (2014), examined the Quality of work life is a procedure in an organization which empowers its individuals at all dimensions to take an interest effectively and adequately in forming hierarchical condition, techniques and results. This analysis was focused on the subjective matter of QWL i.e. its key elements like job security, job performance, employee satisfaction etc. The authors also suggested that high degree of QWL among the employees leads to job satisfaction which eventually results in effective and efficient performance.

Pani (2015), examined the relationship between all identified variables of quality of work life and to study the relationship between quality of work life of teachers working in various private engineering colleges with demographic factors (age, gender) more specifically in Rayagada district of Odisha. The authors collected the data from 55 respondents. the outcome of this analysis was that Opportunity for

Growth and Security factor have larger impact on overall QWL experience, whereas Nature of job, Job security and life space has moderate impact and the rest factors has less impact on overall QWL experience.

Zin (2004) empirically determined the pattern of the relationships between the perceived presence of quality of worklife (QWL) factors and organizational commitment using responses collected from professional engineers in Malaysia. The results of the study showed that out of seven, only two QWL factors, growth and development and pay and benefit, were significant in explaining organizational commitment.

Bophela (South Africa), and Govender (2015) examined the quality of work life of employees via Employee Assistance Programs (EAPs). The study was conducted with a sample of 85 employees in a public sector organization. The result was utilization of EAPs balances and improves the quality of work life of Employees so that they are immersed with work activities and have a satisfactory work life that is fulfilling. It would be advantageous for organizations to assess the performance of employees before and after they have engaged with the EAPs, in order to determine their quality of work life.

Kaur (2016) examined the concept of Quality of work life. How and why the organizations and employees both are striving together to improve Quality of life to make efficient and effective utilization of human resource of the organization. The outcome of the research indicates that six out of seven factors (workload, family life, transportation, compensation policy and benefit, working environment and working condition and career growth) have significant influence on quality of work life and the remaining factor (colleagues and supervisor) has no significant influence on quality of work life. A good human resources practice would encourage all employees to be more productive while enjoying work.

Noor and Abdullah (2012) commented that Quality of Work Life among employees is most important as it entails strong participation in many of the programs organized by firms. The results of the study indicated that job satisfaction, job involvement and job security have significant relationship with quality of work life.

Gupta (2016) examined the quality of work life in the Private Banks of Indore division. Data was conveniently collected from 150 employees working in the Private Banks. Exploratory factor analysis revealed eight factors, which significantly influence the quality of work life: Healthy Working environment, Motivational climate, Stimulating work environment Productivity, Work Redesign, Sense of accomplishment, Employees' Democracy, Enthusiasm at work place. It is therefore suggested that when attempting to draft policies and programmes for employees working in the Indian banking industry, Result of study was eight factors were identified. Bank authority should encourage for employee participation in management, healthy working environment, work resign, productivity, quality circles, and grievance-handling procedure to improve QWL. This can satisfy their important personal needs in terms of power and growth which make them perceive democratization of their work place which will enhance their creativity and innovativeness.

Razak et. al., (2016) inspected the quality work life by utilizing factor analysis with goal to quantify the unwavering quality and legitimacy factors of work condition in setting of quality work life. A study was directed at five recorded organization in Sabah to speak to the reaction to this investigation. Exploratory Factor Analysis

(EFA) with varimax rotation demonstrated were two principle factors that impact representatives to encounters high caliber of work and life. It was considered as organization citizenship and organizational social support thusly lead to capacity of worker to adjust between their activity necessities, family and claim life. In this manner, there is no denying that work condition factor assumes an imperative job to create equalization of work and life of representatives. The work condition with advantageous, adaptable, and have social support from the administration and associate will improve the representatives to work with agreement, less pressure and struggle.

Malaterre and Foucreault (2017) analyzed the cross-national work life research by leading a methodical interdisciplinary audit of applied and experimental work on the nation level social effects (i.e., the qualities, suppositions, and convictions shared by people with normal verifiable experience) and basic effects (i.e., the principles and imperatives created by lawful, financial, and social structures) on individual encounters of the work-life interface and organizational support for non-work.

Kara, et. al (2018) in this empirical examination reconnoitred the moderating effects of gender and pay on the relationship between style of leadership and quality of work life on the data collected from survey of from employees of a five-star hotel. The results of the study specified that Transformational and transactional leadership styles were significant predictors of QWL, but gender and income were not significant antecedents of QWL. The authors suggested that quality of work life of the employees can be enhanced by leadership styles of managers.

Priya (2018) examined quality of work life among women employees who were employed in different garment factories at Ghazipur district of India. The focus of the study was to examine the factors inducing the quality of work life of women employees, their equal to job satisfaction. The results of the survey indicated a significant relationship between work experience and participation in decision making for women employees. The results of the study also indicated that QWL is also improved by authority's willingness.

Yadav and Naim (2017) examined the quality of work life in the Indian power sector. The outcomes of the study specified that quality of work life clearly influenced freedom from work-related stress, salary, relationship with work colleagues, job security and communication and job satisfaction.

Lee et. al. (2017) examined the associations among quality of work life, nurses' intention to leave the profession, and nurses leaving the profession. Interestingly the results of study indicated that Nurses' intention to leave the profession mediated the relationship between the milieu of respect and autonomy, quality of work life, and nurses leaving the profession. The authors suggested that nurse managers should focus on providing effective interventions to amend the milieu of respect and autonomy aspect of quality of work life to prevent nurses from leaving their profession.

Louis (1998) explored how teachers' quality of work life contributes to their commitment to work and their sense of efficacy. The results of the study indicated that quality of work life measures are strongly associated with both teachers' commitment and sense of efficacy.

Sirgy et. al (2001) developed a new measure of quality of work life which was base upon need satisfaction and spillover theories. The measure was designed to capture

perception of the employees about their necessities being satisfied by work condition, work prerequisites, supervisory conduct, and subordinate projects in an organization.

Koonmee et. al (2010) researched the relationship between institutionalization of morals, quality of work life (QWL), and worker work related results in the Thai work put. The review uncovered a positive connection between certain type of morals institutionalization and both lower-order and higher-order aspects of QWL. The results also indicated that the verifiable type of morals institutionalization and the two parts of QWL impactsly affect the three representative activity related results: work fulfillment, organizational commitment, and cooperation.

Sinha (2012) investigated the factors of quality of working-life encounters in organizations. The investigation concentrated on 100 employees holding middle administrative positions in different organizations. The consequences of the investigation demonstrated that factors rose have considerable tasks to carry out in satisfying the requirements of the employees and how at middle management level's diverse highlights are valued and utilized for building up a remarkable and supreme quality of working life inside their socio-technical systems for evoking great occupation related reactions.

Igbaria, Parasuraman and Badawy (1994) examined the job involvement of professionals and managers in the information systems (IS) field and investigated the role of involvement in influencing the quality of work life. The results of the study indicated significant variation in the level of job involvement displayed by IS employees and differential patterns of relationships among the study variables for IS personnel with low, moderate, and high levels of job involvement. In few cases authors mentioned that high levels of job involvement resulted in enhancement of the beneficial effects of work experiences on the quality of work life, whereas in others such involvement tends to heighten the negative effects of role stressors.

Bab and Jamal (1991) inspected that whether routinization of work negatively affects singular execution as it suppresses creative expression at work. To distinguish this, a study was led on nurses working in Anglophone hospitals in the more noteworthy Montreal. The outcomes demonstrated that nurses who worked routine movements perceived larger amounts of quality of working life contrasted with those on non-routine shifts. The outcomes additionally shown that nurses who experienced high routinization in occupation content perceived lower dimensions of quality of working life contrasted with those nurses who experienced low routinization in employment content.

Conclusion

20 papers were reviewed and various factors which affected quality of work life and various consequences were identified. The reviewed literature indicated that quality of work life is an important parameter viewed by the employees. Commonly it was identified that, intention to leave was a general consequence if quality of work life was not appropriate. This review article sheds light on various antecedents and consequences of quality of work life among employees operating at various levels of an organization.

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Family Relationship and Spiritual Intelligence: With Reference to Students of Professional Courses

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ABSTRACT

Spiritual intelligence has become important in present conditions. The research is aimed at determining the relationship between family relationship and spiritual intelligence of students of professional courses (MBA, BBA and BE). The data for the study was collected from 216 students with the help of standardized questionnaire on 5 point likert type scale. The data was analyzed using SPSS and regression analysis was applied to check the cause and effect relationship between the independent variable (family relationship) and dependent variable (spiritual intelligence). The result of the study indicates positive significant impact of family relationship on spiritual intelligence.

Introduction

Family is the most important institution of civilized society. It is a unit which acts as training ground also for all the members of the family to work in actual world. The relationship that family members share among themselves helps in shaping behavior, personality, attitude, intelligence of the member. The family share different relationship like grandparents, parents, uncle and aunts, siblings, cousins etc. In some families two generations live together (nuclear) and in some three generations are living together (joint families) under same roof.

In some families, females take care of dependents while male member go out to earn living while in other families both male and female (young) members go out to earn living and old age or retired family members take care of kids of the family. The relationship between family members and the child in the family affect the attitude and personality of the child the studies that have been done in this fields have shown that positive parent and child relationship makes the foundation of learning. The child develops various skills that they need in their life with the help of parents' sensible care, responsive behavior and care. This behavior also decides the emotional well-being of the child and the relation between parents and with child also develops the problem solving attitude and their future relationship. (Lerner & Castellino, 2002). They learn to manage emotions, behaviour, develop healthy relationships, adjustment in new situations, resolve conflicts and the skills that are needed to succeed in different environment (Rogoff, 2003)

Spirituality does not mean any particular practice. It is a certain way of being. It blossoms within you, when you cultivate your emotions & energies of mind and body to a certain level of maturity (Sadhguru, 2013). It also refers towards the objectives of recovering the original form of man," concerned with "the image of Divinity.

According to Christina Puchalski (2009), "spirituality is the aspect of humanity that refers to the way individuals seek and express meaning and purpose and the way they

experience their connectedness to the moment, to self, to others, to nature, and to the significant or sacred."

Spirituality means any experience that is thought to bring the experiencer into contact with the divine (Mario Beauregard and Denyse O'Leary (2007). It is the search for meaning in life events and a yearning for connectedness to the universe (Coles 1990). However, Intelligence in its normal sense refers to the ability to perceive information and one's capacity to understand the behaviors of external environment & within ourselves.

Spirituality has been a key area was the researchers have constantly stressed upon and given key importance to promote organizational effectiveness (Kale & Shrivastava, 2003).

However according to Wilson (2004), individuals are not only different from a demographic perspective such as age, gender, ethnicity, and professions, individuals have unique multiple intelligence characteristics, and this uniqueness is linked to their learning, problem solving, and decision-making skills. Spiritual intelligence encompasses a kind of compliance and problem answering conduct and can be considered as a potential for preserving emotional wellbeing and happiness in all individuals Shitika, Vij and Sanghi (2015).

When we mention to spiritual intelligence, it means a kind of intelligence that solves our semantic problems, signifies our activities and life at a wider and stronger level and someone's meaning of life and life path can be measured by it (Emmons, 2000).

Spiritual intelligence represents a set of spiritual capabilities, abilities and resources that its employment leads to increasing adaptability and as a result, mental health in employees (King, 2008; Zohar and Marshall, 2000).

According to Vaughan, spiritual intelligence is necessary for identifying choices that play important roles in human being's psychological well-being and health.

Spiritual intelligence (also known as new intelligences or quantic intelligence) build on coordinates like assuring the self-coherence and amalgamating & harmonizing of diverse aspects from the nearby realism. They further suggested that administrator must be emotionally bright along with professionally capable (Mircea Aurel NIȚĂ1, 2015).

According to Vaughan (2002), spiritual intelligence integrates inner and spiritual life with outer life and work environment. Spiritual experience, which may effective in the development of spiritual intelligence, depends to one's life environment and texture.

Spiritual intelligence is considered as a logical reasoning which is measured by IQ and EQ Wilson (2004). It is related to EQ as it includes evolving interpersonal and intrapersonal sensitivity (Vaughan, 2003).

Spiritual intelligence is an improved and more efficient version of intellectual intelligence and emotional intelligence (Zohar and Marshall, 2000). Vaughan (2003) defined spiritual intelligence as one of the various types of intelligence that can be developed independently. It is ultimately calls for multiple ways of knowing and integrating of one's inner mind and spirit with the peripheral life or work of world. It is the indispensable part of people's nature (Charles Handy, 2005)

The relationship between family members and the child in the family affect the

attitude and personality of the child the studies that have been done in this fields have shown that positive parent and child relationship makes the foundation of learning. The child develops various skills that they need in their life with the help of parents' sensible care, responsive behavior and care. This behavior also decides the emotional wellbeing of the child (Dawson and Ashman, 2000) and the relation between parents and with child also develops the problem solving attitude and their future relationship. (Lerner & Castellino, 2002). They learn to manage emotions, behaviour, develop healthy relationships, adjustment in new situations, resolve conflicts and the skills that are needed to succeed in different environment (Rogoff, 2003)

Bhatia (2012) proved that the family environment makes children learn to use the faculties that they have and they start understanding the world and to cope up with the physical world according to the family environment (Parmar and Jogsan, 2017). The family is the one where children learn about working of family relationship by observing their parents, siblings and in joint family relationship between grandparents, uncles etc.

Zohar coined the term "Spiritual Intelligence" and introduced the idea in her book "Rewiring the Corporate Brain" in 1997. Zohar and Marshall (1999) defined Spiritual Intelligence as "the Intelligence that makes us whole, that gives us our integrity. It is the soul's Intelligence, the Intelligence of the deep self"

Mike George (2006) considered spiritual intelligence is essential to grow a steady & vibrant wisdom of individuality, usage of earnest innermost resources, recognize & align individual morals of one's individual self. Along with these, spiritual intelligence can also be functional to areas like handling ethos & obstructions, building associations and private safety in working life of professions.

While chief executives drive SQ to the enterprise but its application mainly depends upon the role of Human resource manager. SQ also refers to the degree to which an individual can demonstrate spiritual intelligence. According to Danah Zohar, "the decision to use spiritual intelligence has to be taken by the CEO, but HR has to do the work to implement it".

It is not being linked with any specific religion or belief. It has many characteristics similar to the mainstream religious conviction and moral ideologies with the sole assumption of that the individuals are deeply desire purpose and sense that verve beyond their instant self-interest, eventually we all feel a bond towards each other. In words of Charles Handy, 'there's a basic altruistic gene in all of us – there is a gene that really wants us to be decent people'.

It emerges as consciousness evolves into an ever-expanding mindfulness of staple, body, mind, life and spirit. It has varying degrees of depth and expressions as living realistically in humanistic footings of being human (Anastoo, 1998).

Problem Statement

The spiritual intelligence is considered to be higher dimension of emotional intelligence, it is presence of both emotional and intelligence quotients. According to BK shivani spiritual intelligence helps in understanding others and understanding the cause of behavior without any judgement (shivani, 2011). Jacob and Rajeswari (2013) concluded correlation between spiritual intelligence and family dysfunction.

The current study is to understand the relationship between the family relationship of a student and its impact on spiritual intelligence. As it has been identified in previous researches that the parenting style has impact on spiritual development of a child and it also helps students by making them aware about their own self, their interest areas and hence in choosing their career according to their interest. Spiritual intelligence also helps them in improving the interpersonal skills and behavior (shivani, 2011).

H01: there is no impact of family relationship on spiritual intelligence of students

Literature Review

Spirituality is an attitude with life itself (Brantmeier, Lin & Miller, 2010). It is the cognitive process by which one attains the control over one's own inner self which have a direct impact on one's quality of life. Nobari and Shokri (2014) tried to survey a relationship between quality of life and spiritual intelligence of students and found that quality of life had a direct relation with all sub-scales of spiritual intelligence including critical existential thinking, personal meaning production, conscious state expansion and transcendental awareness among students.

Smartt (2014) conducted a study to measure the affiliation of spiritual intelligence to achievement of students with a belief that spiritual intelligence would be a stimulus to improve achievement among students but he found no statistically relationship between SI and achievement. However, achievement could be predictive only on the basis of demographic variables like age and gender. The investigator measured achievement by the American college test (ACT) and spiritual intelligence by SISRI-24.

Khadivi, Adib and Farhangpour (2014) also tried to investigate the causal relationship between spiritual intelligence, self-esteem and educational improvement from the perspective of students and found a positive relationship among spiritual intelligence and self-esteem of students whereas on the contrary the researchers found no significant relationship between students' spiritual intelligence and their educational improvement. Boys educational improvement is more than girls, but girls lead boys in self-esteem. However, both possess same levels of spiritual intelligence.

According to Al-Faoury, Khataybeh and Al-Sheikh (2011) the most common type of intelligence among students were found to be interpersonal intelligence. The authors further revealed that the students studying in public universities were expected to have higher levels of logical intelligences as compared to those studying in the private universities. In intrapersonal and linguistic performance, the females outrun the males because of the way of their upbringing.

However, Hadid (2015) found Emotional intelligence (EQ) attention is imperative to the progress of students. Instructors need to squeeze all aspects that might stimulate academic success when he conducted a research to evaluate the effect of emotional intelligence on student's achievement from the view point of faculty members.

In (2014) Pant & Srivastava conducted a study on students of under and post-graduation of Haridwar region to examine the effect of spiritual intelligence and mental health and concluded that both (spiritual Intelligence and mental health) are

significantly correlated. They further concluded that quality of life & mental health is also correlated with each other among college students.

Researchers also tried to link the student's performance with other scopes of spirituality which might aid in behavior and performance of students. S. Kotnala (2015) also tried to analyse the performance of students on different spiritual dimensions gender wise of Jaipur city (Rajasthan). Those dimensions were: Personal meaning production, Transcendental awareness, critical existential thinking and conscious state expansion and found no difference between male and female graduate students on their level of spiritual intelligence.

Moreover, Farahmand & Cheshmeh, (2014) found a significant and positive effect of various dimensions of spiritual intelligence including development of self-awareness, personal meaning creation, existential critical thinking and transcendental awareness on mental health of hospital employees of Saveh city. They concluded that employees with advanced spiritual well-being generally own improved mental health. The findings were consistent with the findings of Akbarizadeh et al. (2012).

Research conducted by (Tabarsa & Jalaei, 2015) to found an association between spiritual intelligence and mental health and job burnout among the employees of cooperatives organizations of Golestan jurisdiction found an encouraging influence of spirituality on adaptability, flexibility of personnel resulting in enhanced working life and increased organizational performance by reducing the avoid burnout.

Occupational stress caused due to 'strenuous' was very high as compared to other occupational factors like role overload, conflict, ambiguity, responsibility, powerlessness, intrinsic impoverishment, poor peer and unprofitability which found to be least affecting among the executives at their workplace (Kumar and Pragadeeswaran, 2011).

Nevertheless, providing employees, a spiritual intelligence training acts as a religious construction which improves their perception towards themselves by reducing physical withdrawal behaviors from the organizations (Noroozi & Masumabad, 2015).

Bozorgi & Bozorgi (2016) concluded that with increasing spiritual intelligence, mental health disorder will decrease. Apart from that, the researcher also found a positive relationship between mental problems and emotion focused coping strategies. Found negative relationship between problem focused coping strategies and mental disorders. 14% variance observed on mental health due to spiritual intelligence, problem focused and emotion-focused coping strategies. Researchers argued that student's training programs should give more emphasis on their mental health along with their positive problem emotion focused coping skills.

If spiritual intelligence is higher, then employees will experience lesser psychological problems comparatively (McEwan, 2004).

Momtaz & Roobahani (2014) investigated the effect of spiritual intelligence on employee's empowerment and found a significant positive relation among both. Apart for this the researchers also found that spiritual intelligence has a positive relationship with competency, autonomy and sense of meaningfulness among the employees. However, sense of efficacy showed a negative relationship with spiritual intelligence.

There exists a positive relationship between work perception and spiritual intelligence which positively affects the work perception by increase in spiritual intelligence (Seyfi & Kose, 2016).

N. Maheshwari (2015) had tried to relate spiritual intelligence with occupational commitment among women of diverse professions inhabitants of India and found that spiritual intelligence which aids in evolving the capacity to endure, familiarizing the circumstances ultimately leading them to remain tranquil and attentive, had an encouraging influence on work-related commitment.

In (2016) Korazija, Zizek&Mume, carried out a research to find out the relationship between spiritual intelligence and work satisfaction among both employees and leaders and concluded that leaders have a significantly higher level of self-reported spiritual intelligence than that of employees. Yet no substantial variance was occurred. For employees, the researcher found a positive relationship between spiritual intelligence and work satisfaction. However, no such association was found among leaders.

According to Quinnine (2007), people experienced spiritual leadership on personal, community and organizational levels. The exercise of spiritual leadership was allied towards effectiveness dealings. People were able to respect others while extending their individual spiritual leadership.

Business leadership performance incrementally stimulates by emotional and spiritual intelligence (Amram, 2009). Leaders exemplify the intelligence of manifold domains like interpersonal intelligence, linguistic intelligence and intrapersonal intelligence as their top realm which non-leaders do not. Both leaders and non-leaders possess diverse intelligence echelons (Wilson, 2004).

Tabatabaei & Zavareh, (2014) examined the effect of spiritual intelligence (SI) on ethical leadership and found a positive relationship among two and concluded that SI had a positive impact on ethical leadership. They further suggested that the managers in the organizations should be sensitive and monitoring the aspects of human resource in the organization and devoted to endorse those personnel who sustain the value of organization with themselves. Leaders are recognized for their ethical and spiritual maturity (Pauchant, 2005).

However, above all (Ali, Bemby&Sentosa, 2013) argues that managers must apply their collective intelligence: Intelligence quotient (IQ), Emotional quotient (EQ), and Spiritual quotient (SQ) in the process of decision making, thinking, and behaving at the work place.

According to Zohar (2012), if emotional quotient empowered us to passage beyond intelligence quotient as a basis of leadership, then spiritual quotient permits us to verve even further. Emotional quotient is about what I sense however spiritual quotient is about what I am. Jose B. Cabajar (2010) once said, Intelligence quotient is good; emotional intelligence is better; but spiritual intelligence is the best for a man to have.

Further, Tischler, Biberman&Mckeage (2002) advocated that enhanced emotional and spiritual intelligence have a positive impact at the personal level towards their work success. Apart from these the authors also suggested that developing spirituality is a lot easier than developing emotional intelligence among the people when they carried out a research to explore the impacts of emotional intelligence and spirituality on workplace effectiveness.

Yet, there might be some demographic and context specific implications affecting the effectiveness perceived by the followers when they conducted research on the employees of IT and non-IT sectors (Mohanty, Begum & Kar, 2016).

In present Era, Spiritual intelligence is a missing linkage in the existing theoretical and applied application base of Human resource development model and its applications. Consequently, evolving conception of spiritual intelligence and its multi proportions like spiritual quotient, emotional quotient and intelligence quotient must be cohesive in contemporary HRD in order to have all-inclusive machinery (Ahmed, Arshad, Mahmood & Akhtar, 2016).

Kaur and Singh (2013) conducted a study on spiritual intelligence of prospective engineers and teachers in relation to their gender, locality and family status. The results indicate that there is no significant effect of gender, locality and family status on spiritual intelligence. spiritual intelligence is also affected by parenting styles (Javdan & Nickkedar, 2012)

Ganie & Zargar (2008) found that the adolescents of joint families have higher theoretical, economic, social and religious values than the adolescents of nuclear families, adolescents of nuclear families are spiritually less intelligent

Shangar and khan (2017) make it clear that adolescents of nuclear and joint families differ significantly on inner self factor of self-intelligence. The adolescents of joint family are having higher on the inner self dimensions of spiritual intelligence then nuclear family. The results reflect that adolescents of joint families are higher on life perspective dimension of spiritual intelligence. The results signify that adolescents of joint families are optimistic, have self-awareness, have awareness about the origin and purpose of life.

Research Methodology

The population under the study was all the students studying in professional courses like bachelor of business administration, bachelor of engineering, masters of business administration in various institutes of Gwalior region Gwalior region. The respondents were asked for willingness to answer before filling questionnaires. The identified person was approached either with printed questionnaire or with the help of email or online questionnaire. The respondents were informed that the data that we are collecting will be used only for academic research. The return rate of the questionnaires was 93%. Total 220 questionnaires were received back out of 235 and finally 216 responses were used. The questionnaire was having 20 questions, and as a thumb rule the number of respondents should be 10 times the number of variables or item in questionnaire.

Measures

The measures prepared on a 5 point Likert scale ranging from 1(strongly disagree) to 5 (strongly agree) the scale for spiritual intelligence was adopted from The Spiritual Intelligence Self-report Inventory (SISRI-24) designed by King (2008) includes 24 questions in a five-item Likert Scale. This scale evaluates the mental ability of spiritual intelligence. The spiritual intelligence part of the scale was used in measure and to measure family relationship scale of Moos and Moos (1994) was used.

Results and Discussions

Reliability Analysis

The questionnaire was divided into two parts i.e. Part One and Part two with 12 and 10 questions respectively. Therefore, in order to check the reliability of questionnaire, reliability test was applied using SPSS software.

The questionnaire is divided into two parts, Part one was containing twelve questions related to family relationship in total. However, when the research computed the reliability of the same it was 0.539 (N = 12). Further, to improve the reliability, the researchers dropped last two questions from the part therefore, the reliability came out to be 0.706 (N = 10). Part two of the questionnaire had 10 questions related to spiritual intelligence calculated value of Cronbach's Alpha of the part two is 0.759.

Table 1: Reliability Statistics		
Variable Name	Cronbach's Alpha	N of Items
Family relationship	.706	10
Spiritual intelligence	.759	10

From the table 1, It can be interpreted that calculated value of Cronbach's Alpha is 0.706 and 0.759 which is higher than the book value i.e. 0.7. Hence, the data is reliable for the further studies.

Regression Analysis

Simple linear regression test was applied between Spiritual Intelligence and Family Relationship. Here, Spiritual Intelligence was taken as the independent variable and Family Relationships was treated as a dependent variable.

The table 2 of model summary indicates that the value of R^2 was 0.250, indicating that Spiritual Intelligence as independent variable explaining 25 % variance on Family Relationships as the dependent variable.

Table 2: Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.500 ^a	.250	.245	4.37553
a. Predictors(Constant): Spiritual Intelligence				
b. Dependent Variable: Family Relationships				

Table 3: ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	924.649	1	924.649	48.297	.000
Residual	2776.059	145	19.145		
Total	3700.707	146			
a. Predictors(Constant): Spiritual Intelligence					
b. Dependent Variable: Family Relationships					

The goodness fit for the model was tested using ANOVA Table (table no.3) and the F value was found to be 48.297 which was significant at .000 level of significance, indicating that the model is good fit.

Table 4: Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	21.509	2.237		9.616	.000
	Total	.394	.057	.500	6.950	.000
a. Dependent Variable: Family Relationships						

The result of coefficient table (table no.4) indicated the contribution of independent variable (Spiritual Intelligence) on dependent variable (Family Relationships) through the beta value which is 0.500. T-value was found to be 6.950 which were found to be significant at 0.000 level of significance. Hence, indicating that there is significant cause and effect relationship between Spiritual Intelligence and Family Relationships, hence the null hypothesis is rejected that there is no relationship between Spiritual Intelligence and Family Relationships.

Conclusion

The mental health of children is based on spiritual health or say spiritual intelligence, higher the spiritual intelligence of parent higher will be the spiritual intelligence of children Javdan M. and Nickkerdar (2011) hence the family has a huge impact on spiritual intelligence of children it is a critical facet that affects the overall cognition of a is affected.

In the present research, the researchers have tried to connect the family relationship and spiritual intelligence of children through a rational study. They had considered spiritual Intelligence as a critical aspect that could affect the general tandem of family bonds & structure.

The study had explored the causal effect between Spiritual Intelligence and family Relationships. The results have significantly portrayed the picture where family Relationships are directly affected by the spiritual Intelligence. Hence, it can be concluded that spiritual intelligence of a person significantly affects the relationship structure in families. The results are in line with the previous research done on parenting style Tiller, Garrison, Block, Cramer and Tiller (2001) found relationship between different parenting style and spiritual intelligence and when we consider Parenting style in India it is affected by the type of family like in nuclear family the parenting style is authoritative and in joint families the style of parenting is different. Parmar and Jogsan (2017) says that the family relationship affects mental health of children and Spiritual intelligence is the consequence of the highest level of individual growth in the fields of cognition, meaning attainment, transcendental and moral communication. They also say that type of stories, meaning attached to different worldly things, metaphors etc. enrich spiritual intelligence (Vaughan, 2002). The communication and discussion that a child shares in a joint family is different from nuclear family and hence the spiritual intelligence of children is affected by the type of family relationship.

In the existing context, where families are shifting from joint to insulated structure. The present study could be contributory in paving the pathway in between.

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Organizational Brand Resonance for Job Satisfaction of the Employees

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ABSTRACT

This paper puts forth the possible importance and implications of utilizing the theory of brand resonance in organizational context and its possible positive impacts on job satisfaction of the employees. Because employee, who resonate with its organisation is more likely to be satisfied in his/her job. By optimising its organisational brand resonance an organisation will also be able to reap the benefits of interactive marketing, in other words its call enabling the promise. Therefor building strong organisational brand resonance will not only be helpful to achieve high job satisfaction among employees but it will also help in enabling the promises the organisation stands for. This paper contributes in the area of brand resonance applied to organisational setting and provides insights on possible positive association between organisational brand resonance and job satisfaction of the employees.

Introduction

One of the important stakeholders of an organisation is its employees (Swayne, 2011). "A group of satisfied employees is a source of strength for the organisation" (Srivastava, 2005). When employees are satisfied, they are more likely to remain with the organisation (Westcott, 2015). Stability in the organisation plays an important role in keeping employees loyal (Bose, 2012). Generally, organisations strive to minimise employee turnover. Every organisation wants its employees to be satisfied. For this organisations opt for various strategies and policies. Retaining employees is considered one the approaches to minimise the turnover, lower the overall cost and keep productivity high (Kepczynski, 2018). (Bussin, 2014) identifies the importance of employee engagement in order to gain desired organisational results. Research in the area of brand resonance is limited to various products and services. But the organisational brand resonance is new in the existing literature but its importance cannot be denied because of the fact that every organisation wants its employees to resonate with it. Job satisfaction has been very widely researched construct in the organisational literature. Locke (1976) studied nature and causes of job satisfaction. His definition of job satisfaction is widely used among researchers. He defines job satisfaction as the positive or pleasurable emotional state of employees. This emotional state is a result of job experiences or employees job appraisals.

Literature Review

Job Satisfaction

Williams & Anderson, (1991), studied research on organisational citizenship behaviour. Locke (1969) defines job satisfaction as the “*function of the perceived relationship between what one wants from one’s job and what one perceives it as offering*”. If organisations do not take care of its employees, they may leave the organisation because of several reasons (Fleming, 2012) such as employees may start feeling bore, they may lose their morale or they may lose the feelings of belonging the organisation. (Lees, 2012) highlights the fact that in order to ensure safety, organisations have to work in harmony with its employees. Job satisfaction is directly related to sense of achievement (Rawlins, 2008) and life satisfaction as well (Land, 2012). Job satisfaction is associated with life satisfaction scores as lower job satisfaction leads to lower scores of satisfaction with family, social life etc. (Esping-Andersen, 2002). (O’Meara, 2013) states that “*Job satisfaction is extremely important*.” Lack of job satisfaction have various adverse effects for the overall organisational productivity (O’Meara, 2013). Highly satisfied employees are hardly absent and thus job satisfaction can reduce the turnover rates in the organisation apart from its various other potential benefits (Swayne, 2011).

How does an organisation can keep their employees satisfied? Organisations prefer retaining employees over recruiting new ones. Research show that the retaining existing employee is much less costly than recruiting and training new employees. Through retaining employees, the overall cost and turnover could be minimised and at the same time the organisational productivity could be kept at high (Kepczynski, 2018). By empowering employees an organisation can develop sense of community or sense of belonging in the employees towards employees. Employees should be empowered to participate actively in various processes and decision making at their level. In this way they will feel satisfied. By listening to employees and satisfying their needs, an organisation can reduce the costs associated with the losses (Purpura, 2018). Provide a motivating and supportive environment (Monica, 2013) Organisations try to provide such environment which motivates employees. Employees feel satisfied when they perceive that the organisation in which they work is supportive i.e. cares for them.

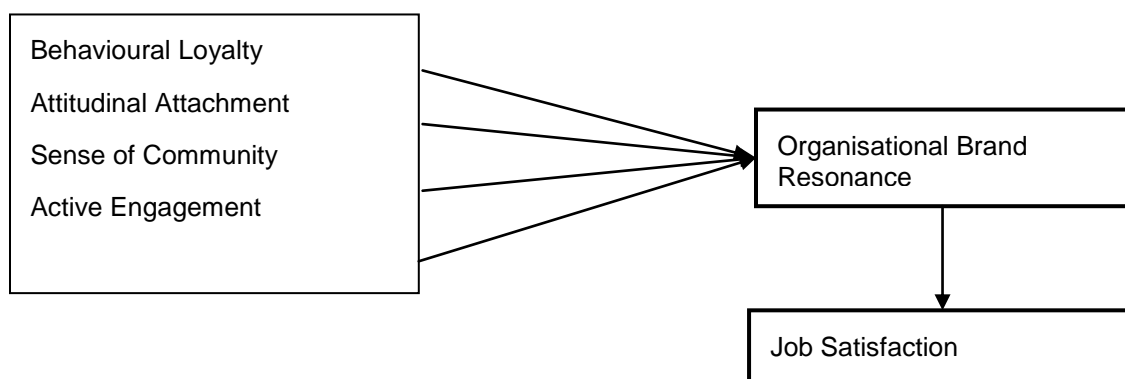


Fig 1. Conceptual Framework

Brand Resonance

(Kotler, 2006) States that the brand resonance is the “*relationship and identification of the customer with the brand.*” Theory on brand resonance mostly revolves around brand and brand specific constructs. Keller (2001) states that organisations can be branded. (Aaker, 2000) in his book “brand leadership” says that the high customer resonance and differentiation related associations are formed by strong brands. (TROTT, 2016) identifies the importance of feelings developed with the brand. She says that high level of behavioural loyalty can be achieved through emotional bonding. Organisational brand resonance can be defined by the relationship and level of identification of the employees with the organisation. Just as customers can develop active and intense loyalty relationships with the brands, Employees can develop such relationship with the organisations as well. Employees when resonating with the organisation they can benefit from various organisational brand values. Brand resonance is also considered a deep psychological bond as well as personal identification (Crane, 2012).

Behavioural Loyalty

(Bennett, 1997) states that “*Loyalty means caring in a serious way about your relationships with others and being willing to show it through your actions.*” in literature Loyalty has been defined by many scholars in various research studies (Leon-Garcia, 2016). (Heater, 2004) says “*loyalty derives from the belief in values which the object of loyalty stands for.*” (Dungy, 2010) emphasises that loyalty can be shown by actions and states that loyalty is supporting people no matter what; not just because of profit motives. Walter S. DeKeseredy in the Routledge Handbook of Critical Criminology states “*What is loyalty? It is a form of sustaining attachment, whether for good or ill effect.*” There are various denotations of loyalty (Leon-Garcia, 2016). Aaker define it as the attachment with brand. (McCrie, 2015) states “*Loyalty is interdependent*”, leader and subordinates both expect loyalty in return of loyalty. In literature loyalty has more or less two specific dimensions these are, behavioural and attitudinal. In the brand resonance pyramid Keller (1999) considered behavioural loyalty as its sedimentation. Behavioural loyalty is defined by repeat purchase behaviours and attitudinal loyalty is concerned with the positive perceptions and preferences held by someone about the loyalty object. However, researchers have found that attitudinal and behavioural loyalty are interlinked and behavioural loyalty may be caused by attitudinal loyalty but the opposite is not true. When employees held positive perceptions in their minds their actions will be aligned with what they think. That is in other words employees will act according to what they think or feel about the organisation. So if an employee is loyal to the organisation most probably he/she will be satisfied with the organisation and vice versa.

Attitudinal Attachment

As literature suggests Attachment arise Where there is support and security lies. If an organisation is supportive enough and provides sense of security to its employees, they

will develop attachment towards the organisation. Brand resonance theory considered attitudinal attachment. For organisational brand resonance to occur attitudinal attachment among employees is very important. It can be postulated that attitudinal attachment of employees leads to job satisfaction and vice versa. Employees can develop attachment towards the organisation. They may like the work culture or the policy of the organisation, they may like the atmosphere, environment in the organisation or maybe it's the company of the peers they work with. Employees simply like their work in the organisation too. For achieving attitudinal attachment, it is very important for an organisation to develop some sort of liking or preference among employees towards organisation. This can be achieved once the employee develops strong sense of community and are actively engaged with the organisation. These sub-dimensions are discussed next with importance in organisational context.

Sense of Community

Community is defined by as “a collection of people who interact together in a safe environment.” Sense of community is very important for achieving resonance. (Miles, 2012) states that the literature suggests that the success of the management is dependent of developing sense of shared community among managers and employees. It's the sense of belonging employees have with the organisation and has positive impacts on overall organisational performance. Because employees' loyalty will lie with the organisation if they have a sense of belonging towards it. Employees develop sense of community as a result of shared experiences. And if these experiences are positive, employee will feel a bond, a kind of attachment with the organisation and thus stay with the organisation for a long time. Even after leaving the organisation people feel connection towards the organisation and thus they kind of represent it in a positive way and feel proud that they were a part of it.

Active Engagement

(Macey & Schneider, 2008) states that the meaning of engagement have scope among academic researchers and practitioners both. (Saks, 2006) found the difference between job engagement and organisational engagement of employees and states that perceived organisational support plays important role in engagement. Active engagement of employees is all about involving employees in the activities which encourages them to achieve organisational goals and at the same time feel more satisfied. This can be achieved by aligning the employee development with organisational development goals. Employees will be more satisfied in this way and they will make psychological investment for learning new things in order to keep themselves abreast to achieve organisational goals. However, in organisational literature employee engagement is not new. Organisations are trying their best to achieve higher levels of employee engagement. (Shanafelt et al., 2015) studies burnout and highlights the research findings about respondents experiencing professional burnout. (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001.) states that lack of job resources leads to disengagement.

Conclusion

Loyalty of employees result in higher levels of job satisfaction. A satisfied employee shows behavioural loyalty towards organisation and vice versa. If there is a bond among employees and organisation the level of satisfaction will be high. Attachment of employees result in higher job satisfaction. Research suggests employees who are connected to organisation in some ways of other, they will reflect it through their attitude. High levels of job satisfaction will result as a positive attitudinal attachment towards organisation on the other hand if employees are attitudinally attached they will be more satisfied. As literature suggests the sense of community among employees lead to more satisfied employee base. If there is a sense of belonging among employees, they will be more satisfied with the organisation. Developing the sense of community should be the priority of organisation in order to achieve job satisfaction. On the other hand, satisfied employees actively seek ways to engage in various organisational activities or events. Thus it can be interpreted that the more an employee is satisfied with his job the more he/she is likely to get engaged in activities or events of the organisation, other than his job hours a satisfied employee will be happily and willingly participating and get involved in such organisational activities because he resonates with them too. So as a conclusion we can say that an employee is more likely to be satisfied with his/her job if he/she resonates with the organisation. It provides a way to further research in organisational behaviour, employees job satisfaction in respect to organisational brand resonance. This paper further paves the way for empirical research of brand resonance in organisational context. As literature indicates, this has implications for stakeholders at all levels.

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Experiential Learning Enhances Retention of Knowledge for Long Term and Helps in Easy Recalling for Futuristic Aspect

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ABSTRACT

This article reviews notable influences on the detail understanding on Experiential Learning for which the theory was proposed by psychologist David Kolb who was influenced by the work of other theorists including John Dewey, Kurt Lewin, and Jean Piaget. How experiential learning does plays vital role in enhancing the retention of knowledge among the knowledge receiver and further helps in recalling the knowledge in long term in life as and when required. The intent of this Research paper is to explain the methodological approach where, how experiential learning help in bringing the solution in the first attempts, which works in performing experiential learning, and its benefits in terms of the findings. Finally reaching to conclusion with the experiential approach.

Introduction

Experiential learning is time and again thought of as a learning cycle with Experience and Reflection being the first two phases. The idea of experiential learning as a cycle was suggested by prominent educationalists such as Jean Piaget, John Dewey and David Kolb. Experiential learning basically relates solely to the process of the individual's direct experience and is more specifically defined as "learning through reflection on doing". Kolb states that in order to gain genuine knowledge from an experience, the learner must have four abilities as shown in the diagram below;



Description to the above figure is as;

- The learner must be willing to be actively involved in the experience
- The learner must be able to reflect on the experience
- The learner must own and use analytical skills to conceptualize the experience
- Finally, the learner must possess decision making and problem solving skills in order to use the new ideas gained from the experience.

Types of Experiential Learning

Experiential learning can be divided into two major categories:

Field Based Experiences: Field based learning is one of the ancient and most standard form of experiential learning that includes internships programs, Practicums, cooperative education and service Learning.

Class room based learning: This variety of Learning has multiple forms which include, Role Plays, Case studies, Games, Simulations, presentations, and variety of group's tasks. Experiential learning in the classroom has been mounting in extensiveness and depth since "Chickering and Gamson recommended 'active learning' as one of the seven 'principles of good practice' for excellence in undergraduate education" in 1987. The basic example of experiential learning is - the Mathematical calculation learned during very young age i.e. the BODMAS or differentiation and integration. But even at extreme old age people remember the addition and subtraction. The reason for retaining this particular form of mathematical expression is that every time when we go to the market to buy anything the exchange of value is done with due usage of Addition and subtraction. Since this has been a regular part of day to day living none forget to add and minus the values. There comes the experiential learning.

Purpose of Research

The purpose of this study is to understand the effectiveness of experiential learning in regular routine as we understand in today's competitive atmosphere of corporates or even in education system, where the learning material is wide spread and retaining knowledge is even more challenging than ever. Especially when we have new technologies coming in the market every day and as smart professional we need to update ourselves where as a human being again we are caught in terms that we tend to forget the practices when are not followed on regular basis. To keep the learning fix in our mind we need to have some way of teaching or coaching which does not only involves the theoretical way of Teaching rather when you experience some learning you can retain your learning as in we can relate it to our practical life scenarios. And further it helps us to fix that experience as a moment lived.

Automobile Industry where the mechanism is critical, very minute and not necessary to have trainers to teach, the companies have started using the Experiential learning in their regular workshops with the help of various Practice tools like – Special Aggregates to understand the mechanism of Engines, Role Plays to understand how to handle Customers in workshop, Simulators – to learn how to handle vehicle on different types of roads etc.

Objectives of the study

- To investigate the basics of experiential learning
- To cultivate procedures for instruction through experiential methodologies
- To recount experiential learning to education for justifiable outlooks

Methodology

To understand the importance of Experiential learning in detail have taken assistance from one of the organisation who is continuously working in coordination with us in order to provide the Electrical Circuit boards which helps us in Training and experimenting the working method of Electrical System in any automobile unit.

The methodology goes into different steps as described below;

- ***The experiential learning process***

Instead of having only theory knowledge, the participants experience the usage of practical working models of Electrical circuit boards. During the training program the trainers creates the real life problem scenarios and trains the participants to handle and solve the situation effectively. There by, when the real situation occurs the participants will use the experience gained during the training programs to solve it without any trouble for e.g. the trainer creates the situation where vehicle is not getting started because of some electrical issue. The trainer explains the participants step by step how to proceed with the complaint like battery, fuse, wiring harness etc. And finally arrives at the solution. When the real complaint occur the participants uses the standard operating procedure to correct the complaint First time Right instead wasting time in struggling for the solution. This improves quality of work in less time possible

- ***Analysing the experiential learning process***

Using the same above analogy, the company analyses the data for the time taken to resolve the complaint before the training programs and after the training program and the data based no. of repeat complaint occurring after the service before the training programs and after the training programs. By analysing the data the company can conclude the effectiveness of experiential learning. The important factor of Experiential Learning is the training content gets updated based on the current complaints occurring in the field. There by the company tries to solve the issues effectively by experiential learning done during the Learning process.

- ***Implementation of Experiential Learning***

The basic requirement of Experiential learning is the participants should have the basic knowledge of product where in explanation of a problem is conveyed effectively. For implementing the experiential Learning the Training program will require live aggregates for demonstration purposes. The main requirement for experiential learning is the trainer should be experienced enough to handle the queries from the participants. The experience trainer not only shares his experience but also explains the how to probe the complaints in case of any new complaint is arising in field. There by he lays the basic foundation for problem solving

- ***Feedback***

To understand the effectiveness of experiential learning the pre and post assessments will be conducted. Live error would be created where the

participants will use the experiential knowledge to clear the issues during the training programs. With the experiential learning participants gain the confidence to handle the complaint in the field. The feedback would be taken once in three months to understand the effectiveness of experiential learning and in case of participants not meeting the expectations the refresher training are assigned.

Findings

- Through experiential learning the participants attain thorough knowledge and confidence to face the real life situation
- The experiential learning becomes the stepping stone for career progress
- From Experiential learning the organisation achieves the expected quality of work within TAT. There by increasing the customer base and revenue generation.
- Customer is satisfied when the service is taken care by experienced professional; since the handling of their vehicle is taken care properly that gives confidence to the customer.

Recommendation

- The experiential Trainings should be handled by only experienced professional
- If the training programs are conducted by the less experienced trainer, then the trainer might not be able to justify the queries during the training session. This leads to the loss of confidence among the participants that further affect the quality and effectiveness of training programs.

Conclusion

Experiential learning theory differs from intellectual and behavioural theories in that intellectual theories highlight the role of mental processes while behavioural theories ignore the possible role of subjective experience in the learning process. The experiential theory proposed by Kolb takes a more all-inclusive approach and emphasizes how experiences, including intellects, environmental factors, and emotions, influence the learning process. Experiential learning knowledge helps to wide-ranging scholars' provisions for their preferred businesses which reinforce course content and theory. Participants learn through student - rather than instructor - centred experiences by doing, discovering, reflecting and applying. Through these experiences Participants develop communication skills and self – confidence, decision making skills by responding to and solving real life problems and processes.

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Optimization Approach for Web Customers On Recommendation System Using Collaborative Filtering

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ABSTRACT

The recent development in the Internet technology is very useful for the growth of enterprises. Almost every organization is on the internet and many of them have started their business through e-commerce. Organizations collect information about customers and their business transactions which are very beneficiary for their business growth. Data mining is a set of techniques used to extract unknown pieces of information from the large database repository. There are various Data Mining Techniques are available to extract valuable and useful information for enterprises. Data mining techniques help e-commerce business in many ways. This paper investigates the manipulation of e-commerce on markets where positioned businesses face competitors from web-established entrants with targeted options. In this paper, we proposed a technique which is based on recommendation system for the discounted items for the different procedures.

Introduction

Recommender systems practice techniques and methodologies from any other neighboring areas-which include Human computer interplay (HCI) or Information Retrieval (IR). However, maximum of these systems undergo in their core an algorithm that can be recognize as a selected example of a data mining (DM) approach. The manner of data mining includes 3 steps, completed in succession: Data Preprocessing, Data Analysis and Result Interpretation. Examples of recommender system amazon.com, Reel.com, CDNOW, eBay, Levis Moviefinder.com.

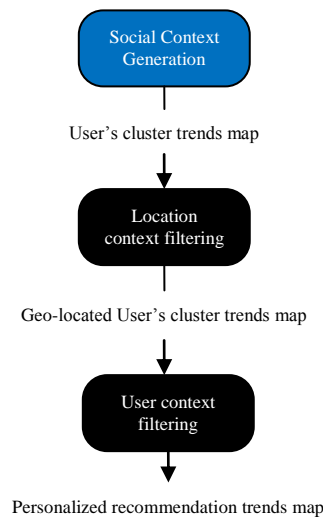
Have you ever assumed how the "People you may know" feature on Face book or LinkedIn? This feature suggests a list of people whom you might know; who are similar to you based on your friends, friends of friends in your friend circle, current location or may be past location, skill sets, groups, liked pages, and so on. These recommendations are specific to you and differ from user to user. RS perceive suggestion's consequently to the customers by analyzing previous browsing history, the feedback assigned to the products and different user's behavior. Recommendation systems usually produce a number of suggestions in one of the given techniques.

Personalized Recommendation System (PRS)

In this type of recommender system, the system goals at recommending users desired items based on their past behavior also interpersonal relationship of social networks by considering three perspectives:

- Interpersonal impact, which implies whom you would believe
- Interest circle derivation, which implies whose interest is similar to yours,

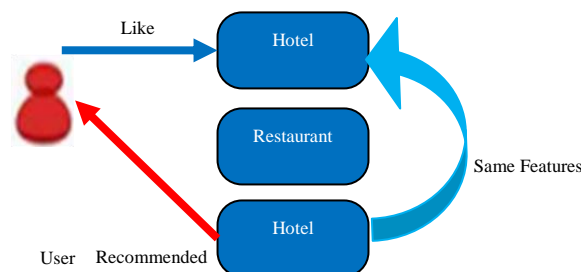
Fig.1 PRS



Content-based filtering

This type of filtering techniques filtering built on the customer preferences and description about the item. Basically, these algorithms aim to suggest items or product which are alike to that items that user enjoyed in past or is looking at in the present-day.

Fig. 2 Content based Recommendation



Merits

- Other user's data not required.
- No data sparsity as well as cold start.

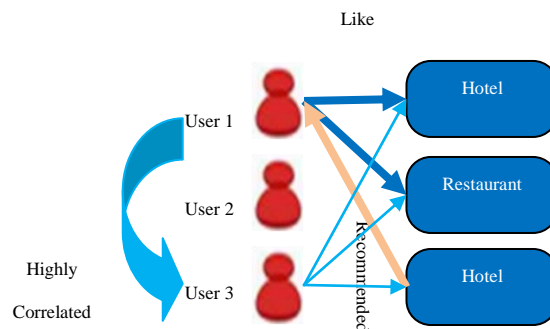
Demerits

- Content analysis is essential to define the item features.
- The excellence of the product can't be estimated. The likeness calculation is incomplete to the product description.

Collaborative filtering

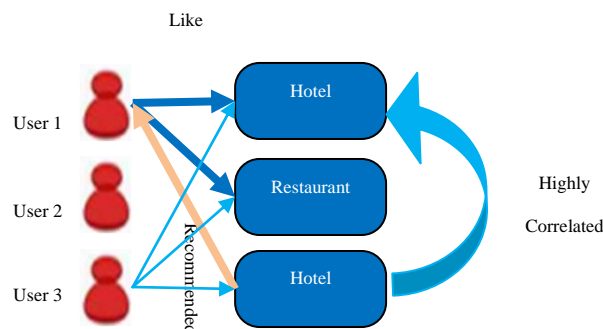
Collaborating filtering approaches build the system by considering the user's past behavior (rating is given to those items, previously purchased or chosen items) and an additionally similar decision made by different users, then use the system to calculate the item or else rating that the user may perhaps interested in. User-based CF algorithms makes suggestions by considering users having similar interest. It relates user as per the rating is assign to the product. In the Figure. 3, in the 1st place user identified with the 3rd user rather second because the rating given by the third user is very alike to the 1st one. That is the reason item 3 is suggested to the user.

Fig.3 User Based Collaborative Filtering



Item-based CF algorithms depends on the items as the user rated items comparably are probably similar. From Figure. 4, user2 and user3 rated item-1 and item-3 so, it assumes that item 1 and 3 become similar. As user1 like item 1, item 3 is suggested.

Fig.4 Item Based Collaborative Filtering



Merits

- The excellence of the item can be estimated through user ratings.

Demerits

- Cold-start hassle for special customers and new products.
- Stability vs. plasticity issue

Demographic filtering

Demographic recommendation technique only considers the data of the user like age, gender, employment status about the user only home possession and even location also. The recommends is made by considering demographic similarities to the user.

Merits

The technique is domain independent because Item feature is not needed.

Demerits

- Collection of demographic information give rise to privacy issue.
- Plasticity vs. stability issue.

Knowledge-Based recommender system

Consider a scenario like we don't buy house, car etc. frequently so in these scenarios the rating about the items doesn't play a great role, in these type of situation knowledge based recommender system came into the picture. The accuracy of the model is judged in view of how helpful the prescribed thing is to the client. Before building these sorts of recommended frameworks, we anticipate the accompanying inquiries:

- What kind of information about the items is taken into the model?
- How are user preferences captured explicitly?

There are two basic type of knowledge-based recommender system.

- Constraint-based
- Case-based

Case-based recommenders center on the retrieval of comparable things on the premise of various sorts of likeness measures, whereas Constraint-based recommenders depend on with respect to an unequivocally characterized set of recommendation principles.

Hybrid recommender system

Hybrid recommender systems are built by adding content based and collaborative based filtering techniques. This type of recommender systems is used to build a stronger framework. By combining several recommender systems, we can reduce the limitations of one approach through the advantage of one more system and accordingly construct a more healthy system. For example, with combining collaborative filtering techniques or content filtering technique, where the model fails after new products or products don't have ratings, although the approach of content-based technique, wherever feature info around the products are accessible, new products can be recommended more exactly and strongly. Previously constructing a hybrid model, we study the subsequent queries [2]:

- What techniques must be combined to accomplish the business solution?

- How should we combine a number of systems and their outcomes for good predictions?

Literature Survey

Sonali R. Gandhi, et al. [2017] in our work we present a model that combines RS method such as CF with big data technique such as association rule mining. The main focus of this paper is to provide a scalable and robust recommendation system that can provide good accuracy. In our work, we have proposed to conduct a personalized movie recommendation by considering user's past behavior [5].

Jingjing Cao et al. [2017] in this work, we firstly construct userSF matrix instead of traditional user-item matrix, and use such matrix to derive the nearest neighbor users whose preference is in accordance with target user. Then a list of recommended items is ranked in order to select top-N items for recommendation. Based on the proposed framework, we believe that this approach can enhance the performance of recommender system with the help of sentimental features [6].

Ms. Shakila Shaikh et al. [2017] in this paper also emphasizes the need for semantics in current recommendation system to recommend products accurately. This also describes various limitations that are present in the current recommendation methods and suggests possible solutions that can improve current recommendation system used in e-commerce websites. It also includes a survey on popular e-commerce websites such as Amazon, Ebay, Flipkart Snapdeal and Paytm by rating them on different parameters and doing their comparative analyses This paper also focuses on how graph algorithm can be used to improve recommendation in ecommerce websites. The proposed system compares flickr.com recommendation of images with the proposed method. The method incorporates semantic recommendation using overlap technique based in graph [7].

Luciano Rodrigo Ferretto et al. [2017] this paper aims to identify and analyze recommender systems developed for the health area, available in mobile applications. Therefore, literature was reviewed systematically from ACM, IEEE, Springer and Science Direct databases. 1006 studies were found, eight of which met the eligibility criteria. From the chosen studies, only one was not applied to the areas of nutrition and physical activity. The recommender techniques adopted were Collaborative Filtering and Content-based Filtering. The main mobile device identified was the Smartphone and the Operating System was Android. After analyzing the results, it was possible to realize that, although they are widely used in ecommerce, recommendation systems do not have many mobile healthcare applications, and the existing ones are recent [8].

Caifeng Zou et al. [2015] in this paper, the system is divided into the offline part and the online part. In the offline element, the formal context and the concept lattice are made from the transaction database, and the association rules based totally on concept lattice are extracted and saved in the rule of rule library. The new added data are used to replace the idea lattice and the rule library frequently. Because of the natural advantages of the concept lattice in data processing and analysis, the PRS we designed possesses better precision and faster response capability, as compared with conventional RS [10].

Proposed Work

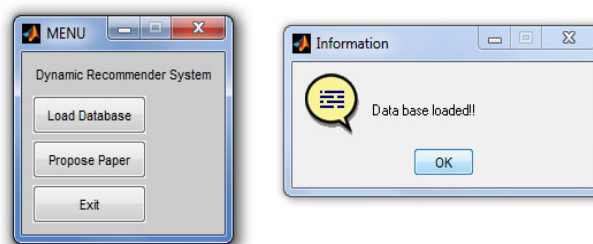
Proposed algorithm

- Initially web log file loaded for every user
- Performing data acquisition on the raw data and then pre-processed the data
- Data cleaning carry out over the log data
- Now we applied Recommendation rule generation for all users
- Registered and unregistered users are taken into consideration by identifying users and session
- Perform the counting of all products in each session
- Generate a list with various parameters like WP (Wishlist Products), PP (Purchased Products) and NP (Purchased Products)
- New list generated by creating taking list of recommendation for the unique items on the basis of the priorities
 - ✓ For unregistered users:
 - ✓ Items of wish list having frequency more than or equals to 3.
 - ✓ Items of purchase list having frequency more than or equals to 3.
 - ✓ Items not purchased but watched and having frequency more than or equals to 3.
 - ✓ For registered users
- Items of wish list at every frequency.
- Items of purchase list at every frequency.
- Items not purchased but watched at every frequency.
- Now price recommendation for the users who added products in the wishlist giving 10% discount to them so as to increase a way of selling the products
- Provide 10% discount to the products which is near to the expiry
- Generate recommendation list on the basis of country by considering product id to show which product are highly selling in that country
- Creating new recommendation list of all processes with original and discounted price
- End

Result Analysis

The menu for the recommender system is produced. On clicking the first load database button, the database is loaded.

Fig. 5 Interface for loading Database



Base Result

Final recommendation list

2	5	6	7	8
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	33	35	36	37
40	41	42	43	44
46	47	48	50	9
38				

Recall 0.869565

Precision 0.714286

Accuracy 0.780000

Proposed Result

The browsers used by the users are also shown. This shows that which browser is most accepted amongst people. The results are shown with the help of pie-chart.

Fig.6 Browsers Used

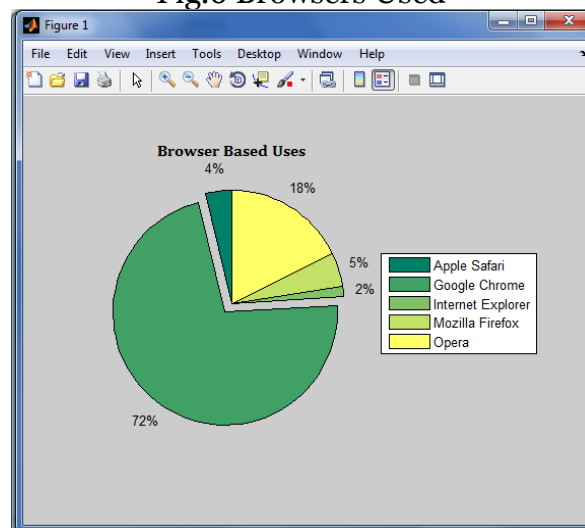
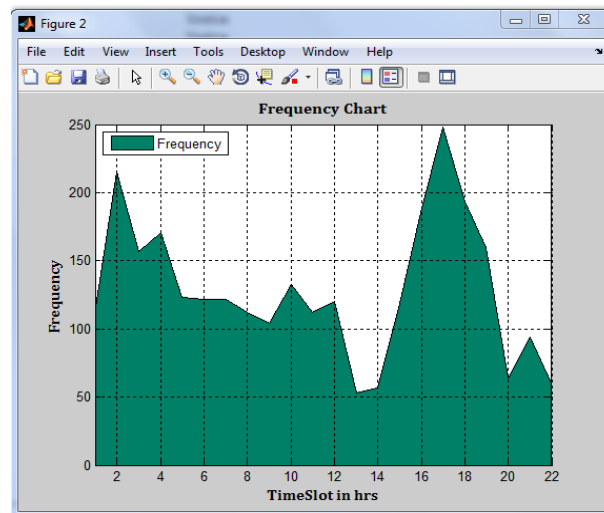


Fig.7 Frequency of page for various time period



Final recommendation list

2	5	6	7	8
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	33	35	36	37
40	41	42	43	44
46	47	48	50	9

Conclusion

The term Data Mining refers to the discovery of appropriate and valuable information from large databases. Data mining or Knowledge Discovery in the database (KDD) is the non-trivial extraction of hidden, previously unknown and much valuable knowledge from the huge amount of databases. The proposed technique is concerned with the study and analysis of collaborative filtering to improve the efficiency and usefulness of the solution for recommending products using collaborative filtering technique. The developed system is predictable to provide precious support to the customers in decision making at the time of choosing products at the E-commerce sites. The recommender system produced for the user's performance is revealed in this paper. The system produced is of very much significance as it gives user's a possibility to obtain things that they are interested in. The discounts and the factors that affect the user's ideas thus lead to an improved system. This paper gives a new proposed system based on user's concern in the field of ecommerce.

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Antecedents of Green Loyalty: A Study of Consumer Using Rechargeable Battery

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ABSTRACT

Energy generation is one of the major challenges that we are facing today. People are using rechargeable batteries to save money and the environment. The present study was conducted to identify the antecedents to green loyalty.

Conceptual Framework

Green loyalty

According to Dick and Basu (1994), Loyalty is defined as “the strength of relationship between an individual relative attitude and repeat purchases”.

Oliver (1999) defined green loyalty as “the level of repurchase intention prompted by strong environmental attitude and sustainable commitments towards an object, such as product, a service, a company, a brand, a group, or so on”.

Literature Review

Patricia M. (2015) found that there is positive and direct effect of green overall image on green loyalty, green trust and green satisfaction. It was also identified that both green satisfaction and green trust positively affect green loyalty. Further, it was also that green trust has positive influence on green satisfaction.

Yoo and Bai, (2013) found that visit frequency of loyal customers is high. They buy more than non-loyal consumers. Also, loyal customers are not likely to consider competitor hotel brands in their decisions related to accommodation only due to an economic reason.

Chen, Yu-Shan (2013) found that it is imperative to separate green perceived satisfaction, green perceived value, green loyalty and green trust from satisfaction, perceived value, loyalty and trust.

Kordshouli, H. R., Ebrahimi, A., & Bouzanjani, A. A. (2015) found that green price and green promotion respectively have more significant and positive impact on green satisfaction, whereas green product and green placement do not affect green satisfaction. Further, it was also identified that green satisfaction has more positive and significant impact on green loyalty and word of mouth advertising.

Objectives

- To design, developed and Standardized measures for evaluating green loyalty.
- To identify the underlying factors of green loyalty.

Research Methodology

The Study

The study was descriptive in nature and survey method was used for data collection

The Sample Design

Population

People who purchase rechargeable batteries were the population of the study

Sample Element

Individual customers who purchase rechargeable batteries were the element of this research

Sample Size

The sample size was 100 respondents for the study

Sampling Technique

Non probability purposive sampling technique was used for current study

Tools for Data Collection

The data was collected using the self-designed questionnaire on likert type on a scale of 1 to 5, where 1 for Highly Disagree and 5 stands for Highly Agree.

Tools for Data Analysis

- Cronbach's reliability test was used to compute reliability coefficient to check whether data inputs measure the variable they are supposed to measure and the measures are stable when used for repeat measurement.
- Exploratory factor analysis was applied to identify the underlying factors of green loyalty.

Results & Discussion

Reliability Analysis of Green Loyalty

Reliability Statistics	
Cronbach's Alpha	N of Items
.758	8

The result of above mentioned table indicates that the value of reliability was found .758 in the current study which was greater from the slandered value which is .7 hence it is considered that the questionnaire which was chosen to conduct the current study is reliable. The result is in line of finding of Nunnally (1978) recommended that

instrument used in basic research have reliability of about .7 or better, therefore, all the item in the questionnaire are reliable.

Factor Analysis for Green Loyalty

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.751
Bartlett's Test of Sphericity	Approx. Chi-Square	174.958
	Df	28
	Sig.	.000

Kaiser Meyer Olkin measure of sampling adequately indicated KMO value of .751 meaning thereby that the sample size was good enough to treat the sampling data as normally distributed.

Bartlett's test of Sphericity which tested the null hypothesis that the item to correlation matrix based on the responses received from respondents for trust was an identity matrix. Bartlett's test was evaluated through Chi-square test having Chi-square value 174.958 which is significant at 0.000 level of significant, indicating that null hypothesis is rejected. Therefore, it is clear that the item to item correlation matrix is not an identity matrix and the data were suitable for factor analysis.

Exploratory Factor Analysis

Factor	Eigen Value	Variances %	Variable/ Item converged	Factor loading
Recommendation	2.936	36.701	(1) Continue buying	.690
			(2) Recommend	.728
			(3) Acceptability of high price	.712
			(4) Loyal	.657
			(5) First option to buy	.658
			(6) Long usage and money saving	.688
Environmental Protection	1.285	16.065	(7) Protection towards environment	.715
			(8) Brand does not matter	.666

Implications

- The result may not be generalized for the entire country.
- It will help researchers to further research about green loyalty with respect to other items.

Suggestions

- A small sample of only 100 respondents was taken for this study. Further study could be carried out using larger sample to ensure generalization of result.
- This study can be performed on demographic basis.

Conclusion

It was concluded from Cronbach's alpha test that the reliability of items in the questionnaire is reliable. In the Exploratory Factor Analysis test, with the help of KMO value it was found that the sample size was adequate. From the Bartlett test of Sphericity, it was found that factor analysis can be performed. After performing factor

analysis, two factors were identified namely recommendation and environmental protection.

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Motives of Visiting Temples: A Demographic Study

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ABSTRACT

Visiting temples is considered as sacred and a must do activity in India. As there are a plethora of devotees for temples, there is a need to study and explores the motives behind visiting temples and the impact of different rituals and offerings on the devotees and visitors.

The main objective of this study is to examine the motives behind visiting the temples and the effect of the rituals and offerings on the visitors.

The study was exploratory in nature and survey was used to complete it. As there was no such kind of study in past self-developed questionnaire is used for data collection. All the persons who were visiting temples were the population of this study. There were 500 questionnaires distributed, 450 were suitable, and hence the sampling size is 450. Non-purposive quota sampling technique was used. To analyze the collected data various inferential tools were applied like, Exploratory Factor analysis, and MANOVA.

The findings of this study include three new factors as, Offerings of Prashad and Holy Water, Mental peace and Temptation to see the Aarti. It has also been found that the effect of the entire demographic's variable is insignificant on Motive of change in life, problems can be dissolved, offerings of Prashad and Holy water, mental peace and temptation to see the Aarti, only two demographic variables age and visitors of temples have a significant effect on the motives of visiting temples.

Introduction

The number of Hindu temples in India is a puzzle. Nobody bothered to count them, because they are innumerable. Moreover, Hindus are not that keen to record such immaterial things. The government list of temples shows Tamil Nadu has 34,000 temples, Andhra Pradesh has 43,000 temples, Karnataka has 34,000 temples, Kerala has 28,000, Travancore and Cochin Devaswam Board alone has 1800 temple (Four South Indian States alone total over 108,000 temples!!!), Maharashtra has 45,000 temples, Mathura Brindhavan area has 5000 temples, Himachal Pradesh has over 2000 temples, Kancheepuram near Chennai alone has 108 temples. Madurai in Tamil Nadu has 50 temples. Since the revenue of South Indian temples is used (or misused) by the state governments, the figures come out very often in newspapers. The richest temples in the world are in South India. If I come to the population of India, it is 1,220,800,359

Available on SSRN-Elsevier

(July 2013 EST.). In which 80.5% of the population is Hindu, 13.4% are Muslim, and 2.3% are Christian, 1.9% Sikh, 1.8% of the population belongs to the category of others and 0.1% unspecified and they all are visitors of temples.

Research Objectives

- To evaluate the demographic effect on emerged factor on Motives of visiting temples.
- To develop, design and standardize the measure of Motives of visiting temples.
- To identify the underlying factors related to Motives of Visiting temples.
- To open the new avenue for further research

Literature Review

President Boyd K. Packer of the Quorum of the Twelve Apostles (February, 1995) explored that the temple is a great school. It is a house of learning. In the temples the atmosphere is maintained so that it is ideal for instruction on matters that are deeply spiritual. Thomas S. Monson, (2011) evolved that each [temple] stands as a beacon to the world, an expression of our testimony that God, our Eternal Father, lives, that He desires to bless us and, indeed, to bless His sons and daughters of all generations.

George Michell, (1988) discovered that a Hindu temple is a house of god. Stella Kramrisch, evolved that it is a space and structure designed to bring human beings and gods together, infused with symbolism to express the ideas and beliefs of Hinduism. George Michell (1988), explored that Hindu temple reflects a synthesis of arts, the idols of dharma, beliefs, values and the way of life cherished under Hinduism. It is a link between man, deities, and the Universal Purusa in a sacred space.

Burton Stein (February 1960) & George Michell (1988) had given the concept that A Hindu temple is a spiritual destination for many Hindus (not all), as well as landmarks around which ancient arts, community celebrations, and the economy flourished. Pundit Srinivas Khedam (2007) discovered that a temple is a place where Devathas (gods and goddesses) are invoked. In Sanskrit, this invocation process is called "Parthista". Anthony Batchelor (July 1997) had given the concept the temple is the focus for all aspects of everyday life in the Hindu Community – religious social. Bottom of Form

Jean Mead, Ruth Nason (visiting a temple, 2005) evolved that Mandir is a Hindu place of worship. Bochasanwasi Shri Akshar Purushottam Swaminarayan (2003) discovered that Mandir is the Hindu name for a place of worship or prayer. Mandir is a Sanskrit word for where the mind becomes still and the soul floats freely to seek the source of life, peace, joy, and comfort. Gautam, (2003) has given the concept that temples were symbols of royal authority and political power.

Champakalakshmi and Usha, (2001) discovered that Temples have contributed to the employment of architects, artisans, sculptors, and laborers. Music, dance and fine arts programs, including religious and musical discourses, are staged in the temples and have encouraged musicians, dancers, dramatists, artists, and religious scholars.

Priya Anand, (2003) evolved that the temple is the focus for all aspects of everyday life in the Hindu community - religious, cultural, educational and social. Pradeep Chhibber and Jasjeet S. Sekhon (2014) given the concept that for Hindus, temples are a religious place that is visited to pray, often alone, to get sight and behold (darsana) the deity, and to perform rituals. J. Ramón Gil-García, Triparna S. Vasavad discovered that visiting a Hindu temple allows the observer to understand part of the philosophy and customs of Hindu culture, such as its service spirit, its concept of friendship, and the importance of the couple (man and woman) in Hindu society.

Srinivas, (2006) discovered that Hindus visit temples to pray and to darsana the divine, usually in the form of an idol. The purpose of prayer at the temple is to pay obeisance to the power of the deity associated with a particular temple. Ursula King, (1984) has given the reason of visiting temples for Hindus in other countries and said that the temple has acquired a new significance because it has become an important center and meeting place for an ethnic and religious minority. Visiting a Hindu temple, receiving darshan from the majestic Gods of our religion, can altogether change the life of a worshiper. (Visiting of Hindu Temple). Satguru Bodhinatha Veylanswam (December 2012) discovered that it fulfills the need for a special space in which the inner and outer worlds commune and we can experience Divinity.

Satguru Sivaya Subramuniyaswami (October 2012) given the concept that visiting a Hindu temple, receiving darshan from the majestic Gods of our religion, can altogether change the life of a worshiper.

Research Methodology

The study was exploratory in nature and survey was used to complete it. All the temple visitors were the population for this survey. Since there was no list of existing temple visitors, hence the sampling frame was not used in the current study. An individual Temple visitor was treated as a sampling element. The sample size was 450 in the current study. Non- probability purposive sampling was applied for the sampling of data. For the purpose of data collection, a questionnaire was designed and developed. To measure the relationship between demographic factors and motives of visiting temples, Likert - type scale was used and possessed a sensitivity of 5, where the extreme values namely 1 and 5 were represented strongly disagree and strongly agree respectively. The reliability test was applied to check the reliability of the questionnaire in the current study. Exploratory Factor analysis was used to construct the factor in current study underlying factors of a different variable. Multivariate ANOVA was applied to evaluate the effect of Demographics effect on the variable on motives of visiting temples.

Data Analysis

The reliability test was applied by using SPSS21 software and it revealed Cronbach's alpha value as (.775) which is more than the standard value (.7) of reliability. Thus, it indicates that there was good internal consistency among the state of the effect of Motives of Temple Visiting scale. Hence, it can be said that all the statement of the questionnaire are valid and the questionnaire was reliable. The Kaiser - Meyer – Olkin Available on SSRN-Elsevier

Measure of Sampling Adequacy value was (.786) indicating that the motives of Visiting temple Image sample were adequate to consider the data as normally distributed. The Bartlett's Test of Sphericity Test the null hypothesis that the item to item correlation matrix is an identity matrix. The test shows the Chi-Square value of (2207.486) which is significant at 0% level of significance. Therefore, the null hypothesis 'item to item correlation as identity matrix' is rejected, indicating that the data is suitable for factor analysis.

Principle Component Analysis of Motives of Temple Visiting

Factor name	Eigen value	Rotation sum of squared loading		Statements	Loading value
		Total	Variance %		
Motive Of Change In Life	4.101	3.361	11.204	Mind purifies Spiritual needs Positive Energy for relaxation Positive Energy Peace Symbol of Faith Negative event Mind Relaxation	.722 .632 .630 .628 .606 .593 .575 .547
Problem Can Be Dissolved	3.194	2.300	7.668	Personal problem Elders suggestion Fulfilling wishes Reducing problems Doing Charity Fear of unexpected	.682 .581 .505 .492 .455 .441
Offerings Of Prashad And Holy Water	1.529	2.241	7.471	Sins by Eating Prashad Sins by taking Holy Water Prashad Holy water Sight refreshed by Aarti Taste buds refreshed	.625 .556 .524 .483 .444 .430
Mental Peace	1.294	2.080	6.933	Taste buds refreshed Devotees Good people Sound of Bell Relaxation by sound of bell Fragrance of flowers	.413 .576 .567 .561 .519 .456
Temptation to see the aarti	1.239	1.377	4.591	Aarti Touch the Aarti Gods are invoked	.626 .549 .461

Discussion of Emerged Factors

Motive of Change in Life: This factor has emerged as the next important determinant of Motives of Visiting Temple with a total variance of (11.204) with Eigen value of 4.101. Eight measures were converted into factor.

Problems Can Be Dissolved: This factor has emerged as the next important determinant of Motives of Visiting Temple with a total variance of (7.668) with Eigen Value of 3.194. Six measures were converted into factor.

Offerings of Prashad and Holy Water: This factor has emerged as the next important determinant of Motives of Visiting Temple with a total variance of (7.471) with Eigen Value of 1.521. Six measures were converted into factor.

Mental Peace: This factor has emerged as the next important determinant of Motives of Visiting Temple with a total variance of (6.933) with Eigen Value of 1.294. Six measures were converted into factor.

Temptation to See the Aarti: This factor has emerged as the next important determinant of Motives of Visiting Temple with a total variance of (4.591) with Eigen Value of 1.239. Three measures were converted into factor.

Multivariate Analysis (Manova Analysis)

Box's Test of Equality of Covariance Matrices

Box's M	655.006
F	1.173
df1	390
df2	10506.381
Sig.	.012

Box's Test of Equality of covariance Matrices tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

Design: Intercept + Gender + Age + Marital status + Education + Income + Visitors of Temples.

The Box test equality matrices were tested through the F value which was found to be 1.173 at significant level of 1.2% level of significance. Hence the Null hypothesis indicating that the Equality of Covariance matrices of the dependent variables are equal across groups is not rejected.

Levene's Test of Equality of error Variances				
	F	df1	df2	Sig.
Motive of Change in Life	1.049	139	310	.362
Where Problem can be Dissolved	1.258	139	310	.051
Offerings of Prashad and Holy water	1.319	139	310	.025
Mental peace	1.204	139	310	.094
Temptation to see the aarti	.902	139	310	.756

Levene's Test of Equality of error variances tests the null hypothesis that the error variance of the dependent variable is equal across groups.

Design: Intercept + Gender + Age + Marital Status + Education + Income +Visitors of Temples

To select appropriate Post Hoc test Levene's test of equality of error variances was applied. The null hypothesis that the error variance of the dependent variable (Motive of Change in Life) is equal across groups was tested using 'F' test. The value of 'F' was found to be (1.049) which is significant at 36.2% level of significance, indicating that Null hypothesis is not rejected at 5% level of significance. The null hypothesis that the error variance of the dependent variable (Where Problem can be Dissolved) is equal across groups was tested using 'F' test. The value of 'F' was found to be (1.258) which is significant at 5.1% level of significance, indicating that Null hypothesis is not rejected at 5% level of significance. The null hypothesis that the error variance of the dependent variable (Offerings of Prashad and Holy water) is equal across groups was tested using 'F' test. The value of 'F' was found to be (1.319) which is significant at 2.5% level of significance, indicating that Null hypothesis is rejected below 5% level of significance. The null hypothesis that the error variance of the dependent variable (Mental peace) is equal across groups was tested using 'F' test. The value of 'F' was found to be (1.204) which is significant at 9.4% level of significance, indicating that Null hypothesis is not rejected at 5% level of significance. The null hypothesis that the error variance of the dependent variable (Temptation to see the aarti) is equal across groups was tested using 'F' test. The value of 'F' was found to be (.902) which is significant at 75.6% level of significance, indicating that Null hypothesis is not rejected at 5% level of significance. Since the no of groups for the dependent variable are very large the error variance of the dependent variable was in any case likely to be unequal and post hoc tests that are available and are suitable for equal variances among groups were used.

Tests of Between- Subjects Effects

Source	Dependent Variable	Type II Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	Motive of change in life	787.163 ^a	12	65.597	1.861	.037
	Problems can be dissolved	366.271 ^b	12	30.523	1.777	.050
	Offerings of prashad and holy Water	185.476 ^c	12	15.456	.945	.502
	Mental peace	285.855 ^d	12	23.821	1.649	.076
	Temptation to see the Aarti	76.810 ^e	12	6.401	1.254	.243
Intercept	Motive of change in life	329293.176	1	329293.176	9343.827	.000
	Problems can be dissolved	136068.056	1	136068.056	7921.184	.000
	Offerings of prashad and holy Water	140202.776	1	140202.776	8570.537	.000
	Mental peace	135304.020	1	135304.020	9365.862	.000
	Temptation to see the Aarti	38939.102	1	38939.102	7630.365	.000
Gender	Motive of change in life	84.466	1	84.466	2.397	.122
	Problems can be dissolved	6.846	1	6.846	.399	.528
	Offerings of prashad and holy Water	12.174	1	12.174	.744	.389

	Mental peace	5.089	1	5.089	.352	.553
	Temptation to see the Aarti	.100	1	.100	.020	.889
Age	Motive of change in life	287.226	3	95.742	2.717	.044
	Problems can be dissolved	112.488	3	37.496	2.183	.089
	Offerings of prashad and holy Water	6.808	3	2.269	.139	.937
	Mental peace	181.434	3	60.478	4.186	.006
	Temptation to see the Aarti	8.539	3	2.846	.558	.643
Marital status	Motive of change in life	13.097	1	13.097	.372	.542
	Problems can be dissolved	4.294	1	4.294	.250	.617
	Offerings of Prashad and Holy Water□	17.899	1	17.899	1.094	.296
	Mental peace	37.834	1	37.834	2.619	.106
	Temptation to see the Aarti	2.577	1	2.577	.505	.478
Education	Motive of change in life	197.012	3	65.671	1.863	.135
	Problems can be dissolved	78.489	3	26.163	1.523	.208
	Offerings of prashad and Holy Water□	28.641	3	9.547	.584	.626
	Mental peace	31.661	3	10.554	.731	.534
	Temptation to see the Aarti	22.028	3	7.343	1.439	.231
Income	Motive of change in life	135.617	2	67.808	1.924	.147
	Problems can be dissolved	50.785	2	25.392	1.478	.229
	Offerings of Prashad and Holy Water□	15.844	2	7.922	.484	.616
	Mental peace	53.595	2	26.797	1.855	.158
	Temptation to see the Aarti	7.468	2	3.734	.732	.482
Visitors of temples	Motive of change in life	18.075	1	18.075	.513	.474
	Problems can be dissolved	.157	1	.157	.009	.924
	Offerings of Prashad and Holy Water□	67.166	1	67.166	4.106	.043
	Mental peace	3.899	1	3.899	.270	.604
	Temptation to see the Aarti	19.820	1	19.820	3.884	.049
Error	Motive of change in life	15400.662	437	35.242		
	Problems can be dissolved	7506.673	437	17.178		
	Offerings of Prashad and Holy Water□	7148.749	437	16.359		
	Mental peace	6313.125	437	14.447		
	Temptation to see the Aarti	2230.088	437	5.103		
Total	Motive of change in life	345481.000	450			
	Problems can be dissolved	143941.000	450			
	Offerings of Prashad and Holy Water□	147537.000	450			
	Mental peace	141903.000	450			
	Temptation to see the Aarti	41246.000	450			
Corrected Total	Motive of change in life	16187.824	449			
	Problems can be dissolved	7872.944	449			
	Offerings of Prashad and Holy Water□	7334.224	449			
	Mental peace	6598.980	449			

	Temptation to see the Aarti	2306.898	449		
a. R Squared = .049 (Adjusted R Squared = .023)					
b. R Squared = .047 (Adjusted R Squared = .020)					
c. R Squared = .025 (Adjusted R Squared = -.001)					
d. R Squared = .043 (Adjusted R Squared = .017)					
e. R Squared = .033 (Adjusted R Squared = .007)					

The Multivariate Analysis (MANCOVA) model fit is indicated by Adjusted R² separately for all the two dependent variables under this test. The adjusted R² value for dependent variable “Motive of change in life” was found to be (0.023), value of adjusted R² for dependent variable “Problems can be dissolved” was found to be (0.020), value of adjusted R² for dependent variable “Offerings of Prashad and holy water” was found to be (-0.001), value of adjusted R² for dependent variable “Mental Peace” was found to be (0.017), value of adjusted R² for dependent variable “Temptation to see the Aarti” was found to be (0.007) for the current model. The model fit values for all the five dependent variables were tested using ANOVA test.

Corrected model of Motive of change in life has been tested for best fit of using ‘F’ test having value of 787.163 which is significant at 0.037 level of significance indicates the model with independent demographic variables as fixed factors and effect of Motive of change in life variable has high fit.

Corrected model of Problems can be dissolved has been tested for best fit of using ‘F’ test having value of 366.271 which is significant at 0.050 level of significance; indicating that the model with Independent, demographics variable as fixed factor and Problems can be dissolved as dependent variable has high fit.

Corrected model of Offerings of Prashad has been tested for best fit of using ‘F’ test having value of 185.476 which is significant at 0.502 level of significance; indicating that the model with Independent, demographics variable as fixed factor and Offerings of Prashad as dependent variable has high fit.

Corrected model of mental peace has been tested for best fit of using ‘F’ test having value of 285.558 which is significant at 0.076 level of significance; indicating that the model with Independent, demographics variable as fixed factor and mental peace as dependent variable has high fit.

Corrected model of Temptation to the Aarti has been tested for best fit of using ‘F’ test having value of 76.810 which is significant at 0.243 level of significance; indicating that the model with Independent, demographics variable as fixed factor and Temptation to see the Aarti as dependent variable has high fit.

Description of Hypotheses

S. No.	H ₀	Hypothesis Detail	Accepted/Rejected
1	H ₀₁	There is no effect of Demographic variable as ‘Gender’ on Motive of change in Life.	Accepted
2	H ₀₂	There is no effect of demographic variable as ‘Gender’ on Problem can be dissolved.	Accepted

3	H ₀₃	There is no effect of Demographic variable as 'Gender' on Offerings of Prashad and Holy Water:	Accepted
4	H ₀₄	There is no effect of Demographic variable as 'Gender' on Mental Peace.	Accepted
5	H ₀₅	There is no effect of Demographic variable as 'Gender' on Temptation to see the Aarti.	Accepted
6	H ₀₆	There is significant effect of a demographic variable as 'Age' on Motive of Change in life.	Rejected
7	H ₀₇	There is no effect of a demographic variable as 'Age' on Problems can be dissolved.	Rejected
8	H ₀₈	There is no effect of Demographic variable as 'Age' on Offerings of Prashad and Holy Water.	Accepted
9	H ₀₉	There is significant effect of Demographic variable as 'Age' on Mental Peace	Rejected
10	H ₀₁₀	There is no effect of Demographic variable as 'Age' on Temptation to see the Aarti.	Accepted
11	H ₀₁₁	There is no effect of Demographic variable as 'Marital Status' on Motive of Change in life.	Accepted
12	H ₀₁₂	There is no effect of Demographic variable as 'Marital Status' on Problems can be dissolved.	Accepted
13	H ₀₁₃	There is no effect of Demographic variable as 'Marital Status' on Offerings of Prashad and Holy Water.	Accepted
14	H ₀₁₄	There is no effect of Demographic variable as 'Marital Status' on Mental Peace.	Accepted
15	H ₀₁₅	There is no effect of Demographic variable as 'Marital Status' on Temptation to see the Aarti.	Accepted
16	H ₀₁₆	There is no effect of Demographic variable as 'Education' on Motive of Change in life.	Accepted
17	H ₀₁₇	There is no effect of Demographic variable as 'Education' on Problems can be dissolved.	Accepted
18	H ₀₁₈	There is no effect of Demographic variable as 'Education' on Offerings of Prashad and Holy Water.	Accepted
19	H ₀₁₉	There is no effect of Demographic variable as 'Education' on Mental Peace.	Accepted
20	H ₀₂₀	There is no effect of Demographic variable as 'Education' on Temptation to see the Aarti.	Accepted
21	H ₀₂₁	There is no effect of Demographic variable as 'Income' on Motive of change in life.	Accepted
22	H ₀₂₂	There is no effect of Demographic variable as 'Income' on Problems can be dissolved.	Accepted
23	H ₀₂₃	There is no effect of Demographic variable as 'Income' on Offerings of Prashad and Holy Water.	Accepted
24	H ₀₂₄	There is no effect of Demographic variable as 'Income' on mental peace.	Accepted
25	H ₀₂₅	There is no effect of Demographic variable as 'Income' on Temptation to see the Aarti.	Accepted
26	H ₀₂₆	There is no effect of Demographic variable as 'Visitor of Temple' on Motive of change in life.	Accepted
27	H ₀₂₇	There is no effect of Demographic variable as 'Visitor of Temple' on Problems can be dissolved.	Accepted

28	H ₀₂₈	There is significant effect of Demographic variable as 'Visitor of Temple' on Offerings of Prashad and Holy Water.	Rejected
29	H ₀₂₉	There is no effect of Demographic variable as 'Visitor of Temple' on Mental Peace.	Accepted
30	H ₀₃₀	There is significant effect of Demographic variable as 'Visitor of Temple' on Temptation to see the Aarti.	Accepted

Implication of the Study

It is undiscovered science and the benefit of this undiscovered science are been exploited unintentionally by many people such as small businessman, to serve exclusive products or services to pilgrims in different holy places in India. The current study indicated various motives of Hindus such as Motive of change in life, offerings of Prashad and holy water, mental peace, temptation to see the Aarti, Problems can be dissolved.

This study can also be used by an individual to understand their undiscovered motives to visit temple to satisfy their intrinsic desire, mental peace, to remove the fear, to enhance the fortune, to satisfy sacrament, values to visit the temples.

Suggestion of the Study

This study has been done by taking a large sample of 450 respondents. But the problem in the study occurred because of the selection of respondents, so it may be suggested that the selection in this study would have been done more carefully to make this study more generalized.

The non – probability sampling techniques was used in the current study. Therefore, it may be suggested that the sampling techniques for further research may be changed in place Non-probability, the probability sampling techniques should be used.

Conclusion

In this exploratory study, different motives of visiting temples were identified. These were Motive of change in life, Problems can be dissolved, Offerings of prashad and holy Water, Mental peace, and Temptation to see the Aarti. All of these motives were then examined to be affected by different demographics variables such as, Gender, Age, Marital status, Education, Income, and Visitors of temples. After examining the data collected through questionnaire, it has been found that Gender has no effect on the motives of visiting temples, while different age group people have different motives for visiting temples and same is with the problem can be dissolved. Age does not have any effect on the rest of the three motives. All the other demographic variables were found to have no effect on the motives of visiting temples, except visitors of temples on the offering of prashad and holy water, i.e. not all the temple visitors are visiting the temples for prashad and holy water.

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Impact of Spiritual Intelligence and Emotional Intelligence on Learning with mediating effect of Curiosity

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ABSTRACT

This research paper was an attempt to assess the Impact of Spiritual intelligence and Emotional Intelligence on Learning with mediating effect of Curiosity. The research was done on 111 students of management college of Gwalior region and standardized Questionnaires based on a Likert scale were used for the study. In this study Regression Analysis was applied in order to measure the causal relationship between the variables and finally the study revealed that there is a positive and significant impact of Spiritual intelligence and Emotional Intelligence on Learning and curiosity had a mediating effect.

Tell me and I forget. Teach me and I remember. Involve me and I learn.

- Benjamin Franklin

Learning has attained more importance in recent times. (Dumont, Istance & Benavides, 2013) contented that call for harnessing knowledge about learning and applying it more systematically to education. The education system has witnessed a shift from content-based to outcome-based curricula, and educational institutes have become heavily influenced by pedagogical concepts such as 'visible learning' (Hattie 2009). Knowledge and learning are considered as fundamental resources for future development. Learning in terms of learning outcomes, and lifelong learning is the main element to endure global competitiveness (Jarvis 2007). Professors in management institutions are always antagonized by low test scores, unresponsive or hostile classes, poor attendance and unreceptive students. Every faculty is cognizant with the fact and is aware that something is wrong. The authors explain what has happened and how to make it right and identify the impact of other variables such as spiritual intelligence and emotional intelligence on learning along with the mediating effect of curiosity.

Sfard, (1998) defined learning as 'acquisition', 'participation' and/or 'knowledge creation' which was later supported by Qvortrup & Wiberg, (2013). Learning can be attained in diverse techniques such as observation and hearing, reflecting and acting, reasoning logically and intuitively, memorizing and visualizing. Every individual learns based on his or her competency, skill and attitudes. Thus, learning is not same but it varies from student to student. Student learning can be influenced by several factors such as family background, learning environment, and government policies (Fabumi, Brai-Abu & Adenji,

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2007; Yinusa & Basil, 2008). Learning styles also influenced learning (Yahaya, Boon, Hashim & Wan Hamid, 2003). Felder and Silverman, (1988) has quantified Learning Style Model (FLSM). This model states learning has five dimensions namely; attitudes and perceptions, acquire and integrate knowledge, extend and refine knowledge, use knowledge meaningfully, and the fifth dimension was habits of mind. They concluded that when students have negative attitudes and perceptions about learning, then they will likely learn little. Alternatively, if they have positive attitudes and perceptions, they will learn more and learning will be easier. Similarly, when students use productive habits of mind these habits facilitate their learning. Therefore, learning styles and approaches of students play a vital role in learning of students.

Learning theories explains learning as a phenomenon but none of the theory reflects upon what, how and why something should be taught and learned in education (Qvortrup & Keiding 2016). However, some researchers claim that a theory of teaching includes both a theory of student learning and a theory of teacher behavior (Francis and Segun, 2008; Hattie, 2009; Terhart, 2011).

Thus, the process of learning can be enhanced by the integration of teacher and student behaviour along with the style of teaching should match students learning style. Felder, (1993) contented that to improve the educative process of learning styles adopted in classroom teaching should suit students' preferred styles of learning. But, the literature also divulges that learning styles involve strategies that students are likely to apply to a given teaching situation. Each individual can fit different styles which results in students adopting attitudes and behaviours that are repeated in different situations (Ajzen, 2005).

Felder and Silverman (1988) comprehend learning as a two-step process involving the receiving and the processing of information. The process involves simple memorization or inductive or deductive reasoning, reflection or action, introspection or interaction with other individuals. The consequence is either learning is occurred or not occurred. Therefore, we can conclude that learning is a process of receiving and processing the information and based on this the styles of learning are mounted.

Tiwary (2013) observes that education has four pillars- knowledge, wisdom, spiritual perception, and eloquent speech. He confers that knowledge is power, the source by which all worldly powers could be grabbed and source of all material resources. Thus, he concluded that knowledge in any field makes a man powerful in that field. The next pillar is wisdom-which is not the synonym of intelligence, rather wisdom is intelligence with sensitivity and sensibility. It is a sense of right or wrong, emotional stability, flexibility and maturity of mind. It is closely related to spiritual perception which builds up divinity in human being. Here, the man of spirituality believes in the principle of 'Live and let live'. It believes in peaceful coexistence for better and brighter tomorrow and the last is eloquent speech. Those who are well versed in particular branch of knowledge with wisdom and spiritual perception do have eloquent speech. Hence, he concluded all four pillars- knowledge, wisdom, spiritual perception, and eloquent speech as a base for education and stated a relationship between education and spiritual perception.

Spiritual intelligence comprises of two words-spiritual and intelligence. The word spiritual is derived from Latin word spiritus, which means "that gives life or vitality to a system." (Zohar, 1997). Vitality means life or energy, so we can say that enhancing or

energizing the intelligence is spiritual intelligence. Wolman (2001) defined spiritual intelligence as “the human capacity to ask ultimate questions about the meaning of life, and to simultaneously experience the seamless connection between each of us and the world in which we live.”

Vaughan, (2002) described, “Spiritual intelligence is concerned with the inner life of mind and spirit and its relationship to being in the world. Nasel, (2004) defined, “spiritual intelligence as the “ability to draw on one’s spiritual abilities and resources to better identify, find meaning in, and resolve existential, spiritual, and practical issues”. Zahar and Marshall, (2004) demarcated, “Spiritual intelligence is the intelligence with which we access our deepest meanings, purposes and highest motivations.” Wigglesworth (2006) delineated spiritual intelligence as “the ability to act with wisdom and compassion, while maintaining inner and outer peace, regardless of the circumstances.” King (2008) outlined spiritual intelligence as “a set of adaptive mental capacities based on non-material and transcendent aspect of reality, specifically those that contribute to the awareness, integration, and adaptive application of the non-material and transcendent aspects of one’s existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states.” Therefore, from the above definitions it can be concluded that Emotional Intelligence is a key to find meaning in experiences, enrich problem solving skills (Emmons, 2000), enhance an individual’s capacity for decision making, enhances daily functioning and well-being of an individual (Amram 2000) and all these features keep the individual’s motivation at peak.

Covey (2004) observed that, Spiritual intelligence is the central and most fundamental of all the intelligences, because it becomes the sources of guidance for the others. Dincer, (2009) mentioned that teachers with high level of spiritual Intelligence are able to cultivate students from all age groups to experience a wholesome life filled with self-respect and creativity. He also concluded that teachers with high spiritual Intelligence are more satisfied at their jobs. Therefore, Spiritual Intelligence and Job Satisfaction are positively related. People with higher level of spirituality have healthier, happier and more productive lives at work (Tischler, Biberman, & Mckeage, 2002; Cherati, Mahdavi, & Rezacian, 2013). In contrast Spiritual Intelligence has no impact on organizational commitment, continuance and normative commitments (Saremi & Farkhani, 2014). Spiritual intelligence and occupational stress of employees have a significant relationship (E. Ahmadian, A. Hakimzadeh and S. Kordestani, 2013)

Literature scanning reveals that Spiritual Intelligence and Personality traits are highly examined and studies reflected a high correlation among both the variables (Amrai, 2012; Farsani, 2013; Ahmad et al. 2015). But the relationship between Spiritual Intelligence and five dimensions of personality (neuroticism, openness, conscientiousness, agreeableness and extroversion) were significantly different. Neuroticism and openness have no relationship with spiritual intelligence but conscientiousness, agreeableness extroversion and spiritual intelligence have relationship (Amrai, 2012) whereas Farsani (2013) contented that spiritual intelligence associated with extraversion, agreeableness, conscientiousness and openness but not with neuroticism.

Researchers (Kushwaha, 2014; Nair & Paul, 2017; Pandey, Dubey and Chawla, 2017) contented that Gender has no impact on Spiritual Intelligence. Male and female have almost same spiritual Intelligence and they vary at same points in terms of perception under various dimensions. Spiritual Intelligence and happiness and quality of life for girl students were significantly related. Results revealed that quality of life and happiness are increased through spiritual intelligence (Mina Ansari, 2015). Spiritual Intelligence also had a significant relationship psychological well-being in women with breast cancer (Ahoei, Faramarzi and Hassanzadeh, 2017)

Researchers established a significant relationship between spiritual intelligence and academic achievements or improvements. Spiritual Intelligence impact the students' self-esteem but not impact the educational improvement (Khadivi, Adib & Farhanghpour, 2012). Spiritual intelligence, academic achievement and teacher effectiveness among student all variable are connected with each another (George and Visvam, 2013). Literature reflected only about the relationship between spiritual intelligence and academic achievements, but not about the impact of Spiritual Intelligence on Learning. Thus, emerging a research question does Spiritual Intelligence have an impact on Learning? Through this research question the first hypothesis of the study is framed as:

H1: Spiritual Intelligence has a significant and positive impact on Learning.

If your emotional abilities aren't in hand, if you don't have self-awareness, if you are not able to manage your distressing emotions, if you can't have empathy and have effective relationships, then no matter how smart you are, you are not going to get very far.

-Daniel Goleman

Emotional intelligence represents two of the seven intelligences categorized by Gardner (1983): Interpersonal and intrapersonal intelligences while other five intelligences include verbal intelligence, logical intelligence, visual intelligence, kinesthetic intelligence and musical intelligence. Gardner, (2000) referred Emotional intelligence as a combination of interpersonal and intrapersonal intelligence, further he stated that Emotional Intelligence is the fusion of relationship between people intellect and within the mind intellect. He defined interpersonal intelligence as the ability to understand other people such as motivation of their behaviour, working style and attitude while intrapersonal intelligence as the ability to set norm for oneself and use that in life. Emotional Intelligence is the ability to identify, understand, and use emotions positively to manage anxiety, communicate well, empathize, overcome issues, solve problems, and manage conflicts (Mayer, J.D.; Roberts, R.D.; Barsade, S.G, 2006).

Carson et al. (2000) developed a measure of emotional intelligence based on Goleman's five behaviour-based factors (a) empathetic response - the ability to understand the emotional structure of other people; (b) mood regulation – the ability to regulate and manage one's moods and impulses; (c) interpersonal skill -the ability to manage relationships and build positive networks; (d) internal motivation – the ability to influence the environment and pursue goals for the greater good while delaying immediate gratification; and, (e) self-awareness – the ability to self-monitor moods, emotions and drives, and their effects on others.

Emotional Intelligence also enables thinking. It is the ability to perceive, understand, manage and use emotions to facilitate thinking (Mayer and Salovey, 1993); Mayer, Salovey, Caruso, 2000). Researchers contend that Intelligence quotient helps an individual to get hired in an organization, but it is the emotional quotient that helps the individual to get promoted (Gibbs, 1995). Emotional Intelligence also impacts the human behaviour and well-being of an individual. Researchers (Matthews, G, Zeidner, M., & Roberts, R. D, 2000) agree there exists a significant correlation between the cognitive and emotional components of people's intelligence and these in turn impact the behaviour and well-being of an individual. This well-being leads to success in life. The one who can control emotions and do not let others to be a reason of their happiness leads a happy, meaningful, successful and satisfied life. Happy people enjoy life more than the ones who are worried Goleman (1998).

Auxiliary the well – being of an individual more he would be satisfied, happy and enjoy the life which means lesser would be the stress level. They are physically fit, showed good work and management performance and had comparatively less stress. Thus, we can say that emotional intelligence results in reducing the stress of the individuals and leads to a happier life. Researchers (Abraham, 2000; Spector and Goh, 2001; Slaski and Cartwright, 2002; Duran and Extremera, 2004; Darolia and Darolia, 2005 Chabungban, 2005; Kauts and Saroj, 2010) observed that emotional intelligence reduces occupational stress of teachers and enhance their effectiveness in teaching. Through developing emotional intelligence one can bridge the gap between stress and better performance and prevents the negative thoughts of a person and help to recognize right emotion, to feel motivated, empathized, and confident. (Chabungban, 2005). In contrast Emotional Intelligence does not reduce the stress of people who lack confidence and emotional ability (Gohm, Corser and Dalsky, 2005). Ismail, Suh-Suh, Ajis and Dollah (2009) established a moderating effect of emotional intelligence on the effect of occupational stress on job performance.

Emotional Intelligence has a significant relationship with conflict handling. High EQ person are prone to less conflict (Ayoko, Callan and Hartel, 2008). Conflict resolution requires a different style to resolve the conflict at different situations. Emotionally Intelligent individuals are capable of applying the different and better style of conflict management styles as the situation demands (Jordan and Troth, 2004; Srinivasan and George, 2005; Godse and Thingujam, 2010). Employees with high emotional intelligence are more able to balance work-family conflict as they recognize and manage and control feelings of conflict as they occur (Carmeli, 2003; Lenaghan, Buda and Eisner, 2007).

Emotional Intelligence has three main dimensions namely self-regulations, self-awareness, self-motivation. Self-regulation refers to learning resulting from student's self-generated thoughts and behaviors that are systematic oriented towards the attainment of their learning goals (Schunk & Zimmerman, 2003). It means the ability to remain calm during provocative or conflict situation, while keeping defensiveness to a minimum and ultimately renovating rationality (Wolmarans & Martins, 2001). Self-regulation encourages people to take a more powerful role on their thoughts, emotions, and performances (Schunk & Zimmerman, 2003). Thus, self – regulation has a significant impact on learning through control on emotions and aggressiveness. Self-awareness is a competency of an individual to know one's feelings, to transform those feelings, to

evaluate how, why and what are these feelings (Grayson, 2013) and how these feelings can affect others (Goleman, 1998) people with low self-awareness have low self - confidence (Goleman, 1995). Self-motivation encompasses the ability of controlling the emotional tendencies that facilitate in other to reach one's goals (Goleman, 1995) it also means that taking responsibility for a person successes and failures (Wolmrans & Martins, 2001).

Work performance frequently depends on the support, advice, and other resources provided by others (Seibert, Kraimer & Liden, 2001). Emotional Intelligence enhances performance and effectiveness of individuals (Goleman, 2005). Job performance is an important element in organization (Scullen, Mount & Goff, 2000). Many decisions such as promotion and retention of employees are based on job performance. Emotional intelligence nurtures positive relationships at work, work effectively in teams, and build social capital and thus enhances job performance. High level of intelligence also helps to manage and control emotions, which leads to the positive mental state of an employee resulting to improved job performances (Carmeli, 2003).

Emotional Intelligence has a significant impact on the academic achievement of students (Rozell, Pettijohn and Parker, 2001; Abdullah, Elias, Mahyuddin and Uli, 2004; Vernon et al., 2008; Joibaria and Mohammadtaherib, 2011; Panboli and Gopu, 2011). It is said that if the emotional and social need of a students are taken care then the performance will be enhanced (Barr-on, 2000). Students with high emotional intelligence have less absence, thus having a positive impact on academic achievements (Fredericksonb and Furnham, 2002). In contrast Dabrawskimk (2001) found a negative association between social and academic achievement and emotional intelligence. Researchers (Haskett, 2003; Hindman, 2006; Todd, 2006; Tiina Vin et.al, 2010) contented that teacher effectiveness is also enhanced with more emotional intelligence.

Emotional Intelligence has close correlation with personality. Different authors (Higgs, 2000; Thijs, & Schakel, 2002; Ramo, Saris and Boyatzis, 2009; Godse and Thingujam, 2010) have evaluated the emotional intelligence construct with the personality. MBTI was found to be significantly correlated with higher levels of emotional intelligence (Higgs, 2001). Social and emotional competencies and personality traits are treasured predictors of job performance (Ramo, Saris and Boyatzis, 2009).

Researchers (Michael A. Trabun, 2002; Sitter, 2004; Suhaila and Zahra, 2013) established a significant and positive relationship between leadership styles and emotional intelligence. Transformational Leadership style has a predictive positive relationship of emotional intelligence (Barling, Slater and Kelloway, 2000; Mandell and Pherwani, 2003; Webb, 2004; Srivastva and Bharamanaikar, 2004). C. L. Rice (1999) identified the impact of emotional intelligence on the effectiveness of teams and their leaders and proposed that emotional intelligence plays a vital role in effective team leadership and team performance. Emotionally intelligent leadership influenced the faculty effectiveness Kamran, (2010). But no significant relationship was found between gender and emotional intelligence (Saranya & Sangeetha, 2017).

Thus, the above literature scanning of emotional Intelligence reveals the relationship of emotional intelligence with many constructs like well – being, stress, conflict handling, job performance, academic achievement, personality and leadership style. But has no significant study been identified finding the impact of emotional intelligence on learning.

Hence, creating a research gap and evolving into a research question Does emotional intelligence impact learning? Through this research question the second hypothesis of the study is framed as:

H2: Emotional Intelligence has a significant and positive impact on Learning.

Learning can be enriched by student's self- motivation and interest. Therefore, students must observe and experience the required cognitive processes to learn and know how, where, and when to use them. It can also be concluded that if students are curious to learn learning can be enhanced. This curiosity keeps them self- motivated and interested. Curiosity is the ability to seek and acquire new knowledge, skills and ways of understanding the world. It is considered as the biggest factor in gaining knowledge or its expansion. Being curious always open up new apertures of thoughts, perspectives and ideas that facilitates learning. Here, curiosity is a strong motivator for individual response and learning is just one of the evokers of curiosity.

Learning is the process of acquiring knowledge. And it should be effective and efficient. Curiosity is a key ingredient of learning. As curiosity means having a strong desire to learn something, therefore we can concur that curiosity is directly related with learning. There are various ways through which student can develop curiosity and strengthen their learning. It is a basic tendency of human beings, which makes people curious and invites them to explore in any area to satisfy their thirst of knowledge.

Curiosity has been speculated as desire for new information and knowledge (Berlyne, 1954; Loewenstein, 1994; Kashdan, Rose, & Fincham, 2004; Litman & Jimerson, 2004; Litman & Silvia, 2006). Every novel information and knowledge is a clue to learning and development of an individual in that specific area. Thus curiosity is considered imperative for learning and development (Berg & Sternberg, 1985; Trudewind, 2000; Trudewind, Mackowiak, & Schneider, 1999). Curiosity is also conceptualized as the desire to know (Kashdan & Silvia, 2009). Since Curiosity is related to learning. Therefore we can conceptually establish a relationship between Spiritual Intelligence and Emotional Intelligence on Learning with mediating effect of curiosity. Evolving into a research question does curiosity mediate the impact of spiritual intelligence and emotional intelligence on learning? Through this research question the third hypothesis of the study is framed as:

H3: Curiosity has a mediating effect on the impact of Spiritual Intelligence and Emotional Intelligence on Learning

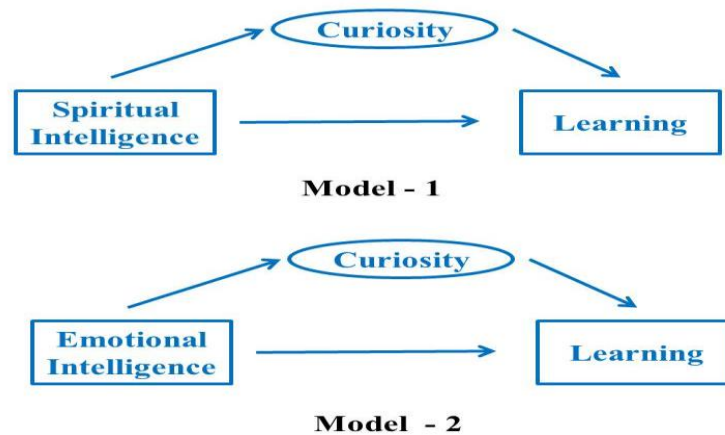
Thus, the purpose of this study through an explorative research design process was to determine the spiritual and emotional quotient of management student's and direct impact of these variables on learning and indirect impact keeping curiosity as a mediating variable. To identify the impact among the variables following relationships were tested.

1. Impact of Spiritual Intelligence on Curiosity.
2. Impact of Curiosity on Learning.
3. Impact of Emotional Intelligence on Curiosity.

The above said relationships were tested on PASW 18 through applying Regression. Theoretical models were designed based on the literature and research questions. Two

models were developed to test the hypothesis. The direct effect of Independent variables (Spiritual Intelligence and Emotional Intelligence) on Dependent Variable (Learning) was tested and then to check the mediating effect indirect relationship was tested. The proposed model of the study is as follows:

Proposed Model



Research Methodology

The Study: The study is causal in nature where in survey method has been used to collect the data. The methodology used in the study was through questionnaires, which were filled by the management students of Gwalior region.

Sample Design: The data collection was not done on gender biasness thus the data was collected from both male and female students of management colleges. The sample frame included the management students from post graduate courses. The data was collected through Google forms. The mail was sent to more than 300 respondents, but the responses were received from 150 respondents showing response rate of 50% and out of them 111 responses were found suitable for further analysis, hence, displayed 37% response rate. While collecting data the care had been taken to get representation of all the students of various courses.

Instrumentation: The standardized questionnaire of Petrides, K. V. (2009) scale for Emotional Intelligence, King, D. (2008) scale for Spiritual Intelligence, Kashdan, T.D., Rose, P. & Fincham, F. D. (2004) Scale for curiosity and Learning, were used to collect data. Questionnaires were based on a likert scale where 1 stood for maximum agreement and 7 stood for minimum agreement on the scale.

Analysis

The data was analyzed using PASW 18 for calculating reliability. Regression was used to evaluate the impact of independent variables (Spiritual and Emotional Intelligence) on dependent variable (learning). Sobel test was applied to test the significance of mediating effect of Curiosity.

The purpose of this study was to measure the impact of Spiritual and Emotional Intelligence on learning and mediating effect of curiosity among the students from post graduate courses. This section presents the reliability measures all the variables through identifying internal consistencies (Cronbach's Alpha coefficient value) and the results of the analyses for each research question. The final section briefly summarizes the results obtained from this study.

Reliabilities for the Measures of Spiritual Intelligence, Emotional Intelligence, Learning and Curiosity

Internal consistency reliabilities were applied to analyze the responses on the Measures of Spiritual Intelligence, Emotional Intelligence, Learning and Curiosity. The following table demonstrates the reliabilities of all variables:

Variable	Number of Items	Cronbach's Alpha
Spiritual Intelligence (IV)	24	.938
Emotional Intelligence (IV)	30	.913
Curiosity (MV)	7	.820
Learning (DV)	10	.943

The reliability of all the variables was high as the Cronbach's Alpha coefficient value was above 0.7 (Nunnally, J. C, 1978)

Regression

Hypotheses were tested through regression. The casualty between all independent variables and dependent variables were checked and analyzed.

H1: Spiritual Intelligence has a significant and positive impact on Learning.

To test the first hypothesis a linear regression was applied on Spiritual Intelligence (Independent Variable) and Learning (Dependent Variable). The results are as follows:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	Df1	Df2	Sig. F Change	
1	.846 ^a	.716	.714	5.39903	.716	275.385	1	109	.000	1.578

a. Predictors: (Constant), Spiritual Intelligence

b. Dependent Variable: Learning

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8027.365	1	8027.365	275.385	.000 ^a

Residual	3177.302	109	29.150		
Total	11204.667	110			

- Predictors: (Constant), Spiritual Intelligence
- Dependent Variable: Learning

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 Constant	-6.083	2.548		-2.388	.019		
Spiritual Intelligence	.518	.031	.846	16.595	.000	1.000	1.000

$$Y = a + b_1x_1$$

Y= Learning (Dependent Variable)

Spiritual Intelligence (Independent Variable)

We found out .714 Adjusted R- Square value it indicates Spiritual Intelligence contributes 71.4% in Learning. We have calculated F-value in our study which was 275.385, $p=.000$ means the model was good fit, hence indicating high predictability of model. Beta value was found to be 0.846 for Spiritual Intelligence significant relationship with learning. Through result it can be interpreted that Spiritual Intelligence affects learning in a very significant manner. Higher the spiritual Quotient of student higher will be his learning. He will be able to concentrate well in the class as distraction of mind would be less. This can be the result of the moral and spiritual values imbibed by the family and the result confers that our students have high spiritual quotient.

The values and culture of an institution is built and developed by Spirituality. “Spiritual Values transcend knowledge and skills. Most researchers believe that spiritual intelligence is the experienced ability that allows individuals to achieve greater knowledge and understanding and provide background to achieve perfection and progress in life (Giaccalone & Jurkiewicz, 2003).

H2: Emotional Intelligence has a significant and positive impact on Learning.

To test the second hypothesis a linear regression was applied on Emotional Intelligence (Independent Variable) and Learning (Dependent Variable). The results are as follows:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	Df1	Df2	Sig. F Change	
1	.765 ^a	.585	.581	6.53456	.585	153.402	1	109	.000	1.657

- Predictors: (Constant), Emotional Intelligence
- Dependent Variable: Learning

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6550.321	1	6550.321	153.402	.000 ^a

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Residual	4654.345	109	42.700		
Total	11204.667	110			

- a. Predictors: (Constant), Emotional Intelligence
- b. Dependent Variable: Learning

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 Constant	-5.227	3.333		-1.568	.120		
Emotional Intelligence	.430	.035	.765	12.386	.000	1.000	1.000

$$Y = a + b_1X_1$$

Y= Learning (Dependent Variable)

Emotional Intelligence (Independent Variable)

We found out .581 Adjusted R- Square value it indicates Emotional Intelligence contributes 58.1% in Learning. We have calculated F-value in our study which was 153.402, $p=.000$ means the model was good fit, hence indicating high predictability of model. Beta value was found to be 0.765 for Emotional Intelligence has significant relationship with learning spiritual intelligence is one of the important factors in improving student achievement (Wiggles, 2004). Through result it can be interpreted that Emotional Intelligence affects learning in a very significant manner. The results are also supported by (Zohar and Marshall, 2000). They found that people with high levels of spiritual intelligence can use different approaches in the learning environment. Higher the Emotional Quotient of student higher will be his learning. Students would be able to solve problems, control and manage their emotions (King, 2008). This would lead to less distraction and increased learning. This can be the result of the meditation and support of mentors, by proper counselling of students as and when required. The result confers that our students have moderate Emotional quotient.

H3: Curiosity has a mediating effect on the impact of Spiritual Intelligence and Emotional Intelligence on Learning

To test the third hypothesis a linear regression was applied on three different relationships to identify the indirect relationships and check the mediation effect. The relationship and results are as follows:

1. Impact of Spiritual Intelligence on Curiosity.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	Df1	Df2	Sig. F Change	

Impact of Spiritual Intelligence and Emotional Intelligence on Learning with mediating effect of Curiosity

1	.795 ^a	.632	.629	3.22850	.632	187.273	1	109	.000	1.944
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ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1. Regression	1951.981	1	1951.981	187.273	.000 ^a
Residual	1136.127	109	10.423		
Total	3088.108	110			

a. Predictors: (Constant), Spiritual Intelligence

b. Dependent Variable: Curiosity

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 Constant	2.955	1.524		1.940	.055		
Spiritual Intelligence	.256	.019	.795	13.685	.000	1.000	1.000

$$Y = a + b_1x_1$$

Y= Curiosity (Dependent Variable)

Spiritual Intelligence (Independent Variable)

We found out .629 Adjusted R- Square value it indicates Spiritual Intelligence contributes 62.9% in Curiosity. We have calculated F-value in our study which was 187.273, $p=.000$ means the model was good fit, hence indicating high predictability of model. Beta value was found to be 0.795 for Spiritual Intelligence has significant relationship with curiosity. Through result it can be interpreted that Spiritual Intelligence affects Curiosity in a very significant manner. Higher the Spiritual Quotient of student higher will be his Curiosity. Students with high curiosity try to find answers to various problems, as Curiosity has been speculated as desire for new information and knowledge (Berlyne, 1954; Loewenstein, 1994; Kashdan, Rose, & Fincham, 2004; Litman & Jimerson, 2004; Litman & Silvia, 2006). Learning is the process of acquiring knowledge. And it should be effective and efficient.

Further, to interpret the relationship between curiosity and learning the next following regression model was applied.

2. Impact of Curiosity on Learning.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	Df1	Df2	Sig. F Change	
1	.853 ^a	.727	.725	5.29319	.727	290.911	1	109	.000	1.888

a. Predictors: (Constant), Curiosity

b. Dependent Variable: Learning

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ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8150.715	1	8150.715	290.911	.000 ^a
Residual	3053.952	109	28.018		
Total	11204.667	110			

a. Predictors: (Constant), Curiosity

b. Dependent Variable: Learning

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 Constant	-2.648	2.283		-1.160	.249		
Curiosity	1.625	.095	.853	17.056	.000	1.000	1.000

$$Y = a + b_2X_2$$

Y= Learning (Dependent Variable)

Curiosity (Independent Variable)

We found out .725 Adjusted R- Square value it indicates Curiosity contributes 72.5% in Learning. We have calculated F-value in our study which was 290.911, $p=.000$ means the model was good fit, hence indicating high predictability of model. Beta value was found to be 0.853 for Curiosity has significant relationship with Learning. Through result it can be interpreted that Curiosity affects Learning in a very significant manner. Curiosity has been speculated as desire for new information and knowledge (Berlyne, 1954; Loewenstein, 1994; Kashdan, Rose, & Fincham, 2004; Litman & Jimerson, 2004; Litman & Silvia, 2006). Every novel information and knowledge is a clue to learning and development of an individual in that specific area.

Higher the Curiosity of student higher will be his Learning. Students with high curiosity try to find answers to various problems, and thus, learning would be more. Curiosity is a key ingredient of learning. As curiosity means having a strong desire to learn something, therefore we can concur that curiosity is directly related with learning. Thus curiosity is considered imperative for learning and development (Berg & Sternberg, 1985; Trudewind, 2000). Curiosity is also conceptualized as the desire to know (Kashdan & Silvia, 2009).

The indirect relationship between Spiritual Intelligence, Curiosity and Learning were checked from the above two regression analysis and we found that there is a significant relationship between both the relationships. This reflects that yes there is a mediation effect of curiosity between spiritual intelligence and learning. Thus, to confirm the mediation effect sobel test was applied and the results are mentioned and discussed.

Further, to interpret the indirect relationship between Emotional Intelligence and learning the next following regression model was applied.

3. Impact of Emotional Intelligence on Curiosity.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	Df1	Df2	Sig. F Change	
1	.789 ^a	.622	.619	3.27123	.622	179.582	1	109	.000	1.937

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1921.704	1	1921.704	179.582	.000 ^a
Residual	1166.404	109	10.701		
Total	3088.108	110			

a. Predictors: (Constant), Emotional Intelligence

b. Dependent Variable: Curiosity

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 Constant	1.409	1.669		.845	.400		
Emotional Intelligence	.233	.017	.789	13.401	.000	1.000	1.000

$$Y = a + b_1x_1$$

Y= Curiosity (Dependent Variable)

Emotional Intelligence (Independent Variable)

We found out .619 Adjusted R- Square value it indicates Emotional Intelligence contributes 61.9% in Curiosity. We have calculated F-value in our study which was 179.582, $p=.000$ means the model was good fit, hence indicating high predictability of model. Beta value was found to be .789 for Emotional Intelligence has significant relationship with Curiosity. Through result it can be interpreted that Emotional Intelligence Affects Curiosity in a very significant manner. Higher the Emotional Intelligence of student higher will be his Curiosity.

Curiosity is a positive emotional motivational system associated with the recognition, pursuit and self-regulation of novel and challenging opportunities (Kashdan, Rose and Fincham, 2004). They concluded that curiosity stimulates proactive and intentional behaviors in the way they respond to any stimuli and activity in relation to novelty, complexity, uncertainty and conflict. The way a person responds to the above for situations will determine the level of curiosity an individual possess. Therefore, students with high curiosity try to find answers to various problems, find meaning in experiences, enrich problem solving skills (Emmons, 2000), enhance an individual's capacity for decision making, enhances daily functioning and well-being of an individual (Amram 2007) and thus, Emotional Intelligence would be more.

The indirect relationship between Emotional Intelligence, Curiosity and Learning was checked from the above regression analysis and the other regression between Curiosity and Learning (.725 Adjusted R- Square value it indicates Curiosity contributes 72.5% in Learning, F-value was 290.911, $p=.000$ means the model was good fit, hence indicating high predictability of model. Beta value was to be 0.853 for Curiosity has significant relationship with Learning) resulted into a significant relationship between both the relationships. This reflects that there is a mediation effect of curiosity between Emotional intelligence and learning. Thus, to confirm the mediation effect sobel test was applied and the results are mentioned and discussed.

Further to confirm the mediating effect of curiosity Sobel Test was applied. The values for sobel test were calibrated from the above three regression results. The calculation of sobel test was done online. Following are the results:

Relationships between variables	Sobel Test			
	Values	Test Statistic	Standard Error	P Value
SI \rightarrow C	a = .256	10.58442617	0.03930303	0
	S(a) = .019			
C \rightarrow L	b = 1.625			
	S(b) = .095	10.69588243	0.03539914	0
EI \rightarrow C	a = .233			
	S(a) = .017			
C \rightarrow L	b = 1.625			
	S(b) = .095			

The results of sobel test were significant, as the P value was 0 (Sobel, 1982). This infers that curiosity is a mediating variable between Spiritual Intelligence and Emotional Intelligence (independent variables) and Learning (dependent variable).

Conclusion

This study was done on management students. Regression analysis was applied to test the hypothesis. The results are indicating that H1, H2 & H3 were supported. There exists a significant relationship between Spiritual Intelligence and Emotional Intelligence (independent variables) and Learning (dependent variable) and Curiosity had a mediating effect. The findings indicated that the individual who are more curious will consider as a strong outcome of learning (Oudeyer, Gottlieb & Lopes, 2016) and curiosity is significantly related to both Spiritual Intelligence and Emotional Intelligence.

Spiritual Intelligence is the base of life. Roots of tree are compared with the spiritual intelligence as the roots play a significant role for a tree similar is the importance of spiritual intelligence in life of an individual (Gaur Gopal Das). Spiritual Intelligence is the basic values, ethics and morals imbibed by the elders, family and teachers in students which help them to grow spiritually and direct the path of life. Spiritual intelligence can be developed through meditation and yoga. Second comes the emotional intelligence of

an individual, when emotions can be controlled and managed well then the person is more satisfied or happy as the emotions does not affect him. Emotional Intelligence is compared with the trunk of tree i.e. the part which keeps the tree erect. Similarly, Emotional system keeps an individual stable and firm. Emotional intelligence can be developed through proper guidance and counselling. Third is learning which is compared with the leaves, flowers and fruits of tree i.e. the contributions of tree. Similar is the learning of an individual they are the outcomes of spiritual and emotional intelligence of an individual and the contributions one can make towards the society through his learnings. The fourth element is curiosity which is compared to water for tree as water helps the tree to grow similarly curiosity motivates an individual to seek information, knowledge which ultimately leads to enhance learning.

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Role of Customer's Trust on the Adoption of Internet Banking in Gwalior City

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ABSTRACT

Banks spend an awesome measure of cash on giving the Internet keeping money administration to clients. Thus, the absence of selection of Internet saving money can bring negative circumstances for the banks. Therefore, banks consistently attempt to adjust their business methodologies to expand consumer loyalty. This paper gives a diagram of the surviving exploration into the connections amongst trust and Internet managing an account appropriation from the clients' viewpoint. In this paper two hypothesis were framed for measuring Gender difference and Impact. The finding suggests that there is significant impact of trust towards customer's adoption of internet banking but we have not found any difference of customer's adoption of internet banking across gender.

Introduction

Many banks around the world have launched their e-banking to provide customers with more convenient ways to access banking information and services. Previous research has been carried out to evaluate the quality and quantity of the e-banking services provided, as well as the overall adoption of e-banking. The results and findings of this research differed, based on many factors such as the level of development of the particular country, its national culture, the customers' knowledge of e-banking and the infrastructure of information technology. In Vietnam, e-banking research focuses on the adoption model, the drivers of customer intention to use e-banking, and the use of e-payment. None of this research studied customer trust in e-banking, even though trust plays an important role in e-commerce adoption, especially e-banking transactions, and trust is one of the most significant factors in customer acceptance of e-banking (Suh and Han, 2002). Most of the existing literature about trust in e-banking assumes trust to be a factor affecting customer acceptance of e-banking (e.g. Suh and Han, 2002; Alsajjan and Dennis, 2006; Kassim and Abdulla, 2006; Benamati and Serva, 2007; Grabner-Kräuter and Faullant, 2008; Aldás-Manzano et al. 2009; AbdullahAl-Somali et al. 2009; Muñoz-Leiva et al. 2010; Dixit and Datta, 2010; Khalil Md Nor et al. 2010; and Anita Lifan Zhao et al. 2010). In addition, other studies investigated factors affecting the adoption and usage of e-banking in general and internet banking in particular (e.g. Sathye, 1999; Tan and Teo, 2000; Wan et al. 2005; Chiemeke et al. 2006; Ndubisi and Sinti, 2006; Wang and Pho, 2009; and Alain Yee-Loong Chong et al. 2010). These studies concluded that many factors affect the acceptance and usage of e-banking, including education, technology acceptance, security, risk, legal support, trust, demographic characteristics.

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The main aim of this study is to identify the effect of trust on customer intention to use e-banking in Vietnam. The basic model for this study has been adopted from the Technology Acceptance Model (TAM) (Davis, 1989) to show the characteristic of e-banking. The TAM model is an integrated construct from disciplines such as psychology, sociology, and electronic commerce. Another belief, trust, is added to the TAM to increase the understanding of customer intention to use e-banking in Vietnam. A Structural Equation Modelling (SEM) approach is used to evaluate the research model. This study differs from the previous studies in that it conducts a comprehensive primary survey to collect data to be used in the model. The survey encompasses selected provinces in northern, central, and southern of Vietnam. This paper is organized as follows. Section 2 provides the research background and discusses the Technology Acceptance Model and trust in e-banking. Section 3 outlines the study's model and sets the hypotheses. The research methodology and data used in the study are discussed in Section 4. Section 5 presents empirical results and Section 6 gives the conclusions.

Literature Review

Popoola Naimat F. (2013) in his research "The Effect of Trust in Adoption of Internet Banking: A case study of Nigeria" finds that that bank customers who are non-users of internet banking lack trust in internet banking and the users of internet banking have partial trust in it. The reason for this lack of trust is because of lack of security, bad reputation of banks, poor technology and lack of assuring policy or guarantee. The finding indicates that customers both users and non-users of internet banking do not have trust in the security system.

Shidrokh Goudarzi, Mohammad Nazir Ahmad, Seyed Ahmad Soleymani, Nastaran Mohammad Hosseini. (2013) in his research "The Effect of trust in adoption of internet banking" A case study of According to the literature, a set of factors can have an effect on trust. All of the important factors have an effect on decreasing or increasing the level of trust in Internet banking adoption. In this paper, the factors of trust were identified based on the previous works with a particular focus on trust and Internet banking adoption. The findings summarized in this paper will be useful not only for the people involved in the implementation, design and management of infrastructure for online services, to but also for practitioners and researchers engaged in the study of trust

George Anane Takyi, Julia Poku (2015) in his research "The Effect of trust in adoption of internet banking -A case study of Zenith Bank Ghana Ltd." The zenith bank of Ghana adopted internet banking because the management wanted customers to have easy access to banking services. This means that internet banking is very vital to enable customers to easily banking services. A Part from those other reasons includes, for profits and to make more effective and efficient in all their transactions. The main problem that customers encountered in relation to internet banking services is up to data information on their accounts as far as banking is concerned. Other problems include inadequate information from the banking institution and high bank charges on the services. The customers of zenith bank of Ghana really want ATM than the other forms of accessing banking services like internet banking. This is because most of the people who transact businesses with the bank are not connected to the internet, and that they have to pay for extra services should they

want to access their accounts. As compared to ATM it is easy to use and operate by customer.

Objectives of the study

1. To standardize measures to evaluate Trust and Customer's adoption of internet banking.
2. To find the difference of Customer's adoption of internet banking across male and female users.
3. To measure the impact of trust on customer's adoption of internet banking.

Research Methodology

This study was causal in nature and survey method was used to conduct the study. The population included the users of internet banking in Gwalior region and it was completed taking the sample size of 100 respondents. Individual respondents were the sampling elements and Non- probability purposive sampling technique was used to select the sample. Standard questionnaire was used to collect the responses from the internet banking users. All the study constructs were measured using five-point Likert scale ranged from 1=strongly disagree to 5=strongly agree.

Tools for Data Analysis

- Cronbach's alpha method of reliability was applied to check the consistency of questionnaire.
- Independent sample T – test was applied to measure the difference of Customer's adoption of internet banking across gender.
- Regression test was applied to measure the effect of Trust on Customer's adoption of internet banking.

Hypotheses

- There is no difference of Customer's adoption of internet banking across male and female users.
- There is no significant impact of Trust towards Customer's adoption of internet banking.

Findings

Reliability Test

Reliability test were carried by using SPSS software. The results of test are given below:

Trust

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.841	.844	5

The value of Cronbach's alpha value is .841. Which was more than the standard value 0.7; hence the reliability of Trust was considered to be good for further study.

Adoption of Internet Banking

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.844	.850	10

The value of Cronbach's alpha value is .844. Which was more than the standard value 0.7; hence the reliability of Adoption of internet banking was considered to be good for further study

Independent Samples T- test

Independent Samples T - test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Adoption of internet banking	Equal var. assumed	0.26	0.61	0.95 ₁	98	0.344	1.27051	1.33557	-1.3799	3.9209
	Equal var. not assumed			0.95 ₂	97.97	0.344	1.27051	1.33493	1.37864	3.9197

H02: There is no difference of Customer's adoption of internet banking across male and Female users

The Sig. (2-Tailed) value in our Table is 0.344. This value is more than .05. Because of this, we can conclude that there is no statistically significant difference of Customer's Adoption of internet banking across male and female users. Hence our Hypothesis (H02) is not rejected which means that Customer adoption of internet banking does not differs between male and female users.

Regression Analysis

H03: There is no significant impact of Customer's trust towards their adoption of internet banking

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
dimension1	.647 ^a	.418	.412	2.66760	.418	70.456	1	98	.000
a. Predictors: (Constant), Internet banking									
b. Independent Variable: Trust									

The value is adjusted R square is 0.412 that indicated independent variable Trust is explaining 41.8% variance towards dependent variable Adoption of internet banking.

Coefficients				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

	B	Std. Error	Beta		
1	(Constant)	6.551	1.56	4.2	0
	VAR00017	0.337	0.04	0.647	8.394

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	501.372	1	501.372	70.456	.000 ^a
	Residual	697.378	98	7.116		
	Total	1198.750	99			
a. Predictors: (Constant), Internet banking						
b. independent Variable: Trust						

The model used for regression has good fit as indicate by F – Value 70.456 which is significant as .000% level of significance, indicating high predictability of model.

Regression equation for showing the relationship between trust and internet banking.

$$Y = a + bX + \text{Error}$$

$$Y = 6.551 + 0.337X + \text{Error}$$

Where,

X = Trust (independent Variable)

Y= Internet Banking (Dependent Variable)

Coefficient table indicated that Trust was found to have a significant effect on Adoption of internet banking having β value of 0.647 tested through t test value Internet Banking 4.200 and Trust- 8.394 significant at 0.000 level of significance. Hence our null hypothesis (H₀₃) is rejected.

Conclusion

Internet banking offers many benefits to customers in performing their financial transaction, still many customers are unwilling to accept the serves due to many trust related issues. The findings from this study revealed that bank customers who are non users of internet banking lack trust in internet banking and the users of internet banking have partial trust in it. The reason for this lack of trust is because of lack of security, bad reputation of banks, poor technology and lack of assuring policy or guarantee. The finding indicates that customers both users and non users of internet banking do not have trust in the security system of the bank. Further, due to bad reputation of the bank, all the non users do not trust internet banking, however the users have partial trust in the service. Hence, good reputation plays a great role in developing trust in internet banking. The findings further reveal that both users and non users of internet banking do not trust the information technology of Nigerian banks. The technology that support internet banking system is very crucial for the bank to achieve standard security. The findings show that institution-based trust is significant in trust development. The result informed that customers do not believe in the integrity of banks and they are afraid to lose their savings because the banks do not have any legal policy to protect customers in case of hacking. From the findings, the customers stressed that they will adopt internet banking if there is money back guarantee because they do not want to lose their funds to hackers. Olasanmi (2010) for instance emphasize that trust and fear have an effect on internet banking consumers who are victims of internet fraudulent activities.

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A Study on The Outcomes of Work Family Conflict

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ABSTRACT

Work family conflict has been continuous increasing due to which it grabbed the attention of the researchers. The interrelation between work and family is important to organization researchers and managers because of its potential to influence Job Satisfaction, Job Involvement and Organizational Commitment. There have also been swift social changes in the workplace but the organization does not believe that employ family conflict affects its output. More people are understanding and consulting about the difficulty of managing both work and home life and are maintaining the balance in their personal and professional lives.

This paper discuss about the various outcomes of Work Family Conflict and their inter-relationship and It finally concludes with the results of Organization and their Employees.

Introduction

This Study describes about the various situations that an employee and an organization going through while there is a work family conflict

Work-family conflict is a form of inter-role conflict that occurs when the energy, time, or behavioural demands of the work role conflicts with those of the family role (Greenhaus & Beutell, 1985)

A lot of research has been conducted in the past shows the conflicts experienced by the individuals while performing their roles in the family and workplace.

By the work family conflict, it is found that it adds the risk of fatigue and its associated with higher level of absenteeism

Objective of the study

To measure the work performance of an employee while work family conflict

Job Stress

According to Panji Anoraga (2001: 108), work stress is a response to a person's shape, both physically and mentally to a changing environment that felt intrusive and resulted in his being threatened

According to Gibson (1996: 339), job stress is a response adjustment mediated by individual differences and or psychological process that is a consequence of any action from the outside (environment), situations or events that define the demand of psychological and or physical excessive to someone

According to Ivancevich & Matteson (1980) stress is “an adaptive response, mediated by individual characteristics and/or psychological processes, that is a consequence of any external action, situation, or event that places special physical and/or psychological demands upon a person”. The outcomes of various researches mentioned below:

Masten and Obradovic, (2008) in their research concluded that when an employee feels conflict at work and family it finally affects his or her family as well as professional life. According to Panatik (2012) work family conflict is directly proportional to stress. According to Hashim & Hameed (2012) Employees that try to fulfil the increasing work responsibilities and at the same time fulfilling the family roles and responsibilities are struggling with stress and work family conflict. Reducing job stress results in reducing work family conflict. According to Usman, Ahmad & Akbar, 2011 A Relationship exists between job stress and work family conflict for banking staff of private banks

Employee Commitment

Employee Commitment is believing in and accepting the goals, values, and norms of the organization by employees; it is the willingness by the employee to put forth extensive effort and maintaining appropriate organization citizen behaviour (Porter, Steers, Mowday, & Boulian, 1974).

Allen and Meyer in 1996 states that work family conflict is linked to three aspect of employee commitment i.e Affective Commitment, Continuance Commitment and Normative Commitment Through which the individuals are motivated to be in the organization

Affective Commitment (AC) is the emotional attachment by individuals to the organization and the willingness of those individuals to identify with the organization irrespective of the situation (Allen & Meyer, 1996).

Continuance Commitment (CC) is the material benefits an employee gains by being a member of a particular organization (Akintayo, 2010)

Normative Commitment means that employees are obligated to keep on working of an organization because of the intrinsic and extrinsic reward they get (Lambert, 2006; Rehman & Waheed, 2012) possibly because they are being paid to work in the organization

According to Boles, Wood, & Johnson, 2003 to understand the link between Work Family Conflict and Employee Commitment we have to look at the role theory. This theory basically deals with how psychologically, works demands influence employee to exhibit negative emotions or attitude at home

According to Rathi and Barath (2013) , Incompatibility between the two spheres may be the source of tension and ill feelings among employees i.e. if employees gives more weightage to his family role then he will see work as an activity that drains time required for the fulfilment of family roles, which may threaten employees' well-being.

Employee absenteeism

Absenteeism is a habitual pattern of absence from a duty or obligation without good reason. Generally, absenteeism is unplanned absences. Absenteeism has been viewed as an indicator of poor individual performance, as well as a breach of an implicit contract between employee and employer

Sternhagen (1972) defines Absenteeism as the failure of workers to report on the job when they are scheduled to work, that is, when they are actually on the payroll.

According to Fillipo- Absenteeism is a condition that exists when a person fails to come to work when he is properly scheduled to work. Due to work family conflict, Employee feels conflicting situation with their continuing roles as their caretakers of their homes, children's and their parents along with fulfilling his job responsibilities at the Organization. The responsibilities at home makes a considerable pressure at the work place and vice versa which leads to pressurize the employee so they opt the option of absenteeism

Job satisfaction

Job satisfaction is defined as "the degree to which people like their jobs." People who consider their job as central part of their life seem to enjoy it, while the rest only perform the job as their routine.

Cranny, Smith and Stone (1992) define job satisfaction as employees' emotional state regarding the job, considering what they expected and what they actually got out of it.

Sempanes (2002) refers job satisfaction to aggregate of attitudes which employees build about their jobs. According to Judge & Colquitt, (2004) Work family conflict affects the career satisfaction of employees very badly. Specially, it affects the women and the older age employees. According to Eby (2002), work family conflict has direct relation with job satisfaction. It also increases the desire to leave the job. According to Theunissen (2003) work Family Conflict also leads to the emotional exhaustion (the first stage of burn out syndrome), decreases job performance, and creates negative spill overs

Researchers Globally are taking more interest in knowing that the Employee's working in an organization are satisfied or not since Job satisfaction is directly linked to the organizational horizontal growth in Long Run. For Example: if the Employee is satisfied with the Organization then he will deliver his maximum potential in achieving organization goals but if he is not than majority of his time during work will be spend in unnecessary activities like gossips, switchover, politics etc.

Employee Performance

Employee's performance is the way employees work in a company for a certain period. A company that has employees that can perform well then most likely the company's performance will be good, so there is a strong correlation between the performance of individuals (employees) and corporate performance

According to (Mangkunagara 2001: 67) performance is the result of the quality and quantity of work achieved by the employee in performing their duties in accordance with the responsibilities given to him.

According to Bernadin and Russell (1998) The performance of the work is a record of the effects produced in a particular job function or activity within a certain set time period. An individual job performance is a combination of ability, effort which can be measured from the consequences that produced therefore the performance of work not involving personal characteristics addressed by someone, but the work that has been and will be done by someone.

Conflict (Work-Family Conflict) can affect the performance of employees in a company. Conflict is unfair competition based on ambition and emotional attitudes

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in obtaining a victory that can cause tension, confrontation, arguments, stress and frustration if their problems cannot be solved. It certainly will hurt the company in the form of a drop in performance caused by stress and conflicts in their work environment

Conclusion & Implications

Finally, we came to the conclusion that work family conflict creates hindrances in the life of an employee professionally as well as socially. As we all know that if the employee is stressed due to conflict due to which he/she might not be able to give his/her peak performance in the organization due to which his/her career progress suffers where as in the family life also Suffers as due to constant stress, he/she is not able to maintain cordial relationship with his/her spouse, children and parents...if this stress run for a longer period than it leads to absenteeism which in long run leads to severe depression etc. As it's a well Known fact that due to Absenteeism, Stress, Less Performance, Less Satisfaction & Performance, the output of the organization also suffers so Employee well being is Directly interlinked with Organization Progress. So Every Organization in General should take some serious steps to check the overall well being of his/her employees in short as well as long run as these steps will take care of Work Family Conflict as Well as Family Work Conflict and employee overall well being

Necessary Steps to be taken by organization for avoiding work family conflict

1. To avoid unnecessary Stress, Organization should make work demands and work expectations more realistic
2. Organization should increase the number of supportive managers in the organization
3. Organization should offer flexibility with respect to work time and work location
4. Periodically motivational workshops to be organized in organization
5. Organization focus should be on creating a more supportive work culture
6. Periodically counselling of the employees
7. Organization should provide time to time incentives to the employee to retain his interest in his work.

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Dynamics of a Digital Advertising Campaign

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ABSTRACT

This paper discusses the process and challenges of developing and executing a digital advertising campaign. It delves upon the intricacies and relevance of email campaign, blogging, social media campaign, content marketing, search advertising, banner displays and search engine optimization (SEO) in the overall digital advertising campaign. The discussion elaborates the justification for shifting from traditional advertising media to digital advertising, the imperatives of convincing the top management for digital campaign, the rationale for allocating a portion of advertising budget to digital media, the pros and cons of in-house and outsourced digital advertising campaign, the crucial importance of content for digital campaigns, the dynamics of back-end support through an efficient call-centre, and the measures of success of a digital advertising campaign. The practical suggestions and insights shared in the paper are likely to help the marketers in conceptualizing, designing and implementing an effective digital advertising campaign for their firms.

Introduction

Advertising is also keeping pace with the way of life undergoing sea change all over the world. As humans are going digital in most of their communication and interactions, advertising is also shifting to the digital space. The traditional skills of managing to advertise are not sufficient. Organizations and marketers need to update themselves to learn and create effective digital advertising campaigns. There are only a few studies (e.g. Leppäniemi *et. al.*, 2010; Wertime & Fenwick, 2011; Chaffey & Smith, 2013; Ryan, 2016) available to guide through the intricacies of digital advertising. This paper, based on in-depth interviews with key informants involved in the planning and execution of digital advertising campaigns provides practical guidelines and insights into the dynamics of digital advertising.

Process of Developing a Digital Advertising Campaign

A company can effectively develop the digital advertising campaign by following the steps mentioned below.

Convincing the Decision Makers

Usually, the decision of the promotional budget is taken at the top management level in most of the organizations. Top managers of the conventional companies have a bias towards advertising on traditional broadcast media due to their affinity and past experience. Traditional marketers initially have a lot of apprehensions regarding the performance of digital advertising. It may be difficult to convince the senior management for allocating a portion of the promotional budget towards digital media. Young executives can convince the top management by discussing the advantages of digital media such as targeted reach, measurability, flexibility and controllability. Senior management of the company can be exposed to the presentations and interactions with professional advertising agencies. Data supporting the media consumption habits of the target audience in favor of digital media can convince the management. There are a lot of reports depicting the increasing use of digital media. One of the major challenges with all other media advertising is the measurement of results. It is possible to measure the results of digital advertising. Digital advertiser has full control and can exercise the flexibility while taking the key advertising decisions like the timing, location, type of person to whom the advertisement will be shown, frequency of the advertisement, experimenting the different versions of the advertisement, changing the budget of the advertisement. Discussions, deliberations, data and the case studies may help in removing doubts in the minds of the senior management.

Defining the Objectives and Budget for Digital Advertising

Majority of the companies advertising for the first time on digital media define only the sales-oriented objectives. Professional digital marketing agencies can facilitate the companies in defining the communication-oriented objectives such as awareness to be created in terms of impressions (number of times the advertisement will be shown), interest shown in terms of clicks (number of times the advertisement is clicked), desire exhibited in terms of leads (number of visitors sharing their contact details) and finally the action in terms of conversions (number of people actually buying the product or service).

Most of the first-time digital advertisers define the budget arbitrarily based on affordability. Conventional companies usually allocate a certain percentage of the promotional budget to digital advertising. Professional digital advertisers prefer the objective and task method for defining the promotional budget. This method identifies the tasks to be accomplished for achieving the defined objectives. Further, advertisers can calculate the costs of accomplishing the tasks. Most of the digital media platforms help in calculating the cost. Depending on the tasks, the budget for digital advertising can further be allocated to content marketing, banner display, search engine advertising, social media advertising, blogging, email marketing and search engine optimization.

Hiring Digital Advertising Agency

A company can develop digital advertising on its own or can hire a professional advertising agency. Developing the campaign itself may require the hiring of the competent, experienced and committed personnel. Usually, new digital advertisers prefer to hire digital advertising agency. Finding the appropriate digital advertising

agency requires a lot of homework by the company. Company executives can watch the social media, blogs, and digital media of the competitors. They can shortlist the impressive digital campaigns of competitors and identify their advertising agencies. They may invite these advertising agencies for presentation and discussion with the senior management. A company may give an idea of the objectives and budget to the prospective advertising agencies. Agencies usually present the current digital media status of the company and propose the solutions for achieving the objectives. Senior management should select the digital advertising agency based on the idea, reach, ability to achieve the objectives and the cost involved. Majority of the digital advertising agencies charge the fees in the range of 10 to 20 percent of the total advertising budget for developing and executing the campaign. Terms and conditions regarding the time-schedule of the campaign, payments, confidentiality of information and the expected results must be clearly discussed and mentioned in the agreement.

Preparation for Digital Marketing Campaign

The organization should nominate a marketing professional or committee to coordinate with the digital marketing agency. Establishing a professional website, social media pages and the call center are pre-requisite for developing a digital advertising campaign. The company has to share access to its website, social media pages and other digital media properties with the digital marketing agency.

One of the major tasks involved is setting up the customer care center for responding to the queries generated through digital advertising. The company needs to buy the toll-free number, procure the right equipment and software for setting up the call center. Recruiting, selecting and training the professionals for the call-center is really important for the success of the digital marketing campaign. The customer care center is also responsible for responding to the queries received online through website, email, chat and various forums.

Digital marketing agency will ask for content in the form of data, photographs and videos for developing the advertising campaign. A company may either collect or create the required documents for the campaign. Company or the agency may hire the professional for shooting photos and videos for the campaign.

Executing and Monitoring the Campaign

Digital marketing agency firstly shares the calendar of activities planned for the campaign. Once the calendar is approved, the agency designs the creative content and gets them approved from the company. The company can constitute a committee of marketing professionals for approving the creative content produced by the digital marketing agency. A company may allocate a portion of the budget to various kinds of the options mentioned for advertising and publicity on digital and social media channels, as discussed below:

Content Marketing: Content is the king of digital marketing. Marketing personnel are required to produce relevant, optimized images, videos and posts for all the social media channels. Professional companies engage consumers to produce user-generated content (UGC). UGC is considered more credible compared to the content posted by the company. The marketing team is expected to make a calendar and regularly post the

relevant interesting content on the various social media channels. There are various online software like Hootsuite that help in scheduling the posts at multiple social media channels.

Search Engine Optimization (SEO): Search engines do not charge for showing the results on the search engine results page (SERP). SEO as compared to the paid online advertising (Sen, 2005) results in a higher ranking on the SERP. Search engines consider various criteria for deciding the sequence of the results shown on SERP. One of the most important criteria is the relevance of keywords matching the search phrases used by the searchers on the search engine. A marketing manager can identify the relevant keywords with the help of various keyword planning tools like Keyword Everywhere chrome extension. Further, the marketing team can build the content around the identified keywords and publish the same on the different digital and social media channels of the company. Keywords can be used in the headers, meta-tags and the images for facilitating the search engine to identify, classify and prioritize the content on the search engine results.

Search Engine Advertising: Paid search engine advertising has become the dominant form of online advertising and increasing at a fast pace (Yang & Ghose, 2010; Yao & Mela, 2011). Search engines like Google show the advertisements on the search engine result page (SERP) that are relevant to the keywords in the search phrase. Advertisers can create a free account on the advertising platform offered by search engines like Google ads. An advertiser can create the creative on the advertising platform. It is very easy to choose the target audience for the advertisement. The advertiser can choose the daily budget and the bid rate (maximum rate advertiser is ready to offer). Priority of showing the advertisement on SERP is dependent on the bid rate and the quality of the advertisement. Advertisers can choose among the various payment options based on the number of impressions, clicks and conversions. Quality of the advertisement is dependent on the relevant keywords used in the advertisement, the landing page (the page that opens up on clicking the advertisement) and the click-through rate (how many of the target audience who were shown the advertisement actually clicked it). Advertisers can identify the relevant keywords with the help of various online tools such as Keyword Planner (Google Ads). Finding the right keywords, using the same in the advertisement and the landing page helps in improving the quality. Advertising platforms provide various statistics like impressions, clicks etc. related to the results.

Social Media Publicity and Advertising: Social networks play an important role in the distribution of information and word-of-mouth and allow users to network, communicate (in the form of messaging or otherwise) and interact (Constadines, 2014). The power of online communities in building brand reputations and customer relationships is increasing (Harris & Rae, 2009). Social media marketing helps in increasing customer traffic and reducing marketing expenses. Advertisers can choose the social media channel based on the availability and accessibility of the target audience. The company can create the business page on the desired social media channel. The marketing team can invite the existing and prospective customers for liking the business page. Regularly posting the relevant and interesting content on the social media pages helps the company in increasing the organic reach among the target audience.

A company can advertise on its social media channels and reach its target audience quickly. The advertiser needs to first decide the objective of advertising and then design the creative. The advertiser can define the target audience in terms of demographics, geography and behavioral characteristics. The advertiser can decide the daily budget, the bid rate and the period of the advertisement. Social media advertising shows the advertising insights to the advertisers, which helps in improving the effectiveness of social media campaigns.

Online Video Publicity and Advertising: Companies create their online video channels on the leading platforms like Youtube and publish relevant and interesting content them. A company can produce the product launch and demonstration videos, create videos related to the problems of the consumers. Companies can showcase the videos on their social media channels.

Companies create the video and the banner advertisements. The video advertisements are run before and during the content video relevant to the target audience. The banner advertisements are displayed during the video.

Email Marketing: Companies usually motivate the consumers to share their email Ids on their website, social media pages and seek permission to send the mail for the updates. Chittenden and Rettie (2003) highlight the importance of obtaining recipients' permission. Thus, a company creates a list of interested readers. The company regularly sends emails to their subscribers as it is an economical way of reaching the prospects and customers on regular basis (Raulas,2004). Professional companies usually seek the services of email service providers such as Mailchimp for segmenting the list and sending the relevant emails based on the action by the receiver. Email marketing is one of the quickest and personalized way to reach a large number of prospective consumers.

Mobile Marketing: Companies can reach prospective consumers either by sending SMS (Short Messaging Service), MMS (Multimedia Message Service) or through the relevant mobile application (App). Initially, mobile advertising has become one of the most popular applications in mobile commerce, particularly in the form of text advertising through SMS (Drossos *et.al.*,2007). Companies can take the help of bulk SMS service providers for analyzing the behavior of recipients. Smartphones gave the opportunity to the advertiser for showing the advertisement as banner advertisements, GIF or videos in the App.

Bloggng: Marketing personnel can write articles related to problems of the consumers on the blog of the company. The company can create a separate blog or publish it on the website of the company. The company can identify the relevant topics with the help of keyword planner tools. The marketing team needs to schedule and post the relevant articles regularly on the blog. The company can motivate its target audience to subscribe to the blog. The comments posted by the readers give insights and feedback to the marketing team. Marketing professionals must check the quality of leads generated through the campaign. Marketing personnel should closely coordinate with the agency and their call center employees. Marketing professionals should randomly listen to the calls received by customer care professionals to take care of the quality of response. Close monitoring and supervision of the process help in getting insights for improving the quality of customer engagement.

Measuring the Results

Advertisers are interested in understanding whether the campaign has been successful in delivering the results. The beauty of digital media, unlike traditional media, is that most of the parameters are measurable. Some of the commonly used parameters used by the professional companies are:

- a) Impressions – Number of times the advertisement was shown to the target audience
- b) Clicks – Number of times the advertisement was clicked by the target audience
- c) Leads – Number of target audience sharing their contact details with the advertiser
- d) Walk-ins/ Trials – Number of target audience walking in or trying your product
- e) Conversions – Number of people actually purchasing the product

The company should benchmark the results with the objectives of the campaign.

Conclusion

It is imperative for marketers to integrate social media and digital advertising into the marketing mix. The marketers have a crucial role in the effective planning and execution of a digital advertising campaign. Therefore, all marketers should reorient themselves to the new ways of advertising in the digitalized world. The practical suggestions and insights shared in the paper are likely to help the marketers in conceptualizing, designing and implementing an effective digital advertising campaign for their firms. The tips and suggestions provided in this paper may prove to be weapons for the destruction of challenges faced during digital advertising campaigns.

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A Study on Causes of Non-Performing Assets and its Prevention and Measures of Industrial Development Bank of India Ltd. with Reference to Gorakhpur Branch

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ABSTRACT

The banking industry is the financial backbone of our Indian economy without which the growth of our country is not possible because all the financial activities or day to day transactions of different sector of any country takes place through banks and failure of banking sector humpers the working of these sectors which restricts the growth of industries.

Non-performing Assets is blending of three words although the word is very small but the problem is very devastating and so is a burning problem in today's scenario. NPA basically means that amount of assets of a bank which neither generates any profit nor that amount of assets is recoverable. The amount of NPA is more in public sector and at present Industrial development bank of India ltd. is on the top with a huge amount of NPA increasing day by day. Increase in NPA of any bank affects the goodwill of any bank in the eyes of public and ultimately the bank suffers loss which also affects the functioning of an economy. In this paper with the help of data of IDBI GORAKHPUR BRANCH effort has been made to know the concept of NPA, causes of sharp increase in NPA and measures to tackle the problem of NPA.

Introduction

Among all the burning problem of Indian economy today's the burning problem of India to which the banks and financial institutions are facing is increasing NPA'S of banks .an asset is classified as non-performing asset if dues in the form of principal and interest are not paid by the borrower for a period of 180 days. However, with effect from March 2004, default status would be given to a borrower if dues are not paid for 90 days. the increasing rate of NPA is deteriorating the goodwill of the bank and as a result the bank are going in loss because people starts withdrawing their money when it loses its confidence .The emergence of NPA started after eighties when the industries like steel, manufacturing, construction etc. took a huge amount of loan and when they do not compete with other countries and as a result they suffered a loss and are not able to repay the loan of banks and this series continued which results in today's worst situation to which the banking industry is facing.

What is NPA, Cause of NPA in IDBI Bank Ltd, its Prevention

A non-performing asset refers to a classification for loans or advances that are in default or are in arrears on scheduled payments of principal or interest. In most cases, debt is classified as non-performing when loan payments have not been made for a period of 90 days, while 90 days of non-payment is the standard, the amount of elapsed time may be shorter or longer depending on the terms and condition of each loans.

Cause of Rise in NPA

- High share of corporate lending.
- Improper SWOT analysis.
- Ineffective recovery tribunal.
- Delay in court regarding NPA'S matter.

Effect of NPA on Bank

Non-performing assets also referred to as non-performing loans on the balance sheet places three distinct burdens on the lenders. The non-payment of interest or principal reduces cash flow for the lenders, which can disrupt budgets and decreases earning, loan loss provisions, which are set aside to cover potential losses, reduce the capital available to provide subsequent loans, once the actual losses from defaulted loans are determined they are written off against earnings.

Objectives

- To know the concept of non-performing Assets.
- What are the basic causes which led to a sharp increase in NPA of industrial development bank of India ltd.
- Measures and prevention to tackle the problem of NPA.

Literature Review

A paper written by Mr. R Navaneetha Krishnasamy, Ms. M. Sharmila Devi, Dr. S mathivannan on Position of Non-Performing Assets in IDBI Bank in which they took a year-wise break up for the financial performance is required to identify the rating of NPA in the span of 10 years. The rating grades are used to know the position of Nonperforming Assets of the IDBI bank by considering the 11 ratios like gross NPA, net NPA, problem assets, Depositors safety, provisions, slippage, substandard, Doubtful Asset, Loss Assets, NPA Reduction, NPA Accretion. The selected NPAs ratios are the key indicator and it is seen that out of 26 parameters considered for NPA management the bank has 6 positive and -105 negative marks which tell a very poor management of NPA in IDBI bank ltd. Another paper written by Balsubramanian C. S. (2013) highlighted the level of NPA is high with all banks currently and the banks would be expected to bring down their NPA. This can be achieved by good credit appraisal system, effective internal control system along with their efforts to improve asset quality in their balance sheets.

Research Methodology

- The Research Design-Descriptive
- Research Technique-Quantitative

- Sampling Technique-Convenience Sampling
- Data Type-secondary data
- Data Analysis-Using pie-chart

Data Analysis and Interpretation

Sector wise NPA of Gorakhpur branch of IDBI Bank (Total Accounts 221)

TYPE	AMOUNT (in Lakhs)
AGRICULTURAL LOAN	12,40,000
MSME LOAN	12,81,000
STRUCTURAL RETAIL LOAN	7,53,000
TOTAL AMOUNT	32,74,000

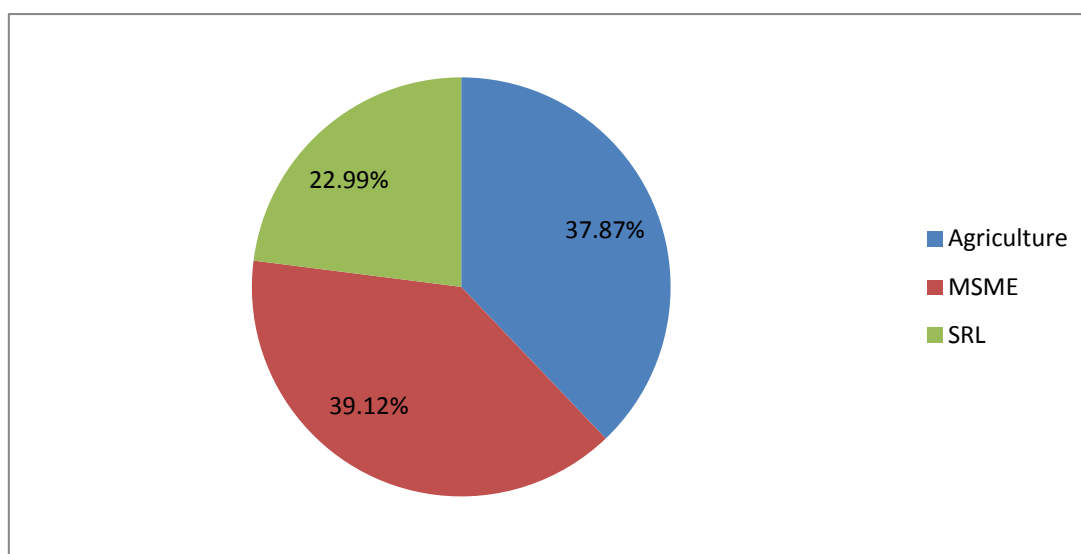


Fig. Graphical representation of sector wise NPA of IDBI Gorakhpur branch

YEAR WISE NPA OF IDBI LTD.

YEAR	GROSS NPA (in crores)	NET NPA (in crores)
2013	6449.98	3100.36
2014	9960	4902
2015	12684.97	5992.52
2016	24875.07	14643.39
2017	44752.59	25205.80

Sector Wise Analysis of NPA of IDBI Bank (In Crore)

Category	Outstanding Advances	Gross NPA	GNPA% To Total GNPA	Restructured Standard Advances
Agri and allied activities	17639	1960	3.87%	56
Industry(micro, small and medium enterprise)	102050	40253	79.52%	10620
Services	36313	6492	12.82%	285
Personal loans	36959	529	1.05%	00
Others	11808	1388	2.74%	38

Total	204768	50622		10999
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Findings

- It is seen that in Gorakhpur branch the percentage of MSME (micro, small and medium enterprise) of total NPA it accounts for 39% which is a highest share and secondly it is of agricultural sector.
- Overall gross NPA of IDBI bank rose 27.95% compared to 21.25% of previous year 2017.
- It is also seen from the sector wise analysis of IDBI bank that the share of corporate sector NPA is 79.25% which is highest.
- The basic reason which led to a sharp increase in NPA is the large share of amount of loan is given to the corporate sector and most of the firms are making loss as a result are not able to repay loan.
- The other basic reason of NPA is due to political pressure on the middle management to pass the project for sanction of loan even if it's not feasible.

Measures and Prevention

- IDBI bank need to ensure that only genuine proposal is accepted and projects having inherited weakness are to be rejected at the first instances. It needs to upgrade the credit appraisal skills which are highly inadequate. Economic viability, technical feasibility, quality of management and financial position of the borrower should be evaluated properly
- Corrective measures are required to recover the money out of assets, which have already fallen into NPA category. Normally, after sanctioning and disbursement of loans the bank should have an effective follow-u, and supervision over the credit.
- The following are the legal measures for recovering non-performing assets initiate by Reserve bank of India.

- a) Debt recovery tribunal (DRT)
- b) Corporate Debt restructuring (CDR)
- c) Asset Reconstruction company India limited (ARCIL)
- d) Credit information bureau (CIB)
- e) Securitization and Reconstruction of financial Asset

Suggestions

- The ratio of amount of loan sanction corporate to retail should be reduced that it should be maintained 30:70.
- The project of corporate sector which comes for sanctioning of loan should be properly scrutinized whether it's feasible or not then only it should be sanctioned for loan.
- Help of recovery tribunal should be taken for recovery of amount of NPA.
- So many acts have been passed like SARFESI ACT 2002 (SECURITISATION AND RECONSTRUCTION OF FINANCIAL ASSETS AND ENFORCEMENT OF SECURITY INTEREST ACT)

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A New World of Virtual Currency: Cryptocurrency

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ABSTRACT

After virtual games and friends, the world is using virtual currency. It is an alternative method of payment and digital assets. This digital currency launched in 2009, has created surge in the market and has gained attention across the world. It has gathered all appreciation and criticism. Some governments want to ban it, some countries like Hong Kong, Abu Dhabi, Australia are contemplating as to how to use this innovation. New York State Department of Financial Services of US issues "Bit License regime" for using it. The paper discusses all pro and cons of cryptocurrency.

Introduction

Since ancient times human have been using, some or the other kind of currencies for business transaction, it can be gold coins, silver or any metal coins. Then came the era of using paper currency followed by the plastic currency. The evolution of banking system, acts like the regulatory body and custodian of these financial transaction. But the world has been revolutionized by a new economy running on cryptocurrency. Cryptocurrency is digital assets, also called as virtual assets or alternative assets, designed to work as a medium of exchange, using cryptocurrency. Unlike regular currency, one cannot see or touch this currency, there is no regulatory body like Reserve Bank of India and not even governed by any government. It is a trustless decentralized payment mode. Technology has made a virtual world around us.

How Does Cryptocurrency Works?

Block Chain

It is a public ledger keeping a record of all transactions.

Transaction

It is a transfer of value between bitcoins wallets that gets included in the block chain.

Processing

Mining is distributed consensus system that is used to confirm waiting transactions by including them in the block chain.

Cryptocurrency Industry

On the advent of this digital currency, people thought it to be a passing fad, but, now the estimated cryptocurrency users are approx.... 2.5 million and 5.8 million. Till April 2017, the market value of this business is \$27 billion dollar. There are approx... 150

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cryptocurrency operating across the globe and 1876 people working full time in such industry.

Various Cryptocurrency Sectors in this Industry

Exchange:

Place where buying and selling of cryptocurrency take place. 52% of small exchanges hold government license to run them. They spend some part of their budgets in security matters of the transaction.

Wallet:

Storage of cryptocurrency

Payments:

Various companies help in payments.

Mining:

This sector is responsible for maintaining the ledger called block chain.

Major Cryptocurrencies

Bitcoins:

Bitcoins was the first digital currency which has no physical existence. It is an electronic currency, which works on peer to peer basic. It is also known as cryptocurrency, as it is dependent of cryptography. This currency was created in 2009, by an unknown person using alias Satoshi Nakamoto. Unlike a normal currency there is no central bank regulating the functioning or transaction involving bitcoins. A currency made of metals and paper has physical existence and bona fide, these benefits are not enjoyed by this cryptocurrency. Bitcoins are available on bitcoins exchange. Mt. Gox is the largest exchange. Anybody having a bitcoin address can transact online. A person can have multiple addresses to work with the currency. The specialty of such transactions is anonymity, unlike online payments. Once made payments cannot be received back, unless allowed by the other party. Bitcoins are kept in “digital wallet” either in clouds or in user’s computer. It is not insured by FDIC. People compete to “mine” bitcoins using computers; this is how bitcoins are created. All transactions are recorded in a public ledger called “block chain”. All transaction is verified by “nodes”. Any person can also become bitcoin miner. Uno coin is a Bengaluru based company, involved in buying and selling of this currency. A miner keeps the transaction stable, consistent, verified and unalterable. According to Cambridge University there are 2.9 to 5.8 million bitcoin wallets around the world till 2017. In India it is neither illegal nor legal declared by the Indian government. In 2017 the total market cap in worth \$25 million, risen 300% in just 30 days. Interestingly in 2009, each bitcoin was 0.0001 USD. In April 2017 Japan declared it to be a legal tender.

Ether or Ethereum (ETH):

Experts says that by 2018, Ether a new cryptocurrency will surpass the market of bitcoins. Ether value is linked to ethereum block chain. Experts says that the price of Bitcoins has increased 300%, and now cost \$2,300 a coin, but Ether the second most popular currency is gaining momentum.

Ripplea

Ripple a San Francisco based start –up lanced its XRP currency, was first developed in 2004 by Ryan Fugger. It is real time gross settlement system (RTGS).Also called as Ripple Transaction Protocol (RTXP) or Ripple protocol, it is built upon a distributed open source Internet protocol, consensus ledger and native currency called XRP (ripples).” This Cryptocurrency has risen 4000% this year, amazingly this company s just 5 years old. This currency is listed in 30 exchanges.

Some Other Cryptocurrencies

DASH and MONERO (XMR) launched in 2014.It is same as Bitcoins.

Market Cap Share of Various Cryptocurrency

March 2017



Data sourced from CoinMarketCap⁵

Source : https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf

Danger Zone

Bitcoins came into news when global cyber attackers and hackers demanded bitcoins as ransom form internet users. In 2016 hacker sold millions of dollar worth ether. The cryptocurrency once operated cannot be recovered back; therefore it is a popular target among criminals. In 2013 survey over 40 bitcoins exchange 22% had experienced breach. Even though 17% of the budgets are spend on the security of the transaction. It is unregulated and completely decentralized. There is no central bank. Mint or insurance coverage and un-collateral. The wallet holder has to do such transaction on his own risk. It is not possible to keep the wallet holder anonymous, as the IP address can be easily tracked. Some call it dark world as it used for illegal activities like buying weapons.

India's Response

The RBI says that it will look into Bitcoins and block chain, and see how it can be incorporated with for financial transaction. But the present cyber law of India needs to be updated for this, as the uncertainty over legal regulation is still a problem worldwide.

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Exploring The Underlying Factors Affecting Capital Structure Decision:

A Quantitative Analysis

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ABSTRACT

Objective: This study deploys an earnest effort to understand the factors that affect the managers involved in managing the portfolio of funding in companies. Capital structure decision is one of the important decisions that finance managers are involved with. This study tries to identify a host of factors controlling the attitude of finance managers in choosing different sources of financing as reflected in financials of respected companies.

Design/methodology/approach: An exploratory form of research is applied here based on the data available in different secondary sources like the financial statements published by sampled companies. Sample for the study is selected from companies listed in Dhaka Stock Exchange in pharmaceutical, textile and banking sectors.

Findings: The study has identified couple of factors affecting capital structure decision based on literature review. These factors are replicated in selected Bangladeshi firms to understand their implications. And the study fails to report any determinants having strong relationship which is statistically significant, however, the model passes goodness-of-fit test and residual analysis shows the presence of normality.

Research limitations/implications: The findings of the study couldn't be generalized due to some inherent limitations of the research. The study only covers selective companies from three sectors leaving others from the preview of analysis which limits the scope of the study. However, the finding of the research could be helpful for individual firms to find their status in the recent trend of practicing capital structure decision and thereby they can adopt or revise their policy in this regard. Another major limitation of the study is that it applies a quantitative forms of analysis based on data published in general purpose financial statements. It would be better if quantitative findings could be validated through qualitative analysis to bring data triangulation which is left for further study. Extending the analysis to cover all the firms listed in DSE can give a better look on capital structure issues in Bangladesh.

Originality/value: This study is being conducted first time in Bangladesh identifying determinants from different theories which will help the future researchers to extend the analysis. Thus, the study adds significant value to the current body of

Introduction

There is no universal theory of the debt- equity choice and no reason to expect one (Myers, 2001). However, there are several useful conditional theories, each of which helps to understand the debt-to-equity structure that firms choose. These theories can be divided into two groups – either they predict the existence of the optimal debt-equity ratio for each firm (so-called static trade-off models) or they declare that there is no well-defined target capital structure (pecking-order hypothesis). To avoid the preferences and other conflicting issues surrounding the capital structure theory, this study explores a very basic objective in capital structure decision based on published data.

Capital structure decision of a firm is being affected by a good number of factors. These factors may be completely external to the firms and they may be internal as well. External factors are mostly macro-economic variables like inflation, interest rate, monetary policy and internal factors are purely specific to particular firm like profitability, size, age, liquidity, tangibility etc. Corporate finance literature gives a testimony on studying the underlying factors affecting the capital structure decision of firms. This study is very usual in that sense; however, it captures different theories on capital structure and has identified mostly internal factors with reference to those theories and analyzes the relationship quantitatively.

The way Modigliani and Miller (1958) have started capital structure theory have narrowed down the scope of work, looking for only an optimum capital structure as a targeted debt-to-equity ratio that would minimize the overall cost of financing. However, by 1984, the focus turned into identifying underlying factors influencing the choice of sources of financing. The primary goal of this study is to determine if there are any firm-specific factors that systematically influence the capital structure of the companies based on quantitative data published in general purpose financial statements by the sampled companies.

Theoretical Framework

The study of capital structure theory begins formally with the irrelevance proposition of Modigliani and Miller where they have hypothesized that in perfect markets, it does not matter what capital structure a company uses to finance its operations. There are lot of theories addressing the mixture of debt and equity in forming capital base for companies. Some of the notable theories are trade off theory (TOT), pecking order theory (POT), signaling theory (ST), market timing theory (MTT), agency cost theory (ACT), free cash flow theory (FCFT) and contracting cost theory (CCT). Every theory has its own way of bringing optimization in capital structure decision. The proponents of these theories have also identified different factors affecting the inclusion of debts in capital structure along with the dimensions of relationship which is presented in the table below:

Table 1: Relationships between capital structure and its determinants across different capital structure theories [meanings of the symbols used in the table: Positive (+); Negative (-), Positive/Negative (+/-); No relation (x); Unknown (?); Support not found (!)]

Determinants	Capital Structure Theories						
	TOT	POT	ST	MTT	ACT	FCFT	CCT

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Size	+	+/-	!	‡	‡	‡	‡
Tangibility of Asset	+	-	×	‡	+/-	‡	‡
Profitability	+	-	+	‡	+	‡	‡
Growth and Growth Opportunities	-	+/-	+	-	‡	‡	‡
Non-debt Tax Shield	-	×	×	‡	‡	‡	‡
Cost of Financial Distress	-	×	×	‡	‡	‡	‡
Risk	-	-	‡	‡	‡	‡	‡
Ownership Structure	‡	‡	‡	‡	‡	‡	‡
Economic Growth	+	-	‡	‡	‡	‡	‡
Liquidity	+	-	‡	‡	‡	‡	‡
Inflation	+	‡	‡	‡	‡	‡	‡
Age of Enterprise	+	-	‡	‡	‡	‡	‡
Dividend	-	+	‡	‡	‡	‡	‡
Interest Expense	‡	-	‡	‡	‡	‡	‡
Product Uniqueness	-	‡	‡	‡	‡	‡	‡
Bankruptcy	-	‡	‡	‡	‡	‡	‡

Source: Authors' own compilation

Based on the analysis presented in above table and availability of data, this study considers the prevalence of trade off theory in Bangladesh and develops an understanding of capital structure on the basic premise of trade off theory. This theory recommends that optimal level of the debt is where the marginal benefit of debt finance is equal to its marginal cost. Firm can achieve an optimal capital structure through adjusting the debt and equity level thereby balancing the tax shield and financial distress cost. Myers (1984) uses the trade off theory as a theoretical foundation to explain the “Capital Structure Puzzle”. He (1977) suggests that the use of debt up to a certain level offset the cost of financial distress and interest tax shield. Apart from the bankruptcy cost, agency cost of Jensen and Meckling (1976) is also considered in the trade off model. Jensen (1986) states that debt can reduce the agency cost and argues that higher the debt capital grater the commitment to pay out more cash. Harris and Raviv (1990) suggest that debt capital in the capital structure produce valuable information in monitoring the agency behavior and for self-interest reasons managers are reluctant to liquidate the firm or provide such information which could lead to bankruptcy. Trade off theory postulates that all firms have an optimal debt ratio at which the tax shield equal the financial distress cost.

Trade off theory may be static or dynamic. Rasiah & Kim (2011) mentioned that the static trade off theory introduces financial policy such as the palliation of free cash flow, agency costs, the tax advantage of debt, the agency cost of stakeholders, the cost of financial distress which is chosen by the firm to compare the cost and benefit of the costs to meet the optimal capital structure. Though static trade off theory determines optimal capital structure, it never contradicts with symmetric information and the assumptions of market efficiency. The dynamic trade off theory, on the other hand, is developed by Fischer et al. (1989) as a hypothesis from the static trade off theory. Fischer et al. (1989) assured that various firms allow actual leverage ratio to deviate from target ratio in different quantity. This theory works on asset variability, costs of recapitalization, benefits and costs of debt financing. Optimal capital structure may vary for actual leverage ratio and the financing activities of a firm will symmetry to conduct the leverage ratio back to advantage the cost of adjustments. Firms will deviant on optimal capital structure with no

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transaction cost on perfect world market. Dangl & Zechner (2004) argued that the dynamic trade off theory primarily uses less debt on capital structure in opposition to static trade off strategy. This study develops the basic understanding of optimal capital structure decision based on the tradeoff between the tax benefit of inclusion of more debt in capital structure and resultant agency and bankruptcy cost.

Literature Review and Development of Hypotheses

Capital structure is defined as a business firm needs capital resources to finance its operations by particular alternative of leverage and owner's equity. Song (2005) argued that capital structure decision means a mix of various types of securities such as preferred stock, common stock, convertible debt, long term debt issued through a firm to finance its assets. If a firm has a gap between the money which is needed a firm and equity, the firm can meet the gap by issuing debt or equity. Frank & Goyal (2009) investigated that if we consider only short term debt or long term debt or total debt then the capital structure decisions may differ. As Harris and Raviv (1991) state: "Several studies shed light on the specific characteristics of firms and industries that determine leverage ratios. [...] These studies generally agree that leverage increases with fixed assets, non-debt tax shields, growth opportunities, and firm size and decreases with volatility, advertising expenditures, research and development expenditures, bankruptcy probability, profitability and uniqueness of the product." However, the results of both theoretical and empirical studies are not always unambiguous. An extended literature review identified several factors affecting the choice of sources of financing in capital structure which are identified in the table below:

Table 2: Factors influencing the choice of sources of financing in capital structure

Determinants	Relevant Literature
Size	Baker & Martin (2011), Rajan and Zingales (1995), Jensen and Meckling (1976), Titman and Wessels (1988), Wald (1999), Antoniou et al. (2002), Jong et al. (2008), Marsh (1982), Bauer (2004), Booth et al. (2001), Deesomsak et al. (2004), Gued et al. (2003), Eriotis et al. (2007), Smith (1977), Frank and Goyal (2009), Frydenberg (2004), Warner (1977), Ang et al. (1982), Bevan and Danbolt (2000), Chen (2004), Icke and Ivgen (2011), Elli and Farouk (2011), Kila and Mahmood (2008)
Tangibility of assets	De Jong et al. (2008), Camara (2012), Rajan and Zingales (1995), Haron (2014), Ross et al. (2008), Jensen and Meckling (1976), Frydenberg (2004), Myers (2001), Booth et al. (2001), Myers and Majluf, (1984), Chen (2004), Huang & song (2006), Margaritis and Psillaki (2007), Jong, et al. (2008), Huang & Song (2006), Frank and Goyal (2009), Antoniou et al. (2002), Bennett and Donnelly (1993), Wald (1999), Zou and Xiao (2006), Viviani (2008), Serrasqueiro and Rogao (2009), Titman and Wessels (1988), Hewa Wellalage & Locke (2012), Shah & Khan (2007)
Profitability	Huang (2004), Bowen et al. (1982), Jensen (1986), Leland & Pyle (1977) Chiang et al. (2010), Reinhard & Li (2010), Jordan et al. (1998), Margaritis and Psillaki (2007). Frank and Goyal (2009), Margaritis and Psillaki (2007), Booth et al. (2001), Rajan and Zingales (1995), Supanvanij (2006), Sayilgan et al. (2006), Sheikh & Wang (2010), Guney and Paudyal (2002), Akita (2005), Fama and French (2002), Gaud et al.

	(2005), Viviani (2008) Huang and Song (2006), Kim et al. (2006), Sayeed M.A. (2011), Abor (2005), Tong & Green (2005)
Growth and Growth Opportunities	Baker and Wurgler (2002), Myers (1977), Rajan and Zingales (1995), Chen (2004), Deesomsak et al. (2004), Zou and Xiao (2006), Frank and Goyal (2009), Jensen (1986), Bevan and Danbolt (2000), Titman and Wessels (1998), Buferna et al. (2005), Eriotis et al. (2007), Sayilgan (2009), Karadeniz et al. (2009), Gued et al. (2003), Akhtar and Oliver (2009), Ooi (1999) and Huang and Song (2006)
Non-debt tax shield	Frank & Goyal (2009), DeAngelo and Masulis (1980), Lim (2012), Antoniou et al. (2008), Bradley et al. (1984), Wald (1999), Chaplinsky and Niehaus (1993), Ozkan (2001), Wiwattanakantang (1999), Titman and Wessels (1988), Bauer (2004), Deesomsak et al. (2004), Viviani (2008), AL-Shubiri (2010), Graham (2006)
Risk	Baranoffetal (2007), Titman and Wessels (1988), Wiwattanakantang (1999), Jordan et al. (1998), Omran and Pointon (2009), Ezeoha (2011), Viviani (2008), Cassar and Holmes (2003), Su (2010), Gaud et al. (2005), Sheikhand Wang(2011), Chung (1993), Aborand Biekpe (2009), Frydenberg (2004), Myers (1977), De Angelo and Masulis (1980), Harris and Raviv (1990), Bauer (2004), Kim and Sorensen (1986)
Ownership Structure	Booth et al. (2001), Jensen and Meckling (1976), Jensen (1986), Shleifer and Vishny (1994), Dewenter and Malatesta (2001), Li et al. (2009), Huang and song (2006), Su (2010), Brav (2009), Chen et al. (2013), Friend and Lang (1988), Huang and Song (2006), Ellili and Farouk (2011), Novaes and Zingales (1995), Friend and Hasbrouck (1988), Mohammed et al., 1998), Gordon & Li (2003), Allen et al. (2005)
Liquidity	De Jong et al. (2008), Ross (1977), Myer (1984), Rajan and Zingales (1995), Titman and Wessels (1988), Deesomsak et al. (2004), Mazur (2007), Viviani (2008) Eldomiaty & Azim (2008), Bevan & Danbolt (2002), Kim et al. (1988), Opler et al. (1999), Afra & Hossain (2011), Friend and Lang (1988), Eriotis et al. (2007), Sheikh and Wang (2011)
Inflation	Booth et al. (2001), Graham and Harvey (2001), Frank &Goyal (2009), Hatzinikolaou et al. (2002)
Age of Enterprise	Harris and Raviv (1991), Johnson's (1997), Ramjee and Gwatidzo (2012), Petrunia (2010), Ahmed et al. (2010), Ming-Chang Cheng et al. (2011)
Dividend	Frydenberg (2004), Ali (2011), Bhaduri (2002), Frank and Goyal (2009)
Interest Expense	Walaa Wahid ElKelish (2007), Marsh (1982), Dhankar (1996)

Source: Authors' own compilation

Based on the data availability, the study has taken the following determinants of capital structure: size, tangibility of assets, profitability, growth opportunities, non-debt tax shields, risks, liquidity, age of enterprises, dividends, etc.

Size

From the theoretical point of view, the effect of size on leverage is ambiguous. Rajan and Zingales (1995) said that most of the large firms have various types of operations which give them more strength to survive eventually. Jensen and Meckling (1976)

commented that this ability makes the agency cost lower and these firms are mostly uncorrupted when they are listed in the stock exchanges. Rajan and Zingales (1995) concluded that the natural logarithm of net sales represents firm size. Baker & Martin (2011) found that financial distress costs usually affect firm size. According to trade off theory, large firms are cautious about more diversification and less eager about bankruptcy. When large firms issue long term debt, mostly they spend low exploit cost. Even large firms are capable to issue the debt at a cheaper price than small firms.

Titman and Wessels (1988) said that a firm's varieties of earnings are reflected by its size. Although large companies carry on their operations with a lower bankruptcy cost, comparatively large firms should have more debt than smaller firms. Due to lower risk of inability, large firms accept maximum credit ratings. Their reputations of debt markets are good but debt related agency costs are low.

Wald (1999) got a significant positive result between leverage and size in the context of USA, France, UK and Japan. Antoniou et al. (2002) also supports the result about UK and France. Empirical studies such as Jong et al. (2008), Marsh (1982), Rajan and Zingales (1995), Bauer (2004), Booth et al. (2001), Deesomsak et al. (2004), Gued et al. (2003), Eriotis et al. (2007) have indicated that a significant positive relationship exists between firm size and leverage. Frydenberg (2004) also found a positive assistant for size variables, which ensures the role of size as an opposite proxy of the bankruptcy risk of the companies. Warner (1977) and Ang et al. (1982) found that firm size is decreased by direct bankruptcy cost and the supply of debt has positively been influenced by firm's size.

Pecking order theory, on the contrary, indicates that there is a negative relationship between leverage and firm size. Titman and Wessels (1988) also found a negative relationship between a firm's short-term debt and its size which indicates the existence of transaction costs for comparable firms. It means maturity of debt and firm size are also connected with each other. There is a trend to issue more equity and long term debt for large firms at a lower cost than smaller firms do. The chance of issuing undervalued equity is reduced by low asymmetric information. External investors may prefer to hold equity rather than debt which has an inverse relation between firm size and the availability of information (Rajan and Zingales, 1995). Bevan and Danbolt (2000), Chen (2004), Icke and Ivgen (2011), Elli and Farouk (2011), and Kila and Mahmood (2008) found that there is a negative relationship between firm size and leverage. Based on the above literature, the natural logarithm of sales is used in this study to proxy for the size of a company. The below hypothesis is taken to test whether the capital structure is being affected by the respective size of the company.

H1: Firm's size is one of the major determinants of Capital Structure.

Tangibility of Assets

Tangibility of assets is defined as the ratio of plant, net property and equipment (fixed assets) over total assets (De Jong et al., 2008; Camara, 2012; Rajan and Zingales, 1995; Haron, 2014). A company can collect debt capital very easily at a lower cost having more tangible assets compared to other companies don't having enough tangible asset. The tangibility of assets increases trading power of a

company. Ross et al. (2008) indicated that huge number of physical asset may borrow more commitment about their physical assets as parallel and preventive lenders risk of bearing like agency cost of debt. Jensen and Meckling (1976) found that agency cost exists between the creditors and shareholders. For instance, after borrowing the money from creditors, firm can invest it in any project which is not safe for shareholders. It appears that firm with low agency cost can increase the debt. So, trade-off theory pretends a positive relationship between debt and tangibility of assets.

On the other hand, few researchers worked on intangible assets and leverage. Frydenberg (2004) investigated in the context of Norway and found that those firms who have fixed assets to intangible assets ought to have more long-term debt than short-term debt. Myers (2001) told that there is an inverse relation between intangible assets and leverage. Booth et al. (2001) got a negative relation between tangibility and Leverage in ten developing countries.

According to asymmetric information (signaling theory), managers have better information than investors (outside shareholders). It may be convenient to sell out secured debt whereas there is some issuing securities cost (Myers and Majluf, 1984). So, firms can avoid agency cost for issuing secured debt through physical assets. It ensures the positive relationship between firm's leverage and tangibility. It implies that asset tangibility has a significant role in banks' credit policy especially authentic for long term loans. In china, Chen (2004) and Huang & Song (2006) confirmed a positive relationship between tangibility and leverage. Margaritis and Psillaki (2007) found the positive correlation between tangibility and leverage. Jong et al. (2008) and Huang & Song (2006) argue that tangibility of firm is positively related to Leverage. Frank and Goyal (2009) investigated and found a positive relation between these two variables. Antoniou et al. (2002) found positive significant evidence in Germany. Bennett and Donnelly (1993) found a positive relationship in UK. Wald (1999), Zou and Xiao (2006), Viviani (2008), Serrasqueiro and Rogao (2009), Titman and Wessels (1988), Hewa Wellalage & Locke (2012) got significant positive relation. Rajan and Zingales (1995) mentioned a significant positive relationship between the leverage and tangibility in most developed countries. However, results from developing world are mixed. In this study, tangibility is defined as fixed assets divided by total assets. The study takes the following hypothesis to be tested.

H2: Tangibility of asset is a determinant of capital structure.

Profitability

Profitability is one of the major variables in shaping capital structure. According to trade off theory, a firm may get more tax benefit if the firm has more cash to afford more debt (Huang 2004). Bowen et al. (1982) provided an empirical evidence to have a positive relationship between profitability and leverage. According to the free cash flow theory, agency cost of free cash flow is decreased by debt (Jensen 1986). According to asymmetric information, profitable firms increase their debt ratio to send a signal for outside investors. However, the free cash flow theory means positive relationship between profitability and leverage (Leland & Pyle, 1977; Chiang et al., 2010; Reinhard & Li, 2010; Jordan et al., 1998; Margaritis and Psillaki, 2007). Frank and Goyal (2009) indicated that to reduce cost of financial distress, firms try to

increase their leverage to take advantage from tax benefit. It shows a positive relationship between profitability and leverage. Margaritis and Psillaki (2007) argued that there exists a significant relationship between these two variables.

Booth et al (2001) investigated that profitable firms can internally increase their funds to use retained earnings when they have to maintain a constant debt-equity ratio. But less profitable firms have not that much choice to avoid debt financing and increase the fund internally. Profitable firms have more internal resources to reduce debt ratios in order to leverage ratios. Rajan and Zingales (1995) found that creditors willingly give loans to high current cash flow firms. Total assets scale the profitability with operating income. However, these two research groups indicated that there exists a negative relationship between leverage and profitability. Many more researchers got negative relation between leverage and profitability (Supanvanij, 2006, Sayilgan et al., 2006, Sheikh and Wang, 2010). Guney and Paudyal (2002) tried to find out something in the context of Europe (France, Germany and UK) and found a positive relation in Germany but got a negative relation in UK and France. According to packing order theory, Akita (2005) investigated in the context of Australian multinational and domestic firms and got a negative result from both multinational and domestic firms. Profitable firms have less debt and short term cash flow of firms are impaired on consecration and paying debt (Fama and French, 2002; Gaud et al., 2005; Sheikh and Wang, 2011; Viviani, 2008; Huang and Song, 2006; Kim et al., 2006).

Sayeed M. A. (2011) found profitability is irrelevant in determining capital structure. Abor (2005) told that a positive relationship in short term debt and negative relationship in long term debt between leverage and profitability. According to Pecking order theory, researchers got negative relationship between profitability and leverage. Some empirical evidences also validate negative relation between profitability and leverage (Tong & Green, 2005; Huang & Song, 2006; Frank & Goyal, 2009). In this study, profitability is defined as net profit before tax divided by total assets. Following the majority of the findings the hypothesis regarding profitability has been formulated as:

H3: Profitability is a determinant of capital structure.

Growth Opportunities

Growth is an independent variable for both packing order theory and trade off theory. According to asymmetric information, firms should avoid to issue new equity if the firms have dynamic potentiality because market does not appreciate their stocks. As per the market timing theory, issuing equity is acceptable when price to book ratios are high (Baker and Wurgler, 2002). It implies a company's growth potentiality (Myers, 1977). Firms should use more equity financing if it has a good level of growth, whereas above leveraged firms can deny positive NPV benefit (Rajan and Zingales, 1995).

According to packing order theory, if a firm has a constant level of profitability and the firm wants a quicker growth then it is mandatory to use more debt. It supports a positive relationship between growth and leverage. On the other hand, trade off theory predicts that growth firms have a huge risk of losing their market value if they fall into financial problem (Myers, 1977). So it indicates that growth has a negative

relationship with leverage (Myers, 1977; Rajan and Zingales, 1995). Firms borrow more to achieve their growth opportunity and decrease the shareholders benefit which is related with agency problem. Although Chen (2004) confirmed that trade off model does not applicable for the Chinese firms because of low technology level (Deesomsak et al., 2004; Zou and Xiao, 2006; and Eriotis et al., 2007). To reduce agency conflict, firms should borrow less money even if they have a huge chance of growth opportunity. Frank and Goyal (2009) found that agency cost may support a negative relationship between growth and leverage because of more or less investment and asset implantation problem. Shareholder can use the debt as a systematic way for minimizing over investment and preventing negative NPV investment though this systematic role of debt is not pursuing for growth firms (Frank and Goyal, 2009; Jensen, 1986). Rajan and Zingales (1995) confirmed us about G7 countries that there is a negative relation between these two variables.

More growth opportunity firms will utilize the most leverage (Chen, 2004). Signaling theory assumes that a positive correlation between growth and leverage. Bevan and Danbolt (2000) found that UK firms have a positive relationship between two variables. Titman and Wessels (1998) and Chen (2004) also got positive relation between growth opportunities and leverage.

A good number of studies confirmed that (Eriotis et al., 2007; Sayilgan, 2009; Karadeniz et al., 2009; Gued et al., 2003; Akhtar and Oliver, 2009; Buferna et al., 2005) the relationship between growth opportunities and debt ratios is negative. In some other studies, the researchers (Ooi, 1999 and Huang and Song, 2006) found that there is no significant relationship between growth opportunities and debt ratios. Chen (2004) and Buferna et al. (2005) used the percentage change of total assets as a representative for firm growth. This study also uses percentage change in total assets as a proxy to growth opportunities for firms. This study takes the following hypothesis to test the relationship between growth opportunities of firms and capital structure.

H4: Growth Opportunities is a determinant of capital structure.

Non-debt Tax Shield

According to trade off theory, firms should prefer more debt because it gives precious interest tax shield and raises income after taxes whereas the interest cost is deductible. A firm gets advantage from higher tax bracket if it has excessive borrowing. Trade off theory predicts firm leverage is inversely related with non-debt tax shield (Frank & Goyal, 2009). Non debt tax shield delegates that investment tax credits, net operating loss carry forward, depreciation expense should be negatively associated with leverage. Firms will have less debt if they have more number of non-debt tax shields. Antoniou et al. (2008) suggested that a firm motivation to increase the slope of the debt tax. DeAngelo and Masulis (1980) confirmed that on debt financing, non-debt tax shield works as a substitute of tax shield. However, firms are awaited to use low debt in their capital structure. Lim (2012) and Antoniou et al. (2008) supported that empirical findings are mixed. Bradley et al. (1984) found that there is a strong relationship between leverage and relative amount of non-debt tax shield. To measure non-debt tax shield, Wald (1999) suggested the depreciation ratio

divide total assets. Chaplinsky and Niehaus (1993) the sum of depreciation ratio and investment tax credits divide total assets to measure.

Ozkan (2001) and Wiwattanakantang (1999) got an inverse relationship between debt and non-debt tax shields. Titman and Wessels (1988) reported that no favor is available on debt ratios to raise non-debt tax shield. Bauer (2004) indicated less significant negative relationship between leverage and non-debt tax shield. Deesomsak et al. (2004) and Wald (1999) found a significant negative relationship between non-debt tax shield and leverage. Another study reveals that short term debt ratios and non-debt tax shields are significantly negatively related (Viviani, 2008). On the other hand, AL-Shubiri (2010) and Graham (2006) found a positive relation between non-debt tax shield and leverage. This study defines non-debt tax shields as depreciation expenses divided by total assets and has taken the following hypothesis to test the relationship.

H5: Non- debt tax shields is a determinant of capital structure.

Risk

In capital structure, risk has an important role (Baranoffetal, 2007). Risk means the chance of loss occurring and the damage of earnings. Risk is defined as the volatility of cash flows or gaining expectation of a firm. Theory of finance assumes that firms should not be highly leveraged who have a huge possibility of default (Titman and Wessels, 1988; Wiwattanakantang, 1999). So, it indicates that risk is negatively related with leverage. A firm who has a huge risk of earnings is closer to go bankrupt and has less credit capability for debt. Jordan et al. (1998) found that higher market growth has a positive relationship between market value of debts and risk. Because firm's debt is increased by bankruptcy risk. Omran and Pointon (2009) investigated risky firms have more long term debt. Ezeoha (2011) concluded that debt has no significant relationship with risk. Several researchers found the absence of association between risk and debt ratios (Viviani, 2008; Cassar and Holmes, 2003; Su, 2010). Gaud et al. (2005) concluded that there exists a positive relationship between leverage and business whereas profitability and growth are inversely related with leverage. Several researchers (such as Sheikh and Wang, 2011; Chung, 1993; Abor and Biekpe, 2009) have shown that the relationship between risk and capital structure is negative.

Trade off theory assumes firm should ignore debt financing when it has highly essential cash flows. It reflects a negative relationship between firm leverage and risk. Frydenberg (2004) suggested that firms having low debt ratios have high business risk to ignore falling in financial distress for the higher volatility in their earnings. Myers (1977) pointed that risky firms prefer more borrowing than safe firms. Packing order theory assumes inverse relation while agency cost supports positive relationship. Harris and Raviv (1990) concluded that systematic risk is increased by the higher volatility to reduce the prospect of issuing new equity. Bauer (2004) and Titman and Wessels (1988) found no significant relationship between risk and leverage. On the hand, Kim and Sorensen (1986) found a positive relation. This study defines risk as change in current profitability and has taken the following hypothesis to test:

H6: Risk (Business & Firm) is a determinant of capital structure.

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Liquidity

Liquidity is calculated by the total current assets over the short term liabilities. De Jong et al. (2008) confirmed that liquidity is the sum of cash and other liquid assets which is firstly served in firms against debt. According to trade off theory, if companies have higher liquidity, they should borrow more money to meet their financial obligations on time. However, trade off theory supports a positive relation between liquidity and leverage (Ross 1977). According to packing order theory, firms should use internal funds for financing new investment opportunities when they have huge liquidity (Myers, 1984). Rajan and Zingales (1995) and Titman and Wessels (1988) showed a negative relationship between liquidity and leverage. So, packing order theory indicates an inverse relation and many researchers supported it (Deesomsak et al., 2004; Mazur, 2007; Viviani, 2008; Eldomiaty & Azim, 2008). Bevan & Danbolt (2002), Kim et al. (1988), Opler et al. (1999) concluded that high liquid firms prefer to use internal financing to external financing. This study has taken the following hypothesis to test the relationship between liquidity and leverage.

H7: Liquidity is a determinant of capital structure.

Age of Enterprise

On capital structure, age of enterprise is an important determinant to calculate the debt repayment and risk taking behavior. Actually age of enterprise is calculated by its establishment and operation year. Older firms with big reputation are more experienced to collect debt and using it in the best possible way. According to trade of theory, age is a key indicator of a firm's credibility and predicts positive relation. Packing order theory indicates that companies maintain their payment over the time. Older organizations have a large amount of accumulated retained earnings, and less reliance on external financing to meet their financial conformity comparatively young firms. Harris and Raviv (1991) found that creditors lend them money by observing their past record of repayment of debt reputation and lower borrowing cost is depended by the reputation. Usually old firms with reputation try to invest in safer project to avoid losing their valuable reputation. But young firms with little reputation may choose the risky project. Empirical evidence shows that a mixed prediction about leverage and age of enterprise. Johnson's (1997) investigated that a positive result between age of debt and leverage. On the other hand, Ramjee and Gwatidzo (2012), Petrunia (2010), Ahmed et al. (2010) found a negative relationship between leverage and age of debt. Ming-Chang Cheng et al. (2011) concluded that there might be a positive or negative relationship between leverage and age of enterprise. This study has taken the following hypothesis to test any relationship between age of enterprise and leverage.

H8: Age of enterprise is a determinant of capital structure

Dividend

According to packing order theory, a firm with high growth opportunities should have a low dividend payout ratio. Dividend payments carry a positive signal about the firm's financial health and the capability of using more debt. It indicates a positive relation between debt and dividend. Frydenberg (2004) found that paying

large amount of dividends indicate a positive signal on the market about the firm's efficiency on the future investments without using more debt. Constant dividend payments raise the necessity of issuing more debt to decrease the amount of internal fund. So, Ali (2011) supports a positive relation between dividend payout ratio and debt. Frydenberg (2004) investigated that when a firm promises dividend payments, negative impact may occur in the long term debt and total debt. On the other hand, Frydenberg (2004) also found that there is a positive relationship between dividend and short term debt. Bhaduri (2002) found that agency models envisage dividend payment and debt issue as a substitute in mitigating agency problems. Frank and Goyal (2009) found that dividend paying firms taking care of low debt ratios rather than non-dividend payers. The following hypothesis has taken to find out any relationship between dividend and leverage.

H9: Dividend is a determinant of capital structure.

Product Uniqueness

Firms that produce specialized products and are perceived by customer as unique tend to be less levered (Titman, 1984). Titman and Wessel (1998) measure this variable as R&D and selling expenses over total sales. Because it is expected that firms who invest more in R&D are more innovative, and their products should be more unique compare to others. When investigating the relationship between firms' financing choices and characteristics of suppliers and customers, Kale and Shahrur (2007) argue that firms utilize lower debt level to induce relationship-specific investment; Coincidentally, Banerjee, Dasgupta and Kim (2008) show that customer leverage ratios are lower when they are depending on their suppliers to a larger extent. To the contrary, De Jong and van Dijk (2001) indicate that there is no significant relationship between product uniqueness and leverage for Dutch listed firms. In this study, product uniqueness is defined as cost of sales divided by net revenues from sales. To understand the relationship between capital structure and product uniqueness, the following hypothesis has been taken to test:

H10: Product uniqueness is a determinant of capital structure.

Agency Cost

Agency costs emanate from agency relationships that arise because of separation of ownership and management. Jensen and Meckling (1976) argue that the existence of the debt reduces the amount of equity and enables a higher level of insider ownership. Jensen (1986) also argues that the existence of the debt in the firm's capital structure acts as a bonding mechanism for company managers. By issuing debt, rather than paying dividends, managers contractually bind themselves to payout future cash flows in away unachievable through dividends. Easterbrook (1984) in the study of agency cost expectation of dividends argues that external capital market monitoring brought to companies by debt financing, forces managers in value maximizing strategies, rather than personal utility maximization. In this study, agency cost is measured by sales divided by total assets and the following hypothesis has been taken to test the underlying relationship:

H11: Agency cost is a determinant of capital structure.

Research Methodology

This study has applied a quantitative form of analysis based on the information published through general purpose financial statements. Considering the age of listing and presence of debt in capital structure, the study has taken 27 companies out of 113 companies listed in Dhaka Stock Exchange (DSE) across three industries as mentioned in the table below:

Table 3: Sample of the companies studied

Industry	Population	Sample	%
Banks	30	10	33
Textiles	52	9	17
Pharmaceuticals	31	8	26
Total	113	27	24

Most of the data required for the study have been captured from financial statements of the sampled companies for five years from 2012 to 2016. The factors used in this study have been mentioned in the table below with their operational definitions.

Table 4: Variables used in the study

Factors	Notations	Operational Definitions
Dependent Variable:		
Capital Structure	LEV	Long term debt divided by total assets
Independent Variables:		
Firm Size	SIZE	Natural logarithm of sales
Tangibility of Assets	AT	Fixed assets divided by total assets
Profitability	PRT	Net profit before tax divided by total assets
Growth Opportunities	GTA	Percentage change in total assets
Non-debt Tax Shields	NDTS	Depreciation expenses divided by total assets
Risk	RISK	Change in current profitability
Ownership Structure	OST	Dummy; 0 for domestic firm and 1 for foreign
Liquidity	LTY	Ration of current assets to short term liabilities
Age of Enterprise	AGE	Number of year since listing
Dividends	DIV	Dividend payout divided by net income before taxes
Product Uniqueness	UNIQ	Cost of sales divided by net revenues from sales
Agency Cost	AC	Sales divided by total assets

As per the factors identified above, relevant data have been captured for all the sampled firms across five years. In order to derive the existing relationship between dependent and set of independent variables taken in the study a typical procedure of Ordinary Least Square (OLS) regressions is undertaken. Capital Structure is dependent variable and is associated with number of independent variables to study what actually determines the capital structure of an organization. The following equation is formulated for the study:

$$LEVi,t = \alpha + \beta_1 SIZE_{i,t} + \beta_2 AT_{i,t} + \beta_3 PRT_{i,t} + \beta_4 GTA_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 RISK_{i,t} + \beta_7 OST_{i,t} + \beta_8 LTY_{i,t} + \beta_9 AGE_{i,t} + \beta_{10} DIV_{i,t} + \beta_{11} UNIQ_{i,t} + \beta_{12} AC_{i,t} + \epsilon_{i,t}$$

Where,

LEVi,t represents capital structure of ith company in period t

SIZE_{i,t} represents firm size of ith company in period t

AT_{i,t} represents tangibility of assets of ith company in period t

PRT_{i,t} represents profitability of ith company in period t

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$GTA_{i,t}$ represents growth opportunities of i th company in period t
 $NDTS_{i,t}$ represents non-debt tax shields of i th company in period t
 $RISK_{i,t}$ represents risk of i th company in period t
 $OST_{i,t}$ represents ownership structure of i th company in period t
 $LT_{i,t}$ represents liquidity of i th company in period t
 $AGE_{i,t}$ represents age of enterprise of i th company in period t
 $DIV_{i,t}$ represents dividends of i th company in period t
 $UNI_{i,t}$ represents product uniqueness of i th company in period t
 $AC_{i,t}$ represents agency cost of i th company in period t
 $\varepsilon_{i,t}$ represents error term for i th company in period t

Analysis and Findings

The section presents the analysis and related findings with reference to prime objective of this study. Table 5 below begins with the correlation analysis between variables used in the study to understand their inherent relationship. The coefficient between risk and profitability comes out to be .000 showing no relationship between them. In all other cases, the variables are either positively or negatively correlated. It indicates that the variables have significance in understanding their impact on dependent variable, i.e., capital structure.

Table 5: Pearson Correlation Coefficient

	Capital Structure	Asset Tangibility	Profitability	Growth Opportunities	Liquidity	Firm Size	Product Uniqueness	Risk	Non-Debt Tax Shields	Age of Enterprise	Dividends	Agency Cost
Capital Structure	1.000											
Asset Tangibility	.225	1.000										
Profitability	-.070	.158	1.000									
Growth Opp.	-.111	-.050	-.057	1.000								
Liquidity	.254	.156	.103	.180	1.000							
Firm Size	.258	.795	.218	-.120	.353	1.000						
Pro. Uniqueness	-.243	-.305	-.132	.086	-.203	-.516	1.000					
Risk	-.017	.028	.000	.019	-.068	.025	-.010	1.000				
ND Tax Shields	.091	.293	.104	-.088	.111	.312	-.005	.098	1.000			
Age of Enterprise	.053	-.112	-.069	.070	-.104	-.092	.040	.061	.084	1.000		
Dividends	-.215	-.532	-.122	.087	-.207	-.641	.172	-.082	-.228	.131	1.000	
Agency Cost	.048	.292	.124	-.181	.067	.603	-.293	.115	.244	.164	-.409	1.000

The next table (Table 6) shows the multiple linear regression model summary and overall fit statistics. We find that the adjusted R^2 of our model is .121 with the R^2 of .195. R-squared is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determination for multiple regression. The definition of R-squared is

fairly straight-forward; it is the percentage of the response variable variation that is explained by a linear model. This means that the linear regression only explains 19.5% of the variance in the data in this study which is very small. The Durbin-Watson d equals 1.960, which is between the two critical values of $1.5 < d < 2.5$. Therefore, we can assume that there is no first order linear auto-correlation in our multiple linear regression data.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.442	.195	.121	.08650	1.960

The next output table shows the result of the F-test. The linear regression's F-test has the null hypothesis that the model explains zero variance in the dependent variable (in other words $R^2 = 0$). The F-test is highly significant; thus we can assume that the model explains a significant amount of the variance in capital structure.

Table 7: ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.218	11	.020	2.646	.000
	Residual	.898	120	.007		
	Total	1.116	131			

The above table indicates that the regression model predicts the dependent variable significantly well. The table indicates the statistical significance of the regression model that was run. Here, $p < 0.0005$, which is less than 0.05, and indicates that, overall, the regression model statistically significantly predicts the outcome variable (i.e., it is a good fit for the data). On the other hand, the coefficient table (Table 8) below provides us with the necessary information to predict capital structure from respective independent variables, as well as determine whether they contribute statistically significantly to the model (by looking at the "Sig." column).

Table 8: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.071	.058		1.219	.225		
Asset Tangibility	.043	.056	.125	.774	.441	.258	3.881
Profitability	-.042	.026	-.138	-1.641	.103	.945	1.058
Growth Opportunities	-.046	.025	-.162	-1.871	.064	.891	1.122
Liquidity	.016	.007	.233	2.376	.019	.700	1.429
Firm Size	.000	.004	-.011	-.047	.962	.117	8.543
Product Uniqueness	-.014	.007	-.193	-1.879	.063	.635	1.576
Risk	-.002	.014	-.009	-.112	.911	.960	1.042
ND Tax Shields	.027	.106	.023	.258	.797	.835	1.197
Age of Enterprise	.001	.001	.145	1.662	.099	.877	1.140
Dividends	-2.077	.000	-.158	-1.419	.159	.543	1.842

Agency Cost	-.023	.018	-.159	-1.283	.202	.437	2.291
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Furthermore, we can use the values in the "B" column under the "**Unstandardized Coefficients**" column to present the regression equation as:

$$\text{Capital Structure} = .071 + .000(\text{SIZE}) + .043(\text{AT}) - .042(\text{PRT}) - .046(\text{GTA}) + .027(\text{NDTS}) - .002(\text{RISK}) + .016(\text{LTY}) + .001(\text{AGE}) - 2.077(\text{DIV}) - .014(\text{UNIQ}) - .023(\text{AC})$$

As per the beta values, four (asset tangibility, liquidity, non-debt tax shields and age of enterprise) out of eleven variables shows positive; six (profitability, growth opportunities, product uniqueness, risk, dividends, and agency cost) shows negative relationship and one (firm size) shows no relationship with capital structure. Further to the analysis, none of the variables become statistically significant at $p < .05$. The information in the table above also allows us to check for multicollinearity in our multiple linear regression model. Tolerance for all the variables is more than 0.1 and VIF is less than 10 which confirms the non-existence of multicollinearity in our analysis.

An important way of checking whether a regression has achieved its goal to explain as much variation as possible in a dependent variable while respecting the underlying assumption, is to check the *residuals* of a regression. In other words, having a detailed look at what is *left over* after explaining the variation in the dependent variable using independent variable(s). For this purpose, we can check for normality of residuals with a normal P-P plot. The plot shows that the points generally follow the normal (diagonal) line with no strong deviations. However, here we have produced residuals statistics from our analysis showing the mean (zero) and standard deviation (one) of predicted value and residual which confirms the presence of normality.

Table 9: Residuals Statistics

	Minimum	Maximum	Mean	Standard Deviation	N
Predicted Value	-.0308	.2131	.0783	.04077	132
Residual	-.14206	.28738	.0000 0	.08279	132
Standard Predicted Value	-2.675	3.305	.000	1.000	132
Standard Residual	-1.642	3.322	.000	.957	132

Based on the analysis, we can summarize the findings in the table below:

Table 10: Test of hypothesis

Hypothesis	Relationship	Significance	Theory Supported
H1: Firm's size is one of the major determinants of Capital Structure.	No relationship	Not significant	Not supported
H2: Tangibility of asset is a determinant of capital structure.	Positive	Not significant	TOT
H3: Profitability is a determinant of	Negative	Not significant	POT

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capital structure.			
H4: Growth Opportunities is a determinant of capital structure.	Negative	Not significant	TOT
H5: Non- debt tax shields is a determinant of capital structure.	Positive	Not significant	Not supported
H6: Risk (Business & Firm) is a determinant of capital structure.	Negative	Not significant	TOT
H7: Liquidity is a determinant of capital structure.	Positive	Not significant	TOT
H8: Age of enterprise is a determinant of capital structure	Positive	Not significant	TOT
H9: Dividend is a determinant of capital structure.	Negative	Not significant	TOT
H10: Product uniqueness is a determinant of capital structure.	Negative	Not significant	TOT
H11: Agency cost is a determinant of capital structure.	Negative	Not significant	Not tested before

As already pointed out, nine independent variables show either positive or negative relationship with capital structure leaving only one with so such relationship. However, none of the relationship becomes statistically significant. At the same time, the study confirms the application of Trade off Theory in most of the cases. Agency cost has not been tested before aligning with theories and this study shows a negative relationship. Firm size and non-debt tax shields don't support the pervious findings. And, profitability confirms the Pecking Order Theory.

Conclusion and Recommendation

Capital structure decision is a very important decision in financial management area. Reaching to optimal capital structure was a primitive focus in finalizing the debt-equity ratio. However, the focus of studying capital structure decisions moves to the identification of the determinants of capital structure. This study is not any exception. An extensive literature review selects a host of determinants (ten) and the study applies quantitative form of study to understand the relationship between the determinants and capital structure. The study results a poor model with a very less explanatory power, though it passes goodness-of-fit test and doesn't show the presence of any multi-collinearity in it. The study also tries to validate the findings based on the theoretical framework of the study.

The major limitations of the findings are that only a sample of companies has been considered in this study. Only five years' data have been captured to prepare the dataset which limits the applicability of the findings. At the same time, the findings raise question on the justification of such week relationship between capital structure and selected independent variables. In countries like Bangladesh, the outside the firm factors may have more explanatory power than variables which are firm specific. Cultural, political and behavioral factors need to be researched under qualitative research paradigm capturing some in depth interview from finance managers who deals with capital structure decision. It may develop a new profile of determinants affecting capital structure decision.

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How Inclusive Is Financial Inclusion in India?

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ABSTRACT

Since, 2006 Financial inclusion got its attention in India. In 2014 Government has initiated various focussed programmes like Savings, Credit, Insurance and Pension services to include the financially excluded people in banking system. The objective of These programmes was to have 100 percent financial inclusion and financial literacy in the country. This study has been examined at world level by including 264 countries to check the financial position of India at global level and to check the impact of recent financial inclusion schemes in the country. In this study we have used financial inclusion index to represent the financial inclusion position in India. The overall financial inclusion position is not much improved. India have achieved low financial inclusion which scales between (IFI. $0 \leq FII \leq 0.4$; indicates low financial inclusion, LFI.)

Introduction

In India financial inclusion was first time used in 2005 by then governor of reserve bank of India (Y.Venugopal Reddy)ⁱ. After that the term financial inclusion has been widely used in India. Financial inclusion is simply distribution of financial system of an economy to its to its followers. According to Leeladhar (2005)ⁱⁱ financial inclusion is nothing but a bank service and is used interchangeable with banking inclusion. Banking policies were reformed to align vast sections of population who were out of banking to include them in financial inclusionⁱⁱⁱ. In 2005 (Khan Committee) presented report on Rural credit and Microfinance. A deeper concern was shown on the exclusion of larger population from formal banking system^{iv}. After khan Committee Report, the RBI urged banks to provide facility of a basic “No-Frills” bank account (2005-2006)^v. Financial inclusion committee has defined financial inclusion, assurance of access to financial services and time-based adequate credit whenever needed by weaker sections and other low-income groups at a very economic cost (Rangarajan Committee, 2008)^{vi}. In India Financial inclusion is backed by banks largely. For example, UKs financial inclusion is based on three major dimensions which are access to banking. Access to credit, and money advice by face which are also very important in India too. The process of financial inclusion is mostly involved in granting credit to agriculture and low-income groups for different purposes. Financial inclusion is name of various bunch of financial services, that is why it is also called by the name of multidimensional phenomenon.

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Academician, scholars, and social scientists have discussed financial development is closely related with economic growth but question arises whether development of financial development leads development of financial inclusion or not? It has been found that well developed financial systems are still behind the success of inclusiveness due to which many destitute sections are outside the mainstreaming. During recent years financial inclusion has been recognised as a priority in India, and has been widely accepted in the policy circles. Finance is having much importance in the economy as blood in the human body. So, access to finance can play the door way towards financial inclusion. Inclusive finance will help in reducing all the bottlenecks and exploitations in the financial system which are high interest rates by money lenders and other risks of the informal economy. Thus, development in every field is a necessary condition to compete in a modern life. Life these days also demand things on the bases of sustainable grounds with security and peace. If we consider the increasing and changing trend of financial services, one side we demands facilities and on the other security too, therefore to live in between also arise question about the different demographic structures, where people are old, illiterate, rural urban divide and reach of technology again needs attention how to cover all in the inclusive system and what type of facility for which group to provide, it needs more research to be done, how to compete with modernity and needs of banking facilities so that all the population could be included in the financial inclusion.

Concept of financial inclusion index needs attention how to measure accessibility of financial services and which indicators to include in it. Again, methodological question arises whether financial inclusion index is complete tool to measure financial efficiency or not? Policy makers should also consider how to eradicate all the barriers to achieve complete inclusion of the people. Research and Development has achieved remarkable contribution in providing huge amount of literature on financial inclusion, exclusion and associated areas etc.

Kempson et al (2004)^{viii} has mentioned six reasons of exclusion, but these barriers may differ from country to country due to development and underdevelopment and demographical reasons etc. Problems of exclusion, are rules and regulation of bank accounts, bank charges, psychological and behavioural inferences, Easy access of banking services. Chakraborty (2010)^{ix} has classified some of the barriers which are, supply side problems from banks, Demand side barriers from destitute groups. Financial inclusion will improve only when these problems will be addressed in a concerted way. So, addressing Financial exclusion on the grounds of supply and demand-oriented barriers could help policies makers to frame policies accordingly. In this chapter we have tried to figure out the performance of financial inclusion since its inception 2006 to 2016. We will first check the financial inclusion performance from 2006-2013 and 2014-2016 because most of the programmes has been implemented after 2014 by providing targeted schemes to cover the unbaked population like PMJDY^x, MUDRA^{xi}, PMSBY^{xii}, PMJJBY^{xiii}, APY^{xiv} and others etc. Approaches towards financial inclusion is running with a good pace from 2014 onwards with new products and schemes. From access services, saving services, insurance services, credit services and so on, with innovative concepts of digitization, online banking, and many other services. The motive of these schemes is only financial inclusion specially to include all the poor who are outside the banking system of the country.

In this paper we have analysed whether financial inclusion has achieved any successes or not? The structure of paper has been discussed in following headings. In section 1, we have discussed development of financial inclusion index. Similarly, Section :2 we have documented various Initiatives for financial inclusion in India. Section 3: highlights various Initiatives impacting outreach. Section 4: has demonstrated Initiatives impacting Ease and Cost of Transactions, In Section 5: we have discussed Methodology of the paper, Section 6: Calculation of Financial Inclusion Index (FII) – from 2005 to 2016, Section 7: The Financial Inclusion Index Section 8: Financial inclusion and the road ahead and last section 9 conclusion and findings.

We will check the financial inclusion position of the country from 2006 -2016 according to the UNDP formula, Financial inclusion index with availability of data source from world bank of 264 countries^{xv}. In section third we will present overall performance of financial inclusion in recent years.

Development of financial inclusion index

Patrick Honohan (2007)^{xvi} estimated financial inclusion, accessing household on the grounds off, access towards formal financial institutions, use of Gini coefficient, use of micro finance and bank accounts to the total population, average deposit size per-capita GDP. Although it was the first insight to check on financial inclusion. Mandira Sarma, (2008)^{xvii} she has added three dimensions to measure financial inclusion index, Depth (penetration) that is number of bank accounts per 1000 population, Access, number of bank branches and ATM's per 1000 population. Usage, number of customers. She adopted HDI calculations and also UNDP(HDI) in forming index financial inclusion (IFI). Similarly, several other researchers have also calculated the (IFI) for different states (Chandan Kumar and Srijit Mishra,2009, Nitin Kumar ,2011)^{xviii} relationship between financial inclusion and development has been examined by several socio-economic variables like, income, inequality, literacy, urbanization, and infrastructure (Mandira Sarma and Jesim Pais,2008)^{xix}. Mehrotra et al. (2009)^{xx} has also measured financial inclusion index for similar variables like number of rural offices, number of rural deposit accounts, volume of rural deposit and credit from banks at district level. Chakravarty and Pal (2010)^{xxi} have used axiomatic approach for financial inclusion. It is an improvement up on Sarma (2008)^{xxii} IFI, so many factors could be presented on percentage basis. Similarly, R.U. Arora (2010)^{xxiii} has included more variables to IFI, that of geographical penetration and ease, cost of transactions. But we have accepted Samra's paper as a base paper for our analysis.

Initiatives for financial inclusion in India

Section 2 has shown that the FII in India has improved from 2008 to 2009 and this can be attributed to several initiatives taken by financial regulators, the government and banking industry. RBI has been undertaking financial inclusion initiatives in a 'mission mode' through a combination of strategies ranging from introduction of new products, relaxation of regulatory guidelines and other supportive measures to achieve sustainable and scalable financial inclusion. Starting with nationalization of banks, priority sector lending, lead bank scheme, establishment of Regional Rural Banks, service area approach, self-help groups – bank linkage programme, the banking industry in India has continuously endeavoured to create an environment conducive to enhancing financial inclusion. Some of the recent initiatives include

offering no frills account, introducing Business Correspondents and General Credit Card (GCC) for small deposits and credit. Based on the impact of the initiatives they can be classified under two broad categories namely initiatives impacting outreach and initiatives impacting ease and cost of transactions.

Initiatives Impacting Outreach

- Self Help Groups (SHG) - Bank linkage programme: The SHG-Bank Linkage programme launched by NABARD in 1992 was an important strategy in promoting financial inclusion and inclusive growth. The programme that started as a pilot project to finance 500 SHGs across the country has resulted in 34.77 lakh SHGs being credit linked by March 2008. Further, the programme has enabled an estimated 409.5 lakh poor households to gain access to micro finance from the formal banking system as on 31 March 2007. Studies conducted by various experts (Rangappa, Bai,) show that the programme has indeed helped in the social and economic empowerment of rural folk, especially women, causing significant up-scaling of social capital while at the same time delivering crucial financial services. Thus, it has proved to be a successful model wherein the outreach has expanded substantially leading to many advantages like micro savings, timely repayment of loans, reduction in transaction costs to SHG members and banks, etc.
- Kisan Credit cards: As per the statement of Minister of State for Finance, Mr Namo Narain Meena on 10, August 2010, India's banking system has issued 9.25 crore Kisan Credit Cards (KCCs) cumulatively, as on March 31, 2010 since the inception of the KCC Scheme in August 1998. Rs.4,17,326 crores had been sanctioned under KCCs till March 31, 2010, since the beginning of the scheme. Joint studies conducted by NABARD (Mehrotra, Puhazhendhi, 2009 et.al) and the financing banks on implementation of the KCC Scheme have confirmed that the Scheme was well received both by farmers and bankers and the flexibility in operations has resulted in improved loan recoveries.
- Opening of branches in unbanked areas: The bank branches as on March 2011 are 89622 (approx.) as compared to 59752 in 1990. These include the Regional Rural Banks opened by various scheduled commercial banks in the country. In the April 2011 monetary policy banks have been mandated to allocate at least 25% of the total number of branches to be opened in the coming year to unbanked rural areas. It has been felt that the support provided by base branches in cash management, documentation and redressal of customer grievances substantially improves the efficacy of the Business correspondents (BC's) model.
- Micro finance institutions: With the phenomenal growth recorded by microfinance in recent years—62% per annum in terms of the number of unique clients and 88% per annum in terms of portfolio over the past five years—and around 27 million borrower accounts, India now has the largest microfinance industry in the world (M-CRIL, 2010). The high growth rate of microfinance has been fuelled by commercial bank funding which inherently gravitates towards for-profit institutional structures. Thus, there is a continued India-wide trend towards the transformation of MFIs into for profit nonbank finance companies (NBFCs) so that over 50% of the 66 MFIs in the MCRIL analysis consist of such institutions.

- e) Recent initiatives from 2014 onwards have also played a good role, the success of PMJDY 30.80 Crore beneficiaries banked so far ₹ 71,501.17 Crore Balance in beneficiary accounts 1.26 lakh Bank Mitras delivering branchless banking services in Sub-Service Areas.

Initiatives impacting Ease and Cost of Transactions

- No frills account: In 2005, RBI initiated 'no frills' account with nil or minimum balance as well as charges that make such accounts accessible to vast sections of population. Banks have been advised to provide ATM facility & small overdrafts in such accounts. According to the Skoch Development Foundation report (2011), 25 million no-frill accounts were opened between April 2007 and May 2009, which increased to 50 million (approx.) in 2010. The Government is planning to support the banks in bearing the cost of opening no frills account to the tune of Rs. 200-250 crores (28th February, 2011, Business Standard)
- Relaxation on Know your customer norms: KYC requirements for opening bank accounts were relaxed for small accounts in August 2005. The banks have been permitted to take any evidence as to the identity and address of the customer to their satisfaction. Recently, it has been further relaxed to include letters issued by the Unique Identification Authority of India containing details of the name, address and Aadhaar number.
- Engaging Business Correspondents (BCs): In 2006, RBI permitted banks to engage business facilitators and business correspondents as intermediaries for providing financial and banking services. This model has supported banks to provide door step delivery of services which includes cash in & cash out transactions. This was the first step towards the concept of branchless banking. The list of eligible individuals and entities that can be engaged as business correspondents have been widening. Recently, in 2010 'for profit' companies have also been allowed to function as BCs. The numbers of villages where business correspondents are rendering services have reached 76,801 in March 2011 as compared to 33,158 villages in March 2010.
- Adoption of Electronic benefit transfer (EBT): Banks are implementing EBT by leveraging ICT-based banking through business correspondents to transfer social benefits electronically to the bank account of the beneficiary. This reduces the dependence on cash and lowers the transaction costs. As per the scheme, the RBI would reimburse the banks a part of the cost of opening accounts with bio-metric access/smart cards at the rate of Rs.50 per account through which payment of social security benefits, National Rural Employment Guarantee Act (NREGA) payments and payments under other Government benefit programmes would be routed to persons belonging to below poverty line (BPL) families.
- General Credit cards (GCC): With a view to improve accesses to easy credit banks have introduced a general-purpose credit card facility up to Rs. 25,000/- at their rural and semi urban branches. This is in the nature of revolving credit entitling the account holder to withdraw up to the limit sanctioned. It is hassle free credit to the bank's customer based on the assessment of cash flow without insistence on security, purpose or end use of the credit.
- MUDRA scheme also provides credit facility to entrepreneurs which comes under ease facility etc.

Methodology

Financial inclusion index has been judged on three dimensions, like Banking penetration (dimension 1), Availability of banking services (dimension 2), and Usage (dimension 3). We have accepted UNDPxxiv approach for calculating each dimension of financial inclusion and the dimension index for the i th dimension, d_i , is computed by the following formula.

$$d_i = \frac{A_i - m_i}{M_i - m_i} \text{-----}(1)$$

where

A_i = Actual value of dimension i

m_i = minimum value of dimension i

M_i = maximum value of dimension i

Formula (1) ensures that $0 \leq d_i \leq 1$. Higher the value of d_i , higher the country's achievement in dimension i . If n dimensions of financial inclusion are considered,

All the three dimensions has been calculated from 264 countries by derivation of Minimum and Maximum values of each country and finally we have calculated the d_i of each dimension in case of India from 2005 to 2016

Dimension 1 (Banking penetration)

In this dimension we took bank account per 1000 adultsxxv. This dimension is one of the representative indicators of financial inclusion which represents population with bank accounts. If everyone in the country is having bank account we will get value 1 which means 100 percent banking penetration.

Dimension 2 (Availability of banking services)

Financial Inclusive represents availability of banking services. In this dimension we took number of ATM'sxxvi available per 10000 adults and availability of number of commercial banks branchesxxvii per 10000 adults.

Dimension 3 (Usage)

This dimension has been used to check financial inclusion on the grounds of usage like how much credit and deposits services people are getting because having bank account is not a financial inclusion. So, in this dimension we took volume of credit and deposits with percentage of GDP.

Calculation of Financial Inclusion Index (FII) – from 2005 to 2016

Researchers have used different methods to compute the Index of Financial Inclusion. Sarma (2008)xxviii in her study indicates that the dimensions included by her (detailed in Section 1 above) are dictated by the availability of consistent data sets. Thus, her study looks at only 'penetration (2 variables)', 'availability' and 'usage' (1 variable) for data pertaining to 2004. After giving equal weights to the dimensions, the index of financial inclusion (IFI) is computed as follows:

$$IFI = \frac{1 - \sqrt{(1 - p_i^2) + (1 - a_i)^2 + (1 - u_i)^2}}{3} \text{-----}(2)$$

where p_i , a_i , and u_i

I denote respectively the dimension indices for penetration (or accessibility), availability and usage respectively (Sarma,2008). The IFI thus constructed incorporates information on these dimensions in one single number lying between 0 and 1, where 0 denotes complete financial

exclusion and 1 indicates the ideal – complete financial inclusion in an economy (Sarma and Pais, 2008). Arora (2010) added the dimensions of Outreach (2 variables), Ease of Transactions (12 indicators) and Cost (6 indicators) and computed the Financial Access Index (FAI) for data pertaining to 2007. She calculated the FAI as follows:

Each dimension DiI is defined as,

$$DiI = \left(\frac{di1+di2+di3.....dn}{n} \right) \quad (3)$$

and $di = (Ai - mi) / (Mi - mi)$ Where: Ai = Actual value of dimension i ; mi = minimum value of dimension i ; Mi = maximum value of dimension i .

The values of these dimension from 2005 to 2016, are given below in Tables 1 respectively:

Year	Geographic number of bank accounts per 1000 adults (1)	Geographic ATM Penetration per 100000 adults (2) Demographic Branch Penetration per 100000 adults (3) (2+3)	Volume of Deposits (4) + loans (5) as % of GDP (4) + (5)
2006	0.081377816	0.021888439	0.040688908
2007	0.088680273	0.022192378	0.044340136
2008	0.098545269	0.024342276	0.049272634
2009	0.110353263	0.026849313	0.055176631
2010	0.120275723	0.030231755	0.060137862
2011	0.129374271	0.0343981	0.064687136
2012	0.139643476	0.039300258	0.069821738
2013	0.157953574	0.043563933	0.078976787
2014	0.182580438	0.05586168	0.091290219
2015	0.211700592	0.062496698	0.105850296
2016	0.238424975	0.052925148	0.300819602
2017	0.788481149	0.066724778	0.028977969

(Source: World Bank and RBI)

Fig 1. Trend Analysis of Banking Penetration, availability of banking services and usage

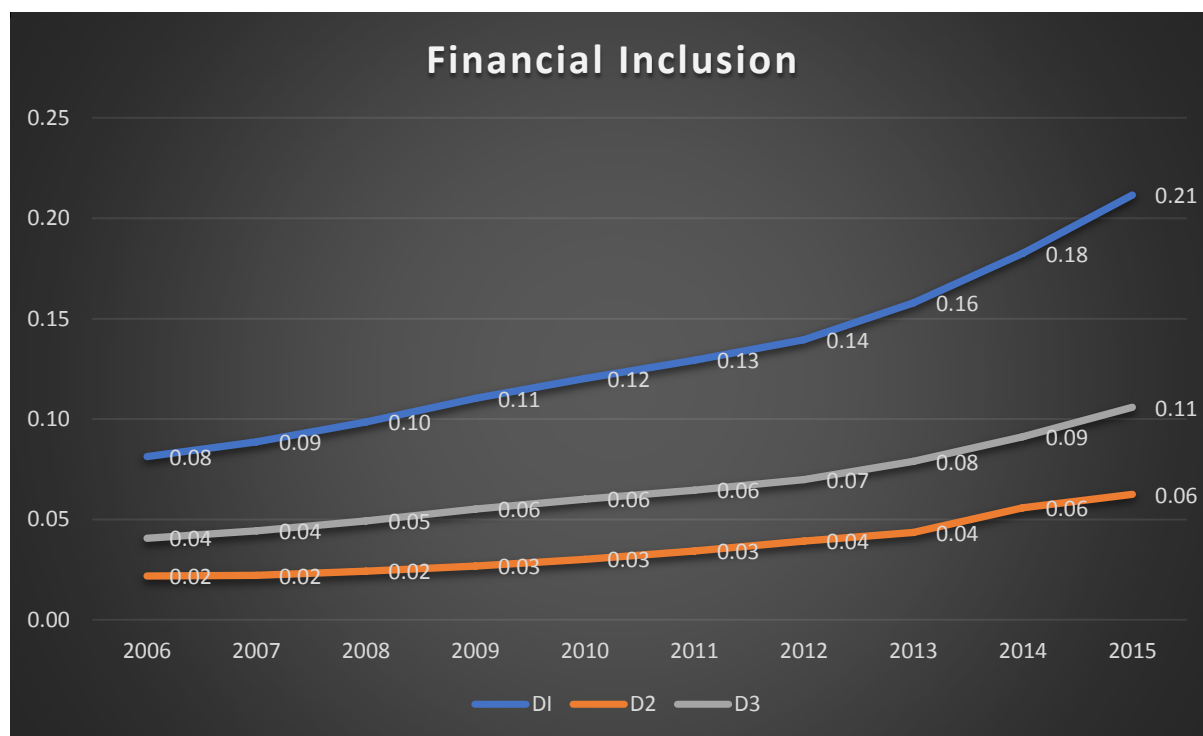


Fig 1 shows the trend analysis of Banking penetration, Banking services and Usage. Our main motive is to check whether there is any significant change in all the three dimensions are not because we have made 2014 as a base year and our main concern is to check impact of recent financial inclusion schemes on financial inclusion after 2014 onwards. From trend line it is observed that there are positive changes after 2014.

The Financial Inclusion Index

Using the values of all the Three Dimension indices derived above we compute the Financial Inclusion Index for India 2006 to 2016

$$FII = (1 - d1, 1 - d2, 1 - d3) \quad (4)$$

	1-d1	1-d2	1-d3
2006	0.918622184	0.978111561	0.959311092
2007	0.911319727	0.977807622	0.955659864
2008	0.901454731	0.975657724	0.950727366
2009	0.889646737	0.973150687	0.944823369
2010	0.879724277	0.969768245	0.939862138
2011	0.870625729	0.9656019	0.935312864
2012	0.860356524	0.960699742	0.930178262
2013	0.842046426	0.956436067	0.921023213
2014	0.817419562	0.94413832	0.908709781
2015	0.788299408	0.937503302	0.894149704
2016	0.761575025	0.947074852	
2017	0.211518851	0.933275222	

Similarly, we have subtracted $(1-d_1)^2$, $(1-d_2)^2$ and $(1-d_3)^2$ to all the three dimensions

	$(1-d_1)^2$	$(1-d_2)^2$	$(1-d_3)^2$	ADD $(1-d_1)^2(1-d_2)^2 + (1-d_3)^2$	$ADD/3$	$\sqrt{ADD/3}$	$1 - \sqrt{ADD/3}$ $= FII$
2006	0.843867	0.956702	0.920278	2.720847	0.906949	0.952339	0.047661
2007	0.830504	0.956108	0.913286	2.699897	0.899966	0.948665	0.051335
2008	0.812621	0.951908	0.903883	2.668411	0.88947	0.943117	0.056883
2009	0.791471	0.947022	0.892691	2.631185	0.877062	0.936516	0.063484
2010	0.773915	0.94045	0.883341	2.597706	0.865902	0.930539	0.069461
2011	0.757989	0.932387	0.87481	2.565186	0.855062	0.924696	0.075304
2012	0.740213	0.922944	0.865232	2.528389	0.842796	0.918039	0.081961
2013	0.709042	0.91477	0.848284	2.472096	0.824032	0.907762	0.092238
2014	0.668175	0.891397	0.825753	2.385325	0.795108	0.891689	0.108311
2015	0.621416	0.878912	0.799504	2.299832	0.766611	0.875563	0.124437
2016	0.579997	0.896951		1.476947			
2017	0.04474	0.871003		0.915743			

By incorporating more variables to evaluate each Dimension, the FII in this study is more robust. Dimension 1 and Dimension 2 plays a significant role in financial inclusion. So, it shows India's financial inclusion has achieved Low financial inclusion performance is touching

1. $0 \leq FII \leq 0.4$; indicates low financial inclusion, LFI;
2. $0.4 < FII \leq 0.6$; indicates medium financial inclusion, MFI
3. $0.6 < FII \leq 1$; indicates high financial inclusion, HFI

Financial inclusion and the road ahead

An index has always been an accepted yardstick to measure performance because it allows comparison across countries and establishes the relative ranking. An index which is constructed considering the minimum and maximum values across countries provides a good measure of comparison. While its importance cannot be undermined, the interpretation of the same should be made with care because the max-min values across countries will impact the index of one country and may not reflect the extent of impact made by financial inclusion initiatives of a given country. It is therefore necessary to also measure the extent of financial inclusion within a country and study the trend without reference to the world's min-max values such that it will highlight the absolute performance within a country and also aid comparison over a period of time. Such an analysis will highlight the changes in the various variables included in this study and will give feedback and direction to policy makers. Further research could focus on construction of such an index.

Conclusion and Findings

Financial inclusion in India is working at an average pace, more initiatives are needed to invest in banking infrastructure especially for rural areas of the country, the performance of the country is at lower stage as per financial inclusion index results are considered. As we all knows inclusion is not mere to have bank account etc it is a

bunch of various services like, savings, insurance, pension, credits etc, therefore all these services are not much expanded yet, From the above calculations we found we need to invest in banking infrastructure, banking education and literacy and should provide services at economic bases according to the needs of the people. Banking penetration dimension is doing well since 2014 but dimension 2 and dimension 3 (banking services and usage) are not doing too much better. Recent schemes like PMJDY, MUDRA, PMSBY and others have not shown significant impact on financial inclusion.

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Impact of E-Banking its Growth and Future in India

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Technology,
Customer
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ABSTRACT

E-Banking has become an integral part of the global financial environment. Improvement in technologies and financial innovations has made E-banking is an intense part of the banking sector. "As day by day increasing the technologies are also increasing". Technology has become the fuel for rapid change.

In earlier times, the banking customers were required to visit in a bank in order to transact their accounts in the bank but now by the help of E-Banking the customers do not need to visit in a bank and with the help of internet, customers can easily transact their accounts from anywhere.

E- Banking is playing a major role that it's improving the service quality and strengthens the banking sector because of the electronic payment there is increase in customer satisfaction level, increased productivity, reduction in cost of banking operations, settlement faster and in large volumes.

The world has become a global village and it has brought a revolution in the banking industry because of increasing in the development of information technology. The key trends are discussed for their impact on future E-Banking services.

Introduction

In simple terms, E- banking means it does not involve any physical exchange of money, but it's all done electronically through the internet. E-banking provides faster delivery of banking services to customers and it provides lot benefits and banking facilities to customer that by sitting at home customer can access their account through internet.

In today's organization information technology has become a necessary tool. It has introduced a new business paradigm; E-banking has emerged from such an innovative development. As day by day increasing the competition in the market is also increasing so to cope up with the pressure of growing competition the banks are adopting many initiatives and also from them there is one of them is E- banking. Electronic banking is a combination of electronic technology with a banking sector. E-banking involves providing banking services to customers through various electronic delivery channels.

The banks are offering to their customers following E-banking products and services

- Internet Banking
- Mobile Banking

Available on SSRN-Elsevier

- Automatic Teller Machine
- Smart Cards
- Electronic Fund Transfer
- Door Step Banking

E-banking is playing very major role in the economy that due to the increasing technology it has also speed up their communication and transactions for the customers and the performance is also improving day by day. Due to increasing in technology, growth and development of economy is increasing.

Literature Review

Daniel (1999) defines electronic banking is delivery of bank's information and services to customers through various delivery platform by using different terminal such as mobile phone, personal computer with browser or digital television.

Barron's Dictionary (2006) electronic banking is a form of banking by which funds are transferred from one to another through exchange of electronic channel between financial institution instead of cheque, cash, and negotiable instrument.

Joseph et al. (1999) investigated the influence of internet on the delivery of banking services. He found six e-banking service quality that is feedback and complaint management, efficiency, queue management, convince and accuracy, accessibility and customization.

Hasan (2002) found that for attracting the customers the bank has emerged in a significant strategy that is online home banking.

Rao et.al. (2003) had done theoretical analysis of internet banking in India and also compared to abroad bank and found that there is still have a long way to go for the Indian bank for offering online service and to reach at a critical mass there are sufficient infrastructure in place and also sufficient number of users.

Mookerji (1998), Pegu (2000), Gupta (1999) and Das gupta (2002) found that in India Internet banking is becoming popular very fast and by the year 2005 there is a highly competitive internet banking market and a large sophisticated will develop, in India all most all the banks having their websites but there are few banks who provide transactional internet banking.

Banks are providing e-banking services to their customers

- Internet Banking- In this transactions are conducted electronically through internet this is the method of banking. This is the fastest developing area and due to internet banking the economy is growing very fast and in this research mainly focus on the development and future of these platforms.
- Automatic teller machine- This is modern device introduced by banks to enable the customers to have access to money day in day or without visiting the bank branches. It also operates 24 hours a day and 7 days a week. In this customer by using their ATM card can withdraw the money and for the desired transactions. In this there is an advantage of ATM is that this offer quick and efficient services and customer can choose his own time of banking at any time or any day of week.
- Smart cards- It is typically made of plastic. Many smart cards include a pattern of metal contacts to electrically connect to the internet chip. Smart cards provide authentication, data storage, personal identification and application processing.

- Electronic Fund Transfer- In this the transfer of money take place from one bank account to another through electronically either single institution or across multiple institution through computer based system.

Benefits to customers by providing e- banking services

- E- Banking has also helped greatly for the payment of utility bill now customers do not need to stand in long queues outside banks for this purpose.
- Banking services are available 24 hours a day, seven days a week.
- Customers easily access their accounts through internet by sitting at home or office.
- Now a customer can buy online or shop worldwide without carrying paper money with him due to the growth of credit cards usage owes to e-banking.
- Throughout the country customers can withdraw at any time through ATM'S.
- Customers can also do their bank balance enquiry through internet.

Objectives of the Study

- To study and identify e-banking services adopted by Indian banks.
- To study the customer satisfaction level about the e- banking.

Research Methodology

- This paper use only secondary data that has been collected from various journals, books, articles websites etc. This has been used to study the conceptual framework of cause related to e-banking and impact of e-banking its growth and future in India.

Findings

- Level of usefulness of e-banking services is significantly less for rural bank customers when compared to their semi-urban and urban areas.
- It is found that “time saving and less cost” tend to influence the bank customers, intention to continue using the internet banking site in the future.
- Rural, semi-urban and urban areas respondents have viewed that e- banking as convenient and easy to use and as a good option next to traditional banking but they have perceived that use of new technology like internet banking is complicated and difficult.
- Internet banking is very important for present and also for the future development for bank customers and the importance of internet banking is significantly related to their age, education, occupations and income.

Suggestion and Conclusion

- Banks are providing e-banking services to customers it should create awareness among people and also made literate to the people about use of e-banking products and services.
- Government should make huge investments for building the infrastructure.

- Employees of banks should be given special training for the use of e- banking.
- Special arrangements should be made by banks to ensure full security of customer funds. Banks use latest technologies with timely updates to secure customers' valuable money from the hand of hackers.
- Banks are making earnest efforts to popularize the E-banking services and products. Younger generation is commencing to optically the convenience and benefits of e-banking. In years to come, e- banking will not only be customary mode of banking but will be chosen mode of banking.
- Workshops and seminars should be provided to the people especially in rural areas those who are ATM, computer illiterate and usage of e- banking.

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Blockchain Technology: Heart of Digital Financial Infrastructure for Managing Trust and Governance System

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ABSTRACT

This paper attempts to discuss how the block chain technology forms the core means of logging data transactions with date and time stamped, verified via decentralization in the accounting system of any company. This digital platform leads to data transparency, automated review and eliminating errors at core level through integrated system of distributed ledger technology (DLT). A diagrammatic model of Digital Financial Infrastructure is presented which showcases the effectiveness of block chain technology in an accounting system. It streamlines the financial reporting and auditing process via digital auditing for managing trust of stakeholders and thereof improving the governance system by increased chances of uncovering fraudulent activity of any organization. A SWOT analysis of block chain technology in an accounting system is presented and discussed, which kindle some of the recent studies of block chain technology in accounting system. Further, this paper sums up, how this digitalization can hit the boundaries of the country's economic archetype and contributes to the shift in economic paradigms.

Introduction

The major evolution in digital financial era comes with the trading of cryptocurrency via blockchain technology in year 2009. This leads to the major transformation in binding more people to use this technology at peer to peer level revolutionising trading of bitcoin (considered as one of the most powerful currency).

A blockchain is a chain of blocks, which are linked using cryptography. Each block contains a cryptographic hash of the previous block which is timestamp and encrypted, and involves record of continuously growing transaction data. It is an open, distributed ledger that record transactions of information in a permanent way between the parties. Once recorded, the data in any given block cannot be altered without alteration of all subsequent blocks, which requires consent of the network majority. Since data is stored across its peer-to-peer network, it mitigates risk for the data which is held centrally. The recent events and movements of blockchain technology showcase its high potential to be applied in area of accounting and finance.

This technology can be incorporated in every sphere of different sectors to deliver productivity gains to multiple industries, from financial sector to energy markets, intellectual property management, supply chains, public sector, and beyond. This calls for major attention in the area of finance and its horizon which will lead to formation of digital financial infrastructure which comprise from its makeup to its follow up via digital auditing.

Thus, Blockchain technology will form the core means of making data transactions and forming ledgers at distributed level which is cryptographically sealed. This in turn will establish trust through its real time replication and enriching the governance system. The ultimate goal of timestamping is to give an approximate idea of when a document came into existence.

Reality is still far behind the scene, to prove validity and integrity of data raises need for high regulatory requirements which itself is a challenge. To achieve this, it relies on collective control mechanisms, checks and balances. Due to lot of duplication of efforts, extensive list of documentations and periodical controls, out of which most of them are manual, labour intensive tasks and far from being automated. Therefore, it requires a digitalised system.

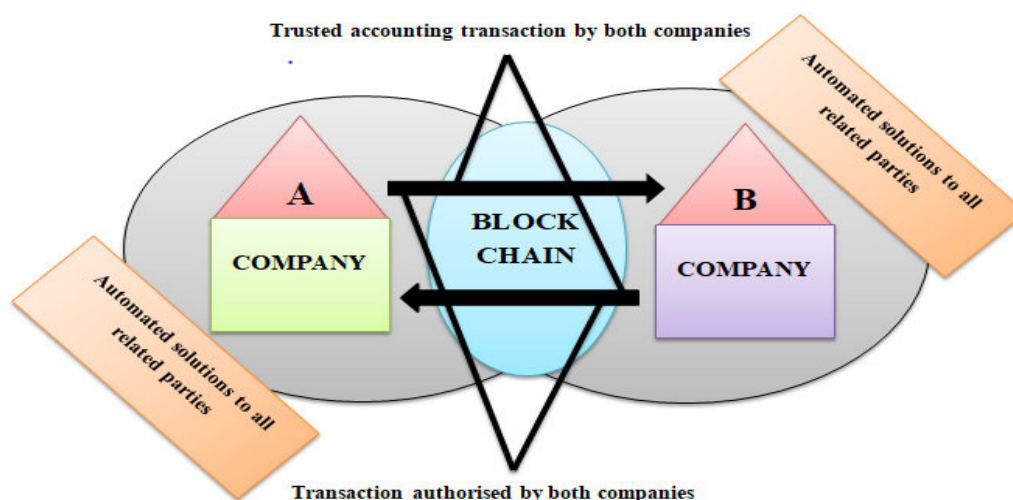


Figure 1. Transaction via blockchain between two companies

Source: Author own analysis

Application Areas of Digital Financial Infrastructure

Digital Accounting System

With the inculcation of blockchain technology in accounting system, it would be practically impossible to falsify or destroy entry to conceal data transactions. It is like transactions are verified in an electronic way. Many of accounting department processes can be optimised through blockchain which will increase efficiency and value of the accounting function. This can be viewed from the figure 1. It will reduce some work of reconciliation and provenance assurance and will increase the advisory and other value added role for the accountants who may act as the bridge between technologists and stakeholders. Blockchain technology offers alternative to classical accounting by crafting regulations and standards, which will not be a small challenge, and will require expertise to work. There are many companies with blockchain start-ups but are under pilot study stage.

For example, in year 2016, ICICI Bank executed pilot transaction in international trade finance and remittance on blockchain network with Emirates NBD. It is a custom-made blockchain application, co-created with EdgeVerve Systems, a wholly owned subsidiary of Infosys. ICICI Bank is the first bank in the country and among the first few globally, announced that it has successfully executed transactions in international trade finance and remittance in real time using blockchain technology in partnership with Emirates NBD, a leading banking group in the Middle East. The usage of blockchain technology simplifies the process and makes it almost instant—to only a few minutes. Typically, this process takes a few days.

Digital Auditing

Typically, Auditing is the process of examining an organizations (or individual's) financial records to determine if they are true and fair and accurate and in accordance with any applicable rules (including accepted accounting standards), regulations, and laws. With the digitalization, doors are open for the auditing framework to be carried in efficient manner.

The data stored on cloud server in encrypted form, is the best means of data backup. Same way, adoption of the technology known as Robotic Process Automation (RPA), “An application of technology that allows employees in a company to configure computer software, or a 'robot', to capture and interpret existing applications for processing a transaction, manipulating data, triggering responses and communicating with other digital systems” (By - The Institute for Robotic Process Automation (IRPA)). RPA can be utilized in accounting close, tax function, invoice reconciliation, management reporting and analysis and time and expense process, etc. that can streamline either through reading expense reports and receipts, validation of key fields or providing summarized report. (Concept paper on Embracing Robotic Process Automation ICAI, July, 2018)

Another technique is Online Auditing which enhances the working process in easier way. It involves embedding audit software to function for the transaction which are reoccurring in nature and if found something unusual than it gives red flag as a symbol to alert auditor attention (source: CISA review manual, 2016, 26th edition). The use of artificial intelligence can also be embedded, which look for data trend and leads information formation. The difference it will lead to, will be automation and updation in the availability of the data.

Now, the prominent work will be to check whether these transaction forming proper shapes and its placement in financial reporting as per laws of Indian Companies Act 2013, not hindering the rules for the same, along with check on internal control and risk mitigation.

With the adoption of blockchain technology, the data transaction files (journal, ledger and trial balance), working notes known as schedules and all supporting documents which are required by an auditor will be encrypted and securely stored and linked to blockchain that can viewed by an auditor to simplify auditing process. Therefore, the auditors will have the real time data access along with all supporting documents, same can be viewed from the figure 2 which depicts the idea of transformation of a document into audited document. This process further lead to proper governance system by managing trust of shareholders by digitalizing issue of shares and its related aspects through blockchain technology which will maintain integrity in financial reporting. Improved governance system will increase share price which will lead to increase in shareholder value. Through increased chances of uncovering fraudulent activity of any organisation.

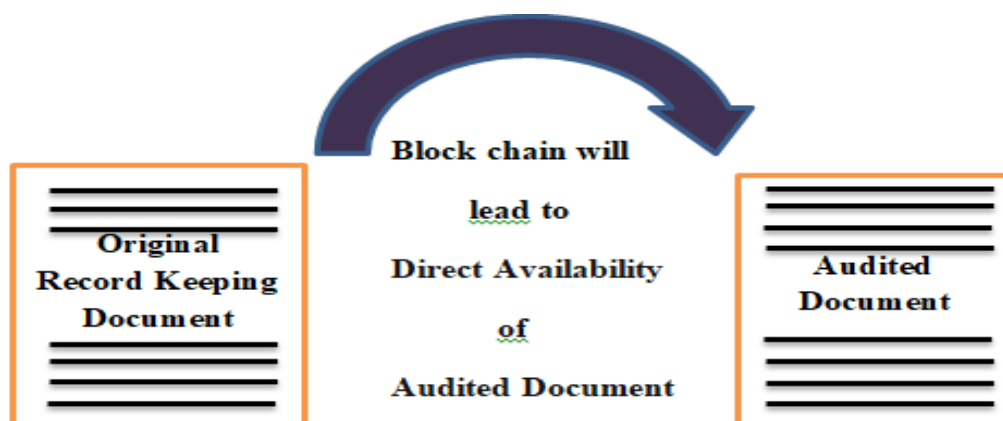


Figure 2. An idea of transformation of a document

Source: Author own analysis

Even though, this technology has its own challenges like if the error occur in feeding of data transaction it may lead to incorrect classification in financial statement, if not looked upon properly. Yes, the auditor can obtain the evidence from blockchain but he needs to consider the risk that the data obtained may be inaccurate due to error or fraud. Therefore, it requires tailoring of audit procedure, so as to take the advantage of blockchain benefits along with addressing any additional risk.

If the data is continuously audited via blockchain than it help to reduce the lag between transactions and verification dates. Reducing the lag time will eliminate major criticisms in financial reporting. This will lead to efficient and effective financial reporting which enable the auditor to focus more on complex and riskier transactions. Therefore, auditors could have more hands on capability and experience in automation, analytics and IT governing task to take good decision, when in doubt, with professional judgement while analysing accounting statement.

With the increase in corporate scandals in India with the recent case of Punjab National Bank (PNB) and Infrastructure Leasing and Financial Services (IL&FS) in India, there has been lot of questions and debates on the role of auditors and if they are able to take due professional care and a need to have a separate and distinct entity to act as regulator on audit profession. Hence, a body named as National Financial Reporting Authority (NFRA) under the government of India was proposed under companies Act section 132 as independent regulator over audit profession. Finally on 1st October 2018, the NFRA has come into effect and it is said that their first case will be the recent IL&FS case. (Source: Economic Times CFO, 8th October, 2018)

It is rightly been assumed that if these cases adopt for blockchain technology it will improve the pace of auditing due to unalterable audit evidence and thus, financial reporting. Further, the areas that have become fully automated require evaluation and test of internal control over the integrity of data transaction and all the sources of financial statement information.

This framework leads to digitalised audit, which enhances auditor to focus more on complex and value added issues rather than keeping eye on transactions that accounted on daily bases. Therefore, it can be said that blockchain technology bridges the gap between the record keeping and auditing. This automation of accounting transaction and auditing process leads to fairness in accounting system. The following figure 3 represents the flowchart that determines which particular blockchain to be opted.

Below flow chart represents private, public and amalgam blockchain. Depending upon the nature of transaction and the level of control over individual data appropriate blockchain can be opted which can fill the requirement and can fits well to the organisation needs. Here private block chain represents that data can be viewed with in the organisation that is intra firm transactions whereas public blockchain is open for all, anyone can view data any time. Here amalgam blockchain represents in-cross of public and private blockchain which can be used for inter firm transactions.

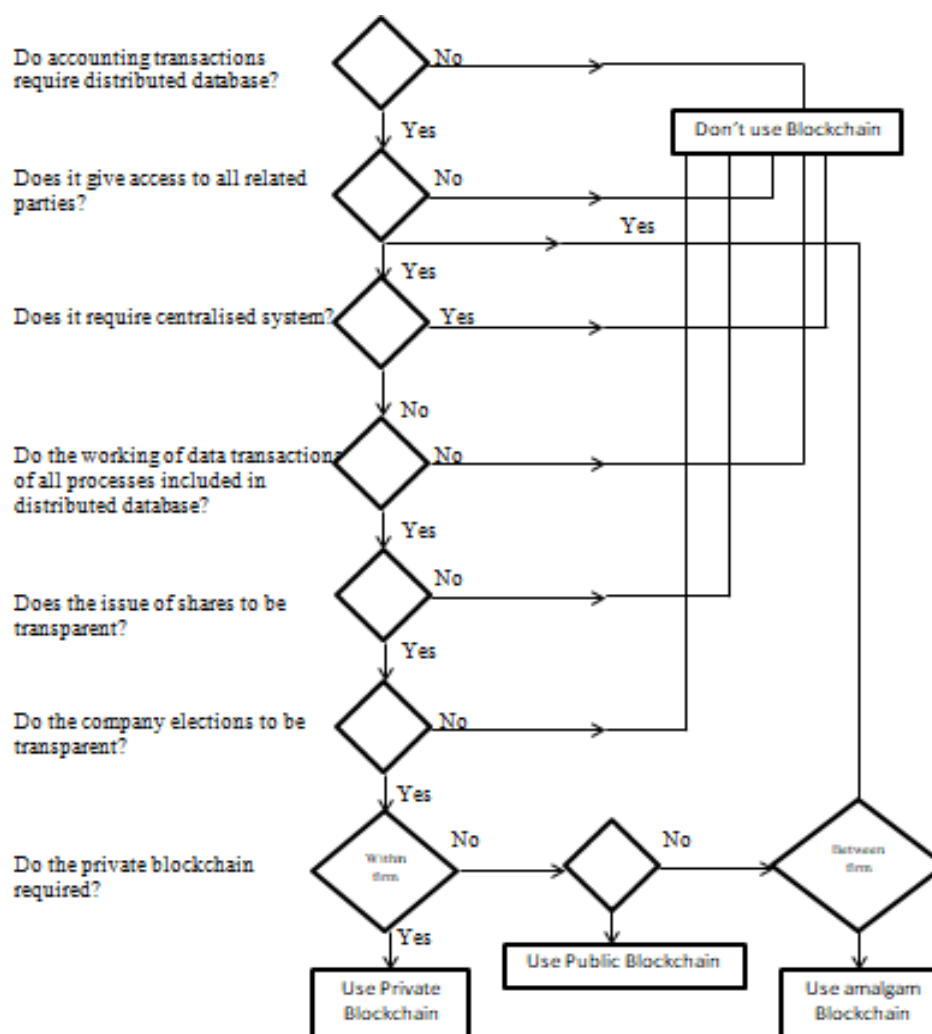


Figure 3. Flowchart of different blockchains

Source: Author own analysis

Digitalised Governance System

Governance system of any organisation includes the set of board of directors, managers, shareholders, creditors, auditors, regulators and other stakeholders. If the issue and trading of securities done on blockchain, it will offer end number of benefits like greater transparency of ownership along with faster and cheaper trade execution and settlement system. This will give more reliable signals to the investors about the firm. Therefore, these investors might design their securities differently by taking advantage of blockchain. The improvement in trading technology will require expertise resources with different set of skills to deal with these changes.

Another benefit of blockchain can be utilised in the voting system of a company. That is, it will streamline a proxy voting process to a fair picture which was earlier labour intensive and fragmented. This will motivate shareholders to participate in corporate governance and demand votes on more issues. Together these changes in governance system of a company will lead to long lasting binding trust of shareholders which is important source of company running efficiency. This in turn will increase the shareholder value.

Thus, enhancing the digitalisation in governance system assumed to give favourable outcomes and keeping the integrity of an organisation intact.

Following is the model representing Digital Financial Infrastructure and it effectiveness.

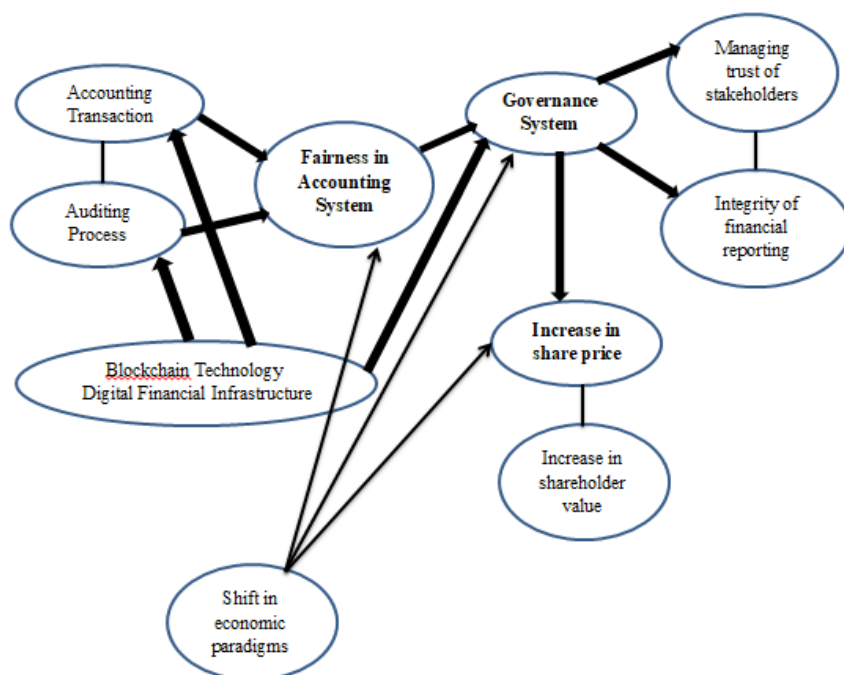


Figure 4. Model representing Digital Financial Infrastructure

Source: Author own analysis

As can be seen in figure 4, digital financial infrastructure is foamed with digital accounting transaction, digital auditing process and digital governance system with blockchain technology which is called heart of financial infrastructure in this paper, as its purpose is to save integrity of an organisation along with increase in shareholder value. The above model signifies, how an authentic process via blockchain technology will lead to upliftment of the country economy. Here blockchain, digitalised accounting transaction and auditing process that leads to fairness in accounting system which further lead to formation of blockchain digitalised governance system to serve managing trust of shareholders and maintaining integrity of financial reporting. As a result of this infrastructure, it finally leads to increase in share price which ultimately increase the shareholder value which showcase the effectiveness of this digital financial infrastructure.

Therefore, above model counts for three important ingredients (fairness in accounting system, governance system, and increase in share price) that contributes to the shift in economic paradigms positively.

SWOT Analysis

A SWOT analysis of blockchain technology in an accounting system and corporate affairs is discussed and presented in figure 5. In this paper an attempt is made to represent strength, weakness, opportunity and threat for the adoption of blockchain technology in above discussed financial infrastructure.

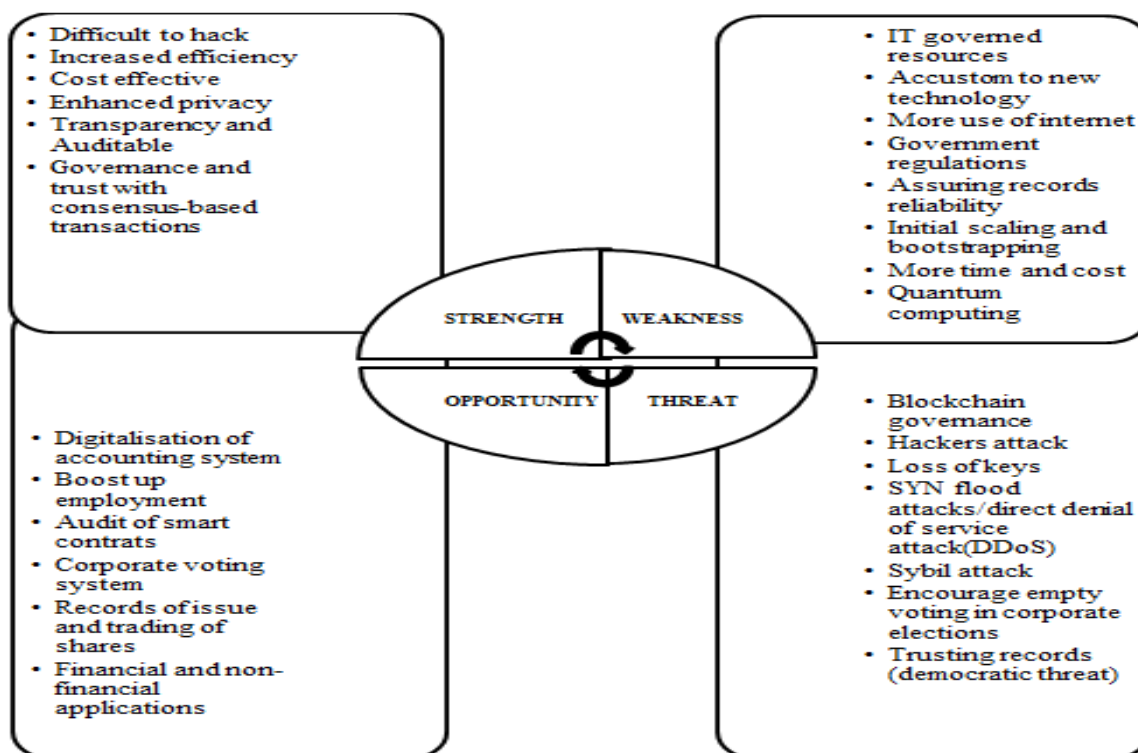


Figure 5. SWOT Analysis of blockchain technology in Accounting and finance

Source: Author own analysis

Strength

Difficult to hack: Decentralised nature and cryptographic algorithm of blockchain technology make the data transaction immune to attack. Since blockchain ledgers are decentralized, it means copies exist on numerous nodes. Node means number of computer participating in particular blockchain application. In case of public blockchain number of nodes reaches to millions. So for change to be made at least 51% of participating nodes must verify it. As the transaction has been sealed into a block and added to the blockchain, changing it is close to impossible. Here participants cannot tamper with the record of transaction, errors can be reversed with new transactions.

Increased efficiency: Through blockchain, payments between financial entities can speed up. Even the code snippets can be included that automate message using “if-this-then-that” logic. These snippets saved to blockchain and are called Smart Contracts, it leads to reduction of errors and increase of speed. Transaction time for complex, multiparty interactions are slashed down from days to minutes, even its settlement will be faster as it does not require verification by a central authority.

Cost effective: Blockchain technology requires low space on server thus saving disk space. It also reduce role of intermediaries (central server) which lowers the cost of any transaction and eliminates duplication of effort as all the participants have access to the shared ledger.

Enhanced privacy: Private blockchain offers privacy of transactions of any organisation. To view the transaction details, permission can be expanded for the auditors by using company IDs and permissions.

Transparency and Auditable: The data published on common platform via blockchain, regulators and other interested parties can plug into this and get a real time view of trade. This could help in detect systematic risk sooner.

Governance and trust with Consensus-based transactions: For the data to become part of blockchain, majority of participants needs to agree for the same. If multiple parties have a say,

either to alter or remove dubious data than it will create more honest system. Further any questionable changes would immediately be detected and not add up without majority consensus which forms the base for consensus based transaction. This will help in building trust and proper governance system in an organisation.

Weakness

IT governed resources: Blockchain technology offers opportunity as well as the challenge to hire Information and Technology (IT) plus finance domain resource in combination to understand and takeover the required work so as to streamline the auditing process which itself is a headwind task. To search for efficient resources will be difficult

Accustom to new technology: Change is continual but there are people who are resistant to change. In this situation, people need to get accustomed to the fact that their transactions are safe, secure and complete with blockchain technology. This may lead to trouble shooting for the employees in any organisation, for the loss of job. As new working pattern require appropriate resources that can efficiently handle the changed pattern of work.

More use of internet: With the adoption of blockchain technology, it will lead to high usage of internet bandwidth as it demands all time online access to make and view data transactions.

Government regulations: Government agencies may slow down the adoption of blockchain by introducing new laws to monitor and regulate the industry for compliance. Therefore, more controlled economy will face significant headwind in adoption of blockchain technology.

Assuring records reliability: It is being assumed that data entered in blockchain will correct and free from errors but still if error occurs while making data transaction and if it secured majority verification than it become correct. Therefore, it will require attached supporting documents to overcome the same.

Initial scaling and bootstrapping: Executing blockchain technology for the first time will require downloading the entire set of exiting chains of blocks and validating before executing first transaction known as initial scaling. Bootstrapping accounts for moving the old and existing manual contracts to blockchain framework which require significant set of migration task which involves time and cost.

More time and cost: Switching technology need more money and time and therefore requires cost benefit analysis.

Quantum Computing: Blockchain requires huge computing power since lot of algorithms need to be solved which itself will be a big challenge.

Opportunity

Digitalisation of accounting system: Blockchain technology offers alternative to classical accounting as transactions are verified in an electronic way. Many of accounting department processes can be optimised through blockchain which will increase efficiency and value of the accounting function. It will help in enhancing auditing in an organisation.

Boost up employment: Blockchain technology offers opportunity to hire Information and Technology (IT) plus finance domain resource in combination to understand and takeover the required work so as to streamline the auditing process. It will create new job offerings.

Audit of smart contracts: “Smart Contract is a computerised protocol that executes the terms of contract” (Szabo, 1994). The willingness of a firm to enter into smart contract could represent a pre commitment and would protect a lender against any fraud by a debtor (David Yermack, 2017). This may overcome moral hazard problem. Therefore, it requires its audit to verify whether the smart contract code is consistent with the intended business logic. It has a potential application in corporate finance and governance.

Corporate voting system: Blockchain can be utilised in the voting system of a company. It will streamline a proxy voting process to a fair picture which was earlier labour intensive and fragmented.

Execution of issue and trading of shares: Execution of issue and trading of shares on blockchain will offer end number of benefits like greater transparency of ownership along with faster and cheaper trade transaction and settlement system. This will give more reliable signals to the investors about the firm.

Financial and non-financial applications: Financial area can cover private securities, insurance, government, automotive, manufacturing, banking and beyond where as Non-financial area can cover supply chain management, healthcare, global logistics and shipping, notary public and deed records, music industry, decentralised proof of existence, country elections, decentralized storage, decentralised IoT, anti-counterfiet solutions, internet applications, retail/e-commerce, and others like SME, easy remittances, etc.

Threat

Blockchain governance: In public blockchain there are number of numerous nodes which reaches to millions. So for change to be made at least 51% of participating nodes, one must verify it and if wrong transaction secures maximum verification than it raises the question on blockchain governance which can only be rectify via proof of work.

Hackers attack: It can occur when there is a communication between client and the server. There is a risk when a person/software in middle of communication which pretends to each of the parties as if they are communicating directly with each other. This may lead to compromising in the integrity of the data also known as man-in-the-middle attack.

Loss of keys: This threat lead to loss of keys as result of general equipment failure due to natural disasters and electrical failure, acts of war or mistaken erasure (e.g. Formatting the wrong drive or deleting the wrong folder) (Eskandari et al., 2015).

SYN flood attacks/Direct Denial of Service attack(DDoS)

It is the attack where attacker sends repeated, rapid SYN requests to a target system to consume its server resources to make system unresponsive to clear traffic. Relevant measures are taken prevent these attack (Bitcoinwiki, 2015b). It is difficult to rule out such attacks (Victoria Louise Lemieux, 2016).

Sybil attack: A Sybil attack occurs when an attacker fills a Blockchain mesh network with nodes controlled by him, which increases the probability of connecting only to attacker nodes. This type of attack can allow an attacker to refuse to relay blocks and transactions, even disconnecting an entry registration communication from the network. It can also allow an attacker to relay only blocks that he creates (Bitcoinwiki, 2015b).

Encourage empty voting in corporate elections: Empty voting occurs when an investor uses borrowed shares or certain combinations of derivative securities to acquire voting rights temporarily, without economic exposure to the cash flow rights connected to the underlying shares. Opponents tend to label it as undemocratic, since it involves acquiring voting rights separate from the other antecedents of ownership and may potentially be used to vote for the “wrong” side of a ballot question in order to create adverse outcomes that somehow benefit the empty voter (David Yermack, 2017).Trusting records (democratic threat)

To trust records and the condition needed to achieve such trust is still an open research question.

Discussion

As per the analysis and discussion made in this paper with help of diagrams, model and flowchart of the various segments of an accounting processes, auditing and governance system in blockchain technology, it assures to deliver reliable and authentic digital financial infrastructure.

As it can be seen from the figure 4 that application area of blockchain technology is enlarged to the accounting and financial system of an organisation than it could definitely will ease the work of auditors and help them to focus on the more complex issues and to be more participative in giving advice and making professional judgement for the financial decision of the company which is outside the scope of blockchain.

The closed distributed ledger of blockchain technology play an innovative role to keep the data intact and can be available in real time, which forms the structure for future accounting and finance and its related aspects. It helps to strengthen the financial infrastructure of an organisation through digitalising the core processes which in turn enhances authenticity and reliability to the stakeholders. Anyone who has interest in a company in any form will be interested in knowing the governance system of an organisation. Thus, having said transparency in various aspect of cooperate governance will win trust of its stakeholders.

Therefore, blockchain technology has potential to make complete financial process digitalised. This digitalisation in turn will boost the economic paradigm in the way to curtail fraud and inefficiency to perform. Recent scandals of Punjab National Bank (PNB) and Infrastructure Leasing and Financial Services (IL&FS) case draw major attention towards the governance system of and organisation which can lead to crashing stock market, weakening of rupee against dollar, thus leading to major loss of invested funds. It has been assumed that with the blockchain technology the financial system of an organisation may take a U-turn towards the integrity in financial reporting and managing the trust of the shareholders. Therefore, an economic archetype is required to form strong integrated governance system. Figure 6 represents the economic archetype for the country as a whole.

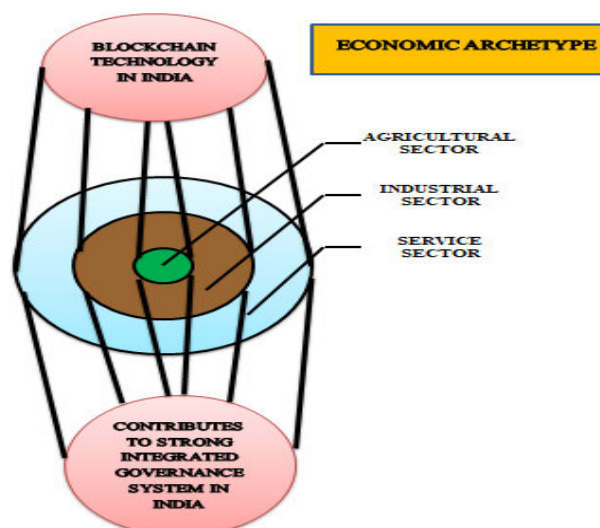


Figure 6. Proposed Economic Archetype

Source: Author own analysis

This paper also attempts to give an idea to decide which blockchain to use figure 3 represents the same. It is organisation discretion to adopt for which blockchain, as per their requirement in various fields. This paper also gives few suggestions to the company who are likely to adopt blockchain technology soon. First, cost benefit analysis need to be conducted before putting leg to this technology. Second, to develop roadmap to achieve participation of all stakeholders and establishing the standards for the same. Third, it highlights the role of regulatory authority which is important and to bring them into this structure is itself a challenge. To achieve this, all regulatory and legal framework need to be established and understood properly. Fourth, the governance model needs to be envisioned to support technology accountability otherwise it will raise question on the blockchain governance itself.

Conclusion

The blockchain technology is attracting attention in every sphere. In the field of accounting and finance it will be one of the strongest revolution but still financial reporting and financial statement auditing cannot be replaced with it. There are lot of management assertions like financial decisions (capital structure decision, capital budgeting decision, dividend decision and liquidity decision) of the company, functioning of capital market and its impact on capital structure decision of the company, merger and acquisition, all these are reflected in financial statement which are outside the scope of blockchain. Auditors therefore, have to work with experts to audit complex technical risk associated transactions with blockchain technology.

This paper made an attempt to give insight of blockchain in accounting and financial system and its respective outcome. A deep SWOT analysis is done which showcase the different sight of this technology. The economic archetype is presented which showcase how blockchain in all three sectors of the economy will contribute to strong integrated governance system in India which further leads to shift in economic paradigms by improving share value in capital market and does leading economy of the country to be strong.

This paper also offers scope for further research and study in areas where the things can be explored more in detail like application of smart contract in various fields. Second, upcoming usage of blockchain technology in mobile apps and other fields discussed in financial and non-financial areas. A company named Pundi X created blockchain bases operating system in phone and develops new transmission protocol – FXTTP wherein users can send and receive data, make calls via fully decentralised blockchain network without the need for phone numbers. Similarly, developers can also publish decentralised mobile apps (as per the news in TECHGIG website dated 11th October, 2018). This can be well utilised in the area of accounting and finance which offers scope for further research.

In the end, this paper contributes to understand how digital financial infrastructure will lead to shift in economic paradigm and help the country to achieve its target GDP by giving relative suggestions and scope for further research and study.

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Cashless Economy and Digitalization of Tourism & Hospitality Practices in India

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ABSTRACT

Travel, Tourism and hospitality are the service oriented industry. Tourism is the fastest growing sector in India among the G20 countries which is growing by 8.5% in 2016 and forecast 6.7% in 2018. According to World Travel and Tourism Council (WTTC) India's travel and tourism sector ranks 7th in the world in terms of its total contribution to the country's GDP, generated Rs. 14.1 trillion (USD208.9 billion) in 2016, which is world's 7th largest in terms of absolute size; the sum is equivalent to 9.6% of India's GDP. As per the report of UN World Tourism Organization (UN-WTO) reflects that India had approx. 9 million foreign tourist arrivals(FTA)in the year of 2016, and ranked 40th position in the world. The new initiatives have been taken by Ministry of Tourism, Government of India has given new synergy to boost up Indian tourism industry i.e., new e-visa regime, investment through Make in India in tourism and hospitality sector, enable investment in vital infrastructure, and allow companies to do business in India.

Although digital enabled technology centric tourism enterprises have tried to overcome this problem and supported by innovative digital practices like internet banking, mobile banking, e-wallets, debit and credit cards. But only e-banking or mobile banking tech-savvy customers were availing these privileges. The micro, small and medium tourism enterprises (SMTes) had directly affected and both domestic and foreign tourists faced critical and worse situation that time. The tourists were frequently cancelling the hotels, airlines and holidays packages bookings which directly affected to travel agents and tour operators, hoteliers throughout the country. In spite of these loss of those people whose livelihood direct and indirect linked with tourism industry like tour guide, taxi drivers, souvenirs shopkeepers, home stays, restaurants, street vendors, rural tourism centric enterprises and those who supplying necessities like, farmers, milkman, grocers, handicraft and handloom artists, music and dance artists etc. This paper is based on the explorative study which will review the process of digitalization, through transformation and

innovation of digital payments system to promote a cashless tourism practices in India.

Introduction

Demonetization is to be considered as a new era of digital economy. Digitalization has brought lots of technological transformations and innovations to ease the routine economic transactions with less cash options. Demonetization is a great move to revival of Indian Economy towards cash less economy. 8 November, 2016 has become a historic day for the common people of India when Prime Minister of India Shri Narendra Modi announced demonetization of 500- and 1000-rupee notes and these currency notes ceased to be legal tenders. The ultimate purpose was to control accumulation and transfer of black money, corruption, drugs peddling, and to promote digital economy. It emphasizes on cashless economy where all kind transactions can be traced and tracked. The purpose of the demonetization was to maintain economic health of the country where inclusive growth can be possible. According to *Transparency International* demonetization was a good step for Indian economy and also appreciate the initiative of demonetization taken by Prime Minister Modi which will help to maintain transparency in governance, reducing corruption in the country and improve the ranking of the country in Global Corruption Barometer. In the present scenario of cashless and digital economy, the tourism and hospitality Industry is experiencing a new height in terms of Reservation & bookings and in settling of the bills through cashless means.

Review of Literature

Digitalization will lead to an improved climate for foreign direct investment (FDI), boost economic growth and will create more transparent economy. Demonetization will not only help millions of Indians overcome the hassles of dealing in cash to emerge as a truly cashless economy. The demonetization is the right initiative and subsequent drive towards developing a cashless practices and digital economy in India (Roy, A. 2017). According to the *International Monetary Fund (IMF)*, Indian economy has the potential to achieve double-digit growth rate amidst a slowing global economy. In spite of being a bright spot on the world map, a host of problems confront India which caste shadow on its governance credentials. These so-called black spots include: black money, corruption, money laundering, counterfeit currency, tax evasion and terrorist financing (Sahoo and Lohana, 2017). Demonetization is the very essential for India and help to tackle economic issues of India (Mohan, S. 2017). In one stroke, this involved the de-recognition of over 86 per cent of the value of Indian currency in circulation with only four hours' notice. Demonetization has opened a new avenue in terms of digitalization and cashless Indian economy which may help in the disclosure of black money in the country (Ghosh, J.; Chandrasekhar, C. P.; Patnaik, P. 2017). An improvement of telecom technology during the recent years makes people familiar with mobile banking and application based mobile payment techniques. According to (Mandal, P.K. 2017), Unified Payments Interface (UPI) and mobile wallet getting popular gradually

among the urban Indians. Demonetization announcement initiated a process of cashless and digital India, leading to a prosperous nation capable becoming global guru for democratic, spiritually oriented and ecologically sustainable prosperity (Agarwala, R. 2017). According to the ASSOCHAM, “travel trade has reported around 40-45 per cent increase in bookings for international tourists while business for the domestic travellers has gone up by 65 per cent after the demonetization move taken by Government of India.

Objectives

- 1) To study the prospects and challenges of Cashless Economy & Digitalization in India.
- 2) To review the impacts of demonetization vis-à-vis digitalization, through transformation and innovation of digital payments system to promote a cashless tourism practices in India.

Methodology

This paper has been developed on the qualitative research techniques. In this regard, exploratory research approach has been applied where personal experience through observation, personal visits and field survey conducted during and after demonetization phase at banks and ATM outlets, restaurants, ticket counters of museums, tourist spots, hiring taxi, buying souvenirs, shopping malls, theatre, hotels, travel agencies and hotels, bus terminals, railway station and airports etc. A focus group interview has been conducted of tourists, various online travel executives, front office executives and various state tourism development offices. Mostly information has relayed on secondary data from reputed journals, books, magazines, national and local dailies, reports of RBI, ASSOCHAM, CII, Ministry of Tourism, Government of India, and some useful websites.

Demonetization Vis-À-Vis Digitalization

According to *Merriam-Webster Dictionary*, ‘*Demonetization*’ (noun) originates from French word *démonétiser*, from dé- de- + latin *moneta* coin, means to stop using (a metal) as a monetary standard, or to withdraw of currency legal tender. Demonetization is the process of removal a currency as legal tender. It replaces the old currency with new currency in the economy of any country. Demonetization enforce to non-liquidity market practices which is also appealing consumers and moving cashless into a suitable marketing proposition. According to a Google and The Boston Consulting Group (BCG) report, Digital Payments 2020, the total payments made through digital payment instruments in India are likely to be about US\$500 billion by 2020, which is 10 times the current level. The report also estimates that non-cash transactions, which currently constitute about 22% of all consumer payments, will overtake cash transactions by 2023. Although, In India digital payments and digital transaction have already started before demonetisation with internet revolution or emergence e-tailors like flipkart, Snapdeal, Amazon.com, yatra.com, makemytrip.com, goibibo.com, trivago.com, booking.com, hotels.com,

irctc.com, etc. E-banking system has empowered this cashless practice where online transaction has become more revolutionised, secure and more popular among common people as consumer.

Technological Transformation after Demonetization

India is the leader of Information and communication technology since IT revolution starting in the world. No doubt India has developed and exported world class software's through its IT professional and earned handsome packages of salaries. Now this process digitalisation reform has been started in all most all sector of economy. E-banking, e-commerce, e-marketing, e-shopping, e-governance, e-tourism, e-booking, e-visa, e-passport, e-ticketing, e-payment, e-billing, are some common buzzword our day-to-day life. After Digital India Mission, government and business enterprises focus to transform their process on digitalisation. Many E-Start-Ups have come in this field to develop innovative digital services, apps which provide ease to customers. Online shopping retailers have already influence and dominating the e-shopping market culture and attracting by mega deals, festive offers, discount offers, mega sales. The internet banking or mobile banking, with lowest internet data has given the wings of e-payments power to the consumers.

- ***A path towards 'Cashless Society':*** Demonetisation has given the clear-cut roadmap to pursue digital transactions in routine life. This awareness now spread through the country when they actually realise the need of cashless practices by the different instruments. This message is not only sensitise to urban India but rural India too. Because, rural India have faced very tough time during demonetisation. But after promotion the cashless transactions practices among the rural masses, they are also following the path of cashless society.
- ***Developing Digitally Empowered Society:*** India is adding approx. 110 million smartphone users every year. A Deloitte and Associated Chambers of Commerce & Industry of India (ASSOCHAM) study forecasts that India will have 600 million internet users by 2020. Automation, big data, IoT and artificial intelligence enabled by the application of digital technologies could transform the Indian economy and improve productivity.
- ***More focus towards 'Data Analytics':*** The consumer centric information, their behaviour, opinions, feedback, reviews, through social media sites, blogs, forums, micro-blogging etc. through data analytics which transforming to better understand the data and focus to technological enabled solution.
- ***Innovation in payment system:*** There are many innovative payment solution has been emerged before and after the demonetisation. These are Immediate Payment Service (IMPS), National Unified USSD Platform, RuPay Card, Bharat Bill Payment System (BBPS), Unified Payment Interface (UPI), payment banks, mobile wallets, Bharat Interface for Money (BHIM) app. Tez app develop by Google for India.

Table-I

Technology Transformation Phases in Banking and Financial Sector

First phase	Second phase	Third phase
1984: Introduction of Magnetic Ink Character Recognition (MICR) Technology	2001: Internet banking	2010: Immediate Payment Service (IMPS)
1987: First ATM installed in Kolkata	2004: National Financial Switch (NFS)	2012: Adoption of ISO 20022 messaging standard in the Next Generation RTGS (NG-RTGS) system
1988: Computerised settlement operations at clearing houses of RBI	2004–2005: Real Time Gross Settlement (RTGS), National Electronic Funds Transfer (NEFT)	2014: Jan DhanYojana, National Unified USSD Platform, RuPay Card, Bharat Bill Payment System (BBPS)
1998–2000: Core banking software	2007 : Mobile banking	2016: Unified Payment Interface (UPI), payment banks, mobile wallets,
	2008: Cheque transaction systems	2017: Bharat Interface for Money (BHIM) app

Source: A Report published by ASSOCHAM and PWC on ‘Securing the cashless economy’ (2017)

Impact of Demonetization on Tourism and Hospitality

The impact of demonetization is initiating to India’s tourism industry a shift towards to do lots of innovations to ease the customers and to motivate them cashless practices. According to the Associated Chambers of Commerce & Industry of India (ASSOCHAM), there has been a 65 percent drop in Christmas and New Year vacation bookings in the year 2016. Peak tourism period of November-December was badly hit. Business in metros may go down by 10%. Cash shortage at airports and hotels were very common. Almost all major national monuments entry points don’t have card payments facilities which resulted in less tourist turnover or no show. Western countries have issued advisories to their citizens travelling to India regarding the cash crunch aroused due to sudden demonetization. Almost all airlines have announced sales discount this month although November is part of a quarter that’s considered peak time for air travel because of festivals and yearend holidays. AirAsia India unveiled all-inclusive fares from Rs.899 for travel till 30 April 2017. Spice Jet said it was offering fares of Rs.737 on short-haul sectors like Chennai-Coimbatore, Jammu- Srinagar-Jammu, and Chandigarh-Srinagar. Vistara, owned by Tata Sons Ltd and Singapore Airlines Ltd, offered Rs 999 tickets, allowing passengers to fly in the “happy month of December and into 2017”. The demonetisation drive will benefit the organized hospitality sector in India the most in long run.

Cashless Tourism Practices in India

During demonetization the Government allowed many exemptions in payments through old Rs. 500 notes. In the beginning the usage of Rs. 500 notes were allowed till the midnight of 15 December 2016. Although, this limit was further extended till 31 December, 2016 or beyond with some specific conditions. According to the Ministry of Tourism, Government of India, demonetisation has had no adverse effect on international tourist arrivals for November.

Table-II

Growth of Foreign Tourist Arrival in India in Last Three Years

Year	Foreign Tourist Arrivals (In Lakhs)
January-November-2015	71.03 Lakhs
January-November-2016	77.83 Lakhs
January-November-2017	90.01Lakhs

Source: MyGovIndia.in

There is no impact of demonetisation on the tourism industry as Goa has gone digitalised its tourism business process. People have accepted demonetisation and cashless payment initiatives. Prepaid cash cards were another option that customers found useful, and that meant good news for companies like ItzCash. Other alternatives include mobile payments systems linked to e-commerce businesses like Ola Money, Free Charge, Flipkart Wallet. Ola Money, the payment portal for popular transportation app Ola Cabs, reported a 1500% jump in money added to the accounts in less than four hours. Hundreds and thousands of citizens benefitted from Ola's mobile ATMs in Kolkata & Hyderabad. Ola has partnered with leading banks like State Bank of India, Punjab National Bank and Andhra Bank. The Ola Credit option, Ola Money, the company's own online wallet Ola Money can be used for recharges, sending money to others with the wallet and at about 500 offline and online. Consequently, the strategy to catalyse shift from offline to online and keeping the recent development (demonetization) in consideration, Make My Trip, a leading travel booking company in India, launched a special cashless travel sale, '*The Cashless Travel Carnival*'. The Cashless Travel Carnival of *Make My Trip* offering lucrative deals on online bookings panning a wide range of hotel properties across the country is definitely a novel example of what the future of online travel space has in store.

Innovation of Digital Payments System: According to the Payments Council of India, the growth rate of the digital payments industry accelerated post-demonetisation by 40-70 per cent. It was earlier in the range of 20-50 per cent. Reserve Bank of India statistics show that UPI (Unified Payments Interface) grew at a compounded monthly rate of over 100% in the first 6 months following demonetization. While 90% of the old currency has been returned to banks and new notes are much more in circulation, boosting the market of digital payments.

Table-III

Digital Payment Methods used in Tourism & Hospitality Industry

1. Banking cards (Debit / Credit / Cash / Travel / Others)	These cards can be used at PoS (Point of Sale) machines, ATMs, micro ATMs, Shops, wallets, online transactions, and for e-commerce websites.
2. Unstructured Supplementary Service Data (USSD) channel.	The innovative payment service *99# works on USSD where Balance enquiry, Mini Statement, Funds transfer.
3. Aadhaar Enabled Payment System (AEPS)	Balance Enquiry, Cash Withdrawal, Cash Deposit, Aadhaar to Aadhaar funds transfer, Payment Transactions (C2B, C2G Transactions).
4. Unified Payments Interface (UPI)	(UPI) is a system that powers multiple bank accounts into a single mobile application.
5. Mobile Wallet	Instead of using your physical plastic card to make purchases, anyone can pay with your smartphone, tablet, or smart watch. Paytm, Mobikwik SBI Buddy, Jio Money.
6. Banks Pre-Paid Cards	Balance Enquiry, Passbook/ Transaction history Add money, Bank A/c, All Cards, Accept Money Pay money.
7. Point of Sale (PoS)	A point of sale (PoS) is the place where sales are made. It is handheld device with card and /or bio-metric reader, merchant bank a/c, internet connectivity with GPRS/ Landline.
8. Internet Banking (NEFT/RTGS/ECS/IMPS)	Internet Banking, also known as online banking, e-banking. National Electronic Funds Transfer (NEFT) is a nationwide payment system facilitating one-to-one funds transfer. Real Time Gross Settlement (RTGS) is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). Electronic Clearing System (ECS) is an alternative method for effecting payment transactions in respect of the utility-bill-payments such as telephone bills, electricity bills, insurance premia, card payments and loan repayments, etc. Immediate Payment Service (IMPS) offers an instant, 24X7, interbank electronic fund transfer service through mobile phones.
9. Mobile Banking	Mobile banking is Apps driven services which allows its customers to conduct different types of financial transactions remotely using a mobile device.
10. Micro ATM	Micro ATM is a device that is used by a million Business Correspondents (BC) to deliver basic banking services. The platform will enable Business Correspondents (who could be a local kirana shop owner and will act as 'micro ATM') to conduct instant transactions.

Source: http://cashlessindia.gov.in/digital_payment_methods.html accessed on dated 4/2/2017

Debit Card: The debit card is a plastic money instrument which make possible cash withdraw, fund transfer, e-payments. The four largest bank card issuers American Express, Maestro, MasterCard, Visa RuPay all offer debit cards. RuPay is an Indian version of credit and debit cards similar to another international card.

Credit Card: A credit card is a card issued by a banks and financial companies giving the holder an option to borrow funds, usually at point of sale, shopping. Credit cards charge interest and are primarily used for short-term financing. Master Card, Citi card, Maestro Cards, Standard Chartered bank card, SBI Credit cards some well-known cards available in the market.

Internet Banking: Internet banking, (e-banking or virtual banking), is an electronic online bank account management payment system that empowers customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. It well connected with Core banking solutions.

The point of sale (POS): The point of sale (POS) is the electronic machine or device through which all types of retail transactions can be made. This device is available to shopkeeper, departmental stores or shopping malls where customers can swipe the debit or credit cards to make payment on the spot to the shopkeeper, and machine generated invoice bill for customer and shopkeeper immediately.

Mobile Wallet: Mobile wallet is a buzzword in India nowadays. A mobile wallet is a cybernetic mobile application-based wallet which supports online or offline payments. Mobile wallets operate in four ways i.e., open, semi-open, semi-closed and closed.

Table-IV
Mobile Wallets in India

PayTM launched in 2010	Jio Money launched recently in 2016
ICICI Pocket	mRupee
SBI Buddy	Lime launched by AXIS in 2015
Idea Money	Chillr for HDFC Customers
Mobikwik Founded in 2009	Citi master Pass
Oxigen Wallet July 2004	Vodafone M paisa
FreeCharge	Ola Money, launched in 2015
Citrus Pay	Mswipe, founded in 2012

Source: Compiled by the Authors

UPI: The Unified Payment Interface (UPI) delivers a single interface that allows unified interoperability between different payment systems. The concept of UPI is based on a virtual payment address where bank accounts, cards and wallets can be mapped to a unique virtual payment address and payments can be possible by an account number, mobile number and Aadhaar number. (<http://cashlessindia.gov.in/upi.html>)

BHIM (UPI) app: On December 30, 2017, Prime Minister launched a new Indian app BHIM (Bharat Interface for Money) which named after *Dr. Bhim Rao Ambedkar*. BHIM is a biometric payment system app using Aadhar platform and is based on Unified Payment Interface to facilitates-payments directly through bank (*Yojana. February 2017*). UPI towards Digital Economy government-initiated launch of 'two new schemes to promote BHIM app, including cash back scheme for Available on SSRN-Elsevier

merchants; Aadhaar Pay to be launched for people who don't have mobile phones (Roy, A. 2017).

NFC Payment: NFC means *Near Field Communication* technology which permit to connect or link with mobile phone and point of sale machine where mobile phone acts as a wallet. In this system there no physical debit and credit card is required just touch the smart phone with payment machine and pay. Samsung Galaxy advance version smartphone have these unique NFC feature.

Bitcoin: Bitcoin is the e-money based digital currency system introduced in 2008, It is the first crypto currency, a peer-to-peer electronic monetary system based on cryptography.

Safety and Security Issues of Digitalization

In this digital world there are number of cyber threats, like hacking, phishing, money laundering, frauds etc. There is always an ethical issue to continue cashless tourism practices. Tourists as consumers wants a safe and secure transaction and successful payments to the right suppliers of services like airlines, hotels, travel agencies and tour operators, cruise liners, restaurants, amusement and theme parks etc. Cyber security is managed and administered by a mechanism called people, process, and technology. The purpose of information security provides confidentiality, integrity and availability of information beside these the other parameters as authenticity, authorization, accounting and non-repudiation. The Consumer Protection Act, 1986 defines the rights of consumers in India and is applicable to banking services as well.

Standards guidelines for digital transaction

- Banks always gives the instruction time by time to customer about password protection and beware fake calls.
- Never share and disclosed your debit and credit card's pin number, internet banking password to anyone.
- Always used alpha-numeric and special character mix password which should also change time by time as per the need.
- Always note the payment transactions summary or collects bills to tally right and authentic transaction.
- Never save password in the laptop, mobile.
- Do sensitive browsing in your own computer or laptop.
- Always remember or note down emergency Toll Free No. or Customer Care No. of the bank for block the cards.
- Always use secured anti-virus in the system and Firewall is enabled.
- Latest version of Browsers (IE 7.0 and above, Mozilla Firefox 3.1 and above, Opera 9.5 and above, Safari 3.5 and above, Google chrome, etc.)
- Avoid accessing Internet banking accounts from cyber cafes or shared PCs

Conclusion

Demonetisation was a biggest step taken by Prime Minister Narendra Modi, to clean and revive the economy of India. This decision definitely has strike on the black money, terror funding, tax evasion, and money laundering. But proper public support and coordination and cooperation of Government, and business houses, this

move was very successful in spite of certain difficulties to common people of India. In this regard, Digital India and Start-ups India campaign was more vibrant during the demonetisation. This was the right time for testing the practices of start-ups innovations like mobile wallets, e-money transfer system, e-shopping, e-loyalty programmes etc. India is a leading global ICT power with best payment system solutions. Secured i-gateways and authentication of transactions have developed trust towards cashless practices. Enablers like Jan Dhan, Aadhaar, Mobile penetration, (JAM), demonetization have developed positive environment for digital practices in India. There are so many cashless and digital practices being used in Tourism and Hospitality Industry such as uses of Banking Cards, USSD channels, Aadhaar enabled payment system, Unified Payment system, Mobile wallets, Point of sale, Internet Banking, Mobile Banking, Bank prepaid cards and Micro ATM etc.

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Impact of Public Administration and Its Role in Higher Education

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ABSTRACT

A good higher education system is prerequisite for the development of nation. A significant progress in the higher education space had made the administration of higher education institutions complex. In recent years, institutions in all spheres of life have been growing in size and complexity. Several researches reveal that the administration helps to reduce the complexity and improve the inclusive administration of higher education. Public administration comprises all the activities of the individuals, groups, organizations, institutions at all levels. Public administration is the use of administration for planning, implementation, and execution of government programs, projects and activities. A good administration is expected to deliver efficient and effective citizen services in the higher education system. Public administration is understood as a set of activities involving effective contribution for strengthen the administration and management in higher education system in India. It has become imperative for the government to preserve the path of their functioning. Public administration helps in transparency and accountability for improving the higher education system.

Introduction

Higher education is one of the prime aspect in the national development. It is a dominant source to build a knowledge based information society of the 21th century. Today the world is experiencing an unprecedented change. New developments in higher education and the ever expanding competitive environment are revolutionizing the education system. A paradigm shift has been noticed in higher education now a day, from 'national education' to 'global education', from 'one-time education for a few' to 'lifelong education for all', from 'teacher- centric education' to 'learner centric education'. These changes make new demands and pose new challenges to the established education systems and practices in the country. The higher education system in India has grown tremendously after post-independence period to maintain the quality of education. India has become the third largest higher education system in the world. The quality of education cannot be considered to be the best although having the largest higher education system in the world, imparting

education to such a huge number of students has many challenges to deliver the efficient and cost effective services. Higher education has to perform multiple tasks like creating new knowledge, acquiring new capabilities and producing an intelligent human resource through challenging teaching, research and extension activities so as to balance both the need and the demand of the society. Educational institutions may have several management processes such as registration, admission, student information, classes, time table, transport, attendance, examinations, performance, library, grades, hostels, security, reports, salary and expenses. In these circumstances, good administration helps to reduce the difficulties and enhance the inclusive administration of higher education.

Research Methodology

The study focuses on extensive study of secondary data collected from various research papers, national and international journals, periodicals, newspapers, magazines, gazettes, internet, and reference books, government reports.

Impact of Public Administration in Higher Education

Public administration has become an essential fragment of modern society which has observed the emergence of ‘administrative state’ by administrative thinkers. This means that every activity is regulated and controlled by the state agencies, that is, administrative agencies. Public administration comprises all the activities of the governmental institutions. It is the action part of government for the fulfilment of the objectives in the organisations. The machineries of government and their functioning have attracted the attention of scholars since the time of recorded history. Kautilya’s “Arthashastra”, Aristotle’s “Politics” and Machiavelli’s “The Prince” are important contributions to both political and administrative issues and ideas.

Paul H. Appleby “Administration is the basis of government. No government can exist without administration. Without administration government would be a discussion club, if indeed, it could exist at all.”

Role of Public Administration in Higher Education

Many of them are more positive in nature because they care for the essential requirements of human life, like health, education, recreation, social security, and others. Public administration is a creative factor for the public welfare. The role and importance of public administration can be analysed as follows:

- It is the basis of government and the frames the rules and regulations of the higher education.
- It is the instrument for executing the laws, policies and programmes of the higher education.
- It is the instrument of social change and economic development especially in the developing countries which are engaged in the process of higher education and nation-building.
- It is an instrument of national integration through the development of higher education curriculum.
- It is the instrument of the state for providing to the people various kinds of services like educational, health, transportation, etc.

- Its role as a change agent is particularly crucial in developing nations. It is expected of the state at present to work for accelerating higher education change and not to be a passive agency to maintain status quo.

If the quality of our higher education system has to be upgraded to make the institutes' best knowledge hubs, then there is no alternative to the introduction of the public administration discipline at the fastest possible level. Implementation of public administration in the institutes will enable the government, the regulatory bodies and other stakeholders their own managements to maintain quality and become more responsible, transparent and accountable. Public administration brings transparency and accountability in the system, so administrative initiatives in the field of higher education will help to reduce the corruption up to a large extent. The introduction of public administration in higher education is one such concept that can empower the governing bodies to administer the progress of the education plan in the whole country and serves various stakeholders in a much better way. Public administration is becoming a global phenomenon that is progressively drawing the attention of citizens including politicians, economists, decision and policy makers.

Conclusion

India has a large number of higher educational institutions with huge enrolment of students and efficient administration of these institutions poses a huge challenge. The planning for good administration of higher educational institutions is increasing globally to achieve the high standard, it is indispensable to have a better association and access to information available in all the parts of the world are possible only by introducing public administration in educational institutes for maintaining the standard. Government should support updated amendments for maintaining standards in the educational process and improvements in the related field. It requires latest procedures, policies and working skills for good administration. With the advent of public administration as an emerging field, it is possible to make comprehensive and integrated system to analyse the performance of one of the best performing institutes and compare it with other schools and colleges to identify the difference. Through good administration we can improve the quality of higher education system in India. Public administration can create the accountability and transparency in the higher educational institutes. It will bring forth, new concepts of administration both in terms of needs and responsibilities. Administration has a great potential in improving the higher educational system but to achieve the success there is need for coordination and support from governing bodies and higher educational institutes of nation.

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A Study on the Awareness and Perception of Robo Advisory Services Among Investors in Pune City

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ABSTRACT

Retail portfolio management service is an essential service for the effective channelization and utilization of surplus funds for economic growth of capital markets. Many investors have burnt their fingers in the capital markets by either being misled by aggressive wealth management advisors or on account of reliance on media reports and advice of friends and family.

However, these lacunae are now gradually being eliminated by the use of ROBO Advisory services. By automating financial planning, ROBO advisors emphasize on the user experience and combat the behavioral aspects of investing that can cause people to fall short of their financial goals. These programmed Robots will thus eliminate the risk of human bias or human error. The services are gradually making inroads in the Indian financial sector as well.

In the light of this, the present research endeavors to understand the awareness and perception of ROBO advisors in Portfolio Management services amongst 50 investors in Pune, Maharashtra through the interview method. The study aims to target individuals in the age group of 25 to 45 years who are generally considered to be quite technology savvy.

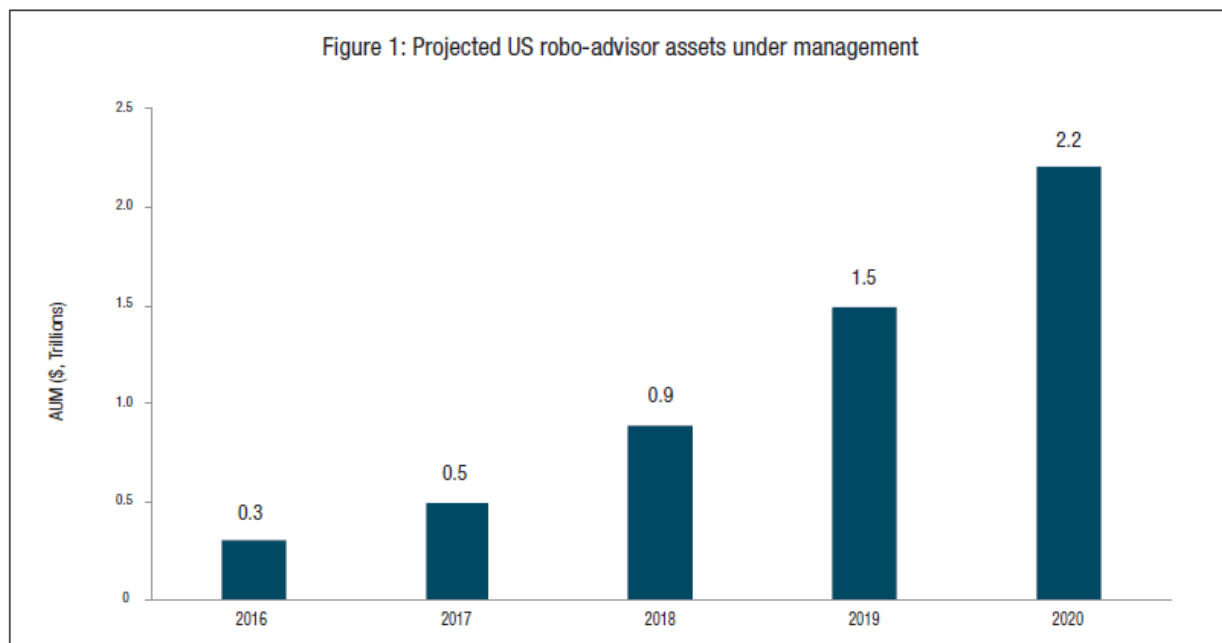
Introduction

Recently, most retail investors have directly or an indirectly showed their inclination towards investing in financial instruments. However, many investors in urban and semi urban areas have incurred huge losses by taking a plunge into capital market as they make their investment decisions based on their limited knowledge of financial instruments rather than relying on professional knowledge. This is due to the fact that portfolio management services have strongly relied on traditional face-to-face business models, causing the services being highly expensive and therefore available only for the wealthiest population of the society. Recently a new digital business model, Robo advisors, entered the market and is predicted to democratize the entire industry by bringing portfolio management services available to a wider public than ever before. Robo- advisory is an “automated investment solution which engages individuals with digital tools to guide them through a self –assessment process and shape their investment behaviors towards rudimentary goal-based decision-making” (Sironi 2016). As mentioned above, artificial intelligence technology has been embodied in the form of

Robo-advisors that offer a novel asset management and customer service system in the financial sector. Retail investor's interest in Robo-advisors has grown over time. Furthermore, in contrast to previous portfolio management services, Robo advisors provide more sophisticated user with advanced components of market updates, alerts, opportunity/risk alerts, dashboards, periodic reviews.

Considering these advantages of Robo-advisors, such as high accessibility by customers and comparatively low fees, the existing portfolio management services has shifted the focus on algorithms and intelligent software with high degree of automation. As an algorithm-based process without human interaction, getting financial advice through Robo advisor is cost-efficient and convenient for the investors. Moreover, due to a high level of automation, clients can get sound and robust advice at low cost. Getting Robo advice is easy as it is always accessible for the user through online and mobile platforms. Robo advice enables customers in lower income levels to get financial advice that was previously restricted only to the wealthiest population, and the wealthiest can enjoy increasingly cost-efficient and transparent investing, available at any time and any place. Moreover, as market leader platforms based in the U.S. demonstrate, Robo – advisors attract the targeted customers with increasing success: For instance, the start-up wealth front accumulated \$1 billion assets under management is less than 2.5 years after its market entry (Vincent et al. 2015).

Robo advisors were projected to have as much as \$300 billion assets under management at the end of 2016 – and reaching even \$2.2 trillion by 2020 (Epperson, Hedges, Singh & Gabel 2015, 26).



Source: KPMG.

The above data is available in full to RBWG members. For access, go to <http://retailbankingtheasianbanker.com>.

At present, Robo-advisors manage only about 1% of private assets in the US (Ludden et al. 2015). Optimistic forecasts predict that Robo-advisors will manage 10% of the whole wealth management industry in 2020 (Kocianski 2016). The kind of consumer who uses

Robo-advisory today tends to be experienced in investment matters, tech savvy, risk-taking (Epperson et al. 2015) - and wealthy. Experts estimate that assets managed by Robo advisors will increase from around \$20bn today to \$2.2trn in 2020 – mainly in the high-income, risk-taking customer segment (Epperson et al. 2015). Although Robo-advisory services have gained only a miniscule share of assets under management (AUM), the investment in Robo-advisor technology by investment companies is estimated to rise to approximately \$300 million per year, which indicates a tenfold increase from that in 2010.

But majority of retail investor have entrusted their money to Robo-advisory platforms due the great potential to improve service accessibility and reduce costs (Faubion 2016): charges of around 0.25% of the portfolio per year rather than human advisors' 1–3% ought to make Robo-advisors attractive even for consumers with smaller savings (The Economist 2015). moreover, a recent survey shows that one quarter of polled consumers were interested in Robo-advisory, and of those, 34% considered it likely that they were actually going to use Robo-advisory in the future (Epperson et al. 2015). Considering that banks are continually scaling advisory operations except for high net-worth individuals, Robo-advisory services are looking to become the only way for the average and below-average income earners to participate in financial investment.

From (investment) banks' point of view, automation of advisory services is very desirable due to its cost cutting potential (Faubion 2016). Goldmans Sachs has recently acquired a company called honest Dollar, which is developing Robo-advisors, and MasterCard worldwide has applied an algorithm developed by Rainbird, which is a company that develops Robo-advisors, to its customer consulting service.

Our research endeavours to study the level of awareness and perception of Robo-advisory services. Prior research in information systems (IS) indicates that transforming sensitive communication processes – such as financial advisory – from human to IT-based communication conflicts with human cognition and expectations (Suchman 1993). Recent research on consumer expectations of Robo-advisory shows that – apart from quality of service – transparency, trust-building and the balancing of information asymmetries (Nussbaumer et al. 2012a, b; Ruf et al. 2016) are core issues in the design of Robo advisory solutions.

In our study, we examine the perceptive of Indian investors on certain parameters such as transparency, trust, information quality, usability and the consumer decision to invest (or not) (Peffer et al. 2007; Vaishnavi and Kuechler 2015). To the best of our knowledge no study in India has been conducted so far on the aforementioned area and this is an attempt to bridge the existing gap.

Literature Review

Although the market for Robo-advisory is growing fast, there is only little scientific coverage so far. Fein (2015) in his article has referred to Robo advisors as smart money machines which have the qualities of speed, intelligence and low cost. The article provides an overview of advantages and disadvantages of Robo-advising in the future and analyzes cheap and stable model which could be complemented by personal advisors. She concludes that the chances of Robo-advisory actually becoming a true

disruptive force, however, depends on the prudent investment options provide by the programmed algorithms. (Huxley and Kim, 2016).

The very first step in the process of investment is to determine an investment policy or a strategy to allocate investor's money across different asset classes. As we are aware that each asset class (Equity, bond, fixed deposits etc) will have an associated risk and return, the investors have to wisely choose the allocation plan on the basis of the investors' risk appetite, as well as the time horizon for the investment (Cochrane, 1999). In the case of Robo-advisors, potential investors provide input personal information about risk, preference and time horizons by the way of online questionnaire, and fed to an algorithm which will then automatically determine what asset classes to invest in, and in what proportions (Moewes, 2011b). The algorithms employed in the predominant Robo-advisor model performs asset allocation using mean-variance analysis, a crucial component of modern portfolio theory.

Libby Kane (2014) has made a comparative analysis between man and machine. She has compared Robo-advisors to human advisor on various parameters like price, portfolio size and other factors. As shown in the chart below, Robo-advisors charge much lower advisory fees than most traditional investment advisors. They also have much lower minimums. In pricing, Robo advisors are superior to human. The fee structure is fairly simple to understand.

When it comes to portfolio size, Robo advisor are better as their tremendous speed of computing the input data and flexibility to incorporate any changes in the asset allocation makes them more efficient than financial advisors to manage any portfolio size. Moreover, Robo advisors tend to be more accountable, there is complete transparency, when the data is fed in, and the output is an unbiased result without any conflict of interest. Lastly, the only parameter wherein the Robos are unable to match the human advisors is –Understanding the personality traits and priority of goals as per the changing times and circumstances that may not be converted into input data to further processed. (Moewes, Puschmann, & Alt, 2011).

Fee Comparison

Advisor	Advisor Type	Annual Advisory Fee
Schwab Intelligent Portfolios	Robo-Advisor	N/A*
Wealthfront	Robo-Advisor	0.25% First \$10,000 managed for free \$500 minimum
Betterment	Robo-Advisor	For account balance of: - \$0-\$10,000: 0.35% with minimum of \$100/month auto-deposit OR \$3/month without auto-deposit - \$10,000-\$100,000: 0.25% - \$100,000+: 0.15%
Fee-Based Advisors in Aggregate**	Traditional Advisor	For account balance of: - Less than \$250,000: 1.43% - \$250,000-\$500,000: 1.37% - \$500,000- \$1M: 1.28% - \$1M-\$2M: 1.16% - \$2M+: 0.79%
Vanguard Personal Advisor Services	Hybrid Robo-Advisor	0.30% \$50,000 minimum

* As Schwab Intelligent Portfolios has written on its website, "Schwab Intelligent Portfolios charges no advisory fees. Schwab affiliates do earn revenue from the underlying assets in Schwab Intelligent Portfolios accounts. This revenue comes from managing Schwab ETFs™ and providing services relating to certain third-party ETFs that can be selected for the portfolio, and from the cash feature on the accounts. Revenue may also be received from the market centers where ETF trade orders are routed for execution."

** Numbers for fee-based advisors based on PriceMetrix data

Sources: Schwab Intelligent Portfolios Website; Wealthfront Website; Betterment Website; The State of Retail Wealth Management 5th Annual Report. PriceMetrix. Fees based on 2014 data; Vanguard Personal Advisor Services Website.

Huxley and Kim (2016) in their report have analyzed more than 17 Robo advisors and concluded that the recommendation of equity portfolios provided by Robo advisor are suitable for short-term goal of an investors rather than long-term goals, as Robo-advisors typically try to reduce short-term volatility. The report also highlights the fact that the clients who are planning for their retirement, and have investment horizons of more than 10 years, they identify a conflict between true investment goals and recommendations. This conflict is linked back to the quality of the questionnaires that enable the Robo advisors to ascertain the clients' risk preferences. Hence, Huxley and Kim (2016) raise a very crucial question - Whether the Robo-advisors' questionnaires are accurate, reliable and valid from a psychometric standpoint". Unfortunately, questionnaires commonly used by financial planners do not adhere to psychometric standards; they are generally too brief (a reliability problem) and contain too many questions (a validity problem) (Roszkowski, Davey, and Grable, 2005). Considering the gaps in the report, the author concludes that the future of financial advisory services will be a hybrid model, where analysis is done by programmed algorithms but the procuring, retaining, motivating and reassuring of clients is done by financial advisors.

Alt, R. & Puschmann, T. (2016).in his research paper on Robo advisory services in portfolio management services has briefly defined two different types of risk tolerance of Available on SSRN-Elsevier

the investor: the objective and subjective risk. The author defines the objective risk tolerance like the investor's planning horizon and investment goals which could be quantified to an extent; the subjective risk tolerance, by contrast, is based on the investor's emotions and opinions. The author clearly states that the first one seems to be easy to measure, whereas the second one is harder to identify and quantify as an input factor. Moreover, it is doubtful that risk preferences of investors are stable over time; they will depend, e.g. on investors' current profit and loss balance (Kahneman and Tversky, 1979).

Dan Schutzer (2015) has conducted research on the use of artificial intelligence in financial services. According to the author, soon, Robo advisors would become a necessity to continuously sort, classify and analyse the data as Artificial Intelligence (AI) can compute large data with a lot of ease. AI can make it feasible to extend the financial advisory services to masses at a lower cost. The downside of automated online financial services is the security and privacy issues. Also, system failures are inevitable. Applications could be tampered by crazy nerds leading to chaos. Robo advisors are difficult to audit and regulate and hence laws relating to technology driven financial services have not yet evolved. The author recommends designing and installation of internal control check to ensure security and privacy factor. A team comprising of people with various strengths like acumen of understanding investment strategies, extremely tech-savvy, economists and capital market experts must be formed to design, install and check the important internal control system.

Research Objectives

1. To study the level of awareness among investors regarding Robo advisors/automated online investment tool as a medium of investment decision.
2. To study the perception of investors regarding acceptance of Robo advisory services as one of the mode of investment decisions.
3. To know investors opinion about adoption of Robo advisory services by them in future.

Research Methodology

The objective of the study is sought to be fulfilled through the analysis of the primary data. Field survey becomes essential for the purpose of studying investor's awareness and perception about Robo advisory services (automated online investment tool) and therefore gathering information related to the same with the help of interview. For the purpose of the field work, face to face interview of 50 investors residing in different parts of Pune city was conducted.

Data collection Method

An exploratory qualitative research was conducted by reviewing the literature on the subject, followed by survey method to elicit information from investors. A structured interview technique was planned using different variables. The primary data was collected by convenience sampling method using self-structured questionnaire and personal interview by visiting the work places of working professionals mainly in Pune.

Data interpretation

A survey of 50 respondents was conducted to study the investor's awareness and perception regarding Robo advisory services as a mode of making investment decision as well as the factors affecting investors' decision on whether or not to use automated online investment tool as mode of making investment decisions.

Considering the change in financial advisory services with the advent of AI in India, the survey helps to identify opportunities for a coordinated state approach in addressing the automated online investment platforms.

The level of awareness varied by Gender, Age group and Income levels

Demographic variable	Category	No of Individuals
Age	20-35 years	35
	36-45years	12
	46-55 years	2
	Above 55 years	1
Gender	Male	32
	Female	18
Income level	Less than 5 lakhs	7
	5 to 10 lakhs	27
	10 to 25 lakhs	9
	25 to 50 lakhs	6
	Above 50 lakhs	1

Among 50 respondents Over 58% respondents said they had heard of about or they are familiar with the concepts of Robo-advisors, online investment platforms or automated investment services. Men we more likely to be aware about the Robo advisory services than women.

Generation Z (age 25-35 years) were more likely to have heard about Robo advisors than Generation Y (Age 36-55 years) and Generation Z (above 55 years).

The study depicts, over 68% of Generation Z was more likely than Generation Y (51%) and Generation X (44%) to have heard about the concept of Robo advisory services.

Most investors with an investable asset of 10 lakhs and above have heard of than those in lower investable asset group.

Income of the investors and Factors Influencing Investors' Decisions Making.

Table below shows the results of one-way ANOVA test between the different income group of the respondents and the factors influencing investors' investment decisions which includes newspaper and media reports, own financial analysis, advice from friends and relative, assistance provided by Financial advisor and access to automated online investment tools.

Table 1: ANOVA					
Between groups	Sum of squares	Degree of freedom	Average sum of squares	F-test	Significance
Newspaper and media reports	13.852	5	3.760	4.879	0.000

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Advice/recommendation from friends and relatives	21.902	5	4.360	5.175	0.000
Own financial analysis	37.934	5	7.587	8.270	0.000
Financial advisor	35.739	5	7.148	7.731	0.000
Online investment tool	16.996	5	3.996	3.997	0.000

* * P < 0.001

The results of the ANOVA show that there was a statistically significant difference among the different income group of investors and each of the five most influencing factors. It is shows that Income of investors is a factor affecting investment decision of investors.

Investment decision with the help of Robo advisors or automated online investment tools

Of the Respondents who had heard of Robo advisory services, 29% of respondents are already using an online investment platform to support their investment decisions. These are mostly young investors, aged 25-35 years old. The younger investors reported much greater willingness to investment via Robo advisory platform than older respondents. Young investors are willing to trust a machine to make important investment decisions. They are excited that technology could boost their portfolio value.

Among 25-35 year olds, 29% have invested in financial markets using online investment platforms, compared to 14 % of those older than 50 years. Moreover, among those investors who were 36- 45 years old were very unlikely to make any investment decision based on the automate online investment tools (76%)

Figure 1 highlights the fact that investors in high income group with investable asset of (above 25 lakhs) are not willing to use Robo advisory service while making any investment decision whereas 39% of investors in medium income group with an investable asset of Rs 5 lakh to 10 lakhs are already using Robo advisory service and they are willing to use it in future. It is assumed that high household income was least likely to invest via Robo advisors in future v/s 52% of those with less than 10 lakhs.

Figure 1: Are you already using an online investment platform that supports you in your investment decisions? (Income wise distribution).

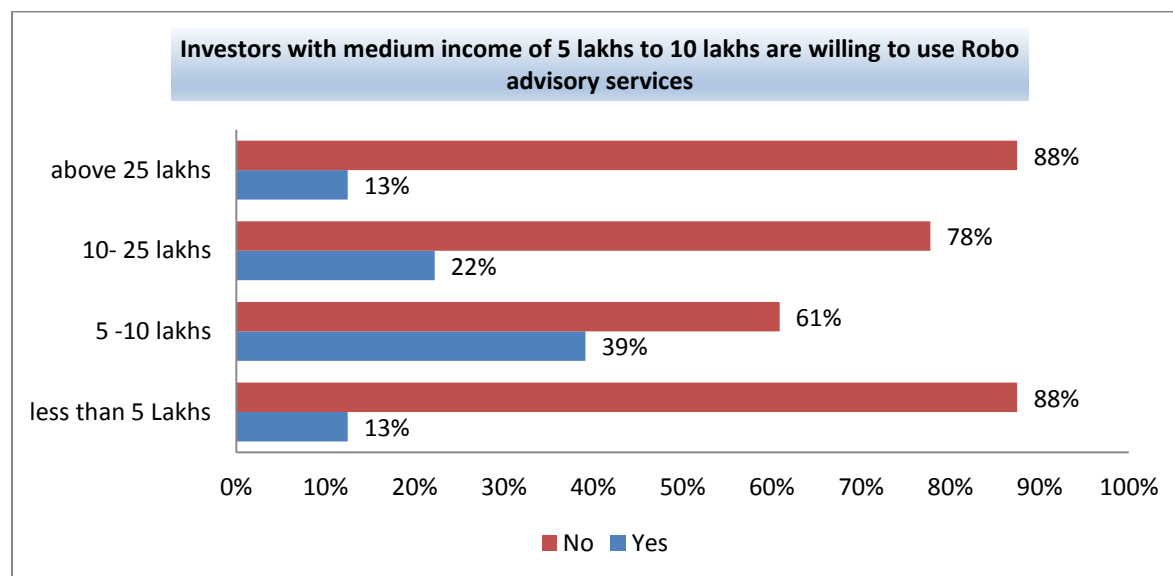
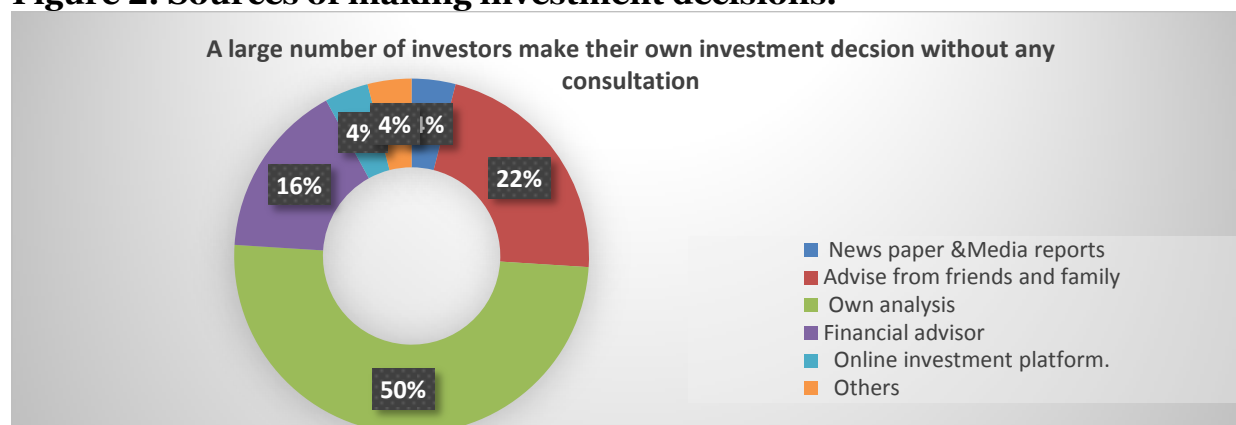


Figure 2 depicts that a large number of investors surprisingly do their own analysis to invest into capital market. About 50% of investors rely on their financial knowledge and skills to make their investment decision. Only 4% of investors avidly read newspapers, media reports, TV shows to get an investment tips and advice. Just about 16% can afford a financial advisor to help them make investment decisions. There is a large pool of investors who do not have an access to professional financial advisor. If these unserved investors get the access to professional advice through Robo advisory platforms, their portfolio value will arise exponentially.

Figure 2: Sources of making investment decisions.



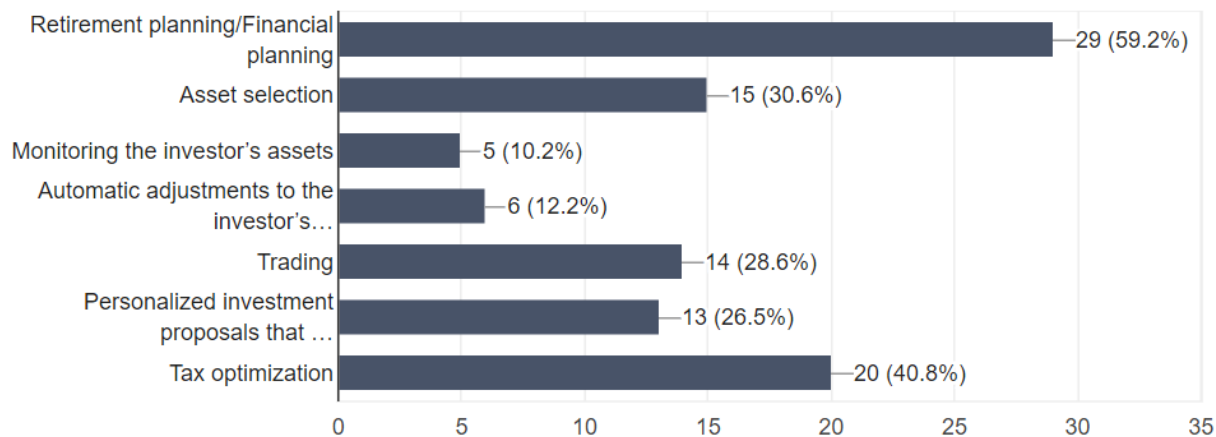
The following graph provide the distribution of response to the question- “For which of the following investment tasks would you consider to get support from an online advisory platform”

The majority of investors, 59.2% feel that Robo advisory services would be considerably useful in retirement planning followed by tax optimization. Few, 28.6% feel that Robo advisors could be useful in Trading.

Figure 3: For which of the following investment tasks would you consider to get support from an online advisory platform?

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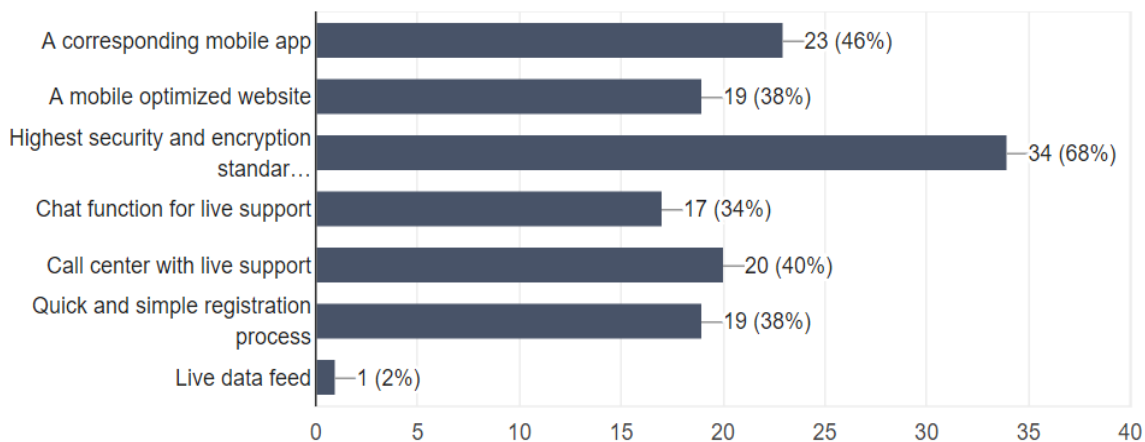
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Most investors are risk averse. They require financial advisory to keep a track of their portfolio continuously. We asked the investors- What technical features they think an online investment tool should offer. The following graph provides the distribution of responses to the question.

Most respondents (68%) feel that security and privacy is very important for future and growth prospects of Robo advisory platforms in India.

Figure 4: What technical features should an online investment tool offer.

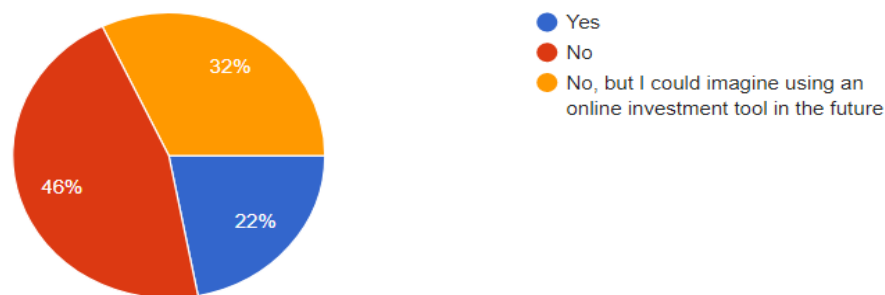


Of 50 respondents who answered the below question concerning about the advantages of using Robo advisory services in making their investment decision, most respondents feel that Robo advisory services can help to make the advisory process more transparent. 37 respondents or 74 % said so. 27 respondents' feels that registration and opening Demat accounts can be processed faster and more efficient by automated online investment tools.

Advantages	Weighted Average Mean of advantages of Robo advisory services
Do you believe that Robo advisory services can help financial advisors to make better decisions	2.8
Do you believe that Robo advisory services can help to improve the quality of financial advice.	3.4
Do you believe that can make registration and/or account opening processes faster and more efficient	4.1
Do you believe that Robo advisory services can improve the client-advisor relationship through convenient contact options like live support, 24x7 text or video chat	4.28
Do you believe that Robo advisory services can help to make the advisory process more transparent	4.386

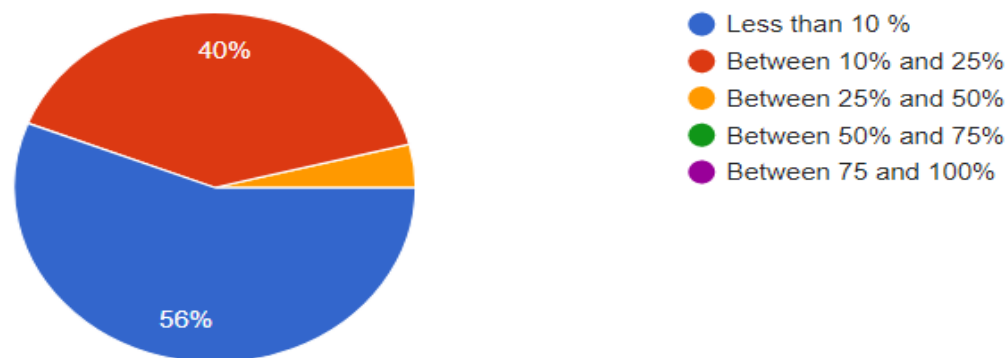
Of 50 respondents who answered the below question concerning about the adoption of Robo advisory services in near future, most respondents (52%) were optimistic about the ability to view, manage, and invest from one digital platform. 22% of respondents were already using online investment tool to support their investment decision while 32% of respondents have showed their inclination to use Robo advisory service in near future. The Investors believes that Robo advisory services would save money (in terms of minimum transactional fees) gets faster and more reliable advice whenever they want, and access their portfolio through multiple channels.

Figure 5: The following pie chart depicts the share of investors who are already using online investment platform or willing to use in near future to support in investment decision



The graph below (Figure 6) depicts that 56% of respondents are willing to invest and manage a small share of their assets (less than 10%) through automated online investment platform. The respondents believe that Robo advisors offers important attribute such as rebalancing and tax loss harvesting systematically by removing any doubts or emotional biases.

Figure 6: Percentage of willingness of investors to invest their assets through online investment tool



Summary of Findings

In the light of the analysis, following are the findings of the study.

1. The retail investors at large are well aware about investments in capital market, but do not have enough knowledge about automated online investment tools i.e. Robo advisory services. Moreover, retail investors are well aware that digitalization in portfolio management services will assist the users in their financial decision making process and provide cost minimal solutions.
2. Considering the existing research, we summarize that most retail investors are in sheer need of professional advice to improve their yield on portfolio and hence Fintech start up in India should guide and focus to improve the basic understanding of Robo advisory services, outcome and implications.
3. The retail investors are mostly optimistic about the future of artificial intelligence (AI) in wealth management sector. So transparency, Security and simplified process are considered as relevant design factors for an IT artefact, which will lead to improvement in customer satisfaction and willingness to adopt Robo advisory services.
4. The survey highlights the fact that investors in high income group with investable assets of (above 25 lakhs) are not willing to use Robo advisory service while making any investment decision, whereas 39% of investors in medium income group with an investable asset of Rs 5 lakh to 10 lakhs are either already using Robo advisory service or willing to use it in future.
5. The majority of investors feel that Robo advisory services would be considerably useful in retirement planning followed by tax optimization. Few investors feel that Robo advisors could be useful in Trading. The respondents also believe that Robo advisors offer important attributes such as rebalancing and tax loss harvesting systematically by removing any doubts or emotional biases.

Limitations of The Research Study

The following limitations occurred during the research study, the limitations are as follows.

1. The study is limited only to Pune city.
2. This study is based on a sample size of only fifty respondents.
3. The time and cost was another limiting factor, which was insufficient to conduct a detailed survey.
4. Since Robo Advisory is yet to gain pace in India, not much awareness exists amongst the investors.

Conclusion and Recommendations

Artificial intelligence can play a role in nurturing an investment culture in India. Digitalization affects most industries, including the financial service sector. In this context, it transforms the human financial advisory process into digital solutions commonly referred to as Robo advisory. Banks, Portfolio management services and financial intermediaries must accept that technology will determine quality and scale of services. They must partner with Fintech startups to develop a sustainable algorithm that can be beneficial to masses.

The automation and digitalization of investment and financial advisory is an ongoing process. The current generation of Robo advisors provide cost minimal solution and most simplistic wealth management options. However, there is sheer need to design more comprehensive platform that take into consideration the behavioural peculiarities into account and enable higher customization of investment portfolios. An algorithm should be designed keeping in mind the Indian investor's mind set so as to give maximum returns with minimum risk.

Considering the existing research, we summarize that there is a basic understanding of Robo advisory usage, outcome and initial knowledge available to the investors in India. However, we argue that there are plenty of opportunities for research in this domain

Greater awareness, investor's education regarding Robo advisory platforms and more funds for research in the artificial intelligence area needs to be channelized to make Robo advisors accessible.

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Working Capital Management and Its Impact on the Profitability of Tata Motors

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ABSTRACT

This paper attempts to investigate the impact of working capital management on the profitability of Tata Motors using cash conversion cycle as an important determinant to find out the important linkages between the variables under study. The paper seeks to extend Lazaridis and Tryfonidis's findings regarding the relationship between working capital management and profitability. The study is based on secondary data obtained from published annual reports of Tata Motors and Indian Brand Equity Foundation for a period of five (05) years from 2013 to 2017. This paper aims to establish twin objectives of finding out a statistically significant relationship between variables under study and to help explain the necessity of firms optimizing their level of working capital management and maintaining enough liquidity as it affects the profitability. The result of this study clearly shows significant level of relationship between the profitability indices as well as working capital components. The data have been analysed using SPSS (ver.16.0) for generating better reliability of the results.

Introduction

Working capital management is a vital issue in financial decision making since it is a part of investment in current assets and current liabilities which directly affect the liquidity and profitability of the company. Working capital management involves planning and controlling current assets and current liabilities in a manner that eliminates the risk of inability to meet short term obligations on the one hand and avoid excessive investment in these assets on the other hand (Eljelly, 2004). Efficient management of working capital plays an important role of overall corporate strategy in order to create shareholder value. Working capital is regarded as the result of the time lag between the expenditure for the purchase of raw material and the collection for the sale of the finished good. The way of managing working capital can have a significant impact on both the liquidity and profitability of the company (Shin and Soenen, 1998). The main purpose of any firm is to maximize profit. But, maintaining liquidity of the firm also is an important objective. The problem is that increasing profits at the cost of liquidity can bring serious problems to the firm. Thus, strategy of firm must maintain a balance between these two objectives of the firms. Working Capital Management has its direct impact on liquidity and profitability of the

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business organization. Liquidity is important to ensure that firms are able to meet their short term debts and obligations when they become due, or it can be defined as the average time period required to convert non-cash current assets into cash; the shorter the period required the stronger the liquidity position of the business organization. Working capital management has become one of the most important issues in the organizations where many financial executives strive to identify the basic working capital drivers and the appropriate level of working capital (Lamberson, 1995).

Literature Review

Jose, et al, (1996) for the twenty-year period from 1974 through 1993 of 2,718 firms offers strong evidence that aggressive working-capital policies indicated by shorter cash conversion cycle enhance profitability.

Cote, et.al, (1999) argued the management of receivables, inventory and accounts payable have tremendous impact on cash flows, which in turn affect the profitability of firms. Each of the Working capital items (i.e., cash, receivables and inventories) helps in the management of firms in its own particular way.

Deloof (2003) investigated the relationship between working capital management and profitability for a sample of 1009 Belgian Companies for the period of 1960-1992. He is of the opinion that the majority of the firms had invested a large amount of cash in working capital and it is anticipated that the management of working capital of the firms would notably affect the profitability.

Moyer et.al, (2003) found that Working Capital consists of a large portion of Firm's total investment in assets, 40% in automobile and 50-60% in retailing and wholesale industries respectively. The firms could reduce its financing cost and increase the funds available for expansion if they minimise the funds tied up in current assets. They found that cash helps to keep the firm liquid. It enables the firm to pay its obligations and also protects the firm from becoming bankrupt.

Eljely, A. (2004) investigated the type of relationship between liquidity and profitability by measuring current ratio and cash gap on a sample of 29 joint stock companies in Saudi Arabia and the result of the study is there is significant negative relation between both the variables amount.

Narware (2004) in his empirical study on Indian National Fertilizer Limited, for 1990-91 to 1999-2000 signify that working capital management and profitability of the company disclosed both negative and positive association. He also found evidence that increase in the profitability of a company was less than the proportion to decrease in working capital.

Padachi (2006) found that high investment in inventories and receivables is associated with lower profitability. He used return on total assets as a measure of profitability for a sample of 58 small selected units In Automobile Industry in Mauritius for the period 1998 -2003.

Negarbo (2006) selected 250 firms as the sample to test the working capital management in them. The conclusions showed that predicting cash flows and growth rate of the firms are the major indicators of working capital management. They also found that changing the size and compound of the assets are not significantly affected by the cash flows prediction and sales growth. They are highly influenced by

some factors such as the business nature of the firms, sales, firm size and profitability.

Sayaduzzaman (2007) in his in-depth research article "Working Capital Management: A study on British American Tobacco Bangladesh Company Limited" mentions that the efficiency of working capital management of British American Tobacco Bangladesh Company Ltd. is highly satisfactory due to the positive cash inflows and planned approach in managing the major elements of working capital. He found that working capital management helps to maintain all around efficiency in operations.

Afza and Nazir (2007) studied the relationship among the aggressive/conservative working capital policies and profitability as well as risk of firms for 208 public limited companies listed at KSE for the period of 1998-2005. Their investigative results found the negative relationship between working capital policies and profitability.

Raheman & Naser, (2007) on a sample of 94 Selected units In Automobile Industry listed on Karachi Stock Exchange for a period of 6 years from 1999 - 2004, demonstrate a strong negative relationship exists between variables of the working capital management represents by liquidity and debt with profitability of the firm.

Amilolo and Demirgne (2008) conducted a study to examine the relationship between working capital management and profitability. Applying multiple regression analyses over a sample of selected units In Automobile Industry listed in Istanbul stock exchange for the period of 1998-2007, they found that the accounts receivable cycle, the inventory conversion period have negative impact on profitability, which means the shorter cycle of these variables profitability.

Koperunthevi (2010) studied Working Capital Management and Firms' Performance: An Analysis of Sri Lankan Automobile Companies by panel data analysis. Her study concluded that the working capital management very much influences on profitability of automobile companies and increase of the cash conversion cycle leads to less profitability. Current ratio and Quick ratio are positively related to the profitability.

T. Afza et al. (2011) examined a sample of 208 listed companies in Karachi Stock Exchange- KSE, the result of the study indicated a negative relationship between working capital policies and profitability and no significant relationship between the level of current assets and liabilities and risk of the firms.

Akoto et.al, (2013) conducted a study on the relationship between working capital management practices and profitability of all the 13 listed selected units In Automobile Industry in Ghana for the period from 2005 to 2009. The results revealed that there is a significantly negative relationship between profitability and accounts receivable days. However, he concludes that firms' cash conversion cycle (CCC), current asset ratio, size, and current asset turnover significantly positively influence the profitability.

Basman Al Dalayeen (2017) made an attempt to examine the impact of working capital management on the profitability of selected real estate companies in Jordan. The analysis of the data revealed that only debtors' turnover ratio in case of Jordan Decapolis Properties and current ratio in case of Al-Tajamouat are positively related with the profitability and their impact is also found to be significant.

Iqbal, Baseer et.al, (2017) analysed Panel data of 18 companies listed in KSE from cement sector from 2007 to 2011 and concluded from the results that asset turnover, current ratio and volume of sales contribute positively in the profitability of cement sector companies of Pakistan.

Objectives

- To investigate if there is any difference between profitability and working capital management of Tata Motors.
- To identify the variables that most affect the profitability of Tata Motors.
- To analyse data related to working capital management and profitability of Tata Motors.
- To statistically infer on the relationship between working capital management and profitability of Tata Motors

Methodology

The study is based on secondary data obtained from published annual reports of Tata Motors and Indian Brand Equity Foundation for a period of five (05) years from 2013 to 2017. The data for this study is collected using the non-survey method for better reliability of the accounting information. This is due to the fact that the information required for this study is easily obtainable from the published annual reports and accounts from the different websites.

The Null Hypothesis {Ho}

- There is no relation between Average Collection Period and Return on Assets.
- There is no relation between Average Payment Period and Return on Assets.
- There is no relation between Cash Conversion Cycle and Return on Assets
- There is no relation between Inventory Conversion Period and Return on Assets.

The Alternate Hypothesis {Ha}

- There is significant relation between Average Collection Period and Return on Assets.
- There is significant relation between Average Payment Period and Return on Assets.
- There is significant relation between Cash Conversion Cycle and Return on Assets.
- There is significant relation between Inventory Conversion Period and Return on Assets.

Variables Used

1. *Dependent Variable*

Return on Assets ROA $\text{Net income} / \text{Total Assets}$

2. *Independent Variables*

Average Collection Period ACP $(\text{Account Receivables} / \text{Net Sale}) * 365$

Inventory Conversion Period ICP $(\text{Inventory} / \text{Cost of Sales}) * 365$

Average Payment Period APP $(\text{Account Payables} / \text{Cost of Sales}) * 365$

Cash Conversion Cycle CCC ACP+ICP-APP
 Firm Size Natural logarithm of sales
 Debt Ratio DR Total Liabilities/Total Assets
 Current Ratio CR Current Assets/Current Liabilities

Results and Findings

Descriptive Analysis

The table given below summarises the descriptive statistics of the variables used in the paper. As per the table the mean value of ACP 82 days with a standard deviation of 1.90 pointing to the fact that it takes the company around 82 days to collect cash from credit sales. The mean value of ICP is 66 days, standard deviation 1.45, suggesting that it takes the company on an average 66 days to sell inventory. The mean value of APP is 193 days with a standard deviation of 1.45 which means that the company takes around 146 days to make payment to its suppliers. Furthermore, the mean value of CCC is - 44 days, standard deviation 2.85.

Table. No. 1 Descriptive Statistics

Var.	Min.	Max.	Mean	Std. Deviation
ACP	80	85	82.4	1.90291
APP	192	188	193	1.45095
CCC	-48	-40	-44.6	2.85804
CR	7	9	8	0.91766
DR	8	10	8.8	1.00525
SIZE	2.9	4.08	3.452	0.45303
ICP	64	63	66	1.45095
ROA	12.26	16.78	14.176	1.84669

The above table additionally includes descriptive statistics of control variables that are used as a part of the study.

Correlation Analysis

Prior to regression analysis, Pearson's Correlation coefficient is used to determine the amount and direction of relationship between the variables under study.

Table.No.2 Correlation Between Profitability Ratios and Working Capital Ratios

	ACP	APP	CCC	CR	DR	SIZE	ICP	ROA
ACP	1							
APP	.152	1						
CCC	-.480	.762	1					
CR	-.362	-.949	-.642	1				
DR	-.616	-.866	-.352	.913	1			
SIZE	-.314	-.147	-.158	.415	.218	1		
ICP	-.305	.600	.863	-.632	-.289	-.621	1	
ROA	-.476	.885	-.537	-.976	.927	.511	-.602	1

The results of the correlation suggest that ROA is negatively related with ACP, ICP, CCC and Current ratio. A negative coefficient (-.476) is found between ROA and ACP

which supports the view that the profitability increases with decreasing average collection period. ROA and ICP with a correlation coefficient of (-.602) suggest that those firms which have a shorter inventory conversion period are more profitable than those firms with longer inventory conversion period. The correlation coefficient between ROA and CCC is (-.537) pointing to the fact that firms can increase its profitability by decreasing its CCC. The negative relationship between ROA and Current ratio with a correlation coefficient of (-.976) implies that profitability and liquidity are inversely related. Thus, it also indicates that an increase in the current assets, under the constraint of constant current liabilities, would lead to a reduction in firm's profits. With regard to other variables a significant positive correlation is seen between ROA, APP, Debt Ratio and Firm Size, as depicted by the table above. ROA and APP with a correlation coefficient of (.885) suggest that more profitable firms delay their payment towards their suppliers in order to ensure availability of sufficient cash to procure inventory for sale which in turn increase its profitability. ROA and Debt Ratio with a correlation coefficient of (.927) indicate that the firm in question in order to offset the negative effect of CCC increases debt to increase its profitability. Furthermore, ROA and Firm Size with a correlation coefficient of (.511) indicate that any increase or decrease in ROA is positively related with Firm Size. Thus, pointing to the fact that larger firms report higher profits compared to smaller firms due to their ability to exploit the economies of sales.

Regression Analysis

The regression analysis aims to identify the cause and effect relationship between the variables involved in the study. In order to test the hypothesis of the relation between the variables under study following models using multiple regression equation $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \dots + b_kX_k$ are used:

- Model First Hypothesis First: this model examines the relation between Average collection period and profitability.
- Model Second Hypothesis Second: this model examines the relation between Average payment period and profitability.
- Model Third Hypothesis Third: this model examines the relation between cash conversion cycle and profitability.
- Model Fourth Hypothesis Fourth: this model examines the relation between inventory conversion period and profitability.

Hypothesis Testing and Results

Table 3: The Result of the First Hypothesis Test

Coefficients						
Model 1		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.334	1.535		-2.172	.046
	ACP	-.921	.136	.981	-4.750	.023
	CR	.167	.339	.109	2.493	.043
	DR	-.240	.304	-.181	-3.789	.032
	FIRMSIZE	.393	.386	.095	2.017	.026
a. Dependent Variable: ROA						

Table 4: The Result of the Second Hypothesis Test Coefficients

Model 2		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.033	2.294		-2.322	.021
	CR	.101	.497	.066	3.204	.044
	DR	-.099	.437	-.075	-2.227	.032
	FIRMSIZE	.190	.551	.046	3.344	.034
	APP	-1.186	.314	.867	-3.779	.002
a. Dependent Variable: ROA						

Table 5: The Result of the Third Hypothesis Test Coefficients

Model 3		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.003	2.717		-4.737	.047
	CR	.182	.541	.119	2.337	.034
	DR	-.332	.451	.250	-1.735	.015
	FIRMSIZE	.078	.599	.019	1.131	.008
	CCC	-.657	.212	-.562	-3.097	.007
a. Dependent Variable: ROA						

Table 6: The Result of Fourth Hypothesis Test Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.030	2.471		-2.035	.040
	CR	.244	.566	.159	3.431	.033
	DR	-.073	.510	-.055	-2.142	.049
	FIRMSIZE	.170	.633	.041	4.269	.029
	ICP	-.867	.321	.728	-2.697	.017
a. Dependent Variable: ROA						

Research Findings and Discussion

The first model attempts to test hypothesis first with an R square of (.881) pointing to the fact that about 88% variation in the dependent variable is explained by the variations in the independent variables. The F value = (.000) which is less than (.05) as determined by ANOVA suggest that there is strong linear relationship between the variables of the model. The T values of all the variables are < (.05) which rejects the Ho at a confidence level of .95

Thus, the Ha is accepted that there is strong relationship between Average collection period and profitability.

Thus the 1st model equation is $ROA = -3.334 - .921ACP + .167CR - .240DR + .393SIZE$

The results of the equation show significant negative relation between profitability measured through (ROA) and ACP which supports the view that the profitability increases with decreasing average collection period by reducing the credit period granted to customers.

The Second model attempts to test hypothesis second with an R square of (.754) pointing to the fact that about 75% variation in the dependent variable is explained by the variations in the independent variables. The F value = (.000) which is less than (.05) as determined by ANOVA suggest that there is strong linear relationship between the variables of the model. The T values of all the variables are < (.05) which rejects the Ho at a confidence level of .95

Thus the Ha is accepted that there is strong relationship between Average payment period and profitability.

Thus the 2nd model equation is $ROA = -3.033 - 1.186APP + .101CR - .099DR + .190SIZE$ The results of this equation also show significant negative relation between profitability measured through (ROA) and APP which suggest that more profitable firms delay their payment towards their suppliers in order to ensure availability of sufficient cash to procure inventory for sale which in turn increase its profitability.

The Third model attempts to test hypothesis third with an R square of (.707) pointing to the fact that about 70.7% variation in the dependent variable is explained by the variations in the independent variables. The F value = (.034) which is less than (.05) as determined by ANOVA suggest that there is strong linear relationship between the variables of the model. The T values of all the variables are < (.05) which rejects the Ho at a confidence level of .95

Thus the Ha is accepted that there is strong relationship between Cash conversion cycle and profitability.

Thus the 3rd model equation is $ROA = -2.003 - .657CCC + .182CR - .332DR + .078SIZE$ The results of this equation also show significant negative relation between profitability measured through (ROA) and CCC which is consistent with the fact that a decrease in the cash conversion cycle will generate more profits for a company.

The Fourth model attempts to test hypothesis four with an R square of (.676) pointing to the fact that about 66.6% variation in the dependent variable is explained by the variations in the independent variables. The F value = (.001) which is less than (.05) as determined by ANOVA suggest that there is strong linear relationship between the variables of the model. The T values of all the variables are < (.05) which rejects the Ho at a confidence level of .95

Thus the Ha is accepted that there is strong relationship between Inventory collection period and profitability.

Thus the 4th model equation is $ROA = -5.030 - .867ICP + .244CR - .073DR + .170SIZE$

The results of this equation also show significant negative relation between profitability measured through (ROA) and ICP which suggest that those firms which have a shorter inventory conversion period are more profitable than those firms with longer inventory conversion period.

Conclusion

The results of the research paper suggest that working capital management has a statistically strong impact on the profitability of Tata Motors. Significant negative relation is found between average collection period, average payment period, cash conversion cycle, inventory conversion period with ROA which is consistent with the findings of Shin and Soenen (1998) and Lazaridis and Tryfonidis (2006) and many others. These results demonstrate that the company's profitability is increased by decreasing average collection period and inventory conversion period. The negative relationship between average payment period and profitability leads to the fact that Tata Motors has a strong market standing and reputation which facilitates it to defer its obligations without any adverse effect on its profitability. The overall result leads to the conclusion that working capital management has a great effect on the profitability of Tata Motors.

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Websites, <https://www.tatamotors.com/>

Websites, <https://www.ibef.org/>

Appendix

Descriptive Statistics				
	Minimum	Maximum	Mean	Std. Deviation
ACP	80.00	85.00	82.4000	1.90291
APP	192.00	188.00	193.0000	1.45095
CCC	-48.00	-40.00	-44.6000	2.85804
CR	7.00	9.00	8.0000	.91766
DR	8.00	10.00	8.8000	1.00525
FIRMSIZE	2.90	4.08	3.4520	.45303
ICP	64.00	63.00	66.0000	1.45095
ROA	12.26	16.78	14.1760	1.84669

Correlations								
	ACP	APP	CCC	CR	DR	FIRMSIZE	ICP	ROA
ACP	1	.152	-.480*	-.362	-.616**	-.314	-.305	-.476*
		.521	.032	.117	.004	.178	.191	.034
APP	.152	1	.762**	-.949**	-.866**	-.147	.600**	.885**
	.521		.000	.000	.000	.535	.005	.000
CCC	-.480*	.762**	1	-.642**	-.352	-.158	.863**	-.537*
	.032	.000		.002	.128	.506	.000	.015
CR	-.362	-.949**	-.642**	1	.913**	.415	-.632**	-.976**
	.117	.000	.002		.000	.069	.003	.000
DR	-.616**	-.866**	-.352	.913**	1	.218	-.289	.927**
	.004	.000	.128	.000		.355	.217	.000
FIRMSIZE	-.314	-.147	-.158	.415	.218	1	-.621**	.511*
	.178	.535	.506	.069	.355		.003	.021
ICP	-.305	.600**	.863**	-.632**	-.289	-.621**	1	-.602**
	.191	.005	.000	.003	.217	.003		.005
ROA	-.476*	.885**	-.537*	-.976**	.927**	.511*	-.602**	1
	.034	.000	.015	.000	.000	.021	.005	

*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

Regression

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	FIRMSIZE, ACP, CR, DRa	.	Enter
a. All requested variables entered.			
b. Dependent Variable: ROA			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.939a	.881	.849	.72904
a. Predictors: (Constant), FIRMSIZE, ACP, CR, DR				
b. Dependent Variable: ROA				

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	58.942	4	14.735	27.724	.000a
	Residual	7.972	15	.531		
	Total	66.914	19			
a. Predictors: (Constant), FIRMSIZE, ACP, CR, DR						
b. Dependent Variable: ROA						

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.334	1.535		-2.172	.046
	ACP	-.921	.136	.981	-4.750	.023
	CR	.167	.339	.109	2.493	.043
	DR	-.240	.304	-.181	-3.789	.032
	FIRMSIZE	.393	.386	.095	2.017	.026
a. Dependent Variable: ROA						

Regression

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	APP, FIRMSIZE, CR, DRa	.	Enter

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	APP, FIRMSIZE, CR, DRa	.	Enter
a. All requested variables entered.			
b. Dependent Variable: ROA			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.868a	.754	.688	1.04847
a. Predictors: (Constant), APP, FIRMSIZE, CR, DR				
b. Dependent Variable: ROA				

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	50.425	4	12.606	11.468	.000a
	Residual	16.489	15	1.099		
	Total	66.914	19			
a. Predictors: (Constant), APP, FIRMSIZE, CR, DR						
b. Dependent Variable: ROA						

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.033	2.294		-2.322	.021
	CR	.101	.497	.066	3.204	.044
	DR	-.099	.437	-.075	-2.227	.032
	FIRMSIZE	.190	.551	.046	3.344	.034
	APP	-1.186	.314	.867	-3.779	.002
a. Dependent Variable: ROA						

Regression

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	CCC, FIRMSIZE, DR, CRa	.	Enter
a. All requested variables entered.			
b. Dependent Variable: ROA			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.841a	.707	.628	1.14413
a. Predictors: (Constant), CCC, FIRMSIZE, DR, CR				
b. Dependent Variable: ROA				

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.279	4	11.820	9.029	.034a
	Residual	19.635	15	1.309		
	Total	66.914	19			

a. Predictors: (Constant), CCC, FIRMSIZE, DR, CR

b. Dependent Variable: ROA

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.003	2.717		-4.737	.047
	CR	.182	.541	.119	2.337	.034
	DR	-.332	.451	.250	-1.735	.015
	FIRMSIZE	.078	.599	.019	1.131	.008
	CCC	-.657	.212	-.562	-3.097	.007
a. Dependent Variable: ROA						

Regression

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	ICP, FIRMSIZE, CR, DRa	.	Enter
a. All requested variables entered.			
b. Dependent Variable: ROA			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.822a	.676	.590	1.20210
a. Predictors: (Constant), ICP, FIRMSIZE, CR, DR				
b. Dependent Variable: ROA				

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.238	4	11.310	7.826	.001a
	Residual	21.676	15	1.445		
	Total	66.914	19			

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.238	4	11.310	7.826	.001a
	Residual	21.676	15	1.445		
	Total	66.914	19			
a. Predictors: (Constant), ICP, FIRMSIZE, CR, DR						
b. Dependent Variable: ROA						
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.030	2.471		-2.035	.040
	CR	.244	.566	.159	3.431	.033
	DR	-.073	.510	-.055	-2.142	.049
	FIRMSIZE	.170	.633	.041	4.269	.029
	ICP	-.867	.321	-.728	-2.697	.017
a. Dependent Variable: ROA						

Cashless Economy in India: Challenges and Opportunities

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ABSTRACT

The history of cashless economy dates back to the barter system days, but the cashless economy now, is focused on the transfer of digital information using different intermediaries. The banking sector around the globe is experiencing IT revolution. India, too, in a span of 35 years has seen many innovations in technology which are pushing the boundaries of payment processes. The retail electronic payment system has progressed in India providing enough opportunities to move towards a cashless economy. E-banking is a fairly new concept in India. The Digital India Programme, 2015 has a vision to transform the nation into a digitally empowered nation. The RBI has rolled out Vision Statement for three years, to provide guidelines in order to enhance the use of ICT in banking sector. The present study aims to analyse the strengths, weaknesses, progress and challenges of the digital payment system in India from 2013 to 2018.

Introduction

Banks act as a catalyst for promoting economic growth of an economy and use of technology is a boost to efficiency. Banks today work in a highly globalised environment and the present system of payment and settlement is a result of constant changes and innovations. Economic transactions were initially settled through commodities before the advent of money. But when the concept of money came, the meaning of transactions changed. The paper money, that is the currency notes issued by the RBI, which is used, now was initially in the form of precious metals like gold and silver coins. The use of technology in banking has now made it easier for people to transact and settle their payments. Banks play an important role in the development of an economy. The use of IT in banking is increasingly playing a significant role in enhancing the efficiency of banking sector and Indian banking sector is no exception to that but the concept of e-banking is fairly new to India. Several initiatives have been taken by the Govt. of India and the RBI to facilitate the development of e-banking in Indian banks. E-banking is a broad term used to describe the various products offered by banks, which can be accessed through the use of internet and mobile technology.

Banking today has become easier and it has led to a secure way for people to keep their hard-earned money in their bank accounts. Technology has reduced everything to a click of a button and people can transfer money from their account to someone else's account even without standing in long queues for hours. There is plethora of options available to people ranging from debit cards, credit cards, e-wallets, internet banking, mobile banking and so on which have replaced the traditional methods of transactions. Earlier the electronic mode of payment was restricted to making huge

and lump sum payments for large value transactions and cheques were the main instrument of transactions for a long time before technical innovations took place. Now even petty payments can be done through e-banking making it more convenient for users to settle their payments. The adoption of e-banking services by customers will enable banks to get returns on their investment and provide them with a competitive environment.

The paper has been divided in 8 sections. Section 1 includes introduction to digitalisation of payment system in Indian banking sector and section 2 is about the review of literature about the same. Section 3 deals with the objectives of the study followed by database and methodology in section 4. Section 5 discusses about the evolution of payment system in India and section 6 is about the progress and challenges of the digitalised banking system in India. Section 7 concludes the paper with references in section 8.

Review of Literature

Ansari, Seharish J. & Khan, Nisar A. (2017) have tried to analyse the progress and challenges of e-banking in India from 2011 to 2016, also throwing some light on the status of retail electronic payments in post demonetisation period. Their study shows that the number of internet users has increased from 2,231,957,359 to 3,424,971,237 in 2016, which is around 53.45% increase during the period. Also, the penetration of internet as a ratio of population has increased from 31.8 % in 2011 to 46.1% in 2016. There has been a continuous increase in the number of debit card and credit card users. The number of transactions through credit card increased at a CAGR of 22.25% whereas the number of transactions through debit cards increased at a CAGR of 12.33% during the period of study. Post demonetisation i.e., from November 2016 to May 2017, RTGS (real time gross settlement), NEFT (national electronic fund transfer) and UPI (unified payments interface) increased at a CAGR of 4.72%, 1.95% and 60.50% respectively. Mobile banking declined continuously. Their study also mentions the challenge of increasing number of internet users and the requirement of banks to be able to meet out the expectations of these tech savvy people.

Chauhan, V. & Chaudhary, V. (2015) focused on understanding the concept of internet banking and its benefits from the perspective of consumers as well as banks and the current scenario of internet banking. The growth percentage of mobile banking from 2010 to 2014 had been the highest that is 495.64% while credit card had seen the least growth from same period at 11.07%. NEFT and RTGS transactions were at 602.69% and 89.29% respectively. They concluded that most of the banks have implemented the e-banking facilities which are beneficial both for the consumers and the banks but then there are issues of safety, security and reliability which the banks must adhere to.

Lal, Roshan & Saluja, Rajni (2012) tried to address the role of IT in the Indian banking sector. The study focused on the progress in e-banking in India on various parameters like ATMs, computerisation of bank branches, transactions through retail electronic payment systems, etc. They concluded their study by mentioning that despite the fact there have been sincere efforts for the adoption of advanced technology but still people need to be more aware about e-banking services and products. There is need of full security of customer funds and to encourage healthy usage of e-banking, seminars and workshops should be organised. Banks should be

careful about technical defaults and well-trained employees should be hired to increase efficiency and effectiveness of digital banking.

Manikyam, Ratna (2014) analysed the impact of liberalisation, privatisation and globalisation on Indian banks and the resultant opportunities and challenges. The study revealed that the biggest challenges for banking challenge for the mass and companies and that Indian banks should come up with differentiated products to stand at par with foreign banks. Further, the study also emphasized on building knowledge driven organisation for surviving the competition from the banks globally.

The above studies done on e-banking have focused on the progress and challenges of it. The concern is more on the technological aspects of banking. They have not focused on the digitalisation of banking sector and the various components of e-banking and how will the economy move towards being a cashless economy, given the present state internet penetration and different schemes launched by the Govt. of India and RBI. The present study attempts to fill that gap.

Objectives

The Vision-2018 of the Reserve Bank of India commits to encourage greater use of electronic payments by all sections of society so as to achieve a “less-cash” society. The increasing growth of electronic payments has made the role and importance of entities that facilitate such online payments prominent. Considering the increase in use of e-banking in India, the objectives of the study are:

- To analyse the growth of digitalisation of banking sector, focusing on the number of ATMs and POS deployed, the value and volume of transactions done through NEFT, RTGS and mobile banking.
- To throw some light on the evolution of payment system in India and thereby, study the challenges and progress of the digital payment system.
- To identify various schemes adopted by the Govt. to move the nation towards being a cashless economy.

Database and Methodology

The data undertaken for the study is secondary in nature and the period of study is from March 2013 to March 2018. The data has been collected from the website of the Reserve Bank of India. To complete this, various reports, periodicals and journals have been studied and the progress of e-banking has been measured using the Compound Annual Growth Rate (CAGR) of various parameters of electronic payments.

Evolution of Payment System in India

The payment system in India has been much of a silent revolution because there have been continuous changes in the system for the past 35 years and much of the contribution goes to the development of information and communication technology for the present state of the payment system. RBI's continued efforts to move towards a “less-cash” economy gained momentum during 2016-2017 when banks adopted a number of electronic delivery channels. The RBI has been continuously bringing out policies to increase financial literacy of the country.

The National Payment Corporation of India (NPCI), established in 2009, has been the main driver of retail electronic payments systems. Working closely with the

banking sector and payment systems, NPCI is working to digitize the payments while also providing interoperability.

The RBI has been rolling out Payment System Vision documents to encourage the use of IT in banking and various committees have been set up periodically, such as the Saraf Patil Committee, Rangarajan Committee, Burwan Working Committee in order to guide the banks to reap the benefits of ICT.

For a long time, the cheque clearing system was the main instrument of payment system that existed in the country which was replaced by the MICR (Magnetic Ink Character Recognition) back in 1980s. But there was some inbuilt problem in the system and to reduce the usage of cheque clearing system, the RBI came out with the Electronic Clearing System (debit and credit) in 1990s which itself has undergone many changes from being a local system to a regional system and then to a national level system. To enhance the efficiency of the payment system, NPCI introduced National Automated Clearing House (NACH). This system is gradually overtaking the ECS for processing bulk and repetitive payments.

The Special Electronic Fund Transfer (SEFT) system was introduced in April 2003 and it was discontinued after the implementation of National Electronic Fund Transfer (NEFT) system in November, 2005. The Immediate Payment System (IMPS) and Real Time Gross Settlement System (RTGS) have facilitated fund transfer requirements of the users. RTGS has replaced the paper-based inter-bank clearing system. The banking facilities are now easily accessible through internet and there has been an increase in the number of mobile banking users. Improvements and enhancements in the technology has led to integration of various digital channels, thereby making banking easier, safe and accessible 24x7x365. NEFT, introduced by RBI in 2005, forms the electronic payment system, together with ECS. The National Electronic Clearing Service System, which was implemented in September 2008, at present settles only credit transfer. Aadhar Payment Bridge System is yet another addition to the plethora of medium of digital transaction system. It is used to facilitate bulk and repetitive payments. The entry of non-banking players is yet another important addition. The use of e-wallets has been gaining momentum since demonetisation and the payment banks are providing convenience to customers in making transactions upto 1 lac per customer. Currently there are six payment banks in India. To bridge the gap in ATM infrastructure between rural and semi-urban areas, White Label ATMs have been set. At present there are 8 entities who are operating the white label ATMs in the country.

YEARS	NEFT (IN MILLIONS)	AGR (%)	RTGS (IN MILLIONS)	AGR (%)
2013	47.09	--	7294396	--
2014	82.83	75.89	8635504	18.39
2015	106.8	28.94	9672739	12.01
2016	129.2	20.97	9864091	1.98
2017	186.7	44.50	12538081	27.11
2018	212.01	13.56	12683495	1.16
CAGR	1.78		21.20	

Source: Compiled from bank wise ATM/POS/CARD Statistics, Reserve Bank of India and Reports on Trends and Progress of Banking in India (various issues) and RBI website.
Data as on end of financial year.

Table 1 (A): Number of Transactions through Electronic Delivery Channels.

Table 1 (A) depicts the number of transactions done through electronic delivery channels, NEFT and RTGS, by the customers of India from March 2013 to March 2018. The number of transactions done through NEFT during the period of study increased at a CAGR of 1.78 percent whereas the RTGS transactions increased at a CAGR of 21.20 percent.

YEAR	CREDIT CARDS	AGR (%)	DEBIT CARDS	AGR (%)	MOBILE BANKING	AGR (%)
2013	35842252	----	527381264	----	6400973	----
2014	46401963	29.46	628478994	19.17	10739917	67.79
2015	57344220	23.58	700310861	11.43	19757203	83.96
2016	72832925	27.01	844590741	20.6	49476880	150.42
2017	108099506	48.42	981280948	16.18	113650251	129.7
2018	128077981	18.48	1093842969	11.47	106127679*	-6.62
CAGR	38.17		55.32		38.79	

Source: Compiled from bank wise ATM/POS/CARD Statistics, Reserve Bank of India and Reports on Trends and Progress of Banking in India (various issues) and RBI website.

Data as on end of financial year.

*Data as on January 2018 due to unavailability of data for March 2018.

Table 1 (B): Number of Transactions through Electronic Delivery Channels.

Table 1 (B) depicts the number of transactions done through Credit cards, Debit Cards and Mobile banking from March 2013 to March 2018. The number of transactions done through credit cards increased at a CAGR of 38.17% from 2013 to 2018. For debit cards the increase is at a CAGR of 55.32% for the given period of study. Mobile banking transactions increased at a CAGR of 38.79%. The data for mobile banking is of January 2018 is provisional. Mobile banking increased soon after demonetisation, both in terms of value and volumes.

It is worth noticing that the use of NEFT, RTGS and mobile banking increased at annual growth rate (AGR) of 44.50%, 27.11% and 129.20% in 2017 respectively. The use of debit cards declined in the year 2017 at AGR of 16.18%. The major reason for this was the cash crunch created by demonetisation of currency notes of ₹ 500 and ₹ 1,000 notes which constituted for 86.4% of currency in circulation in 2016 and heavy limits on withdrawals. The cash shortage was still ongoing in the month of April 2017, which kept people away from ATMs and increased transactions by other forms of e-banking.

With the availability of cash, cashless transactions from mid-2017 dipped down to pre-demonetisation levels and NEFT and RTGS were at AGR of 13.56% and 1.16% respectively in March 2018.

YEAR	ATM	AGR (%)	POS	AGR (%)	CREDIT CARDS (NO. OF CARDS OUTSTANDING)	AGR (%)
2013	114014	--	854290	--	19538329	--
2014	160055	40.38	1065984	24.78	19181567	-1.83
2015	181398	13.33	1126735	5.7	21110653	10.06
2016	199099	9.76	1385668	22.98	24505219	16.08
2017	208354	4.65	2529141	82.52	29842235	21.78

2018	207052	-0.62	3083067	21.9	37484955	25.61
CAGR	8.86		17.6		27.24	

Source: Compiled from bank wise ATM/POS/CARD Statistics, Reserve Bank of India and Reports on Trends and Progress of Banking in India (various issues) and RBI website.
Data as on end of financial year.

Table 2: Number of Electronic Delivery Channels

Table 2 depicts the statistics related to the number of ATMs and POS deployed and the number of outstanding credit cards and debit cards from March 2013 to March 2018.

The number of ATMs (on-site and off-site) deployed during 2013 were 1,14,014 which increased to 2,07,052 in March 2018. The increase is at a CAGR of 8.86%. The number of Point of Sale (POS) increased at a CAGR of 17.60 % during the period of study. There were 8,54,290 POS deployed in 2013 and it increased to 30,83,067 in 2018. The number of outstanding credit and debit cards for the period of study have seen a continuous increase. The number of debit cards increased at a CAGR of 54.57% and the number of credit cards increased at a CAGR 27.23 %. The increase in the use of debit cards is double than that of credit cards and the possible reason for it may be the issuance of Rupay Debit Cards due to the implementation of Pradhan Mantri Jan Dhan Yojna (PMJDY). The PMJDY which was launched in August 2014, ensured access to financial services of banking to all the classes of the economy in an affordable manner. The policy was aimed at financial inclusion.

MONTHS	IMPS	AGR (%)	UPI	AGR (%)
Nov-16	36.17	-----	0.28	-----
Dec-16	52.86	46.14	1.96	600
Jan-17	62.43	18.10	4.15	111.73
Feb-17	59.75	-4.29	4.15	0
Mar-17	67.41	12.82	6.16	48.43
Apr-17	65.08	-3.45	7	13.64
May-17	66.72	2.51	9.16	30.85
Jun-17	65.84	-1.31	10.15	10.80
Jul-17	69.07	4.90	11.44	12.71
Aug-17	75.66	9.54	16.6	45.10
Sep-17	82.85	9.50	30.78	85.42
Oct-17	88.12	6.36	76.77	149.41
Nov-17	89.49	1.55	104.84	36.56
Dec-17	98.01	9.52	145.46	38.74
CAGR	0.37		0.47	

Source: Compiled from IMPS/UPI Product Statistics, National Payments Corporation of India (NPCI)

Table No.3 A: Electronic Payments System Post Demonetisation in November,2016 (Volume in Millions)

The Govt. of India, soon after demonetisation, came up with the UPI based BHIM app on December 30, 2018. This facilitated e-payments directly through the banks as a part of the demonetisation of Indian currency notes which drove towards cashless transactions. The faith of people in this app led to an increase in UPI based transactions so much so that an AGR of 600% was realised in the December 2016. The volume of UPI transaction has continuously been increasing even after the availability of demonetised currency notes. The volume of transaction done through UPI was 145.46 million in December 2017.

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MONTHS	MOBILE BANKING	AGR (%)	NEFT	AGR (%)	RTGS	AGR (%)
Nov-16	87.47	----	123.05	-----	7.9	-----
Dec-16	110.64	26.48	166.3	35.14	8.9	12.65
Jan-17	106.13	-4.07	164.19	-1.26	9.3	4.49
Feb-17	95.41	-10.10	148.21	-9.73	9.1	-2.15
Mar-17	113.65	19.11	186.7	25.96	12.5	37.36
Apr-17	106.27	-6.49	143.17	-23.31	9.5	-24
May-17	114.26	7.51	155.82	8.83	10.4	9.47
Jun-17	115.73	1.28	152.34	-2.23	9.8	-5.76
Jul-17	103.54	-10.53	148.14	-2.75	9.3	-5.10
Aug-17	98.25	-5.10	151.61	2.34	9.4	1.07
Sep-17	113.89	15.91	157.67	3.99	9.6	2.12
Oct-17	150.68	32.30	158.78	0.70	10	4.16
Nov-17	184.97	22.75	161.97	2.01	10.8	8
Dec-17	206.52	11.65	169.05	4.37	10.8	0
CAGR	0.44		0.34		0.09	

IMPS has also been increasing but at a slower rate than that in December 2016 but the volume of transactions have increased in the past one year. This may be due to increase in the use of UPI based transactions.

Source: Compiled from bank wise NEFT/RTGS/MOBILE BANKING Statistics, Reserve Bank of India and Reports on Trends and Progress of Banking in India (various issues) and RBI website.

Table No.3 B: Electronic Payments System Post Demonetisation in November,2016 (Volume in Millions)

Transactions done through mobile banking have seen negative growth rate in many months of 2017 and it stood at 206.52 million in December 2017. The highest growth rate it has seen was in December 2016. This was because of unavailability of high denomination currency notes and limitation on the amount of withdrawals from ATMs.

NEFT and RTGS transactions in a period of one year that is from December 2016 to December 2017 have gone back to normal. NEFT transaction, in December 2016 was 166.3 million and in December 2017, it was 169.05 million. RTGS also showed the same pattern. In December 2016, transaction done through RTGS was 8.8 million and in December 2017, it stood at 10.8 million. This is because the amount of cash with people has steadily risen after the availability of ₹ 500 and ₹ 2000 currency notes. The other reason can also be that people prefer to transact only smaller amounts through online transfers.

Steady and uninterrupted growth has only been seen in the case of UPI and IMPS.

Progress and Challenges

The vision document of RBI 2011-2017 has set priorities for commercial banks to move towards enhanced use of technology as a strategic resource for improving customer service and increasing overall efficiency and ensuring environment friendly systems. E-banking is a fairly new concept in the Indian banking sector but there have been many initiatives from the Govt. of India and the RBI which are aimed to increase financial inclusion. The advantage of e-banking leading to cashless economy is that it is time saving and people do not need to be standing in queues in order to make payments and transactions.

A report of Internet and Mobile Association of India (IAMAI) stated that India has 481 million mobile users, growing from 11.34% from 2016. The penetration of ATMs

across the nation increased in 2012-2013 with the total number of ATMs crossing 1,00,000 clocking a double-digit growth during the year.

The system is also convenient as people can access bank facilities anytime sitting in the comfort of their homes. There is also no dependence on the banks' staff. Customers don't need to go to bank branches and it helps them save their time.

The RBI performed a comprehensive IT examination to assess cyber resilience of major banks and it has set up its own subsidiary institutions, Reserve Bank Information Technology Private Limited (ReBIT) to carry out research in the area of cyber security.

The RBI and Govt. of India came up with many schemes post demonetisation to move the economy from being a cash based to a cashless economy. In addition to UPI (Unified Payments Interface), which is an instant real time payment system developed by NPCI, Bharat Bill Payment System (BBPS), Bharat Interface for Money (BHIM) and Bharat Quick Response Code Selection (Bharat QR) have also been introduced.

The Govt. of India launched the Digital India programme on July 1, 2015 to transform the country into a digitally empowered economy.

Aadhar Enabled Payment System is yet another initiative which empowers the customers to link their Aadhar number with their bank accounts for carrying out basic banking transactions in a hassle-free way.

The UPI and IMPS system registered a spectacular increase in 2017-2018 and despite UPI being a new product in the payment system, it is being widely used by the customers and merchants.

The Indian banking sector faces certain challenges as far as the context of e-banking is concerned. Going cashless in a country like India is difficult because not all the people are computer literate and hence they cannot opt for internet banking or mobile banking. With over 460 million internet users, India is the second largest online market after China. By 2021, there will be 635.8 million internet users in India. Despite the large number of internet users only 26% of the Indian population accessed the internet.

Also, there is lack of awareness regarding e-banking as banks are not able to disseminate proper information to the customers about the usage and benefits of e-banking or digital payment system. Another major challenge is the fear of disclosure of private information online and the risk of security. There is lack of trust factor which the customers have towards online banking which inhibits them from using the digital mode of payment and settlement. The banks need to increase the number of internet users to increase the penetration population ratio. The mobile internet penetration was 18.55% in 2015 on the entire Indian population which grew to 23.93% in 2017. Internet penetration in urban India was 64.84% in December 2017, as compared to 60.6% in December 2016. In comparison, in rural India, internet penetration was just 20.26% in December 2017. Banks also need to address these issues regarding security and safety to move the country towards being a cashless economy.

Conclusion

Banks being a catalyst, form an integral part of an economy. For any economy to develop, a sound and effective banking sector is highly required. For the past few years, banks around the globe have been experiencing technological revolution. Banks have gone digital and Indian banking sector is no exception to it.

The Govt. of India and the RBI are constantly coming up with new schemes to make the nation cashless. Demonetisation in November 2016 paved the way for the economy to go cashless from being a cash-based economy. There was massive cash crunch as 86.4 percent of the currency was taken out of circulation and people had no option but to switch to various forms of electronic payments system. The mode of electronic payments which increased the most at that time was Unstructured Supplementary Service Data (USSD) at a CAGR of 46.84 percent post demonetisation. Customers and merchants shifted to NEFT, RTGS, mobile banking, UPI and so on to settle their payments and carry out the transaction process. But after March 2017, the percentage of e-banking declined as the currency started pumping in the economy.

The results of the study conclude that there is a continuous increase in the number of mobile internet users as a proportion of total Indian population. It was 18.55% in 2015 which increased to 23.93% in 2017. But there are differences in the number of internet users in rural and urban India. Post demonetisation, tremendous growth has been noticed in mobile banking and UPI is also gaining momentum even though it is a new platform.

Digital payments registered a robust growth in 2017-2018 both in terms of value and volume. This spectacular growth can be attributed to the development of innovative platforms like BHIM-UPI, BHIM-Aadhar, Bharat QR code and Payments banks. The main players of payments banks are the private sector companies and BSNL, being a public sector unit has done nothing noteworthy in the field of e-banking.

The journey towards being a 'cashless economy' from a cash-based economy is not easy because people have certain inhibitions regarding e-banking in the form of safety and security of their private information but the trends are showing positive chances of being a 'cashless' economy because mobile banking values and volumes have soared in the last two years and same has happened with the use of UPI. The growths are quite impressive for a developing country like India.

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Perception of Consumers Towards Car Purchase Decision

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ABSTRACT

Today, the automobile industry becomes the most attractive industry. Since the disposal income in rural and urban sector is increasing continuously and easy finance being provided by all the financial institutes, the sales of passenger cars have been increasing. It motivates a researcher to identify and study the factors which affect the consumer's behaviour towards purchasing cars. This research attempts to answer some of the questions regarding perception of consumers towards car purchasing decisions in India by conducting a market survey. This is a descriptive study based on primary data collected from 300 car users of Kanpur City. The data was collected with the help of a structured questionnaire containing questions based on 5-point Likert scale. The reliability test was applied for identifying the consistency of the questionnaire. The KMO – Bartlett's test was applied for checking the data adequacy. The Exploratory factor analysis was applied for identifying the factors and four factors named cost, resale value, quality and dealer's services were identified. Non- parametric Spearman's rank correlation test was applied for testing the hypothesis.

Introduction

In general, the human behaviour is becoming complex day by day. Sometimes it is impossible for the company to predict the human behaviour however, it is very important for the company to predict the same. Today the companies are very well known with the fact that the customers are ruling the market and company must design the product in such a manner so that the customers can be satisfied. Correct prediction about the future consumption as in when, why, how, where and what consumers do or do not buy a product is crucial for them to succeed. **Perception** is the process by which the individual selects, organises, and interprets various stimuli into a meaningful & coherent picture of the world.

Today, there is a healthy competition in automobile industry as there are number of companies in the automobile industry, though till early eighties, consumers were having very limited options with them for cars. Since Indian Government had liberalized the economy policy, the automobile industry is rolling from last 15 years. Indian Government had also allowed FDI in automobile sector. This decision had been taken by the Government to create a healthy environment in Indian automobile sector and with the view to make available a wider choice for customers. Indian automobile industry is growing with a very high rate with more than one million

passengers. Indian automobile industry becomes more competitive as a greater number of global players has entered into the market. Now both foreign manufacturers and existing companies are coming up with new models.

Therefore, it is very much important for the companies to understand customers. Understanding the customer is not an easy task. It is very much knotty to predict the consumer's mind. The unpredictable behaviour of consumer makes the study of consumer behavior very important. Companies are trying to understand the perception of consumers so that they can rationalise their chance of existence in the market.

Review of Literature

Dongyan Liu and Xuan Bai, (2008), The study had been done by the author on Chinese Consumers. It was found in this study that Chinese Consumer considers "safety" as the most important factor while purchasing the car. The second most important factor that was consider by the Chinese Consumer is "value for money" and third important factor was "riding comfort" while making a purchase for car.

Purohit, H. C., (2009), In this study the author conclude that consumers are mainly satisfied by, durability, driving comfort, brand popularity, spare parts availability, travel convenience and overall look of the company's product. The consumers are purchasing the car of Maruti than the other company's car just because of Good product features in the Maruti's Car.

Joseph Ajoy S and Kamble H Y, (2011), The study is done by the author on based on the passenger car owners of Dakshina Kannada district of Karnataka State and study shows the behavioural pattern shown by passenger car customers. In their study the authors found that the availability of auto finance was most dominant strands that can affect the purchase of passenger cars in India.

Srivastava, Manish Kumar, Tiwari, A.K., (2011), The study is based on the perception of customers about Honda City and Maruti SX4. The study shows that that perception of customers about Honda city is better than Maruti SX4. The parameter had been taken by the author was Best Feature, Value for Money, Customer Friendly Vehicle and After Sales Service. The study reveals that income and occupation did not affect the brand choice but sex can affect the brand choice. They also revealed in their study that efficacious medium of communication for the promotions of these cars were word of mouth publicity and advertisements in car magazines. They also concluded that much importance had been given by the customers to Safety, Brand name and 'Driving and Seating comfort while they were purchasing A3 segment cars.

K.Vidyavathi, (2012), In his study the author throws the light on how company's can attract the buyers. The study reveals that the demand for the small cars are increasing day by day due to increase in number of nuclear family and parking problem. Therefore, the car manufacturing companies should design car by keeping in mind consumer's needs, wants, tastes and preferences. Fuel economy, driving comfort and availability of spares and their price were the most significant parameters of cars.

Balakrishnan Menon, Jagathy Raj (2012), The study is based on the Kerala state. The study shows that approximate 33% car owners were having diesel cars due to the difference in the prices of Gasoline and Diesel. The customers of Kerala were giving the preference to the foreign car brands. It was also observed from the research that

customers gather information on car models mainly from TV commercials, search on internet, website of the manufacturer and visit to dealers / distributors during the information gathering and consumer purchase initiation stage.

Malhotra Gunjan, Nandi Abhishek and Mukherjee Amitava, (2012), The research was done by the authors on small car segment. They concluded in their research paper that in the last five years the automotive industry in India grew at a Computed Annual Growth Rate (CAGR) of 11.5 % and in the last FY 2010-11 the growth rate was more than 26% (Maruti Suzuki Ltd, Annual Report 2009-2010). In their research they also conclude the perception of customer towards various features of existing cars and try to find the different automobile features which influences degree of consumer preferences and their buying behaviour.

Therefore, the car manufacturers should consider these points while manufacturing a car in SUV segment. Ramita Verma, Shubhkamana Rathore, (2013), The research is based on the luxury car segment of India. The study shows that as the number of luxury cars were entering in the Indian market, the market was growing with more than 25% per annum. The study reveals that the luxury cars were preferred by HNI (High Net worth Individuals) and they want to differentiate themselves from crowd. Demand for luxury cars had been suddenly increases in India due to the change in attitude of the customer. The study also concludes that the attitude of customers has been shifted from price and affordability to design, quality and pleasure.

Joshi, Shiv Prasad, (2013), In this research the author revealed that the Maruti had captured the small car industry. This research concludes that advertisement had strong impact on car purchase decisions followed by family and friend's recommendations. Fifty percent respondent were fully satisfied with their brands while near about sixteen percent were not satisfied with their brands. The paper also investigates that price was the most important criteria while Safety measures in car was least preferred criteria in purchasing decision of cars.

Research Methodology

The research was based on Kanpur. The data was collected from Kanpur city as it was convenience for author to collect the data from Kanpur. Respondents were those citizens of Kanpur who were having their own car. Sample size of the research was 300 respondents. A combination of judgmental and snowball sampling were used for collecting the data from Kanpur. Firstly, the respondents were selected on the basis of judgment and further respondents were selected on the basis of information given by the initial sample of respondents. A structured questionnaire was prepared for collecting the data. A five point Likert scale was prepared for measuring the perceived level of satisfaction of consumers.

For testing the reliability of questionnaire we applied reliability test. Factor analysis was performed for identifying the factors that can affect the purchase decision of consumers. We had checked the KMO value for testing the adequacy of data. For testing the hypothesis we had applied Spearman's rank correlation test.

Objectives of the Study

The overall objective of the study is to evaluate car owners' perception and behaviour pertaining to the purchase and use of cars and their satisfaction. The specific objectives of the study are:

- To find out the factors affecting perceived level of satisfaction of car users.
- To find out the relationship between cost of the car, Dealer's Services, Resale Value and overall quality of car with perceived level of satisfaction of car users.

Hypothesis

On the basis of the objectives and related questionnaire following hypothesis has been framed

H₁: There is no significant relationship between cost of the car and perceived level of satisfaction.

H₂: There is no significant relationship between Dealer's Service and perceived level of satisfaction.

H₃: There is no significant relationship between resale value of the car and perceived level of satisfaction.

H₄: There is no significant relationship between overall quality of the car and perceived level of satisfaction

Data Analysis and Findings

Frequency distribution of demographic variables: **Table 01** constituted the demographic profile of the respondent and from the table it was found that out of the total sample (N = 300), 62.7% respondent were male and 37.3% respondent were female. Further, there are four categories of age and of these four categories 19% of the respondent were from the age group of below 30 years, further 29% respondent were having the age group of 31 – 40 years, 26.3% respondent belonged to the age group of 41 – 50 years and remaining 25.7% respondent were from the age group of above 51 years. Marital status had divided into two categories and from these categories 43.7% respondents were married and 56.3% respondents were unmarried.

Table 01: Demographic Profile of Respondent

Respondent		Frequency	Percent
Gender	MALE	188	62.7
	FEMALE	112	37.3
Age	Below 30	57	19.0
	31 – 40	87	29.0
	41 – 50	79	26.3
	Above 51	77	25.7
Marital Status	Married	131	43.7
	Unmarried	169	56.3
Educational Status	Secondary	4	1.3
	Higher Secondary	36	12.0
	Graduate	95	31.7

	Post Graduate	123	41.0
	Others	42	14.0
Occupation Status	Private Service	123	41.0
	Government Service	73	24.3
	Self Employed	52	17.3
	Others	52	17.3
Monthly Income	Below Rs.30, 000	49	16.3
	Rs.40, 001 – Rs.50, 000	73	24.3
	Rs.50, 001 – Rs.60, 000	90	30.0
	Above Rs.60, 001	88	29.3
	Total	300	100.0

Further from **table 01** there were five categories of educational status i.e., secondary, higher secondary, graduate, post graduate and others. It was analysed from the above table that 1.3% of the respondent were having secondary level educational qualification, 12% of the respondent were having higher secondary level educational qualification, 31.7% respondents were graduate, further 41% respondents were post graduate and remaining 14% respondents were having other qualification. Further, we have four different categories in occupational status i.e., private service, government service, self employed and others. It was observed that 41% of the total respondents were having private jobs, 24.33% of respondents were having government jobs, further 17.33% respondents were self employed and remaining 17.33% respondents were having other employment status. We have categories monthly income in five different categories, 16.33% respondents were having monthly income below Rs. 30,000/-, out of total respondents 24.33% respondents were having monthly income in between Rs. 30,001 – Rs. 50,000-, further 30% respondents were having monthly income in between Rs. 50,001 – Rs. 60,000- and 29.33% respondents were having monthly income above Rs. 60,001-.

Reliability Test

The reliability of the questionnaire having 15 questions had been checked by using reliability test. It is clear from the table 02; the value of Cronbach's Alpha is 0.861 which states that the entire items were relatively consistent

Table 02: Reliability Statistics	
Cronbach's Alpha	N of Items
.861	15

Factor Analysis

KMO and Bartlett test of sphericity was used to check the suitability of data for exploratory factor analysis. The value of KMO describes the adequacy of sampling. If the value of KMO is greater than 0.5 that means the sample is adequate. It can be analysed from the table 03 the value of KMO is 0.807 which means sample is adequate.

Further from table 03, it can be observed that Bartlett's test of sphericity was 1782.615 significant at 0.000 level of significance. It indicates that the correlation matrix was not an identity matrix. The above analysis show that the data collected on

different attributes of perception of consumer on car buying behaviour from respondents were suitable for factor analysis.

Table 03: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.807
Bartlett's Test of Sphericity	Approx. Chi-Square	1782.615
	df	105
	Sig.	0.000

From table 04 it was observed that total 4 factors were identified that can affect the perception of consumer on car buying behaviour that were subjected to Principal Component Analysis (PCA). In analysis it was observed that these 4 factors were having 63.021% of cumulative variance explained through exploratory factor analysis (EFA).

Following are the details of factors identified through EFA:

Table 04: Rotated Component Matrix

	Eigen Value	% of Variance	Communalities	Component			
				Cost	Dealer's Service	Resale Value	Quality
				1	2	3	4
Latest Technology	0.524	34.947	0.66	0.767			
Cost of Car			0.723	0.752			
After Sales Services			0.605	0.678			
Maintenance Cost			0.633	0.676			
Car is a Status Symbol			0.32	0.523			
Space and Seating Arrangements			0.448	0.495			
Durability of the Vehicle is Satisfactory	1.682	11.214	0.699		0.746		
Honesty and Transparency of Dealer			0.701		0.745		
Dealer's Service			0.718	0.42	0.729		
Consumptions of Fuel			0.591		0.611		
Availability of Spare parts	1.445	9.631	0.841			0.86	
Resale Value			0.712			0.787	
Overall Quality	1.084	7.229	0.504	0.564			0.427
Appeal and Design			0.711				0.794
Driving is Comfortable and Safety			0.585				0.648

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Hypothesis Testing

H₁: There is no significant relationship between cost of the car and perceived level of satisfaction.

In the analysis we found that p value is .000 which is less than .05 therefore there is significant relationship between cost of the car and perceived level of satisfaction. Since the value of r is .446 which is in between to .3 to .5 that means there is positive moderate relationship.

Table 05: Correlations				
			Perceived Level of Satisfaction	Cost
Spearman's rho	Perceived Level of Satisfaction	Correlation Coefficient	1.000	.446**
		Sig. (2-tailed)		.000
		N	300	300
	Cost	Correlation Coefficient	.446**	1.000
		Sig. (2-tailed)	.000	
		N	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

H₂: There is no significant relationship between Dealer's Service and perceived level of satisfaction.

Table 06 : Correlations				
			Perceived Level of Satisfaction	Dealer's Service
Spearman's rho	Perceived Level of Satisfaction	Correlation Coefficient	1.000	.349**
		Sig. (2-tailed)		.000
		N	300	300
	Dealer's Service	Correlation Coefficient	.349**	1.000
		Sig. (2-tailed)	.000	
		N	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

In the analysis we found that p value is .000 which is less than .05 therefore there is significant relationship between cost of the car and perceived level of satisfaction. Since the value of r is .349 which is in between to .3 to .5 that means there is positive moderate relationship.

H₃: There is no significant relationship between resale value of the car and perceived level of satisfaction.

Table 07: Correlations				
			Perceived Level of Satisfaction	Resale Value
Spearman's rho	Perceived Level of Satisfaction	Correlation Coefficient	1.000	.295**
		Sig. (2-tailed)		.000
		N	300	300
	Resale Value	Correlation Coefficient	.295**	1.000
		Sig. (2-tailed)	.000	
		N	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

In the analysis we found that p value is .000 which is less than .05 therefore there is significant relationship between cost of the car and perceived level of satisfaction. Since the value of r is .295 which is less than .3 which means that there is positive weak relationship.

H₄: There is no significant relationship between overall quality of the car and perceived level of satisfaction

Table 08: Correlations				
			Perceived Level of Satisfaction	Overall Quality
Spearman's rho	Perceived Level of Satisfaction	Correlation Coefficient	1.000	.363**
		Sig. (2-tailed)		.000
		N	300	300
	Overall Quality	Correlation Coefficient	.363**	1.000
		Sig. (2-tailed)	.000	
		N	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

In the analysis we found that p value is .000 which is less than .05 therefore there is significant relationship between cost of the car and perceived level of satisfaction. Since the value of r is .363 which is in between to .3 to .5 that means there is positive moderate relationship.

Conclusion

In the above study we found that there were four factors which were affecting the purchasing decision of consumers while purchasing a car. These factors were cost of the car, resale value of the car, overall quality of the car and dealer's services. All these four factors were having positive relationship with perceived level of satisfaction. Resale value of car was having weak relationship with perceived level of satisfaction and other three were having moderate relationship with the same.

Limitations of Research

The research was limited to a particular time frame. The primary research was based on a sample of 300 respondents. To understand the impact of perception on customer's perceived level of satisfaction among the car users' further researches have to be undertaken not only with questionnaire but also through observation, focus groups etc. and on a longer period of time. In our study all four variables were explaining the cumulative variance of 63.021%. It means there are some more variables which will explain the rest of cumulative variance. Further we can do some more statistical analysis for testing the hypothesis. We can also apply regression analysis.

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Current Position of Banks in the Practice of Green Banking in Bangladesh: An Analysis on Private Sector Commercial Banks in Bangladesh

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ABSTRACT

Climate change and global warming has become one of the crying issue of recent time throughout the world. As one of the solutions to these problems, green financing has been welcomed in many countries especially commercial banks are suggested to devote themselves in this area. The commercial banks of Bangladesh are not lagging behind in this race. So our current study focuses on the areas of green banking practiced by the private sector commercial banks in Bangladesh. From our analysis, we found that all the banks in our sample have involve themselves in green financing projects under which they emphasize on renewable energy, solar energy, bio gas plant projects. Besides a good number of sample banks have adopted ATM service, Online Banking and SMS banking facilities as well as have established green branches. Many banks have also promoted social awareness program, reduced electricity and water consumption initiatives.

Introduction

The twenty-first century is endangered with various problems like climate change and pollution, which may even hamper human health and mortality (Jung et al. 2018). Sources of pollution are varied, ranging from gases (such as ozone and NO₂) and particulate matter produced from traffic, industrialization, to some other hazards associated with indoor environments causing respiratory illnesses, cardiovascular ailments, skin diseases, eye problems etc. (Jung et al. 2018; Brugha et al. 2018). Considering these effects social awareness is being built up all around the world at micro as well as macro level. As a result, this current issue has attracted the attention of many researchers, practitioners as well as world leaders. As a remedy to the environment pollution several measurements are adopted and prescribed throughout

the world involving individuals and corporations. As a result, corporate world is engaging more and more in various activities creating positive impact on environment as a part of their Corporate Social Responsibility. In this trend, the financial institutions in each economy are also coming forward.

As the main driver in the financial system, commercial banks of different countries are also getting engaged in green banking activities. Green banking means an eco-friendly banking practice and try to reduce of emitting carbon mark from banking activities. This banking concept promotes to make more livable environment and healthy life for human beings. Green banking ensures an economic growth with a sustainable development without environmental degradation. It is a corporate social responsibility to keep our world livable without any serious harm. The main objective of green banking is to confirm the exercise of organizational resources in assistance of society and environment. Richard Buckminster Fuller (2012) argued that if we want to work proactively and smartly with a future sustainability vision, green banking is the best way. Our current research focuses on the green banking activities of selected commercial banks of Bangladesh. In our research, we find that among the different green banking activities, banks are mostly involved in Online Banking activities. Along with the orientation of technology based products, most of the banks have already formed their green banking policy and have allocated fund for green financing and have made disclosure about their green banking activities on their website. The rest of the paper is arranged as Section 2 literature review, Section 3 Objective of the Study, Section 4 methodology, Section 5 banks' green banking activities and Section 6 findings and conclusion.

Literature Review

Global warming is a big issue for our existence of today's world. In the last decade, global temperature has increased 0.7 degree Celsius, roughly ten times faster than average rate of ice-age-recovery warming. It happened just because of huge number of Co₂ emitting. As a result, iceberg has melted away and sea level has increased. So, low land countries are losing their land. For this reason, the world tried to take a decision in Paris summit and Copenhagen for affected and censurable countries. Being concerned about the fact, many researchers are focusing on this current issue. Mazzaucato and Semieniuk (2017), Schwerhoff and Mounhamadou Sy (2017) and Thiam and Jacqueline (2016) focused on renewable energy sector in their studies. Many researchers like Donner, Kandlikar, & Zerriffi, 2011; Hannam, Liao, Davis, & Oppenheimer, 2015 have emphasized on the necessity and importance of climate finance and have regarded the issue as the core issue of climate change. Horsch and Richter (2017) and Ockenden et al. (2012) have suggested different financial instruments to arrange fund for green climate. Cui and Huang (2017) have focused on the issue of Green Climate Fund (GCF) whereas Steckel and Jakob (2018) raised the necessity of Credible committing climate policy. Nadira and Ahmad (2017) have made research on nuclear power project and how it can protect environment. Ivan and Tzavara (2012) focused on decarbonized energy system while Zhan and Jong (2018) focused on eco cities and low carbon cities. J.D Gonzalez et al. (2016) and Tortajada (2016) have put attention on water infrastructure system in their studies.

These environmental issues along with human life have also affected the business world. Xubiao and Liu (2018) have mentioned in their research report that most of the researchers have found pollution has a direct impact on stock market in developed countries. Alamdarlo (2018) found shadow price involved in agricultural pollution costing economic development. Environmental concerns are becoming a supplementary and significant (non-financial) criterion through which private investors take their investment decisions nowadays (Knörzer, 2001). Investors while choosing their investment projects not only analyze the financial information rather also observes the ecological, social, corporate governance or ethical criteria (P.M. Falcone et al. 2018; Scholtens et al., 2008). Realizing the significance of this new revolution, the financial institutions all over the world recently has focused themselves towards the green financing projects to contribute to the development of an environmentally sustainable economy (P.M. Falcone et al. 2018). Commercial banks as the main driving force of the financial system always have proven its role in economic development of countries (). As a social entity besides collecting deposit and distributing loans, commercial banks get involved in a number of social activities (Toutsoura, 2004; Choi et.al., 2010; Weshah et.al., 2012; and Ismail & Adegbelemi, 2013). As a part of the CSR activity, recently commercial banks have devoted themselves in a number of green banking activities (Falcone et al. 2018). In this consequence, banks are designing and offering new products and services for customers to initiate and enhance investment in green projects (P.M. Falcone et al. 2018).

Commercial banks in Bangladesh are not lagging behind in this new trend. They have also given attention to this emerging issue known as 'green banking'. It is the central bank of the country, Bangladesh Bank, who is continuously encouraging commercial banks on green banking practice and also issuing different policies and strategies in this regard. Rahman et al. (2013) have mentioned that as socially responsible corporate citizen, the commercial banks in Bangladesh have a major responsibility to support and supplement the government effort towards environment by reducing carbon emission. So researchers in Bangladesh have also concentrated on the area, like Islam and Das (2013), Masukujjaman & Aktar (2013), Rahman et al. (2013) have analyzed the green banking activities in Bangladesh. Masukujjaman & Aktar (2013) from the Green Banking Report, 2012 of Bangladesh Bank have found that 85% banks have formulated their own Green Banking Policy Guidelines whereas 91% banks have formed a Green Banking Unit (GBU). They also found that about 34% of banks have provided their allocation in green finance while it is 21% for climate risk fund and have taken initiatives to provide appropriate disclosure and reporting on green banking activities to Bangladesh Bank.

However, the above studies are based on the Green Banking Report published by Bangladesh Bank as a whole on the overall banking industry of Bangladesh and does not enlighten the green banking condition in individual banks. In this study we have emphasized on this gap of literature. Our research fulfils the gap in literature as firstly, the existing literature is based on the overall industry activity not mentioning what individual banks are doing. Secondly, though Islam and Das (2013) took a sample of 8 banks, we have extended the sample size of our research to. Third, the existing literature covers information up to 2012, but our research considers more recent data covering the green banking condition till 2016 Annual Report and website information of 2018. And

finally as this paper is going to concentrate on individual bank activities regarding green banking, the paper will facilitate the banks to understand their position in terms of green banking activities in the market and form policies likewise. The policymakers also can consider the findings to form new policies regarding the implementation of green banking in Bangladesh.

Objectives of the Study

The main objective of this study is to focus the green banking activities in which the commercial banks in Bangladesh have concentrated themselves. Specifically, we tried to observe

- The area wise green banking practice of selected commercial banks in Bangladesh
- The difference in between selected commercial banks in terms of green banking practice

Methodology

To achieve the above specified objective, we have used a sample of 28 banks operating in the economy of Bangladesh recently. The sample of banks has been selected on a random basis. To collect data on sample we have mainly relied on secondary sources of information such as banks' website, annual report, magazine, newspaper etc.

To conduct the research and to meet objectives we have mainly segregated the green banking activities of commercial banks in different categories as per the Bangladesh Bank guideline on green banking reporting as has been circulated through BRPD Circular No. 07. After identifying sample banks' involvement in these different categories of green banking activities, percentage calculation has been applied regarding the different categories mentioned.

Green Banking Activities

Banks want to take an initiative from the threat of changing environmental condition. In recent times, financial institutions are progressively conscious about investments through green projects. It patronizes a development of sustainable economy. Banks are trying to develop new green financial products and services such as lower interest rates, environmentally related counselling, and environmental rating and due diligence checks, subsequent lease of environmental products. EIM and Oxford Research (2011) found that the green products and projects are adding more value on environment as well as the institution goodwill. Knörzer (2001) concluded that environmental concerns became a supplement and Significant (non-financial) through which private seize decided to make their investment decisions.

As per BRPD Circular No. 07 of Bangladesh Bank issued on July 22, 2007, the central bank of Bangladesh has given some guidelines about green banking where it has mentioned some areas on which commercial banks in Bangladesh have to report about their green banking activities. Under the guideline there are 12 major areas of green banking reporting. They are

As we have collected our information from the annual report and website information of banks, for our research purpose, we have concentrated on the following areas:

1. Policy Formulation and Governance
2. Initiating In-house Environment Management
3. Introducing Green Finance
4. Utilization of Climate Change Fund
5. Online Banking
6. Employee Training, Consumer Awareness and Green Event
7. Disclosure of Green Banking Activities

So our analysis is based on the rest of eight categories. The involvement of the selected commercial banks in these green banking activities is described below:

Policy Formulation and Governance: Under the criteria, the bank's green banking policy, allocation of fund for green banking, utilization of fund and formation of green banking unit are emphasized. In this aspect, our research shows that about 89% of the sample banks have ensured allocation and utilization of fund in respect of green banking. And about 54% of the sample banks have formed green branches or green banking unit.

Initiating In-house Environment Management: In respect of Initiating In-house Environment Management, most of the banks have given emphasized on E-Statement and SMS services. About 68% banks have already introduced these services to their customers. 28.57% banks have introduced green office guide. About 39.29% banks have reduced their consumption of water and energy while 32.14% banks have reduced their consumption of paper. Though these figures of consumption reduction are not too big, but indicate a start which is expected to increase in future.

Table: 1 Banks' In-house Environment Management Activities

	E-Statement & SMS services	Green Office Guide	Reduce Consumption of Water/ Energy (office)	Reduce Consumption of Paper
No. of Banks Involved	19	8	11	9
% of Bank Involved	67.86%	28.57%	39.29%	32.14%

Introducing Green Finance

A commercial bank provides different types of loan out of its deposit collection in both retail and corporate banking segment. Now-a-days, banks are putting emphasize on loans which will be utilized for projects involving environmental protection as well as improvement in pollution, known as green financing. In case of introducing green finance, our research found that banks have given the highest priority in Solar Panel or

Renewable Energy projects. 50% of the sample banks have reported about their financing in these types of projects. Banks have also given emphasized on Bio-gas and Bio-fertilizer projects. 32% of the sample banks have allocated their fund for financing Bio-gas and Bio-fertilizer projects. 25% banks have financed projects having ETP. Only 5 banks out of 28 (17.85%) have adopted Hybrid Hoffman Klin (HHK). Some banks have also initiated financing for improved technology (17.85%), hazardous waste treatment facility (14%) and plastic waste recycling plant (7%).

Table: 2 Banks' Green Financing Sectors

Green Financing Sectors	For Installation of ETP or Project financed of ETP	Bio Gas/ Bio fertilizer	Solar Panel/ Renewable Energy	Project Financed for Improved Technology	Hazardous waste treatment facility	Plastic waste recycling plant	Hubrid Hoffman Klin (HHK)
No. of Banks Involved	7	9	14	5	4	2	5
% of Banks Involved	25%	32.14%	50%	17.86%	14.29%	7.14%	17.86%

Utilization of Climate Change Fund: At the recent time, banks to a great extent get involved in different corporate social responsibilities (CSR). The CSR activities have become a new revolution in banking industry. Among the different CSR activities, banks concern in some projects which have relationship with environmental issues, like tree plantation. Underutilization of climate change fund, it is to be observed whether any CSR activity of banks is involved with any climate changing activities or not. In our survey, we found that 6 banks out of 28 (21.43%) have involved in climate related activities as a part of their CSR initiative.

Online Banking: To ensure the protection of environment, under green banking, the commercial banks are advised to adopt the technology based transaction procedure. As a result, banks have introduced account transactions through the use of ATM. From our survey, it is found that 96% of the banks, have arranged their ATM booth. Besides ATM, banks have also initiated online banking and internet banking which enables the customers to avail the banking service at their comfortable zone as well as from their home. Almost 93% of the sample banks have implemented online banking while almost 86% of sample banks have initiated internet banking. On the other hand, because of the rapid expansion of the use of mobile phone, 78.6% of the sample banks have started some of their operation through SMS service or mobile banking operation.

Table: 3 Green Financing Areas

	For Installation of ETP/ Project Financed of ETP	Bio Gas/ Bio Fertilizer	Solar Panel/ Renewable Energy	Project Financed for Improved Technology	Hazardous Waste Treatment Facility	Plastic Waste Recycling Plant	Hybrid Hoffman Klin (HHK)
No. of Banks Involved	7	9	14	5	4	2	5
% of banks involved	25%	32.15%	50%	17.86%	14.29%	7.14%	17.86%

Employee Training, Consumer Awareness and Green Event: To increase awareness among bank employees and customers about green banking, banks initiate different training program and green event. 39% of the sample banks have arranged awareness program for green banking whereas almost 43% has arranged different green programs.

Disclosure of Green Banking: As disclosure of green banking, we have observed whether banks have included news of their green banking activities on their website as that is the most convenient way to know about a bank at the recent time by any stakeholders. In our research we found 21 banks out of 28 sample banks (75%) have given green banking disclosure on their website. This indicates that banks are becoming more cautious about their responsibilities towards society and environment and thereby are informing their stakeholders about their initiatives in this area.

Findings & Conclusion

Based on Bangladesh Bank circular BRPD Circular No. 07 dated July 22, 2007, all the commercial banks of Bangladesh are required to submit report on their green banking activities focusing some specific areas. In our current research, we have considered these suggested areas of green banking and have observed how many banks from the sample are taking part in these different areas. Based on the number of banks involved, we later on have calculated the percentage of sample banks involved in the specific green banking activities. From our research, we found that among the various green banking activities most banks have given emphasize on online banking activities. On an average 84.26% of the sample banks have involved in different technology based activities like having ATM booth, introducing online transactions, SMS banking, Mobile banking, E-statement and Internet banking. Secondly, 75% of the sample banks have made disclosure about their green banking activities on their websites for acknowledgement of all concerned bodies. Thirdly, 71.43% of sample banks have formed their own green banking policy and have allocated fund for green financing. So these are the three main areas where banks have given more emphasized. Besides these, 43% of sample banks have initiated in-house environment management activities, 23.5% of sample banks have distributed fund for green financing, 41% of sample banks arranged employee training, consumer awareness programs and green event.

Though our research gives an in-depth idea about the sample banks' extent of involvement in each area of green banking, we did not include all the banks operating in Bangladesh. Also as we had to depend totally on the secondary sources of information that is annual report and websites, the research results could be better if we could collect the information from inner source of banks. These give an opportunity of further investigation in the area for researchers.

Helena koscielniak and Agata Gorka (2016) focused on sustainable financing.

Pasquale Marcello Falcone et al. (2017) focused on green innovation, green oriented financial initiatives.

Ivan Diaz-Rainey and Dionisia Tzavara (2012) found that Good consumer, renewable energy, Energy sector transition are the main actor of decarbonized energy system in cross countries. Authors used primary data and found some excellent result. To use SWA, WTP, Market imperfections and BASS Model, Consumer-Focused green

electricity tariff can incentivize investment in the transition to decarbonized energy system, Green tariff may act counter critically to generations investment incentives.

Mazzaucato and Gregor Semieniuk (2017) found that in china, both public and private sectors are financing on renewable energy and the sectors found on re size, portfolio skew, risk taking method among precise, great recession crisis and post crisis. They also found that the financial investment for the direction of RE innovation favors a subset of financial actors and actors will have come with particular portfolios of financing awareness of the historical trend of which types of technology specific policies have invested in the heterogeneity and may help create incentives for that types finance. Different types financing in the deployment phase needs to be paid more attention the type of financial actors to grain level than public versus private.

Nadira Barkatulla and Ali Ahmad (2017) found that Government, Public sector and private sector are the main actor of nuclear power project in cross countries. Debt and equity, CAPM, risk free rate, market beta, market rate of return, cost of equity, NPV method show that new approaches with different risk and ownership structures to mitigate risk and new contractual arrangements aim to the lower fiscal burden. They also found major challenges of financing in nuclear power plants which are high upfront cost, sensitivity to interact rate and long construction time at 2017.

Gregor Schwerhoff and MounhamadouSy (2017) get some extra ordinary result from Africa context to use secondary data from UN SDG where PPP, rural population used for procuring energy, production and consumption. International donors are the main actors. Both PV, debt and equity ratio method mainly find population and governance can reduce financing cost and achieve a better credit rating. For standard industrial and sustainable growth, RE provides the identification synergy effects and increase the quality of local financial domestic capacity.

Thiam Hee Ng and Jacqueline Yuijia Tao (2016) used both primary and secondary in context of Asia where the actors are RE infrastructure investment, LCY corporate bonds, Environmental regulations labelled green bonds, non-labelled green bonds, Environmental social Governance mandate (ESG), Asset backed project bonds, Financial green bonds. Average market risk, market risk. Investment risk, cross border bond transaction method shows that to reduce the financing gap in Asia, the lack of financial diversity and immature capital markets and proposed the expansion of bond instruments particularly LCY corporate bonds, Asset backed project bonds and financial green bonds. These countries could focus on reducing financial barriers towards RE projects which is the high risk of major concerns for investors in this region.

Changjie Zhan and Martin de Jong (2018) used the shenzan, China context to identify eco cities and low carbon cities, Long gang district is one of the six districts of shenzen, China. The result is based on secondary data where direct primary stakeholders, in direct primary stakeholders and secondary stakeholders are actors. Innovative investment and financing method shows to initiate innovative investment and financing method to avoid high compensation fees and public uproar to promote successful land acquisition. Preparing land through planning the village area as a whole appears to be a true process innovation. The metro property development approach was adapted to facilities the development of eastern extension.

Jan Christoph Steckel and Michael Jakob (2018) used secondary data from both developed countries and developing countries where the actors were public investment, political interest groups, health education social security basic infrastructure, to get a result authors used WACC PV break even interest rate levelized energy costs NPV MRV (monitoring reporting, verification) method. The authors found that green bonds, loan guarantees and policy risk insurances are supporting the financial de-risking of private investments. Credible committing climate policy can achieve to improve the design of laws and regulations, increasing transparency, appropriately taking into account distributional concerns and implementing robust frameworks.

Helena Koscielniak and Agata Gorka (2016) used secondary data and tried to find PPP sustainable financing in Poland. The actors were environment protection, transportation, transportation and communication, sport tourism and recreation, housing developments, regeneration, science and technologies, water/waste, energy, buildings where the method was average project value. The authors found that PPP projects may be integrated and concern several areas. The Silesian PPP market is considered by a large number of projects co-financed from the EU sources, good project location features and anticipated introduction of revolving financial mechanisms.

Pasquale Marcello Falcone et al. (2017) used triangulation based strategy, GF niche actors identify, landscape actors to measure method to find to access landscape pressures on the context of Italy. Socio-economic development and innovation opportunity, climate change mitigation efforts, purely green actor, aligned green actor are the most important actors where using the primary data. Informal and institutional actors are operating and supporting a deeper strategic collaboration. For green innovation, green oriented financial initiatives and related dissemination are making a more proactive role in fostering finance.

J.D Gonzalez et al. (2016) tried to get a result on Colombia's water infrastructure systems to increase private participation on the basis of secondary data where the actors were government, private sector, capital market, research community. Here, authors hypothesis, new financial mechanism, ROA, ROE NPV, Weighted average cost of capital, equity profitability method to get decision. To create a primary and secondary market stock and debts issued by infrastructure projects, market led mechanisms could also drive on infrastructure market based on low carbon. The assessment of flexibility of making sustainable projects should be involving the future research of green financing by the Colombian government.

Cocile Tortajada (2016) used secondary data and tried to find the development and financing of water structure between India and China where the actors were micro environment, health and primary education, innovation, institution, infrastructure, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication, political and economic structure. Policy alternatives, implementation process, investment mechanism, participation of public, private and social sector were methods which were used descriptively. Main challenges are limited sources of financing, policies, implementation of infrastructure development. But both two countries have impressive investment of water infrastructure specially in China though

they have not enough efficiency for long term, inclusively supported and higher economic growth or improve social and environmental conditions.

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Assessment of Digital Marketing in Promoting the Enrolment System in B-Schools: An Empirical Study in Kolkata

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ABSTRACT

Higher Education enrolment is always a challenging factor in India due its socio economic disparity. In this situation where we have to compete with Universities across globe, it is very important to assess the factors which affect the enrolment or admission in the B-Schools. Without creating the nonpareil managers, it is very difficult to persist in the circumstance of trade war draped beneath diplomatic gambit or manoeuvre. Hence in this set of circumstances, investigation have been done to assess the impact of digital marketing on the enrolment system so that millennial can be trained with new age management education.

For this study Researcher has taken 80 samples from the student (UG/PG level) and few psychological factors through Rotated Component Matrix use of Factor Analysis to examine the impact of Digital Marketing in promoting the Enrolment System in B-School in West Bengal: Again Factor analysis is used to find out the high and low influencing factor that helps the new marketer or entrepreneur to make a new decision strategy for new age in management education.

Background and Scope of Project

The proposed project will examine the role of the Digital Marketing in various Management Colleges in the area of West Bengal. As per a printed report in Business Standard March 2014 we are now spending more of our lives surrounded by digital media with smartphones, tablets, and PCs that are always connected to the internet. The report fort tracks how marketers have kept pace with their audience and are spending more than 20 per cent of their ad budget on digital marketing. It rights that while the total market for advertising is growing at 3 per cent per year, advertising on digital media is growing by more than 10 per cent. The current situation has detected the evolution of a consumer who not just seeks information at the touch of a button but also intends to engage with a platform where information could be conveniently shared, reviewed validated and used to their advantage.

New media technologies, such as the internet and the social media nowadays businessmen and entrepreneurs have started to explore the concept of marketing on the website. Advances in technology have helped to migrate company and consumer

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relationships to an interactive level, where technology contributes to brand Building by creating and sustaining a long – term relationship with the customer. However, giving consumers the opportunity to voice their opinion will not always lead to positive word – of – mouth and can threaten company's good image and reputation with their consumers. The Internet plays a crucial role in building corporate brand reputational over the world in today's market.

The growth and development of the Internet, electronic peer-to-peer transfers have become an important genius and dealers have tried to exploit their potential through digital marketing movements. Digital marketing can help a brand to grow quickly and economically, it transmits more risk than that of building a brand based on relevance and relationships. This marketing strategy uses in the different colleges and in a specific market to promote the and implement the digital marketing concept and helps to management colleges to change their marketing strategy as well as the admission process and generate the brand image in West Bengal as well as others states. Multiple social media formats are used in the process, which includes social networks sites such as YouTube, email communication, and many other forms of electronic media.

This study is mainly covering the various Management colleges in the state West Bengal. Six districts is our area out of 23. The Education is one of the most essential systems for today's society and growth in life. Education is an important instrument for change in enveloping and developed countries. It provides a better quality of life for any citizen for their living environment. The purpose of education is not only to sleeper people for employment and trains them to cope their lives for present and future. A scientific rebellion began in the year of 1950s, bringing what have been called third wave changes. Third wave changes brought, fast, current, cheap and reliable tools for communication which changed the way people live work and learn. Digital technology is one of the most important parts to change the market scenario in education industry. Nowadays there is fast growing interest in using modern announcement technologies in the fields of education and communication. The report of Gutter man (2009) observes: 'Information communication technology (ICT) can be an extremely powerful enabler in efforts to bring positive and sustainable development to countries around the globe.

Significance of Study

Implications for Management Education sector to increase students' enrollment and creating brand images.

Identify those factors which help to candidates for enrolment through digital marketing.

Review of the Literature

The main focus of the literature review will be to review the recent developments in Branding of Management Education Institutes through Digital Marketing the study area based in West Bengal.

Alderson has distinguished that differentiation in a product's characteristics gives a seller control over the product to identity and configure exactly. This means, the seller offering a product different from others actually occupies a monopoly position in the

market. However, this product differentiation can be based on product characteristics such as patented features, trademarks, packaging etc.

Tinio (2009) defines ICT as a 'diverse set of technological tools and resources used to communicate, and to create, disseminate store, and manage information. These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony'.

Lance Porter and Guy J. Golan, (2010) (4) stated that More than traditional advertising, digital advertising relies on annoying content to inspire unpaid peer-to-peer Communication of believable messages from the different type of identical sponsors. While emotional Content has always been the key to capturing audience's attention in advertising, viral advertising relies on progressively raw content for actual distribution.

As further suggested by studies "online information plays a significant role in decision-making, including decisions in important areas of life such as health, education, and financial matters (Pew Internet/Lenhardt, Madden, and Hitlin, 2005).

Rundh, concluded that the Packaging's importance as a marketing tool has increased due to increased importance of purchasing decisions at the store, the role of brand building by media advertising, growing management recognition of packaging's ability to create diversity and new media habits in the management educational institute.

According to Patrizia Grifoni (2012) (6) a mix of methods (M-marketing, social networks, viral marketing etc) to create awareness for the company's brand, products and services. It provides a theoretical framework involving elements and factors important for the planning of an on-line viral marketing campaign.

Information Communication Technology is viewed as a force that can advance and improve the quality of educational services and effectiveness of the economy of a country

Research Objectives

With the advent of Digital Marketing in India there is a need to study how the educational institutes are leveraging the opportunity to build up their brand images and attract potential students to choose their education destiny.

The Specific Research Objectives are as Follows

- 1) To identify the association between the Students Enrolment through Digital Marketing with reference to their demographic attributes.
- 2) To measure the effect of Digital Marketing on students enrolment system.

Research Methodology Used in These Study

The methodology for this project is driven, therefore, largely by successful approaches taken by previous researchers in this area. The type of research can be broadly classified as Descriptive and Empirical in nature, as it seeks to identify key elements and characteristics of successful the concept of Digital Marketing in the management education sector. To meet the objectives of the study stated above both qualitative and quantitative techniques are to be used. The study will be based on mainly the information available through a structured questionnaire among randomly selected respondents of different categories.

Proposed questionnaire will contain three parts: a) the demographic details of the respondents b) Questions for find out the impact on brand image of different management colleges and c) questions relating to students enrolment of Digital Marketing technology to be measured using 5-point Likert Summated scale. Suitable sampling techniques will be adopted to collect primary data from respondents through final questionnaire.

i) Descriptive statistics and frequency distribution will be used to summarize the respondents' demography.

ii) Factor Analysis (principal component analysis) to be used to reduce the complexity within the dataset and convert large number of variables into few factors to explain the original data more economically and efficiently.

Some Relevant Aspects Are as Follows

Research Type: Descriptive, Empirical in nature

Study Period: 2 months

Population: Students who have taken the admission through Digital and all their' demographic characteristics.

Sampling Area: Two-School around Kolkata

Sampling Frame: 80 respondents from the two Business School, Kolkata

1) 40 UG 1st year students

2) 40 PG 1st year Students

Sample Units: 1st year UG/PG students.

Research Design: The study has been partly descriptive and partly analytical. This study is constructed on both primary and secondary data.

Sampling Method: Convenience Sampling / Accidental Sampling.

Sample Size: 80 respondents.

Tools for Data Collection: Questionnaire based on 5point Likert Scale and this technique has been adopted in order to collect all the pertinent information relating to our study.

Data Collection Methods:

The study was consisting of both primary and secondary data.

Primary Data Collection: This data was collected through well-structured closed ended questionnaire and through Pilot survey. For the purpose of data collection, questionnaire has been designed and data were collected from the students who might or might not be aware about Digital Marketing.

Secondary Data: The data from secondary sources was collected through books, journals, reports, research studies, internet sources, magazines, newspapers, and bank websites to understand the basic concepts and literature pertaining to Digital Marketing.

Hypotheses Formulation

HO₁: There is no significant association between ‘Gender’ and ‘Student Enrollment through Digital Marketing’ with respect to demographic variables.

HO₂: There is no significant association between ‘Age’ and ‘Student Enrollment through Digital Marketing’ with respect to demographic variables.

HO₃: There is strongly significant association between ‘Residence’ and Student Enrollment through Digital Marketing’ with respect to demographic variables.

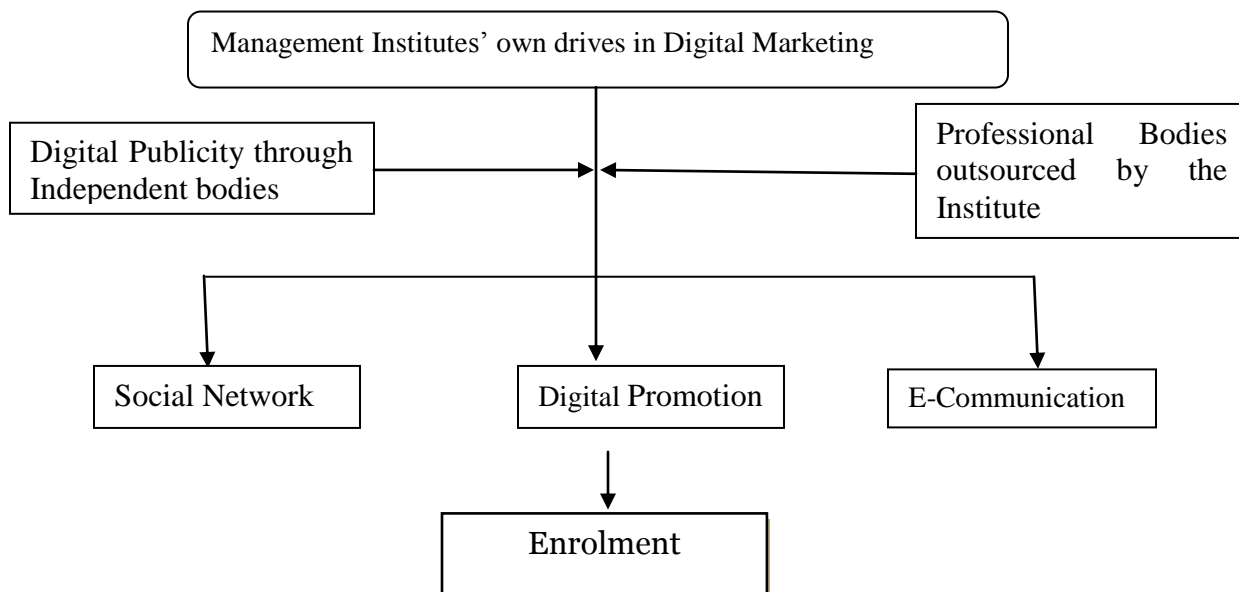
HO₄: There is strongly significant association between ‘Internet uses’ and ‘Student Enrolment through Digital Marketing’ with respect to demographic variables.

HO₅: There is no significant association between ‘Subscribe and ‘Student Enrollment through Digital Marketing’ with respect to demographic variables.

Data Analysis Methodology

The data were collected from the survey those who have taken admission through Digital Tool and will be subjected to data cleaning in order to identify missing value, data redundancy, sample characteristics and meet the assumptions of normality. After the data redundancy Descriptive statistics is used to summarize the respondents’ demography. The researcher will safeguard that all items meet the acceptable limit level.

Conceptual Framework



Reliability Test on 10 Variables

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.637	.657	10

Sample Design for Objective 1

To identify the association between the Students Enrolment through Digital Marketing with reference to their demographic attributes.

Sample Size	80
Sample unit	1 st year UG/PG Students
Test	Chi-Square testing through SPSS 25

H01: There is no significant association between 'Enrolment through Digital Marketing' and 'Gender'.

H11: There is an association between 'Enrolment through Digital Marketing' and 'Gender'.

Gender * Enrolment through Digital Marketing Cross tabulation				
Count				
		Enrolment through Digital Marketing		Total
		Enrolled	Not Enrolled	
Gender	Male	36	10	46
	Female	14	20	34
Total		50	30	80

Chi-Square Tests					
	Value	Df	Asymptotic Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	11.471 ^a	1	.001		
Continuity Correction ^b	9.944	1	.002		
Likelihood Ratio	11.611	1	.001		
Fisher's Exact Test				.001	.001
Linear-by-Linear Association	11.328	1	.001		
N of Valid Cases	80				
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.75.					
b. Computed only for a 2x2 table					

From the above analysis it has been observed that the p value of the variable is <.05. So, there is a significant difference between 'Gender' and 'Enrolment through Digital Marketing'.

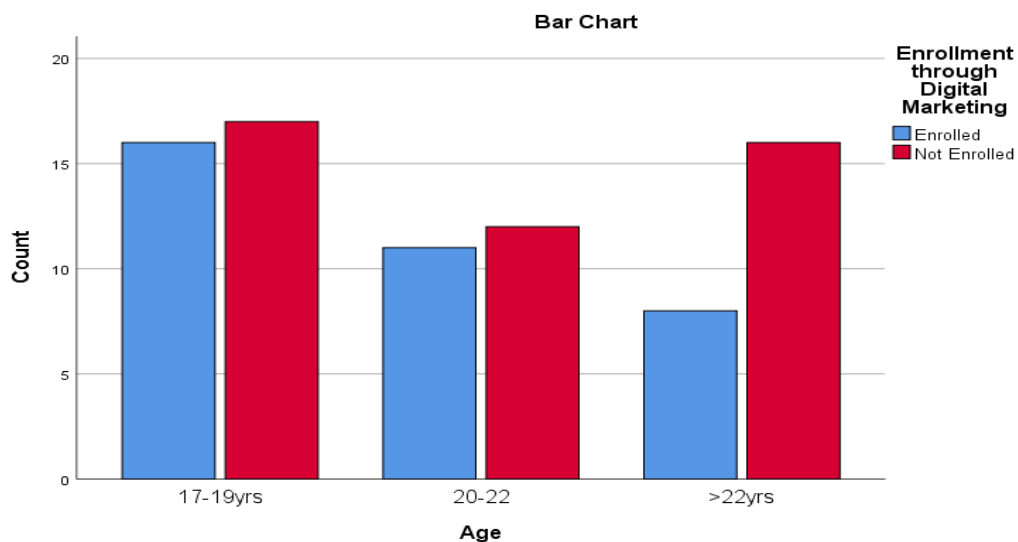
H02: There is no significant association between 'Enrolment through Digital Marketing' and 'Age'.

H12: There is an association between 'Enrolment through Digital Marketing' and 'Age'.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.514 ^a	2	.469
Likelihood Ratio	1.539	2	.463
Linear-by-Linear Association	1.183	1	.277
N of Valid Cases	80		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.06.			

From the above analysis it has been observed that the p value of the variable is $> .05$. So, there is no significant difference between 'Age' and 'Enrolment through Digital Marketing'.

H03: There is no significant association between 'Enrolment through Digital Marketing' and 'Residence'.



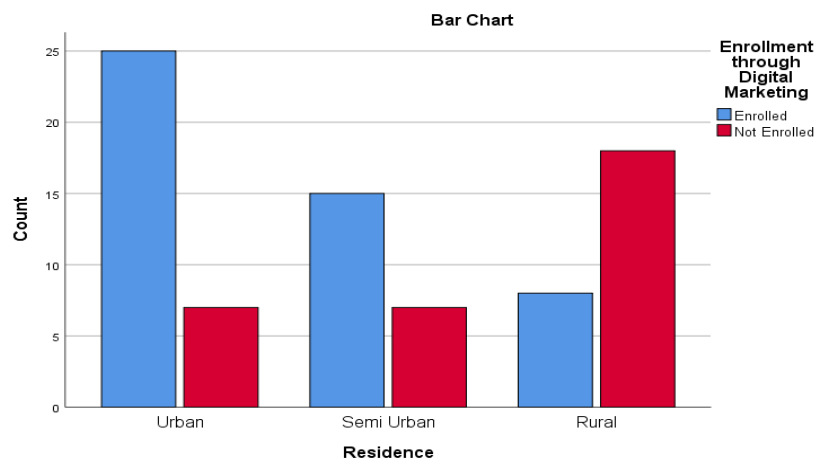
H13: There is an association between 'Enrolment through Digital Marketing' and 'Residence'.

Residence * Enrolment through Digital Marketing Cross tabulation				
		Count		
		Enrolment through Digital Marketing		Total
		Enrolled	Not Enrolled	
Residence	Urban	25	7	32
	Semi Urban	15	7	22
	Rural	8	18	26
Total		48	32	80

Chi-Square Tests

Assessment of Digital Marketing in Promoting the Enrolment System in B-Schools: An Empirical Study in Kolkata

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-Square	14.250 ^a	2	.001
Likelihood Ratio	14.443	2	.001
Linear-by-Linear Association	12.838	1	.000
N of Valid Cases	80		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.80.			



From the above analysis it has been observed that the p value of the variable is $<.05$. So, there is a significant difference between 'Residence' and 'Enrolment through Digital Marketing'.

Ho4: There is no significant association between 'Enrolment through Digital Marketing' and 'Internet uses'.

H14: There is an association between 'Enrolment through Digital Marketing' and 'Internet uses'.

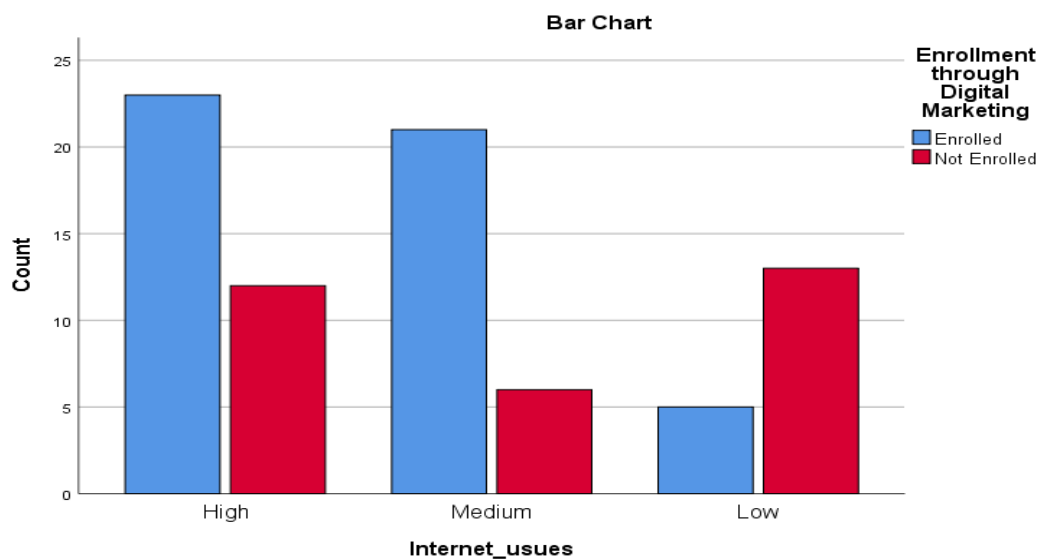
			Enrolment through Digital Marketing		Total
			Enrolled	Not Enrolled	
Internet uses	High	Count	23	12	35
		% within Internet uses	65.7%	34.3%	100.0%
		% within Enrolment through Digital Marketing	46.9%	38.7%	43.8%
	Medium	Count	21	6	27
		% within Internet uses	77.8%	22.2%	100.0%
		% within Enrolment through Digital Marketing	42.9%	19.4%	33.8%
	Low	Count	5	13	18
		% within Internet-uses	27.8%	72.2%	100.0%
		% within Enrolment through Digital Marketing	10.2%	41.9%	22.5%

Assessment of Digital Marketing in Promoting the Enrolment System in B-Schools: An Empirical Study in Kolkata

Total	Count	49	31	80
	% within Internet uses	61.3%	38.8%	100.0%
	% within Enrolment through Digital Marketing	100.0%	100.0%	100.0%

Internet uses

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.898 ^a	2	.003
Likelihood Ratio	11.940	2	.003
Linear-by-Linear Association	4.850	1	.028
N of Valid Cases	80		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.98.			



From the above analysis it has been observed that the p value of the variable is $< .05$. So, there is a significant difference between 'internet uses' and 'Enrolment through Digital Marketing'.

H₀₅: There is no significant association between 'Enrolment through Digital Marketing' and 'Subscriber'.

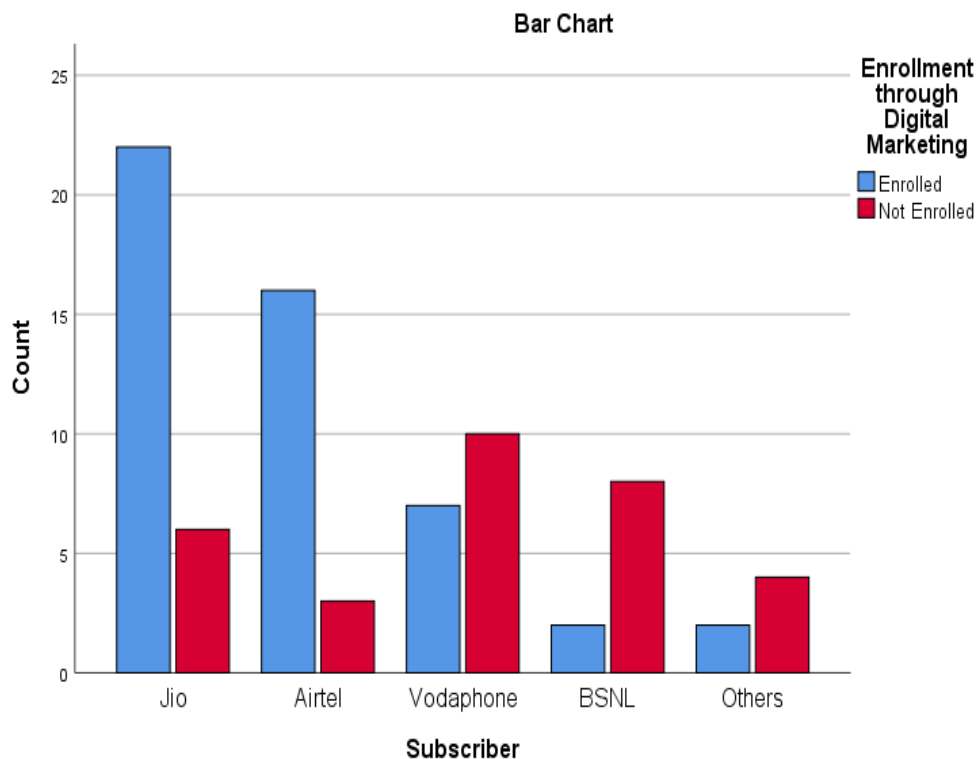
H₁₅: There is an association between 'Enrolment through Digital Marketing' and 'Subscriber'.

Subscriber * Enrolment through Digital Marketing Cross tabulation					
			Enrolment through Digital Marketing		Total
			Enrolled	Not Enrolled	
Subscriber	Jio	Count	22	6	28
		Expected Count	17.2	10.9	28.0
		% within Subscriber	78.6%	21.4%	100.0%
		% within Enrolment through Digital Marketing	44.9%	19.4%	35.0%

Assessment of Digital Marketing in Promoting the Enrolment System in B-Schools: An Empirical Study in Kolkata

	Airtel	Count	16	3	19
		Expected Count	11.6	7.4	19.0
		% within Subscriber	84.2%	15.8%	100.0%
		% within Enrolment through Digital Marketing	32.7%	9.7%	23.8%
	Vodaphone	Count	7	10	17
		Expected Count	10.4	6.6	17.0
		% within Subscriber	41.2%	58.8%	100.0%
		% within Enrolment through Digital Marketing	14.3%	32.3%	21.3%
	BSNL	Count	2	8	10
		Expected Count	6.1	3.9	10.0
		% within Subscriber	20.0%	80.0%	100.0%
		% within Enrolment through Digital Marketing	4.1%	25.8%	12.5%
	Others	Count	2	4	6
		Expected Count	3.7	2.3	6.0
		% within Subscriber	33.3%	66.7%	100.0%
		% within Enrolment through Digital Marketing	4.1%	12.9%	7.5%
	Total	Count	49	31	80
		Expected Count	49.0	31.0	80.0
		% within Subscriber	61.3%	38.8%	100.0%
		% within Enrolment through Digital Marketing	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.785 ^a	4	.001
Likelihood Ratio	20.467	4	.000
Linear-by-Linear Association	14.859	1	.000
N of Valid Cases	80		
a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 2.33.			



From the above analysis it has been observed that the p value of the variable is $<.05$. So, there is a significant difference between 'Subscriber' and 'Enrolment through Digital Marketing'.

Remarks from The Objective 1

From the objective 1 it has been observed that there is a significant association among age, residence, Internet uses, Subscriber with variable 'Enrolment through Digital Marketing' except Gender.

Sample Design for Objective 2

To measure the effect of Digital Marketing on student's enrolment system.

Sample Size: 80

Sample Unit: 1st year UG/PG Students

Testing Tool: Factor Analysis using SPSS 25

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.698
Bartlett's Test of Sphericity	Approx. Chi-Square	192.947
	df	45
	Sig.	.000

After KMO test on 80 respondents with 10 variables it has been observed that Sampling Adequacy result is .698, so it is >.50, means acceptable.

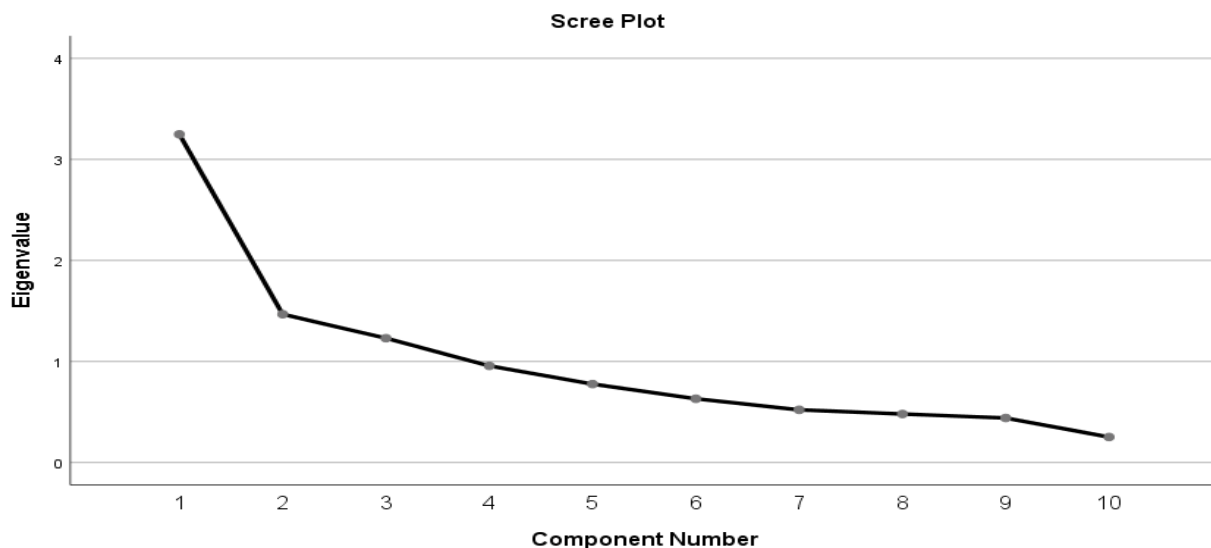
Variance Table

The variance table explained by the initial solution extracted components and rotated components are displayed.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.248	32.478	32.478	3.248	32.478	32.478	2.175	21.750	21.750
2	1.467	14.673	47.151	1.467	14.673	47.151	2.096	20.958	42.708
3	1.230	12.297	59.449	1.230	12.297	59.449	1.674	16.741	59.449
4	0.956	9.561	69.010						
5	0.776	7.757	76.767						
6	0.631	6.308	83.075						
7	0.521	5.210	88.285						
8	0.480	4.798	93.083						
9	0.440	4.400	97.483						
10	0.252	2.517	100.000						
Extraction Method: Principal Component Analysis.									

Scree Plot

The Scree Plot display the number of factors versus its corresponding Eigen value.... when no rotation is done, the Eigen values of the correlation matrix equal the variances of the factors.



Rotated Component Matrix

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The table contains the rotated factor loadings (Factor pattern matrix), which represent both how the variables are weighted for each factor but also the correlation between the variables and the factor. Because these are correlations, possible values from -1 to +1.

Rotated Component Matrix^a			
	Component		
	1	2	3
information_college	0.529		
College_website			0.714
Thirdparty	0.786		
Alumni_feedback	0.632		
Chat_Counselor's	0.647		
Facebook_Support			-0.698
Whatsapp_support		0.821	
YouTube_support		0.671	
e-mail_market		0.839	
SMS_marketing			0.66
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

After the Rotated Component Matrix 3 component have been observed for this study which influencing to students for enrolment thorough Digital Marketing. The following 3 components are given with explanation:

Third Party Portal and Online Counselling

In present situation, Colleges outsource their marketing through third party portals like Shiksha, College Dunia, College Dekho this third party portals provide correct information about the admission, infrastructure, and list of faculties. Thus these portals act as a guide for the students to take admission in the colleges of their choices. Sometimes this portal takes the email ID or phone number of the person searching about information. Through this portals counsellors of the respective colleges can counsel's students about their decisions of taking courses, methods of admission and other related queries. This procedure helps students in taking a confirmed decision which helps in reducing the uncertainty and choosing right career decisions Henceforth this portal which is a part of information based digital marketing helps in enhancing the enrolment in business management courses in the colleges.

Digital Contention Social Media

Social media is the major tool through which brand reputation can be enhanced. Colleges or B Schools give their advertisements through Social media apps like YouTube, WhatsApp, as well as through E mail marketing. Even few colleges have their separate YouTube Channels through they give update about events held in colleges to their subscribers. The tubers can see and have virtual tour to the college's campus through uploaded videos. Events different taglines are added like "A day in college" or "Fresher's views in College". Besides these special achievements are added in YouTube

or WhatsApp. All these events can be clustered and culminated to better admissions in colleges. This led to increase in enrolment in B Schools.

Website Content and Offline Marketing

Website content has a deeper impact on the college admission. Colleges generally display their information regarding courses, mode of admission affiliation details, mode of examinations, infrastructural and laboratory facilities etc. This helps students to take informed decisions regarding their admission or enrolment. Even this helps students to take preparation in various entrance examinations which is sometimes mandatory for taking admission in colleges. Even previous years cut off marks or merit list are displayed for flash time by few colleges which acts as motivation for students. On the other hand, SMS based marketing strategy (offline tool) helps student to take steps regarding enrolment in colleges.

Remarks from the objective2

From the objective 2 it has been remarked that 3 factors have been extracted through Rotated Component Matrix out of 10 variables.

Conclusion and Suggestion

From the objective1 is has been concluded that there is no significant association between 1) 'Gender' and 'Student Enrolment through Digital Marketing' where out of 80 candidates Male 46(Enrolled 36 and Not Enrolled 10) and Female (Enrolled 14 and Not Enrolled 20). 2) 'Age' and 'Student Enrolment through Digital Marketing' there is an association difference. 3) There is an association between 'Residence' and 'Student Enrolment through Digital Marketing' where out of 80 candidates 'Urban' 32 (Enrolled 25 and Not Enrolled 7), Semi Urban 22(Enrolled 15 and Not Enrolled 7) and Rural (Enrolled 8 and Not Enrolled 18). 4) There is an association between 'Internet uses' and 'Student Enrolment through Digital Marketing' where out of 80 High user 35(Enrolled 23 and Not Enrolled 12), Medium user 27(Enrolled 21 and Not Enrolled 6) and Low users (Enrolled 5 and Not Enrolled 13). 5) and lastly there is significant association between 'Subscriber' and 'Student Enrolment through Digital Marketing' where out of 80 candidates Jio 28(Enrolled 22 and Not Enrolled 6), Airtel 19(Enrolled 16 and Not Enrolled 3), Vodaphone 17(Enrolled 7 and Not Enrolled 10), BSNL 10 (Enrolled 2 and Not Enrolled 8) lastly Others 6(Enrolled 2 and Not Enrolled 4).

From the objective 2 it is concluded that out of 10 components 3 Factors have been extracted through Rotated component Matrix and their important is very high which help to candidates for their admission system through the help of Digital Admission Tools. They are:

- 1) Third Party Portal and Online counselling
- 2) Digital Content in Social media
- 3) Website Content and Offline Marketing

Limitation and Future Scope

The study was confined in the area Kolkata and their surrounding area in the field of Digital Marketing for the student enrolment system in B-school. In future Researchers Available on SSRN-Elsevier

can extend their area of study to other districts or even other states. In the future, researcher will explore their innovative idea and will continue to find more influencing factors that will motivate students for the enrolment through Digital Marketing tools and help to small scale industry those who are working on this idea. Different B-schools to promote their vision of imparting education through some tools like third party, social media, own portals, SEO (Search Engine Optimization) as well as they will change their strategy to trend our generation with higher education. This will help in making a new model that increases the enrolment System/Admission in private education sector. This study can be extended to engineering and technology stream in which the enrolment ratio and trend is lower than the previous quarter years.

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Factors Affecting Consumer's Online Shopping Buying Behavior

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ABSTRACT

Purpose – To investigate the factors affecting consumer's online shopping behavior.

Design/methodology/approach – A descriptive type of study using judgmental sampling for selecting the samples from online shopping users of Kanpur city. The data has been collecting with the help of questionnaire. The factor analysis is performed for identifying the factors, the nonparametric test has been used for hypothesis testing.

Findings – The study results suggest that consumers' online shopping behavior is being affected by several factors like demographic factors, social factors, consumer online shopping experience, knowledge of using internet and computer, website design, social media, situational factors, facilitating conditions, product characteristics, sales promotional scheme, payment option, delivery of goods and after sales services plays an important role in online shopping.

Research limitations/implications – The study results cannot be generalized to the all online shopping users because of small sample size and geographical location from where data is collected. Future studies may also apply some more statistical techniques to improve the conclusiveness of the findings reported in this study.

Practical implications – The results should be of interest to the online retailers in deciding their marketing program.

Originality/value – The paper is based on original work, the questionnaire has been found reliable after checking the cronback Alpha value. The KMO values supports the adequacy of sample size. It will help the academicians and scholars in their research work in the form of a literature on online shopping. It will also provide guidelines to online retailers in making their marketing program.

Introduction

The online shopping has been growing rapidly in India. The online shoppers has been increasing and their purchasing power increasing The annual spending power of Indian consumers have been increasing, it is projected to be more than \$1 trillion by 2021,

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driven by rising prosperity of emerging middle class people, whose population is expected to grow to 570 million by the time, (PwC report, 2012). Internet services are the backbone of online shopping, there will be 90 million 4G subscriber in India by 2018 (Bank of America Merrill Lynch (BoFA ML) report, Oct, 2015). The online shoppers can have over 30 million products across over 70 categories, including books, daily use products, consumer electronics and lifestyle at the website of Flipkart. Amazon has also increased its range of products from 18 million to 30 million and Snapdeals has been offering over 15 million unique products, SBI Research. There are more than 150 online shopping websites available in India providing goods and services directly to the consumers. These e-retailers provides an electronic catalogue of products. The consumer selects the products from their catalogue and purchases the product by comparing it with other products. It has many advantages like global reach, variety of products with required information, According to Taylor Nelson Sofres Interactive's "Global e-Commerce Report," the worldwide increase in e-commerce activity is most evident for certain product categories, such as books, music CDs, videos, electrical and electronic goods, sports equipment, and toys, and for services such as consumer banking and finance, and health information (Direct Marketing 2002). It saves time during the purchasing of goods, because it eliminates the traveling time required to go to the traditional store. Consumer can purchase products 24X7, it also provides products at minimum possible price, and consumer gets offers and discounts on purchasing products online. The consumers have set their mind to do online shopping due to the discounts, gift, and quality factor in e-store. [Anders Hasslinger, (2007). Online shopping also has some disadvantages like when we do not purchase goods after searching it online then it results in wasting of time, it cannot be done without internet connection and one electronic gadgets (computer and mobile), it required extra money for arranging these two things. When we get faulty products, it takes time in reverse pickup, replacement and refund process. The products cannot be touched and feel. Online shopping websites also charge money for delivery of goods in some cases, online shopping does not have delivery of goods in some regions. Many researchers have conducted investigations for identifying the driving factors which affect consumer's online shopping behavior, what drive consumer's to buy online? (Toñita Perea y Monsuwé Benedict G.C. Dellaert Ko de Ruyter, 2004), What Makes Consumers Buy from Internet? (Limayem, Khalifa, and Frini, 2000), Barriers to Online Shopping in Switzerland (Rudolph, Rosenbloom, and Wagner, 2004)

Literature review

According to Said S. Al-Gahtani & Malcolm King (1999) relative advantage of the system contributed most to attitudes and satisfaction. Compatibility (of the system to the task performed) contributed most to usage and is the most important antecedent of the belief variables, including relative advantage. They also advised that the usage-satisfaction relationship is unclear and confusing and there is a strong positive correlation between satisfaction and usage. They advocated that attitude is 'more than' a substitute for satisfaction and that satisfaction should be used as a complement to usage when evaluating end-users' acceptance of computer technologies.

According to Toñita Perea y Monsuwé Benedict G.C. Dellaert Ko de Ruyter, (2004) attitudes toward online shopping and intention to shop online are not only affected by ease of use, usefulness, and enjoyment, but also by exogenous factors like consumer traits, situational factors, product characteristics, previous online shopping experiences, and trust in online shopping.

According to Lakshmanan (2016) product preferences, problems faced by the customers, more number of products with discount, risk perception and after sales services are the factors which affects customer satisfaction towards online shopping.

According to Evanschitzky, Iyer, Hesse, Ahlert (2004) financial security of the transactions convenience and site design are the most important factors affecting e-satisfaction.

According to Szymanski & Hise (2000) consumer perceptions of online convenience, merchandising (product offerings and product information), site design, and financial security are dominating factors affecting e-satisfaction assessments.

According to Yooncheong Cho, Fjermestad and Hiltz (2003) perceived price, information search effort, and ego involvement on the degree of dissatisfaction are significantly affected by product category. They also investigated that the effect of the degree of dissatisfaction on propensity to complain is significantly different based on product category on the Web.

According to Sirrka L., Peter A. (1996) Product perceptions, shopping experience, customer service, and perceived consumer risk are the factors affecting electronic shopping on the World Wide Web.

According to Sang Yong Kim & Young Jun Lim (2001)) the factors of entertainment, convenience, reliability, and information quality and speed plays important role in customer satisfaction while shopping online.

According to Hausman, Siekpe (2008) Human factor (no. of visitors to site), Entertainment, informative, irritation, usefulness, attitude towards website, revisit intention are the important aspect of a good website and it affects consumer's online shopping buying behavior. According to Bai, Law, Wen (2008) website quality has a direct and positive impact on customer satisfaction, and that customer satisfaction has a direct and positive impact on purchase intentions.

According to Hasanov Jasur, Khalid Haliyana (2015) website quality is not the only determining factors that could increase consumer purchasing intention. Other qualities such as good customer service, efficient product distribution and logistics and also positive reviews from customers also play an important role.

According to Nitish Singh Georg Fassott Mike C.H. Chao Jonas A. Hoffmann, (2006) attitude toward using the web site is shown to have a strong impact on their intent to purchase from these international websites.

According to Forsythe Sandra M., Shi Bo (2003) Internet shoppers perceive several risks in Internet shopping, these perceived risks may not significantly influence Internet patronage behaviors among current Internet shoppers in an extensive and systematic way.

According to Constanza Bianchi Lynda Andrews, (2012) perceived risk online had an inverse relationship with consumers' attitude and that attitude has a positive influence on intentions to continue purchasing.

According to Juniwati (2014) perceived usefulness, ease of use and risk have significant influence on attitude toward online shopping. Where perceived usefulness and ease of use have not significant influence toward intention to shop online but perceived risk and attitude have significant influence toward intention to shop online.

According to Hernandez Blanca, Jimenez Julio, Martin M. Jose (2008) self-efficacy and usefulness are important perceptions in explaining the behaviour of experienced consumers, while ease of use does not have a significant influence.

According to Azzam Al, Mahmoud Abdel Fattah (2014) perceived ease of use; perceived behavioral control, attitude, and perceived usefulness are essential antecedents in determining online consumer behavior and there is no significant relationships between trust and online purchasing behavior.

Research Methodology

Respondents were selected from Kanpur city because it had convenience for the researcher. The sample selected had at least one time online shopping experience. The size of the sample selected was 162. A combination of Judgmental and snowball sampling were used because of the list of the online shoppers was not available. The first set of respondent was selected on the basis of judgement. Subsequently additional units were obtained on the basis of information given by initial sample units and then further referrals were taken from those selected in the sample. Total 250 questionnaires were distributed out of that 175 was received and 13 questionnaires were found incomplete. So only 162 questionnaires were selected finally for further analysis of data. The structured questionnaire including dichotomous, multiple choice, and semantic differential questions. All the differential questions are considered to be based on interval scale. The arithmetic mean, standard deviation, reliability test based on Cronbach's Alpha value, factorial analysis were the statistical measures and test used for data analysis.

Data Analysis

Frequency distribution of demographic variables

Table 1 was drawn to understand the socioeconomic background of the respondents and it was found that out of the total sample (n=162) 77.8% consisted of male and 22.2% of female. Further we have divided the age group in four categories and we found that more than half (85.2%) of respondents were below 25 years of age, while (9.3%) belonged to the age group of 25 to 30, (5.6%) respondents belonged to the age group of 30-35 years of age. We have categorized marital status in two categories i.e. un-married and married and it was observed that more than half (88.9%) of respondents were un-married and (11.1%) of them were married.

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Factors Affecting Consumer's Online Shopping Buying Behavior

We have categorized education level in five categories i.e. High school, intermediate, bachelor, master, above master degree. It was observed around (63%) of respondents were bachelor, (22.8%) were masters, (10.5%) having intermediate, (1.2%) having high school and (2.5%) were having above master degree. We have categorized family monthly income in three categories, It was observed around (80.9%) of respondents were having less than ₹ 25000, (16%) were in income group 25000 to 50000, (3.1%) were in income group of greater than 50000.

We have categorized occupation in three categories i.e. self-employed, employed and student, it was observed that more than half (80.2%) of respondents were students, (17.3%) of respondents were employed and (2.5%) of them were self-employed. We have also categorized the frequency of shopping online of respondents in same four categories i.e. daily, weekly, monthly and annually. It was observed that more than half (63%) of respondents were having monthly, (16.7%) of

Table1: Demographic Profile of respondents			
Respondent		Frequency	Percent
Gender	Male	126	77.8
	Female	36	22.2
Age	15-20	57	35.2
	20-25	81	50.0
	25-30	15	9.3
	30-35	9	5.6
Income	less than 25000	131	80.9
	25000-50000	26	16.0
	Greater than 50000	5	3.1
Education	High school	2	1.2
	Intermediate	17	10.5
	Bachelor	102	63.0
	Master	37	22.8
	Above master degree	4	2.5
Marital Status	Married	18	11.1
	Unmarried	144	88.9
Occupation	Self employed	4	2.5
	Student	130	80.2
	Employed	28	17.3
Frequency of shopping online	Daily	7	4.3
	Weekly	27	16.7
	Monthly	102	63.0
	Annually	26	16.0
Total		162	100.0

respondents were having weekly, (16.1%) of them were having annually and (4.3%) of them were having daily online shopping.

Measures

Reliability and validity assessment

The Cronbach's Alpha statistic was used to check reliability of the scale developed for evaluations statements used in the questionnaire. The alpha coefficient for the 20 statement of questionnaire is .707 suggesting that the items have relatively consistency see table-2.

Table-2: Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.661	.707	20

Exploratory Factor Analysis

KMO and Bartlett test of sphericity sign posted that the data was suitable for exploratory factor analysis. As the KMO measures the sampling adequacy that should be greater than 0.5 and it was 0.751 indicating that the sample was adequate to consider the data suitable for factor analysis.

From the table 3, it can be observed that Bartlett's test of sphericity was 719.907 significant at 0.000 level of significance. It indicates that the correlation matrix was not an identity matrix. The above facts show that the data collected on different attributes of online shopping from respondents were suitable for factor analysis.

Table 3: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.751
Bartlett's Test of Sphericity	Approx. Chi-Square	719.907
	df	190
	Sig.	.000

The raw scores of 20 items were subjected to Principal Component Analysis (PCA) to identify the underlying factors that affect the consumer's online shopping buying behaviour. After the analysis, it was found that there were seven factors, with 61.361% of cumulative variance explained through the exploratory factor analysis. Following are the details of factors identified through EFA

Factor	Eigen Value	% Variance	Elements converged	Factor Load
Customer satisfaction	4.61	23.048	The information given about the products and services on the internet is sufficient.	0.739
			I do not mind paying in advance for the products on the internet	0.696
			I am satisfied with the customer services provided by the online shopping	0.571
			In my overall experience I am satisfied with online shopping.	0.562
			Online shopping Provides guarantee and warrantee	0.462
Availability of products	1.661	8.304	Online shopping is more expensive than sold in retail store.	-0.709
			Online shopping provides variety of products for purchase.	0.457

Factors Affecting Consumer's Online Shopping Buying Behavior

Perceived usefulness	1.414	7.07	Online shopping provides special offers/discounts for purchase.	0.697
			Large selection of products.	0.648
			I am satisfied with the product tracking process provided shopping.	0.645
			Simplicity of purchase process	0.494
Economic	1.307	6.533	Easy refund and return policy	0.651
			Prefer online shopping if online prices are lower than actual price	0.641
			Detailed description and information availability to every product	0.494
Website quality	1.074	5.369	Hidden charges causes confusion while purchasing product	0.812
			Prefer more secured website	0.743
Perceived risk	1.044	5.218	Online shopping is risky	0.420
			Hesitate to give my credit debit card number	0.843

Discussion and conclusions

In this study we found that there are seven factors that affect consumer's online shopping buying behaviour. These factors are perceived ease of use, perceived risk, perceived usefulness, effect of website design, Economic factor, availability of products, and customer satisfaction.

Limitation and future research

A limitation of this study lies with the sample size and in the age distribution of the sample used in this study. Sample size 162 is small and approximately 50 percent of sample was in the age group of less than 25 years, thus, the results may not be generalized for consumers over age of 30- 35. We can develop regression model on the basis of the findings of this study. The geographical area for this study was Kanpur region only.

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A Review of Financial Patterns on Higher Education Within the Brics Nations: A Case Study on South Africa

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ABSTRACT

This paper discusses how the analysis of investment trends in human capital in the BRICS nations is executed. First, the background of the study sets the research into momentum, highlighting the role of education in the economy and how the economy, in turn affects, education. More aspects of education such as the three levels of education (primary, secondary and tertiary education), their importance, the accessibility and financing of education and eventually its dichotomy, are discussed. It is from the background that the problem statement is derived, which gives rise to the purpose of the study. The aims and objectives are derived from the problem statement, giving rise to the research questions. The importance of the study is also discussed in full view of the scope of the study. The methodology and the assumptions made in the study are briefly outlined, followed by the definition of terms and the layout of the whole research.

Introduction

Education is a very dynamic phenomenon with a number of facets upon which intriguing research can be done. In addition, education is inseparably and intricately linked to many aspects of the economy. Through education, the quality and quantity of labor supply is impacted, consequently having a bearing on the means of production, output levels, the type and quality of outputs and the price of these finished goods and services. This further extends to demand levels, the nature of elasticity of demand (showing expenditure patterns) thus influencing living standards and population growth. Finally, yet importantly, the impact of education reaches out even to trade levels between nations. (Cage, 1989; Lloyd, Kaufman and Hewett, 2000; Yusuf, 2009; Ivanovic, 2011). Having impacted the economy, the proceeds of economic growth find themselves back into the education system.

Education is thus a very vital aspect of the economy. It has led to the transformation and transition of the economies worldwide – from agro-based, industrial-based and the present day emerging knowledge-based economies. According to a study by UNESCO-UIS/OECD (2003), in the near future, workers who create and use knowledge to add new value to products and services will be a prominent and perhaps the dominant group in the workforce of some UNESCO World Education Indicators (WEI) countries. This is a group consisting of some developing and emerging market countries. This means that the contribution of the educated labor force will lead to major advancement in the economies. These so-called “knowledge workers will be identified across various economic sectors from information technology to agriculture and across computer programmers to teachers. This is attributed to the fact that their work is increasingly borderless as knowledge travels

more limitlessly than money. This makes educated man or woman indispensable with any field.

It becomes vital that the level of education in a country improves, coupled with its accessibility to as many people as possible. This will result in an empowered nation and a vibrant economy. This substantiates Nelson Mandela's (2003) quote, "Education is the most powerful weapon which you can use to change the world."

As valuable as education is, unfortunately, it is often associated with excludability hence its classification as a quasi-public good as opposed to a public good. Public goods are characterised by non-rivalry and non-excludability qualities. Individuals have been deliberately or inadvertently denied access to education, due to inability to afford the fees associated with it (class discrimination) or due to racial divides, or simply due to the small number of schools available providing quality education (Basch, 2011).

The international community, as a result, has placed great value on primary education, one of the three main aspects education, the other two being secondary and higher education. Through the establishment of second Millennium Development Goal, the United Nations Millennium Campaign of 2002, advocated for all countries to work towards universal primary education as a minimum standard of education in each country by 2015.

Whilst this is a good stance by the global world, primary education is however insufficient to sustain and bolster economic growth – higher education is. Primary education is just a means toward an end. Higher education, also known as tertiary education produces returns that significantly impact the economy more. Rani (2006) puts it well, saying that higher education institutions provide the specialized human capital to corner the gains of globalization. The three – primary secondary and higher education – are irrevocably interlinked; one cannot get tertiary education without the other two, neither can he gain secondary education without primary education. He adds that higher education institutions play an important role in setting the academic standard for primary and secondary education. This posits that the existent quality of education has a great bearing on the future quality of education. To improving tomorrow's education calls on education reforms today.

Both primary and secondary education enable an individual to obtain sustenance, whereas tertiary education permits social class mobility (Yusuf, 2009). "Higher Education is no longer a luxury; it is essential for national, social and economic development" (UNESCO, 2000). Nations should ensure that whilst there is focus on primary and secondary education, tertiary education is not neglected, thus necessitating the establishment of adequate and well-equipped tertiary educational institutions coupled with high enrolment rates.

It is in the light of this truth that Prakash (2007) advocates that quantitative expansion and qualitative improvement of higher education command the highest the priority in policy discourse. This is essential to avoid the situation that has been prevalent in India. In 2002/3, India is observed to hold the largest number of higher education institutions worldwide but has a smaller gross enrolment ratio (GER) of 12. This is lower than that of other countries with even fewer universities such as United Kingdom (UK) and United States of America (US) with GERs of 64.3 and 83.2 respectively in 2002/3.

The accessibility of and enrolment into higher education institutions depend on students' access to finance, which in turn depends on the policies and reforms of a nation. The reforms consequently affect the financing patterns as they are based on the values by the ruling government. A government that priorities primary education spends more on it. One that values health more will definitely have more detailed reforms channeled to the health sector. In South Africa, for instance, the 2012/2013 and the 2013/14 national budgets have shown that the largest expenditure is towards social services, chief of these being health and education (Budget Speech, 2012, 2013). This shows that the domestic policy is directed toward the betterment of people's lives.

In 2011, education expenditure constitutes 6% of GDP, which is 19.5% of total budget expenditure. Brazilian expenditure on education is almost similar to South Africa education expenditure with 5.8% and 18.1% respectively. India, on the other hand, spent the least in this group on education – 3.3% of GDP, which is 10.5% total expenditure in the same year. Similar to India, the Russian Federation is observed to have contributed 3.6% of its GDP, which constitutes 13% of its consolidated budget in 2004. The returns of the investment are of great fascination. Though the Russian Federation (simply referred to as Russia from henceforth) contributes less to investment in education it has the best performance with a GER of 76 and the highest graduation rates whilst India's GER is a mere 18 (World Bank; Wikipedia; UNESCO-UIS/OECD, 2003) in 2004.

The role of providing and financing education is not only limited to the public sector but also to the private sector too. Initially education was seen as a government responsibility. There have been trends that show an increased role by the private sector in the education, from primary to higher education. This is due to the failure of the government to provide adequate educational facilities and financing due to budget constraints, leading to the need for sharing the cost of education. As a result, the education burden is transferred to students and parents (Rani, 2006; Steyn and De Villiers, 2006). Some, usually the majority, are unable to bear the cost alone due to inequitable distribution of wealth. This leaves a void leading to the prevalence of the private sector as funders and providers of educational services, some of which are profit-oriented. This explains the origins of the dichotomy of education (division into private and public education). It is inspired by the failure of government (Sanyal and Martin, 2006). The classification into either group (private or public education) is done according to institution ownership, source of funding, and control over curriculum, admissions, teacher appointments and payment, and supplies (UNESCO-UIS/OECD, 2003).

In the light of the above, one other interesting issue about higher education is that higher education has been made a tradable commodity through studies abroad, cross border provision of higher education, private institutions run by foreign agencies, and the employment of foreign teachers. Hence these above mentioned private players may consist of international organizations. This gives a completely new dimension to the financing of higher education (Sanyal and Martin, 2006).

Moreover, the impact of education on the economy has been elaborated on. The other side of the coin is that the economy impacts the education funding greatly from both the public and private funders. When there is economic growth, there is an increase in income such that private institutions gain a surplus and are able to fund more. The same happens to government, they receive a budget surplus and are able to divert more finances to other aspects of the economy including education.

It is clear that the dynamics in education with regard to accessibility, enrolment, reforms that affect nature and levels of investment into education, returns on the investment and ownership of institutions vary per country. Studies have been done on various aspects of education such as its impact on the economy, the demand, financing and provision of education. What makes this study unique is that it attempts to analyse how education policies impact financing (investment) trends in higher education in the BRICS (Brazil, Russia, India, China and South Africa) countries.

Problem Statement

This study intends to examine the investments into and returns from human capital through education. This entails the establishment of an understanding of financing patterns in higher education, the triggers of such trends and their impact in the economy. The study will involve a comparative analysis of these different nations; the recently formed association of emerging markets known as the BRICS nations. These members are namely Brazil, Russia, India, China and South Africa.

Purpose of the Study

This research is investigatory or rather exploratory in nature in order to find out the finance patterns in higher education. Moreover, there is an explanatory nature to give readers a greater understanding of this education phenomenon under study. There is also an element of comparative analysis in this study so that the similarities and dissimilarities are better appreciated by readers be they scholars, academics, policy makers or civil society organizations.

Aims and Objectives

The main aim is to determine the nature of higher education in the BRICS countries, the financing patterns in each of the BRICS countries and the causes thereof with the aim to compare results in a manner that will probably allow conclusions to be drawn and consequently the drafting of recommendations from the performance of other nations.

The objectives of this study are to:

- To explore the many facets of higher education.
- To investigate and gain an understanding on education reforms in each of the BRICS nations.
- To investigate the nature and pattern of funding higher education for each of the BRICS nations.
- To determine the factors that influence these finance patterns.
- Determine the Granger causality between the funding patterns (dependent variables) and its input variables.
- To carry out a comparative analysis in order to determine any similarities and dissimilarities and obtain any lessons or recommendations for all nations from the others.

Research Questions

From the research objectives highlighted above, it is possible to generate the following research questions:

- What facets of education exist?
- What education reforms are in place in each of the BRICS nations?

- What is the nature and pattern of higher education funding for each of the BRICS nations?
- What factors affect these finance patterns?
- Is there any Granger causality between higher education finance patterns and the factors of affecting these patterns?
- What impact does investment patterns on human capital have on GDP and what is the direction of Granger causality?

Rationale of the Study

This study enhances the available understanding and information on education, particularly on how investment is done in human capital and its impact on the economy as a whole. This involves the comparative analysis of financing patterns of tertiary education in the BRICS member nations. It is quite apparent that, little research has been done on this topic, making this study quite unique.

This study is carried out to avail information to the leadership of educational institutions, both public and private. It will help them understand the dynamics and importance of higher education to channel their mindsets towards the provision of quality and education to as many as possible in the best possible manner. The result of this is the attainment of Pareto-efficiency in the educational institutions and the nation as a whole.

Another significant fact is that this research presents the concepts financial investment into tertiary education to parents and scholars so that they too may see the importance of the role higher education plays in their lives in the present and forthcoming generations. This will inspire them to make the right decision presently, which is to take advantage of all available opportunities to amass knowledge.

Because the benefits of investing in higher education shall be addresses at some point in the study, this research will also equip potential financiers of scholars with the knowledge that will motivate them to fund less fortunate members of the community through scholarships and bursaries.

The study has been done in a bid to equip policy-makers with the necessary knowledge of the transition occurring presently from industrial to knowledge-based economies. This permits the policy-makers to conjure up policies and reforms that will benefit the nation in the long term by encouraging education systems the work towards better quality higher education facilities and thus a more equipped workforce that will best appropriate the benefits of the knowledge-based economy.

Scope and Limitations of the Study

Focus on this study is on the investment trends on human capital, precisely on the financing patterns of higher education. This is a comparative study on the BRICS member nations, namely Brazil, Russian Federation (Russia), India, China and South Africa.

The study is based purely on secondary research at an aggregate level for the abovementioned countries. Furthermore, consideration is given to the primary markets only, not to the derivative markets.

In the event that the word investment is used, one should bear in mind that this word, investment, refers to financial investment, which is the funding of education, not real investment unless stated otherwise.

Methodology

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The model is multivariate in nature such that multiple regression using Ordinary Least Square (OLS) analysis is used to determine the linear relationship between the dependent and explanatory variables. The finance trends (FT) in higher education is the dependent variable. The factors that affect the financing trends (explanatory variables) are the level of economic growth rate (ΔY), the cost of higher education is divided by the number of students enrolled to obtain the cost per student (C) followed by the expenditure by government on higher education (GE) and the inflation rate.

Prior to regression analysis, the data is tested for stationarity, by means of the correlogram and Augmented Dickey Fuller (ADF) Tests to test for non-stationarity, indicated by the presence of unit roots in the times series. After running the regression, co-integration tests, the Error Correction Method, diagnostic tests and stability tests are done on the residuals. The direction of causality between the dependent variable, and the independent variables is investigated using the Engel-Granger causality test. The outcomes are interpreted and discussed.

A crucial part of this methodology includes comparative analysis of the regression results from each nation are compared in order to find similarities and contrasts.

Conclusion

The paper has discussed the fact that education is an eclectic topic. The role of education in the economy has been discussed together with how the economy, in turn, affects education. Education has been categorized into primary, secondary and tertiary levels, each with its own importance. The three are conjunctive for the education system of operate effectively. Tertiary education has been seen shown to be of the greatest contribution to economic health. Other subtleties of education have been discussed such as the dichotomy of education, its availability, funding, the availability and financing of education and eventually its dichotomy.

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Impact of GST on Stock Indices in India

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ABSTRACT

On 1st July, 2017, India witnessed the launch of the Goods & Services Tax in India. It was the historic moment of India which was the culmination of 14-year long journey which began in December 2002 when the kelkar's Task force on indirect taxes suggested a comprehensive Goods and service tax based on the value added tax principal. Our study specifically focuses on the impact of GST on stock indices. Various stock indices data of BSE and NSE was taken before and after the implementation of GST. Paired T test was applied and found out that there is a significant difference between pre and post implementation of GST.

Introduction

On 1st July, 2017, India witnessed the launch of the Goods & Services Tax in India. It was the historic moment of India which was the culmination of 14-year long journey which began in December 2002 when the kelkar's Task force on indirect taxes suggested a comprehensive Goods and service tax based on the value added tax principal. The proposal to introduce GST was first mooted in the budget speech in the financial year 2006-07, since the proposal concerned restructuring and reform of not solely the indirect taxes levied by the Centre however additionally the states. There is a responsibility of preparing a design and plan of action for implementation of GST was assigned to the empowered committee of the state finance ministers which has been formed earlier of the implementation of the value added tax. The empowered committee released its first discussion paper on goods and services tax in November, 2009. The introduction of GST is the momentous event for India. GST has been implemented in many countries across the globe and many more are in pipeline.

The concept of GST is vast enough to understand but undoubtedly it has simplified the giant tax structure by supporting and enhancing the economic growth of a country **(Dani, 2016)**. GST is a tax which is imposed and on multiple stages of goods. It is a one tax which is solicited by central and state government for consuming or supplying goods and services within the state or union territory. It is a comprehensive tax levy on manufacturing, sale and consumption of Goods and services at a national level **(The Economic Times, 2009)**. **Payne (1990)** before the implementation of GST in Canada has mentioned in his paper that implementation of GST will have direct positive impact on U.S. exporters. Further he also added that due to the transparent nature of GST, it will be easier for the exporters to trade.

Review of Literature

Valadkhani (2005) has made effort to quantify the time span of goods and service tax effect on growth rate of consumer price index quarterly for which he take GST and growth rate of 11 groups of consumer price index and he applied augmented dickey fuller (ADF) test and Kwiatkowski Phillips Schmidt shin KPSS test and finally his study concludes that before or after the announcement of goods and service tax there were no significant increment in prices and effect of goods services tax on price of seven group of consumer price index out of eleven were found to be significant and other remaining four group of consumer price index were found to be insignificant.

Roy (2017) tried to conceptually evaluate the goods and service tax which has been implemented in India w. e. f from 1 July 2017. Further he suggested that goods and service tax which is a substitute of indirect tax in India will lead to increase in economic activity there by leading to increase in development activities.

Rao (2008) conceptually studied the goods and services tax for India which outlines the goods and service tax in India and tried to solve the issue of interstate implementation of GST. Finally, study suggested that the contribution of unregistered manufacturing company in total GDP is declining as comparison to registered one and if this trend continues then there is extent for lowering the tax rate and at last this study declared that the goods and service tax would affect different state differently.

Sankar (2017) made an effort do the conceptual study to check out the impact and consequence of goods services tax on different industries in economy like India the study found to be descriptive in nature and used exploratory technique as well as secondary has been used for the study. The main objective of study was to tell the concept, objectives of goods and services tax and its consequences in India and its effect on various industries.

Gupta (2015) studied the problems of double taxation in India with the aim of finding the solution for the problem of double taxation of income and the study affirm that Indian tax structure is needed to be reform.

Rungta (2017) check out the impact of goods and service tax on SMB's and SME's his study emphasize on the need of GST for small businesses in their long run growth further he mentions that once the onetime cost of technology adoption and financial services have been absorbed the price of the product and services will automatically will come down there by helping small businesses in the long run and henceforth providing new opportunities for growth.

McKie (1990) investigate the impact of goods and service tax on Canadian banking system. this study focuses on the input of an educational system which has resulted in the output of most of services provided by bank that will be exempted from GST further it has also been concluded that when goods and services are taxable then GST works well with the system and the problem arises when there is tax exempt supply.

Financial express (2017) in its article of impact of GST on infrastructure have emphasize that implementation of credit restriction can have an adverse effect on the infra sector. It also states then higher GST rate on work contract will be nullify by ITC unless and

until a proper explanation and clarity is been provided for the aforesaid credit restriction.

Irwin and sherry (1990) has shown the impact of GST on asset management where GST suggest 7% of federal tax on goods and services which is sold in Canada where GST substitute the prevailing 13.5% federal sales tax

Research Methodology

The study was causal in nature as the emphasize was made to analyze the impact of GST implementation on selected stock indices of India and as a sample design population of all the sectoral stock indices of India has been taken and the sample size for the study was the sectoral indices of BSE and NSE. Daily data of BSE SENSEX, BSE IT, BSE FMCG, BSE AUTO, BSE RELITY, CNX NIFTY, CNX IT, CNX FMCG, CNX AUTO, and CNX RELITY was the sample element of the study with non-probability purposive sampling technique. The tools for data collection which are been used in the consist of Secondary in nature and this secondary data of selected sectoral stock indices of BSE and NSE was collected from their official website and the first tool which are been used for analyzing data was non parametric test (One Sample Kolmogorov-Smirnov Test) to check the normality of the data and secondly to check the before and after effect of GST on selected sectoral stock indices Paired sample t test was applied.

Results

H01: the data is normally distributed

One-Sample Kolmogorov-Smirnov Test

	N	Normal Parameters ^{a, b}		Most Extreme Differences			Kolmogorov-Smirnov Z	Asymp. Sig. (2-tailed)
		Mean	Std. Deviation	Absolute	Positive	Negative		
PRELOGSENSEX	82	4.4791	.01129	.124	.099	-.124	1.127	.158
POSTLOGSENSEX	82	4.5049	.00676	.085	.085	-.047	.773	.589
PRELOGBSEIT	82	4.0043	.01237	.106	.078	-.106	.964	.310
POSTLOGBSEIT	82	4.0068	.00795	.103	.082	-.103	.931	.351
PRELOGBSEFMCG	82	3.9801	.02143	.148	.129	-.148	1.342	.055
POSTLOGFMCG	82	4.0069	.01016	.190	.190	-.108	1.721	.005
PRELOGBSEAUTO	82	4.3592	.01720	.141	.141	-.105	1.272	.079
POSTLOGBSEAUTO	82	4.3859	.00883	.057	.052	-.057	.520	.950
PRELOGBSERREALITY	82	3.2639	.05190	.221	.134	-.221	2.001	.001
POSTLOGBSERREALITY	82	3.3305	.01288	.117	.075	-.117	1.059	.212
PRELOGCNXNIFTY	82	3.9699	.01078	.108	.083	-.108	.974	.298
POSTLOGCNXNIFTY	82	3.9986	.00740	.091	.091	-.032	.827	.501
PRELOGCNXIT	82	4.0183	.01188	.101	.086	-.101	.915	.372
POSTLOGCNXIT	82	4.0257	.00788	.078	.051	-.078	.710	.695
PRELOGCNXFMCG	82	4.3854	.02294	.163	.163	-.157	1.480	.025
POSTLOGCNXFMCG	82	4.4105	.01249	.226	.226	-.105	2.048	.000
PRELOGCNXAUTO	82	4.3854	.02294	.163	.163	-.157	1.480	.025
POSTLOGCNXAUTO	82	4.4105	.01249	.226	.226	-.105	2.048	.000

PRELOGCNXREALITY	82	2.3821	.04575	.202	.114	-.202	1.831	.002
POSTLOGCNXREALITY	82	2.4470	.01359	.075	.057	-.075	.676	.750

One-Sample Kolmogorov-Smirnov check is employed to check whether or not a sample comes from a selected distribution. This test is used in a situation where a comparison has to be made between an observed sample distribution and theoretical distribution further this test is used as test of goodness of fit and is ideal when the size of the sample is small. It compares the accumulative distribution function for a variable with a specified distribution.

From the above table of One-Sample Kolmogorov-Smirnov Test all the Kolmogorov-Smirnov z values are significant more than 5 % of significance level except BSE FMCG, BSE RELITY, CNX FMCG, CNX AUTO and CNX REALITY thereby leading to the rejection of null hypothesis indicating that the study variables are not normally distributed. Since the study was secondary in nature therefore we cannot expand the variable for further normal distribution and hence we can carry out our further research.

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRELOGSENSEX	4.4791	82	.01129	.00125
	POSTLOGSENSEX	4.5049	82	.00676	.00075
Pair 2	PRELOGBSEIT	4.0043	82	.01237	.00137
	POSTLOGBSEIT	4.0068	82	.00795	.00088
Pair 3	PRELOGBSEFMCG	3.9801	82	.02143	.00237
	POSTLOGFMCG	4.0069	82	.01016	.00112
Pair 4	PRELOGBSEAUTO	4.3592	82	.01720	.00190
	POSTLOGBSEAUTO	4.3859	82	.00883	.00098
Pair 5	PRELOGBSERREALITY	3.2639	82	.05190	.00573
	POSTLOGBSERREALITY	3.3305	82	.01288	.00142
Pair 6	PRELOGCNXNIFTY	3.9699	82	.01078	.00119
	POSTLOGCNXNIFTY	3.9986	82	.00740	.00082
Pair 7	PRELOGCNXIT	4.0183	82	.01188	.00131
	POSTLOGCNXIT	4.0257	82	.00788	.00087
Pair 8	PRELOGCNXFMCG	4.3854	82	.02294	.00253
	POSTLOGCNXFMCG	4.4105	82	.01249	.00138
Pair 9	PRELOGCNXAUTO	4.3854	82	.02294	.00253
	POSTLOGCNXAUTO	4.4105	82	.01249	.00138
Pair 10	PRELOGCNXREALITY	2.3821	82	.04575	.00505
	POSTLOGCNXREALITY	2.4470	82	.01359	.00150

In the above table of paired sample statistics, the mean of pre GST value is less than the later value. the total number of days in each condition is 10 since our paired sample statistics revealed that the mean number of sectoral indices of BSE and NSE for pre GST was less than the mean number of after GST concluding that stock indices of pre GST does not affect significantly than the stock indices of post GST.

H02: there is statistically no difference between BSE and NSE sectoral indices of pre and post GST.

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PRELOGSENSEX - POSTLOGSENSEX	-.02581	.01481	.00164	-.02907	-.02256	-15.781	81	.000
Pair 2	PRELOGBSEIT - POSTLOGBSEIT	-.00248	.00921	.00102	-.00451	-.00046	-2.443	81	.017
Pair 3	PRELOGBSEFMCG - POSTLOGFMCG	-.02677	.02080	.00230	-.03134	-.02220	-11.653	81	.000
Pair 4	PRELOGBSEAUTO - POSTLOGBSEAUTO	-.02673	.02168	.00239	-.03149	-.02196	-11.163	81	.000
Pair 5	PRELOGBSERREALITY - POSTLOGBSERREALITY	-.06662	.05483	.00606	-.07867	-.05457	-11.001	81	.000
Pair 6	PRELOGCNXNIFTY - POSTLOGCNXNIFTY	-.02870	.01610	.00178	-.03224	-.02517	-16.150	81	.000
Pair 7	PRELOGCNXIT - POSTLOGCNXIT	-.00733	.00838	.00093	-.00918	-.00549	-7.929	81	.000
Pair 8	PRELOGCNXFMCG - POSTLOGCNXFMCG	-.02502	.01902	.00210	-.02920	-.02084	-11.915	81	.000
Pair 9	PRELOGCNXAUTO - POSTLOGCNXAUTO	-.02502	.01902	.00210	-.02920	-.02084	-11.915	81	.000
Pair 10	PRELOGCNXREALITY - POSTLOGCNXREALITY	-.06486	.05278	.00583	-.07646	-.05326	-11.129	81	.000

In the above table of paired sample statistic, the pair of variable being tested and in order the subtraction was carried out so in the above table the mean showing the average difference between the two variables, the standard deviation shows the deviation of different scores and df shows the degree of freedom for this test. The significant 2-tailed value of all the 10 pairs were came out to be less than 5% thereby rejecting the null hypothesis. So can we conclude that there is statistically significant difference between BSE and NSE sectoral indices of pre and post GST.

Findings

- From one sample KS-test it has been found that the data of pre and post selected sectoral indices are normally distributed except POST BSE FMCG, PRE BSE REALITY, PRE CNX FMCG, POST CNX FMCG, PRE CNX AUTO, POST CNX AUTO and PRE CNX REALITY.
- From paired sample statistic it is being found that the mean number of sectoral indices of NSE and BSE for pre GST was less than the mean number of after GST concluding that stock indices of pre GST does not affect significantly than the stock indices of post GST.
- The significant 2-tailed value of all the 10 pairs were came out to be less than 5%. thereby concluding that there is statistically significant difference between BSE and NSE sectoral indices of pre and post GST.

Discussion

From above finding it can easily be evaluated that however Indian economy has seen a major reform is the form of implementation of GST on 1st July 2017 which could be proved to be a major land mark in the history of an Indian economy. we have seen that few of the selected sectoral indices does not show a normal distribution but also we carried out our further research on the base that the data was secondary in nature which we have collected from their official websites. so it cannot be extended. Further it is also seen that there is statistically significant difference between different sectoral indices of pre and post implementation of GST. Therefore, it can be predicted that the implementation of the GST affected the different sectors of Indian economy. The result of the study seems to be more effected by financial reforms taken place in the economy. However, these types of reforms are part of an economy and it will easier to concur the effects of financial reforms if proper planning is executed. So, GST which has proved to be major financial reform can be a step towards better economy.

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A Study of Long Run Relationship Between Spot and Futures Values Of Indices

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ABSTRACT

This study aims to analyse the relationship between the spot and futures values of the indices of the national stock exchange. Time series data was used of the daily closing prices of both spot and futures value of the three indices from 2011 to 2016. The data was tested for stationarity, then vector auto-regression based co-integration tests methodology were applied, granger causality tests was used to check the directional causality. The result of Engle – Granger and Johnson's co-integration test affirms that a long run relationship exists among the futures and spot value. In case of cnx nifty 50 there was a long-term unidirectional causality from spot to futures, for the other two indices there was bidirectional causality.

Introduction

In the evolution of the stock market trading there is always a search for an equilibrium price. The information dissemination, gathering and interpretation of news, among the investors affects the prices of the markets. All the readings suggest that the price discovery function is dynamic in the markets. The effectiveness of any price discovery process is gauged by the swift adjustments of the prices from an old equilibrium to the new equilibrium because of the new information floated in the market. There are various studies which have been conducted to analyse the efficient market hypothesis but they lack in how the micro structure affects the return dynamics.

The relationship between spot and futures prices shows the efficiency of the market which is essential for price discovery mechanism to function effectively. Mostly studies in financial markets had been done to a great extend in developed markets, but in emerging markets like India there are only few studies on the derivatives trading. The trading in futures market had started in India for more than a decade and various regulatory reforms have been undertaken over the years to bring in transparency in the market to ensure that the price discovery mechanism can function effectively. To study the spot and futures market relationship, in this study the indices of the stock markets are used as they are the indicators of the entire bourse house.

Review of Literature

Shah et al (2012) analysed the long- and short-term relationship between the Karachi stock market index and a set of macro-economic variables i.e. inflation,

exchange rate and interest rates. Auto Regressive Distributed Lag technique is used to find the long-term Co-integration relationship of the model and OLS and Vector Error Correction techniques are applied for the analysis of the long- and short-term relationship between the Macroeconomic variables and Karachi Stock Market. The Co-integration and granger casualty test were also used to verify the results. They found that long run Co-integration relationship does exist between stock prices and the macro-economic variables, while Error Correction Model suggests that the stock market has short run relationship with interest rates and exchange rates. They concluded their study by stating that overall macroeconomic environment does affect the movement in the stock prices. Al-Majali and Al-Assaf (2014) analysed the performance of Amman Stock Exchange (ASE) stock price index by a set of macroeconomic variables i.e. Real Gross Domestic Product, Consumer Price Index, Credit to Private Sector, Weighted Average Interest Rate on Time Deposit, and dummy variable explain the global financial crises period. The data used in the study are quarterly data from 1992 -2014. To examine this effect exists or not, Johansen co-integration test and Vector Error Correction model (VECM), Impulse Response Function (IRF) and Variance Decomposition (VD) are employed. The results suggest that there a long run equilibrium relationship among stock market index and the main macroeconomic variables in Jordan. The speed of adjustment in the VECM of their analysis was significant and relatively slow. It was also found that there is a bi-directional long run relationship between stock price index, credit to the private sector, weighted average interest rate on time deposits, and consumer price index. They concluded that an increase in the weighted average interest rate on time deposits in the banking system has a greater effect on the stock price index than other macroeconomic and financial variables.

Chamalwa and Bakari (2016) analysed the relationship between economic growth (GDP) and financial depending indicators i.e. money supply and credit to private sector. The data for the study was from the period 1981-2012 of the Central Bank of Nigeria (CBN). The standard econometric tools were used on the time series, ADF was used to check stationarity of the three variables i.e. GDP, money supply and credit to private sector. Johansen co-integration for the long-term relationship among the variables, causality was tested by Granger causality test among the variables (i.e uni-directional, bi-directional or feedback) and the Vector Error Correction was used to check for a short-run or long-run relationship among the three variables. The three variables were found co-integrated with at most one co-integrating equation, bidirectional causality was found among the three variables. The VECM suggested a long-run relationship among the three variables, and Credits to private sector and money supply has effect on GDP in the short run. They concluded that improved corporate governance, financial system risk management and macroeconomic stability should be sustained and Central bank of Nigeria (CBN) should reduce interest rate in the economy so that investors may raise their investment and financial output. Dhungel (2014) investigated the short and long run equilibrium between the electricity consumption and foreign aid of Nepalese economy during 1974-2012. Unit root test, co-integration test and finally error correction model were used to establish the relationship between electricity consumption and foreign aid. OLS was used to find out the foreign aid elasticity and spurious regression. He found that the variables were non-stationary at their level and they become stationary in their first difference. There were two co-integration equations showing the long run relationship between electricity consumption and foreign aid. The long run elasticity coefficient tells that the 1% change in foreign aid

will change the electricity consumption by 0.46%. The results of ECM indicate that there exists short run equilibrium in the system. It shows that increasing volume of aid has not helped to increase economic growth that in turn may help to increase electricity consumption. Visalakshmi and Lakshmi (2013) investigated the short run and long run relationship of dually listed Indian shares traded in US market using data for the financial crisis period from Sep 2007 to Feb 2009. The dynamic inter relations between portfolio of three American depository receipts (ADRs) and their underlying stocks (UNDS) was examined by applying Co-integration test, Granger causality test and Vector Error Correction Model. The outcomes confirm a long-run co-integrating relationship among the prices of Indian ADRs and their underlying shares, the Indian and the United States (US) market indices. The error correction coefficients of ADR closing prices are statistically significant with a negative sign, and expresses short-term dynamics of the ADR portfolio being influenced by the deviation from the long-run equilibrium. Also causality test ADR close prices are influenced by the domestic stock close price as well as the domestic index returns.

Methodology

It is a descriptive study to examine the long-term relationship between spot and futures value of the indices by employing standard econometrics tolls. The sample consists of the Cnx-Nifty 50 Index, Cnx-Nifty Bank Index & Cnx-Nifty IT Index. Sample period for study is from 1 April 2011 to 31 March 2016 in case of the indices. Data Collection of index and individual stocks was collected from the database of NSE and Centre for Monitoring Indian Economy (CMIE). The publications and notifications of Securities and Exchange Board of India (SEBI). Variables for the study are:

- (i) Closing value of the spot market indices Cnx-Nifty 50 Index, Cnx-Nifty Bank Index & Cnx-Nifty IT Index during the sample period.
- (ii) Closing value of the futures market indices Cnx-Nifty 50 Index, Cnx-Nifty Bank Index & Cnx-Nifty IT Index during the sample period.

For evaluating the long run relationship between the values of spot and future markets the standard econometric tools are applied. The time series data of the three indices of spot as well as futures was tested for the basic descriptive statistics, thereafter for testing the stationarity of the time series presence of unit root was identified by augmented dickey–fuller test (ADF) and Phillips–Perron test. There after unrestricted VAR (vector auto regressive) was applied on the time series data for estimating the optimum lag length, so that the further analysis takes into consideration the optimum lags suggested by the VAR. Thereafter for testing the co integration among the spot and futures values Engle – Granger and Johnson's co-integration test were applied.

1. Results

Table 4.1: Descriptive Statistics

Variables	CNX Nifty 50		CNX Nifty Bank		CNX Nifty IT	
	Futures	Spot	Futures	Spot	Futures	Spot
Mean	6550.561	6534.668	13204.860	13172.680	8551.848	8537.937
Median	6064.600	6050.150	11903.100	11867.700	8271.300	8270.150
Maximum	9054.850	8996.250	20588.450	20555.250	12940.150	12855.900
Minimum	4554.500	4544.200	7797.700	7798.550	5093.850	5087.650
Std. Dev.	1265.508	1261.813	3307.998	3294.070	2319.054	2313.708
Skewness	0.381	0.383	0.515	0.517	0.192	0.190
Kurtosis	1.667	1.659	1.871	1.863	1.425	1.421
Jarque-Bera	121.685	123.057	120.673	121.862	135.614	136.125
Probability	0.000	0.000	0.000	0.000	0.000	0.000

The descriptive statistics of the three indices are shown in table 4.1. The mean value of CNX Nifty 50 futures is 6550.561 and spot is 6534.668. The skewness and kurtosis of CNX Nifty 50 futures is 0.381 and 1.667 respectively and skewness and kurtosis of CNX Nifty 50 the spot market is 0.383 and 1.659 respectively, both the skewness and kurtosis of CNX Nifty 50 futures and spot falls within the normal limits. The Jarque-Bera p value suggests that the series do not follow normal distribution. The mean value of CNX Nifty Bank futures is 13204.860 and spot is 13172.680. The skewness and kurtosis of CNX Nifty Bank futures is 0.515 and 1.871 respectively, and skewness and kurtosis of the spot market is 0.517 and 1.863 respectively. Both the skewness and Kurtosis CNX Nifty Bank futures fall in the normal limits. The Jarque-Bera p value suggests that the series do not follow normal distribution. The mean value of CNX Nifty IT futures is 8551.848 and spot is 8537.937. The skewness and kurtosis of CNX Nifty IT futures is 0.192 and 1.425 respectively, and skewness and kurtosis of the spot market is 0.190 and 1.421 respectively. Both the skewness and Kurtosis CNX Nifty Bank futures fall in the normal limits. The Jarque-Bera p value suggests that the series do not follow normal distribution.

Table 4.2: Results of Unit Root Test

Variables	ADF Test			Phillips-Perron Test		
	Int.	Tre. & Int.	NI & NT	Int.	Tre. & Int.	NI & NT
At Level						
Nifty 50 LFUT	-0.83	-2.714	0.708	-0.859	-2.761	0.688
Nifty 50 LSPOT	-0.878	-2.914	0.644	-0.846	-2.729	0.713
Nifty Bank LFUT	-1.083	-2.703	0.473	-1.041	-2.563	0.529
Nifty Bank LSPOT	-1.098	-2.715	0.477	-1.033	-2.541	0.544
Nifty IT LFUT	-0.554	-2.841	0.949	-0.594	-2.91	0.917
Nifty IT LSPOT	-0.562	-2.855	0.956	-0.587	-2.898	0.937
At 1st Difference						
Nifty 50 LFUT	-33.474	-33.467	-33.476	-33.449	-33.441	-33.451
Nifty 50 LSPOT	-32.315	-32.307	-32.315	-32.228	-32.22	-32.23
Nifty Bank LFUT	-32.465	-32.458	-32.471	-32.471	-32.463	-32.477
Nifty Bank LSPOT	-31.49	-31.482	-31.495	-31.394	-31.386	-31.42
Nifty IT LFUT	-33.122	-33.121	-33.114	-33.09	-33.089	-33.084
Nifty IT LSPOT	-33.106	-33.105	-33.098	-33.058	-33.056	-33.05

Int. = Intercept; Tre. & Int. = Trend & Intercept; NI & NT = No intercept & No Trend

The three series of the indices were tested for stationarity by applying augmented Dickey–Fuller test (ADF) and Phillips–Perron (PP) test. The results of both the unit root tests are shown in table 4.2 both these tests were applied with intercept, trend

and intercept, and no intercept and no trend at level as well as at first difference. It was analysed that at level for all the three indices in both spot and futures series the unit root is present. So, both the tests were applied after first differencing of the series with intercept, trend and intercept, and no intercept and no trend. The results show that all the three spot indices and futures indices become stationary at the first difference as no unit root is present in the spot and futures of CNX Nifty 50, CNX Nifty Bank and CNX Nifty IT indices series.

Table 4.3: Results of VAR Lag Order Selection Criteria

Lag	LR	FPE	AIC	SC	HQ
Nifty 50					
0	NA	0	-9.712	-9.704	-9.709
1	7995.81	0	-16.217	-16.192	-16.208
2	83.557	0.000*	-16.278*	-16.237*	-16.263*
3	5.825	0	-16.277	-16.219	-16.255
4	5.587	0	-16.275	-16.2	-16.247
5	5.585	0	-16.273	-16.182	-16.239
6	1.013	0	-16.268	-16.16	-16.227
7	1.674	0	-16.263	-16.138	-16.216
8	13.436*	0	-16.267	-16.126	-16.214
Nifty Bank					
0	NA	0	-8.655	-8.647	-8.652
1	7832.51	0	-15.027	-15.002	-15.018
2	132.050*	0.000*	-15.128*	-15.086*	-15.112*
3	7.089	0	-15.127	-15.069	-15.106
4	3.45	0	-15.124	-15.049	-15.096
5	4.354	0	-15.121	-15.029	-15.086
6	1.155	0	-15.115	-15.007	-15.075
7	4.682	0	-15.113	-14.988	-15.066
Nifty IT					
0	NA	0	-8.522	-8.514	-8.519
1	8410.33	0	-15.364	-15.339	-15.355
2	32.849	0	-15.385	-15.343*	-15.368*
3	9.14	0.000*	-15.385*	-15.327	-15.364
4	2.057	0	-15.381	-15.306	-15.353
5	11.109	0	-15.383	-15.292	-15.349
6	1.377	0	-15.378	-15.27	-15.337
7	1.322	0	-15.373	-15.248	-15.326
8	12.523*	0	-15.376	-15.235	-15.323

* indicates lag order selected by the criterion

Table 4.3 shows the results of Vector Auto Regressive Lag Order Selection Criteria selected by the various criteria. The optimum lag length of 2 was selected by AIC as well as SC with values -16.278 and -16.237 respectively for CNX Nifty 50 series. The optimum lag length of 2 was selected by AIC as well as SC with values -15.128* and -15.086* respectively for CNX Nifty Bank series. The optimum lag length of 2 was selected by SC with the value -15.343 for CNX Nifty IT series.

Table 4.4: Results of Engle-Granger Co-Integration Test

Dependent	tau-statistic	Probability	z-statistic	Probability
-----------	---------------	-------------	-------------	-------------

Nifty 50				
LFUT	-10.905	0.000	-237.167	0.000
LSPOT	-10.904	0.000	-237.123	0.000
Nifty Bank				
LFUT	-9.367	0.000	-174.528	0.000
LSPOT	-9.366	0.000	-174.512	0.000
Nifty IT				
LFUT	-11.008	0.000	-242.604	0.000
LSPOT	-11.009	0.000	-242.661	0.000

The results of Engle-Granger Co-Integration Test are shown in table 4.4. This test was applied to ascertain the long term co-integration of the spot and futures series of the three indices. The test was applied considering futures as a dependent variable and also spot as dependent variable. The tau statistics and z statistics values along with their p-values clearly suggests that the futures and spot values of the CNX Nifty, CNX Nifty Bank and CNX Nifty IT series are integrated in long run.

Table 4.5: Results of Johansen's Co-Integration Test

Hypothesized No. of CE(s)	Eigen value	Trace Statistic	Critical Value (0.05)	Probability
Unrestricted Co-integration Rank Test (Trace)				
Nifty 50 None *	0.074	95.339	15.495	0.000
Nifty 50 At most 1	0.001	0.719	3.841	0.396
Nifty Bank None *	0.057	73.313	15.495	0.000
Nifty Bank At most 1	0.001	1.041	3.841	0.308
Nifty IT None *	0.079	101.833	15.495	0.000
Nifty IT At most 1	0.000	0.309	3.841	0.578
Unrestricted Co-integration Rank Test (Maximum Eigen value)				
Nifty 50 None *	0.074	94.619	14.265	0.000
Nifty 50 At most 1	0.001	0.719	3.841	0.396
Nifty Bank None *	0.057	72.273	14.265	0.000
Nifty Bank At most 1	0.001	1.041	3.841	0.308
Nifty IT None *	0.079	101.524	14.265	0.000
Nifty IT At most 1	0.000	0.309	3.841	0.578

* denotes rejection of the hypothesis at the 0.05 level

The results of Johansen's co-integration test are shown in table 4.5 of the three indices. The trace statistics and Eigen values along with their p values rejects the hypothesis that no co-Integrating equation which can be hypothesized in spot and futures of CNX Nifty, CNX Nifty Bank and CNX Nifty IT. And the result also suggests that there exists one co-integrating equation between the spot and the futures values of CNX Nifty, CNX Nifty Bank and CNX Nifty IT.

Table 4.6: Results of Pairwise Granger Causality Test

Null Hypothesis:	F-Statistic	Probability
Nifty 50 Spot does not granger cause Nifty 50 futures	4.248	0.015
Nifty 50 futures does not granger cause Nifty 50 Spot	0.324	0.723
Nifty Bank Spot does not granger cause Nifty Bank futures	2.131	0.119
Nifty Bank futures does not granger cause Nifty Bank Spot	0.155	0.856
Nifty IT Spot does not granger cause Nifty IT futures	1.728	0.178
Nifty IT futures does not granger cause Nifty IT Spot	1.48	0.228

The results of pairwise granger causality test are shown in table 4.6. The analysis rejects the null hypothesis of CNX Nifty 50 Spot does not granger cause Nifty 50 futures as the p value is less than 0.05. Therefore, it is accepted that CNX Nifty 50 spot causes CNX Nifty 50 futures, and the relationship is unidirectional. The null hypothesis that Nifty Bank Spot does not granger cause Nifty Bank futures is accepted because the p value is 0.119 which is more than 0.05, also the null hypothesis Nifty Bank futures does not granger cause Nifty Bank Spot is accepted because the p-value is 0.856. This shows that there is bidirectional causality between the spot and the futures. The null hypothesis that Nifty IT Spot does not granger cause Nifty IT futures is accepted because the p value is 0.178 also the null hypothesis that Nifty IT futures does not granger cause Nifty IT Spot is accepted because the p value is 0.228. This shows that there is bidirectional causality between the spot and the futures.

Conclusion

This paper examines the long-term relationship between the spot and the futures values of the CNX Nifty 50, CNX Nifty Bank and CNX Nifty IT indices. The time series data of the three indices was tested for the basic descriptive statistics, thereafter they were tested for stationarity, all the three spot and futures indices became stationary at the first difference. For testing the co integration among the spot and futures values of them Engle – granger and Johnson's co-Integration test were applied. For analysing the causality between the spot and futures values Pairwise Granger Causality test was applied. Our results affirmed that there exists a long run relationship among the spot and futures values of all the three indices. Our analysis depicts that CNX nifty 50 spot values causes CNX nifty 50 futures values, and the long term causality is unidirectional. But the analysis of CNX Nifty Bank and CNX Nifty IT indices indicates that there is bidirectional causality between the spot and the futures values. This suggests that information decimation is prominent in both the markets, but in case of CNX nifty 50 the price discovery function is governed by the spot market. The implications of the study are following it seems that the market can benefit from the information contained in the spot values more efficiently. The future scope of the study can be combined with short run dynamics and volatility study of these three indices.

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Determinants of Dividend Policy in Indian Companies: A Panel Data Analysis

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ABSTRACT

This article examined the determinants of the dividend policy of Automobiles companies and pharmaceuticals companies listed on Auto index and Pharma Index of the sectoral indices of national stock exchange in India. The study covers the tenure of ten years starting from 2006-2007 to 2015-2016. Static panel data model has been used for the analysis. From the literature review we identified the variables like profitability measure as Return on equity, Liquidity or cash flow, leverage (debt equity ratio), investment opportunities, dividend distribution tax, retained earnings, size of the company and sales growth of the company which affect the dividend decision of the company. The result of panel regression conclude that in automobiles sector Liquidity/Cash Flow, dividend distribution tax, investment opportunities and retained earnings are the significant factor which influence the dividend payout ratio where as in Pharmaceuticals sector profitability, debt equity ratio, sales growth and retained earnings are the significant factor for deciding dividend payout ratio.

Introduction

Dividend decision is one of the most complex decisions in the corporate finance. Dividend is the part of the profit to be paid to the shareholders. The amount of the dividend which is to be paid or to be retained back in the company is decided by the board of directors of the company. Earlier the dividend payment is realized as fulfilling the shareholders expectation. As per signaling theory dividend was also used as indicator for the company's performance. Miller Lintner (1956) and Gordon (1959) described dividend relevance as the increase in dividend increases the value of the firm where as Modigliani (1961) described the irrelevance theory of the dividend as there is no impact on the value of the firm with increase in dividend. It was believed that any reduction in the dividend may result in reduction of the share price in the market. As per the literature many theoretical models and explanations have been developed by the researchers which define the various factors influencing the dividend decision.

Though many research have been done to identify the variables affecting and should be concern before making dividend decision still the topic remains controversial. Black

(1976) defines the dividend policy as “The harder we look at the dividend picture the more it seems like a puzzle, with pieces that just do not fit together”. Many dividend theories have been developed to justify how the dividend decision has been taken and whether it affects the value of the firm. After many researches, the answer is not similar to the question that what are the determinants of dividend policy? Basically, the research is on the various model, explanation and theories given by the researchers. The result of the studies varied from country to country and from different time periods. There were no fixed factors defined which can be used as perfect model. Being the dividend decision is important and is been taken consistently by the manager.

Some companies pay dividend and some do not pay, explaining how much dividend to pay and how much to retain it still a controversial and there is no fixed guide line for making dividend decision. In this study we will identify the factors effecting automobiles industry and pharmaceuticals industry as these industries grown huge in last ten-year period. There will be comparison between the factors studied in both the industry. As both the industries are growing rapidly and there is no research or very few researches on both the sector the automobile sector and the pharmaceutical sector in India. This study contributes to the existing literature by studying the dividend policy of Automobiles company and Pharmaceuticals companies listed on NSE for the period between 2007 and 2016. The variables were identified which make positive and negative impact on dividend decision and will investigate the significance on dividend policy.

Review of Literature

Dividend is considered as an important source of information for the investors. Signaling theory says that the dividend is used as signal to announce the prospects of the company. Managers know about the performance of the company as they analyze the strategies and investment opportunities. Bhattacharya (1979) describes that increase in dividend signals rise in expected cash flow and future performance of the company and vice versa.

Aivazian et.al (2003) studies the dividend policy of emerging markets and also compared the policy with the dividend policy of US firms. The result of the study concluded that ROE and market to book value affect the dividend decision of US firms positively. Debt ratio and Tangibility affects the dividend decision of the firms negatively. The reaction of variables is similar in both market but the firms in emerging market were more sensitive as compare to the US market. The Pooled cross analysis concluded that emerging market firms pay higher amount of dividend as compare to the US market firms.

Amidu & Abor (2006) examined the dividend payout ratios of 20 companies of listed on Ghana Stock Exchange for period of six-year from 1998 to 2003. Ordinary Least Squares model was used to test the regression equation. The results concluded the positive relationships between dividend payout ratios and profitability, tax and cash flow and market-to-book value and growth in sales had significant negative relation with dividend payout. The institutional holding and risk (beta) had insignificant negative correlation with dividend payout.

Al-Kuwari, D. (2009) analyzed dividend payout decisions of 191 non financial firms listed on the Gulf Cooperation Council (GCC) stock market for 5 period between 1999

and 2003. The result revealed that company size, government ownership and profitability had positive relation with dividend decision whereas good investment opportunities had negative relation with dividend decisions.

Uwuigbe (2013) examined dividend policy of the 50 firms listed on Nigerian stock Exchange for the period between 2006 and 2011. The annual report was used for analyzing and collecting the data. Regression was applied on the data collected and revealed that firm size, financial performance of firms and board independence put the significant positive impact on the dividend payout decisions of firms listed on the Nigerian stock exchange market. And found significant negative relationship between financial leverage and dividend payout of the firm.

Maldajian&Khoury (2014) explored the dividend policy Lebanese listed banks. Seven years unbalanced panel dataset of listed banks for the period between 2005 and 2011 were used for the study. The tools like OLS and the dynamic panel regressions were applied on the data collected for the study. The result shows that the dividend payout policies were positively influenced by the risk, firm size and previous year's dividends of the firms whereas at the same time opportunity growth and profitability influenced the dividend decision of the firms negatively. The findings concluded that the Lebanese listed banks prefer to retain the earnings for growth rather than to pay as dividend. The listed banks just pay dividend to the shareholders to avoid the agency conflicts.

Wasike& Ambrose (2015)investigated the factors influencing the dividend policy of the 60 listed companies at the Nairobi Securities Exchange, Kenya for the period between 2004 and 2014. Panel regressions technique was applied on the data collected to identify the variables. The result found that profitability and cash flow had significant positive impact on the dividend decision of the listed firms whereas Tax had an insignificant positive impact on the dividend decision of the firms. The results also found that sales growth and market-to-book value had significant negative impact of on dividend policy of the firms, risk and institutional holding had insignificant negative impact on dividend decision of the listed firms.

Soondur et al (2016) analyzed the determinants of dividend policy of 30 companies listed on the Stock Exchange of Mauritius for the period between 2009 and 2013. The fixed and the random effect model were analyzedon the data collected and concluded that there was significant negative relationship between retained earnings and net income and dividend policy of the listed Mauritian firms, whereas there was highly positive correlation between EPS and dividend policy of the SEM market.

Labhane&Mahakud (2016) examined the dividend payment of Indian listed companies. Static panel data models 781 companies listed on NSE for the period between 1995 and 2003 were used for the study. The study classified in two generation that is first generation from 1994 to 2003 and second generation from 2004 to 2013. Fixed effect model analysis concluded the significant positive relationship between profitability, liquidity, size of the firm and dividend payout ratio of the firms, whereas the firms with high investment opportunity, financial leverage and business risk had lower dividend payout or significant negative relationship with dividend payout ratio. Panel data analysis found that investment opportunity, financial leverage, size of the company, business risk, firm life cycle, profitability, tax and liquidity are the major determinants of the dividend policy for Indian companies.

Determinants of Dividend Policy

Dividend is the amount of the profit to be distributed among shareholders. The decision is taken by the board of directors keeping in mind the future financial needs of the company. Dividend decision is the decision where the board of directors decides the amount to be distributed among the shareholders and the amount to be retained. Not only future financial needs affect the dividend decision there are many others factors which influence the dividend decision of the company. As per the literature the variables which influence the dividend decision of the company like profitability, size, leverage, retained profit, investment opportunities, dividend distribution tax, liquidity and sales growth. The description and measurement of the variables is defined below. Dividend payout ratio is used as a measurement of dividend policy.

Profitability

Lintner (1956) described the profitability as the primary indicator which defines the capability of the firm to pay dividend or not. The profitable company's can only pay dividend. As per the literature the result of impact of profitability on dividend payout is mixed. Al-Kuwari (2009) concluded that the dividend decision is positively affected by the profitability of the company. The profitable firms are likely to pay dividend as compared to the non-profit making firms. Aivazian et.al (2003), Najjar and Hussainey (2009) and Wasike & Ambrose (2015) concluded that with increase in the profit of the company increases the dividend paid to the shareholders. As per pecking order theory the firms are more depend on the internal funds or retained earnings which result in reduction in dividend payments by the profitable firms. Myers & Bacon (2004); Kania & Bacon (2005); Amidu & Abor (2006) and Labhane & Mahakud (2016) concluded that profitability had significant negative association with the dividend payout and described that the firms prefer to retain profit rather than paying it to the shareholders. Return on equity is measured as the ratio between net income and total equity.

H01 – There is no impact of profitability on the dividend policy of the company.

H11 – There is impact of profitability on the dividend policy of the company.

Liquidity/ Cash Flow

Brittain (1964), Amidu & Abhor (2006), Musa (2009), Kapoor (2010) and Gangil & Nathani (2018) found that the free cash flow affects the dividend decision of the company. The free cash flow is the amount available and used for the payment of the dividend. Brittain (1964) concluded that cash flow had positive impact on dividend payout ratio of the company. Musa (2009), Wasike & Ambrose (2015) and Labhane & Mahakud (2016) found the significant positive relationship between the cash flow of the company and dividend payments. Ahmed & Javid (2009) described that poor liquidity means shortage of funds which result in less dividend payments. Sur & Majumdar (2012) and Kanwal & Kapoor (2008) found that cash flow had significant impact on the dividend payout of the firm. Cash flow is measured as by adding depreciation to the profit after tax.

H02 – There is no impact of liquidity/cash flow on the dividend policy of the company.

H12 – There is impact of liquidity/cash flow on the dividend policy of the company.

Size

As per the literature the dividend payout is influenced by the size of the firm. It is believed that big size firms pay largenumber of dividends where as small size of firms pay small amount of dividend. Fama& French (2000) described that small size of firms mainly depends on retained earnings to finance the new project as small size of firms cannot easily access to the capital market to raise capital. Aivazian (2003), Al-Kuwari (2009), Al-Shubiri (2011); Uwuigbe (2013), Maldajian&Khoury (2014) and Labhane&Mahakud (2016) found significant positive relationship dividend payout ratio of the firms. The size of the firm is measured as natural log of the Market capitalization of the company.

H03 – There is no impact of size on the dividend policy of the company.

H13 – There is impact of size on the dividend policy of the company.

Leverage (Debt equity ratio)

It is defined as the ratio of short- term and long-term borrowings to shareholders equity. Uwuigbe (2013) described that if capital structure is comprising of debt than it affects the dividend payout negatively and vice versa. Most of the studies found that the indebted firms prefer to pay fewer dividends. Aivazian et.al (2003), Mahakund (2005), Al-Kuwari (2009),Gupta &Banga (2010) and Labhane&Mahakud (2016) found strong negative impact of leverage on the dividend policy of the firm. Leverage is measured as the ratio of short term and long-term liabilities to shareholders funds.

H04 – There is no impact of Leverage (Debt equity ratio) on the dividend policy of the company.

H14 – There is impact of Leverage (Debt equity ratio) on the dividend policy of the company.

Investment Opportunities

The investment opportunities influence the dividend payment of the company. The company having high investment opportunities requires cash or funds to finance the project and it will affect the dividend decision of the company. It is measured as the ratio of the company equity to total asset of the firm. Aivazian et al. (2003) and Al-Shubiri (2011) found the positive impact of investment opportunities on dividend payment.Maldajian&Khoury (2014) and Labhane&Mahakud (2016) found the significant negative impact of investment opportunities on dividend payment. It is measured as company's equity to total asset of the company.

H05 – There is no impact of Investment Opportunities on the dividend policy of the company.

H15 – There is impact of Investment Opportunities on the dividend policy of the company.

Retained Earnings

The profit which is not paid to the shareholders in form of dividend and retained back is retained earnings. When the company wants money for investment and does not want to borrow then retained earnings are used for financing the project. It is measured as percentage of profit retained by the company. Soodur et al (2016) found negative relationship between retained earnings and dividend payout ratio. Gangil&Nathani(2018) found significant negative relationship between retained earnings and dividend payout ratio. It is measured as retention ratio of the company

H06 – There is no impact of Retained Earnings on the dividend policy of the company.

H16 – There is impact of Retained Earnings on the dividend policy of the company.

Dividend Distribution Tax

According to tax preference theory investors prefer that company should retain profit instead of distributing to the shareholders because the tax rate on dividend is higher as compared to the capital gains. Narasimhan& Asha (1997) compared the impact of dividend distribution tax with 10% tax rate against the 20% tax rate on the capital gains passed in union budget 1997-1998. The result concludes that investors are demanding dividend in place of capital gains because tax rate on capital gains is higher than dividend distribution tax. Damodaran (2010) and Kamat&Kamat (2013) describes that the higher tax rate on dividend increases the tax payment of the firm and reduces the profit after tax which in turn reduces residual profit of the firm. It is measured as ratio of dividend distribution tax to profit after tax of the firm.

H07 – There is no impact of Dividend Distribution Tax on the dividend policy of the company.

H17 – There is impact of Dividend Distribution Tax on the dividend policy of the company.

Sales Growth

Rise in sales from one year to another indicate growth in sales. This growth indicates that more amount of investment is required to meet future needs. The investment can be arranged by not paying earnings in form of dividend to the shareholders. The earnings can be utilized to finance the project and to maintain sales growth in long run. Marfo-Yiadom&Agwei (2011), Wasike& Ambrose (2015) and Gangil&Nathani (2018) found the negative relationship between sales growth and dividend payout. It is measured as percentage change in the sales of the company to the previous year.

H08 – There is no impact of Sales Growth on the dividend policy of the company.

H18 – There is impact of Sales Growth on the dividend policy of the company.

Objectives of the study

- To find out the factor affecting the dividend policy in automobiles sector.
- To find out the factor affecting the dividend policy in Pharmaceuticals sector.

Research Methodology

The various variables are identified which are expected to influence the dividend decision of the company. For the study the sample of automobiles companies and pharmaceuticals companies listed on NSE sectorial indices are identified. The Auto index is a 16 companies Index from the automobile sector and it trade on the National Stock Exchange. The Pharma index is a 10 companies Index from the pharmaceuticals sector and it trade on the National Stock Exchange. The secondary data of 9 automobile companies and 10 pharmaceuticals companies has been collected for the period between 2007 and 2016 from the financial statements of the companies and website like money control.com, yahoofinace.com. The company of which the data is not available has been excluded from the study. The data for the variable is standardized on same scale. The data collected and compiled as per the requirement of the study.

Model Specification

Most of the studies have used logit and probit model is used to analyze the determinants of dividend policy. In our study the data is not in binary form so logit and probit model has not used. In the study data comprises of both dimension different firms and time period. Panel data is used when the data comprises of both time series and cross sectional. The multiple panel regression is analyzing on the panel data to find out the determinants of dividend policy. Unit root test, Fixed Effect and Random Effect, Hausman test are analyzed on the panel data using a statistical software called Eviews.

The model for the study:

$$\begin{aligned} \text{DPR}_{it} = & \beta_0 + \beta_1 \text{CF}_{it} + \beta_2 \text{DE}_{it} + \beta_3 \text{DDT}_{it} + \beta_4 \text{IO}_{it} + \beta_5 \text{SIZE}_{it} + \beta_6 \text{ROE}_{it} \\ & + \beta_7 \text{RP}_{it} + \beta_8 \text{SG}_{it} + e_{it} \end{aligned}$$

where Y_{it} = DPR for firm i in period t , CF_{it} is cash flow used to define the liquidity of the firm, it measured by adding depreciation to the profit after tax of the firm i in period t , DE_{it} is used to measure the leverage of the firm it is measured as debt-to-capital ratio for firm i in period t , IO is investment opportunity variable measured as ratio of company's equity to total assets of the firm i in period t , SIZE_{it} is size variable measured as natural log of market capitalization for firm i in period t , ROE_{it} is profitability variable measured as return on equity for firm i in period t , DDT_{it} is dividend distribution tax divided by net profit after tax for firm i in period t , RP_{it} is retained profit variable measured as percentage of profit retained by the firm i in period t , SG_{it} is sales growth variable measured as annual sales growth of the firm i in period t , β_0 is a constant, β s are the slope coefficients, e_{it} is the error term for firm i in period t .

Data Analysis of Auto mobile sector

Unit Root test

Variables	Levin, Lin & Chu			ADF Fisher			ADF PP		
	Statistics	Prob	Obs	Statistics	Prob	Obs	Statistics	Prob	Obs
DPR	-13.15	0.00	81	-3.004	.0013	81	-3.055	.0011	81
CF	-1.70	0.045	81	-4.520	0.00	72 1st	-5.31	0.00	72 (1st)
DE	-9.62	0.00	72	-5.03	0.00	72 1st	-1.61	0.52	81
DDT	-6.61	0.00	81	-5.84	0.00	72	-7.11	0.00	72
IO	-8.39	0.00	72	-4.68	0.00	72	-5.50	0.00	72
MC	-10.62	0.00	72	-5.36	0.00	72	-6.41	0.00	72
ROE	-2.55	0.005	81	-1.600	0.051	81	-2.11	0.017	81
RP	-8.77	0.00	81	-2.66	0.003	81	-274	0.003	81
SG	-4.13	0.00	81	-2.06	0.019	81	-1.95	0.025	81

Null Hypothesis:

Ho : Unit Root (ASSUMES common unit root process)

The Stationary of the series is tested using Levin, Lin & Chu, ADF (Augmented Dickey Fuller) Fisher and PP test techniques. The results concluded that the series are non stationary at level and 1st difference by using all three techniques. As the P value is less than 0.05, the null hypothesis i.e. series assumes unit root is rejected. It means that the series do not have unit root.

Descriptive Statistics

All the descriptions apply to the sample of automobile sector which cover around 9 companies listed on the National Stock Exchange of India are included in the model. Since we have panel data that contains both cross- sections and time series, the statistics are taking into account the for the period between 2007 and 2016.

	DPR	CF	DDT	DE	IO	SIZE	ROE	RP	SG
Mean	34.74367	0.102524	5.126000	0.427444	2.688184	4.197587	22.84889	59.64478	0.175325
Median	28.28500	0.100181	3.595000	0.295000	2.045770	4.262245	21.05500	66.68000	0.171494
Maximum	212.7300	0.205669	26.06000	1.610000	18.27334	5.144947	73.35000	100.0000	1.101747
Minimum	0.000000	0.051781	0.000000	0.000000	0.187898	2.819590	-28.10000	-112.9300	-0.693055

Available on SSRN-Elsevier

Std.Dev	34.05643	0.043759	5.051409	0.418635	2.632537	0.554706	15.58676	34.55076	0.244778
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The mean, median, maximum, minimum and standard deviation of the selected variables have been calculated and after seeing the outcome we can conclude that mean and median of many variables like CF, DE, IO, SIZE, ROE and SG are very close that means that the series have good spread and do not have extreme outliers. The mean value of the dependent variable DPR (Dividend Payout Ratio) is 34.74 explains that the average dividend payout ratio is 34.74% of the sample firms. The maximum and minimum is 212.73 and 000 with a variation of 34.05. The average ROE is 22.84 explains the 22.84% return on equity, the average cash flow is .10 while dividend distribution tax is 5.12. The average investment opportunities is 4.19, the average sales growth is .17 while average size is 4.19 and retained earnings is 59.64.

Regression Result

To investigate the impact of the chosen independent variables on dividend payout ratio the panel regression is applied. Hausman test is applied to check which model is accurate and reliable.

Regression Result

Explanatory Variables	Fixed Effect Model			Random Effect Model		
	Coef	t-stats	Prob	Coef	T stats	Prob
CF	122.08	2.510***	0.0143	47.383	30.718	0.126
DE	-3.9811	-0.984	0.3281	-8.293	-3.003	0.0035
DDT	4.8313	11.063***	0.000	4.398	0.3987	0.000
ROE	-0.0995	-0.710	.4794	-0.128	-1.588	0.1160
IO	-1.1842	-1.8213*	0.0726	-0.6765	-1.423	0.1585
MC	-3.23468	-0.8517	0.3971	-6.281	-3.639	0.0005
RP	-0.359	-4.7279***	0.000	-0.410	-6.704	0.000
SG	3.2735	0.6557	0.5141	8.8813	2.0270	0.0459
	R-squared	.9559		R-squared	.9320	
	F-statstic	98.93		F-statstic	153.60	
	Prob(F-statstic)	0.000		Prob(F-statstic)	0.000	
Hausman Test	Chi-Sq.Stats	29.404		Prob	0.0003	

*** significance at 1%

** significance at 5%

*significance at 10%

As per the Hausman test fixed effect model is accurate and reliable as the P value is 0.0003 which is less than 0.005. Above the outcomes from the panel regression F value 98.93 with P value 0.000 says that the model is fit. The R squared value is .9559 implies that 95.59% variation in the dependent variable dividend payout ratio is explained by at least one independent variable. Seeing the separate effect of independent variable, DPR is significant positively affected by cash flow, Dividend distribution tax and insignificant positively by sales growth, where as it is significant negatively affected by investment

opportunities and retained earnings, insignificant negatively affected by the market capitalization debt to equity and return on equity.

Cash Flow

There is positive relation between cash flow and dividend payout ratio. The coefficient of cash flow is 122.08 and t-statistic is 2.510 with p value 0.0143 indicates that null hypothesis that there is no impact of cash flow on dividend payout ratio is rejected at 1% level of significance and alternative hypothesis is accepted, meaning that change in dividend payout ratio can be explained by cash flow of the firm. The result is similar to the findings of Brittain (1964), Ahmed & Javid (2009) and Musa (2009). They found significant positive relationship between cash flow and dividend payout ratio. The automobiles firms have high cash flow and have capability to pay dividend and meet obligations and to avoid or reduce agency conflicts. Rozeff (1982), Easterbook (1984) describe that the cash flow is used to pay dividend and to avoid agency conflicts.

Leverage

Negative relation is found between debt to equity ratio and dividend payout ratio. The coefficient of debt to equity ratio -3.98 and t-statistic -0.710 with P value 0.3281. The null hypothesis that there is no impact of debt equity ratio on dividend payout ratio cannot be rejected at 10% level of significance. It implies that leverage (debt to equity ratio) is not significant and could not explain the change in DPR of the firm. In automobile sector the leverage of the firm may not influence the dividend decision but in other studies it was found significant like Higgins (1972), Fama (1974), Al-Kuwari (2009), Gupta & Banga (2010), Uwugbe (2013) and Labhane & Mahakud (2016) and an important variable for dividend decision.

Dividend Distribution Tax

There is positive relation between dividend distribution tax and dividend payout ratio. The coefficient of dividend distribution tax is 4.8313 and t-statistic is 11.063 with p value 0.000 indicates that null hypothesis that there is no impact of dividend distribution tax on dividend payout ratio is rejected at 1% level of significance and alternative hypothesis is accepted, meaning that change in dividend payout ratio can be explained by dividend distribution tax of the firm. However the result is statistically significant but the relation is not in consistent with the findings of Damodarn (2000) and Kamat & Kamat (2013) that dividend distribution tax makes a negative impact on dividend payout ratio of the firm. It can be concluded that automobiles firms pay high dividend to the shareholders.

Return on equity

Negative relation is found between return on equity and dividend payout ratio. The coefficient of return on equity is -0.09 and t-statistic -0.98 with P value 0.479. The null hypothesis that there is no impact of return on equity on dividend payout ratio cannot be rejected at 10% level of significance. It implies that return on equity (profitability) is not significant and could not explain the change in DPR of the firm. The finding is not consistent with the result found by Fama & French (2001), Kania & Bacon (2005), Rozeff (1982), Mirza & Azfa (2010) and Maldajian & Khoury (2014). The profitability is not considered for paying dividend to the shareholders in Automobiles Company.

Investment opportunities

Negative relation is found between investment opportunities and dividend payout ratio. The coefficient of investment opportunities is -1.184 and t-statistic -1.82 with P value 0.0741. The null hypothesis that there is no impact of investment opportunities on dividend payout ratio is rejected at 10% level of significance. It implies that an investment opportunity is significant to explain the change in DPR of the firm. The finding matches the result of Fama & French (2001), Aivazian et al. (2003), Malkawi (2007), Al-Shubiri (2011) and Baah et al (2014). The profit is utilized for capturing new investment opportunities rather than paying it to the shareholders.

Size

Negative relation is found between Market Capitalization (size) and dividend payout ratio. The coefficient of Market Capitalization (size) is -3.23 and t-statistic -0.851 with P value 0.3971. The null hypothesis that there is no impact of Market Capitalization (size) on dividend payout ratio cannot be rejected at 10% level of significance. It implies that Market Capitalization (size) is not significant and could not explain the change in DPR of the firm. The finding is not consistent with the result found by Jensen et al. (1992), Fama & French (2001), Manos and Green (2001), Al-Shubiri (2011) and Uwugbe (2013). The size of the firm is not considered as an important factor for deciding dividend payments to the shareholders in Automobiles Company.

Retained earnings

Negative relation is found between retained profit and dividend payout ratio. The coefficient of retained profit is -0.359 and t-statistic -4.72 with P value 0.000. The null hypothesis that there is no impact of retained earnings on dividend payout ratio is rejected at 1% level of significance. It implies that retained earnings is significant to explain the change in DPR of the firm. The finding matches the result of Kapoor et al (2010), Soondur et al (2016) and Gangil & Nathani (2018). As the firm uses retained earnings to finance the future needs of the firm instead of raising from outside.

Sales growth

Positive relation is found between sales growth and dividend payout ratio. The coefficient of sales growth is 3.52 and t-statistic 0.655 with P value 0.5141. The null hypothesis that there is no impact of sales growth on dividend payout ratio cannot be rejected at 10% level of significance. It implies that sales growth is not significant and does not explain the change in DPR of the firm. The finding is not consistent with the result found by Brittain (1964), Marfo-Yiadom & Agyei (2011). The change in sales does not make impact on dividend decision of the automobile firm.

Data Analysis of Pharmaceuticals sector

Unit Root test

Variables	Levin, Lin & Chu			ADF Fisher			ADF PP		
	Statistics	Prob	Obs	Statistics	Prob	Obs	Statistics	Prob	Obs
DPR	-3.486	0.0002	90	-5.65	0.000	80	-7.64	0.000	80
						1			1

CF	-4.241	0.000	90	-5.55	0.00	80 1	-7.68	0.00	80 1
DE	-5.20	0.000	81	-2.61	0.004	81	-3.290	0.005	81
DDT	-1.60	0.05	87	-5.30	0.00	76 1	-5.58	0.00	76 1
IO	-2.477	0.006	90	-5.15	0.00	80 1	-7.05	0.00	80 1
MC	-10.17	0.00	80 1	-5.18	0.00	80 1	-7.28	0.00	80 1
ROE	-5.61	0.00	90	-2.731	0.003	90	-2.96	0.001	90
RP	-4.196	0.000	88	-5.48	0.000	78 1	-7.692	0.00	78
SG	-14.20	0.00	90	-5.96	0.00	90	-6.711	0.00	90

Null Hypothesis:

Ho : Unit Root (ASSUMES common unit root process)

The Stationary of the series is tested using Levin, Lin & Chu, ADF (Augmented Dickey Fuller) Fisher and PP test techniques. The results concluded that the series are non stationary at level and 1st difference by using all three techniques. As the P value is less than 0.05, the null hypothesis i.e. series assumes unit root is rejected. It means that the series do not have unit root.

Descriptive Statistics

All the descriptions apply to the sample of pharmaceuticals sector which cover around 10 companies listed on the National Stock Exchange of India and are same included in the model. Since we have panel data that contains both cross- sections and time series, the statistics are taking into account the for the period between 2007 and 2016.

	DPR	CF	DDT	DE	IO	SIZE	ROE	RP	SG
Mean	26.9167	0.360	4.752	0.3950	2.891	4.159	21.97710	69.164	0.190
Median	20.33	0.194	3.185	0.2900	2.790	4.184	24.020	76.41	0.173
Maximum	231.0200	15.660	37.480	2.013	8.0224	5.295	53.120	148.97	1.759
Minimum	-48.97	-0.910	0.000	0.000	0.218	2.956	-48.62	-0.240	-0.695
Std.Dev	33.750	1.554	5.8326	0.417	1.609	0.444	13.095	29.19	0.2632

The mean, median, maximum, minimum and standard deviation of the selected
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variables have been calculated and after seeing the outcome we can conclude that mean and median of many variables like CF, DE, IO, SIZE and SG are very close that means that the series have good spread and do not have extreme outliers. The mean value of the dependent variable DPR (Dividend Payout Ratio) is 26.91 explains that the average dividend payout ratio is 26.91% of the sample firms. The maximum and minimum is 231.02 and 0.00 with a variation of 33.75. The average ROE is 21.97 explains the 21.97% return on equity, the average cash flow is 0.36 while dividend distribution tax is 4.752. The average investment opportunities is 4.752, the average sales growth is 0.19 while average size is 4.159 and retained earnings is 59.64.

Regression results

Explanatory Variables	Fixed Effect Model			Random Effect Model		
	Coef	t-stats	Prob	Coef	T stats	Prob
CF	0.385	0.695	0.488	0.0135	0.026	0.979
DE	-5.614	-2.264**	0.0263	-4.341	-2.216	0.0292
DDT	5.340	24.22	.5098	5.181	25.21	0.000
ROE	0.224	2.83***	0.0059	0.1496	2.2572	0.0265
IO	0.560	0.695	0.488	-0.440	-0.729	0.4674
MC	-7.042	-2.51***	0.0138	-4.255	-1.74311	0.0848
RP	-0.133	-2.734***	0.0077	-0.107	-2.240	0.0181
SG	-9.005	-3.100***	0.0027	-9.13	-3.22	0.0018
	R-squared	0.971		R-squared	0.963	
	F-statistic	157.96		F-statistic	292.77	
	Prob(F-statistic)	0.000		Prob(F-statistic)	0.000	
Hausman Test	Chi-Sq.Stats	20.755		Prob	0.0078	

*** significance at 1%

** significance at 5%

*significance at 10%

As per the Hausman test fixed effect model is accurate and reliable as the P value is 0.0078 which is less than 0.005. Above the outcomes from the panel regression F value 157.96 with P value 0.000 says that the model is fit. The R squared value is .971 implies that 97.1% variation in the dependent variable dividend payout ratio is explained by at least one independent variable. Seeing the separate effect of independent variable, DPR is significant positively affected by Return on Equity and insignificant positively affected by cash flow, dividend distribution tax and investment opportunities, where as it is significant negatively affected by debt equity ratio (leverage of the firm), retained earnings, market capitalization (Size of the firms) and sales growth of the firms.

Cash Flow

There is positive relation between cash flow and dividend payout ratio. The coefficient of cash flow is .385 and t-statistic is .695 with p value 0.488 indicates that null hypothesis that there is no impact of cash flow on dividend payout ratio is not rejected at 10% level of significance. The acceptance of the null hypothesis implies that change in dividend

payout ratio cannot be explained by cash flow of the firm. In pharmaceuticals sector cash flow is not an significant variable for deciding dividend policy but in other studies its is significant as dividend reduces agency conflicts described by Brittain (1964), Rozeff (1982), Easterbook (1984) and Musa (2009). The findings suggest that the divined payout is not decided by considering the cash flow of the pharmaceuticals firm.

Leverage

Negative relation is found between debt to equity ratio and dividend payout ratio. The coefficient of debt to equity ratio -5.614 and t-statistic -0.264 with P value 0.0264. The null hypothesis that there is no impact of debt equity ratio on dividend payout ratio is rejected at 5%level of significance. It implies that leverage (debt to equity ratio) is significant to explain the change in DPR of the firm. The finding is consistent with the result found by Higgins (1972), Fama(1974), Al-Malkawi (2008) and Uwuigbe (2013) Labhane&Mukund (2016). The findings says that the high leveraged firms pay less amount of dividend to the shareholders as compare to the low leveraged firms as the fixed interest liability is high in the high leveraged firms.

Dividend Distribution Tax

There is positive relation between dividend distribution tax and dividend payout ratio. The coefficient of dividend distribution tax is 5.340 and t-statistic is 24.22 with p value 0.5098 indicates that null hypothesis that there is no impact of dividend distribution tax on dividend payout ratio is not rejected at 10% level of significance. The result implies that change in dividend payout ratio cannot be explained by dividend distribution tax of the firm. However the finding is not in consistent with the findings of Damodarn (2000) and Kamat&Kamat (2013). The pharmaceuticals firms does not consider tax rate before declaring dividend payout ratio of the firm.

Return on equity

Positive relation is found between return on equity and dividend payout ratio. The coefficient of return on equity is 0.224 and t-statistic 2.83 with P value 0.0059. The null hypothesis that there is no impact of return on equity on dividend payout ratio is rejected at 1%level of significance. It implies that return on equity (profitability) is significant to explain the change in DPR of the firm. The finding is consistent with the result found by Fama& French (2001), Kania& Bacon (2005), Rozeff (1982), Mirza &Azfa (2010), Maldajian&Khoury (2014) and Wasike& Ambrose (2015). The firm with high profitability pay high amount of dividend to the shareholders in pharmaceuticals Company.

Investment opportunities

Positive relation is found between investment opportunities and dividend payout ratio. The coefficient of investment opportunities is 0.560 and t-statistic .695 with P value 0.488. The null hypothesis that there is no impact of investment opportunities on dividend payout ratio is not rejected at 10%level of significance. It implies that an investment opportunity is not significant to explain the change in DPR of the firm. The finding findings is not consistent with the result found by Fama& French (2001), Aivazian et al. (2003), Malkawi (2007), Al-Shubiri (2011) and Baah et al (2014). The investment opportunity is not an important factor to consider before deciding dividend.

Size

Negative relation is found between Market Capitalization (size) and dividend payout ratio. The coefficient of Market Capitalization (size) is -7.042 and t-statistic -2.51 with P value 0.138. The null hypothesis that there is no impact of Market Capitalization (size) on dividend payout ratio is rejected at 1% level of significance. It implies that Market Capitalization (size) is significant and to explain the change in DPR of the firm. However the result is statistically significant but the relation is not in consistent with the result found Jensen et al. (1992), Fama& French (2001), Manos and Green (2001), Al-Shubiri (2011) and Uwugbe (2013). The result conclude that large size of the firm may have large number of expenses to meet so pay less amount of dividend to the shareholders in pharmaceuticals Company.

Retained profit

Negative relation is found between retained profit and dividend payout ratio. The coefficient of retained profit is -0.133 and t-statistic -2.734 with P value 0.0077. The null hypothesis that there is no impact of retained earnings on dividend payout ratio is rejected at 1% level of significance. It implies that retained earnings is significant to explain the change in DPR of the firm. The finding matches the result of Kapoor et al (2010), Soondur et al (2016) and Gangil&Nathani (2018). As the firm uses profit to finance the future needs of the firm instead to raise from outside.

Sales growth

Positive relation is found between sales growth and dividend payout ratio. The coefficient of sales growth -9.005 and t-statistic -3.100 with P value 0.0027. The null hypothesis that there is no impact of sales growth on dividend payout ratio is rejected at 1 % level of significance. It implies that sales growth is significant to explain the change in DPR of the firm. The finding is consistent with the result found by Brittain (1964), Marfo-Yiadom&Agyei (2011), Wasike& Ambrose (2015) and Gangil&Nathani (2018) that there is significant negative relationship between sales growth and dividend payout ratio of the company. The sales growth of the firms require more funds to finance the smooth production of the product so retain the profit and pay lower amount of dividend to the shareholders in pharmaceuticals firm.

Conclusion

This study examines the determinants of dividend policies of the firms listed on National Stock Exchange under the Auto indices and Pharma indices. Total 9 Automobiles firms and 10 Pharmaceuticals firms listed on exchange of India is used for the study. The analyses are done on the data collected from the financial statements of listed firms and various financial website. The study comprises of 10 years for the period between 2007 and 2016. Unit root test, Fixed Effect and Random Effect, Hausman test is applied on the data. In both the sector the fixed effect model is considered as appropriate after seeing the P value. The results conclude that in automobiles sector DPR is significant positively affected by cash flow, Dividend distribution tax and significant negatively affected by investment opportunities and retained earnings. There is insignificant positive relation between DPR and sales growth, insignificant negative relation with market capitalization, debt to equity ratio and return on equity of the automobiles listed firms. In pharmaceuticals sector DPR is significant positively affected by Return on Equity and significant

negatively affected by debt equity ratio (leverage of the firm), retained earnings, market capitalization (Size of the firms) and sales growth of the firms. There is insignificant positive relation of DPR with cash flow, dividend distribution tax and investment opportunities.

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Study of Financial Performance and its Determinants: Empirical Evidence from Listed Indian 2/3 Wheeler Manufacturer Firms

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ABSTRACT

The present study is based on the study of financial performance and impact of internal financial determinants on financial performance of listed 2/3 wheeler manufacturer firms in India. The study adopted Causal research design which involves the investigation of cause –and- effect relationships. The study is based on secondary data and data has collected from Annual reports of the considered 2/3 wheelers manufactures firms listed at BSE, India. The financial performance of the firms has been measured by Return on Assets (ROA). The identified internal financial determinants were Export Intensity (EXIN), Growth (GRT), Capital Structure (CS), Profitability Ratio (PR), Research and Development Intensity (RDI), Liquidity (LIQ), Non-Debt Tax Shield (NDTS), Interest Coverage Ratio(ICR), Tax (TAX), Operating Efficiency (Dividend Pay Out (DPOT), Capital Intensity (CIN), Tangibility(TANG), Leverage (LEV), Size (SIZE), Working Capital Ratio (WCR) and Operating Profit Ratio (OPR). The results indicated that financial performance was affected by selected internal financial determinants and these internal financial determinants have varying impacts on financial performance.

Introduction

The subject of financial performance has acknowledged significant attention from scholars in the diverse areas of business and strategic management. It has also been the primary concern of organizations as financial performance has implications to organization's health and ultimately its survival. Financial performance of a firm plays a crucial role for better understanding of financial health of the firm. Analysis of financial performance helps in understanding the financial position of the company, level of competition in the industry and detailed knowledge about the cost and profit centres within the firms. The accounting information provided by financial analysis can then be applied by managers, investors, and creditors in their strategic planning and investment decisions.

Financial Performance of the firm is of vital importance for investors, stakeholders and economy at large. As far as the investors are concerned; the return on their investments is very valuable, the organization which are financially sound will fetch steady and high returns on their investments. In addition, financial profitability of a firm will heighten

the income of its employees, fetch better quality products for its customers, and have better friendly environment. Also, more profits will mean more future investments, which will generate employment opportunities and enhance the income of people. Study by Naser and Mokhtar, 2004 stated that those firms which had been shown high performance in terms of efficiency and effectiveness contributed to the economy of the country.

The present study is based on the study of financial performance and impact of internal financial determinants on financial performance. The importance of measuring financial performance will never diminish as it is always important to understand the financial health of the firms in the particular industry. Practitioners, Academicians, Governments, investors; in totality the stakeholders of the firms are always interested to measure, analyse and evaluate the financial health of the firms and take decisions accordingly.

Review of Literature

Ollah (2015) analysed the financial performance of the identified units in the Steel Industry in India which were listed in Stock Exchange. The financial performance of the units was done in respect of liquidity, solvency, activity and profitability. The analysis was done through various financial ratio and ANOVA. The results of the study showed that there was significant difference in the financial performance of selected units in reference with the liquidity, solvency, activity and profitability. Sinthupundaja and Chiadamrong (2015) studied the public firms' characteristics and financial strategies towards financial performance improvements for Thai manufacturing companies listed in Stock Exchange of Thailand during the period of 2006-2010. The study applied Structural Equation Modelling (SEM) where firms' characteristics were represented by Growth, Size and Age of the firm; whereas the financial strategies were represented by level of leverage and liquidity of the firm. Firm size had shown negative impact on the level of leverage but it was positively affected by the liquidity. Liquidity negatively affected the firm financial performance's improvement and the level of leverage positively affected the liquidity. The results also showed that there was no significant direct effect of firm's growth on leverage and firm's financial performance improvement. The age of firms did not show any effect on financial strategies and firm financial performance's improvement. İslamoğlu and Çelik (2015) studied the determinants of Financial Performance in Paper and Paper products firms listed in Borsa Istanbul during the period of 2011- 2014. The study considered the firm specific, industry specific and macroeconomic factors and found out the impact of these factors on the firms' financial performance indicators.

Dharmaraj (2014) studied the Compound Annual Growth Rate of selected financial variables in Indian Automobile Industry during the period of 1998 to 2012. The result showed that Compound Annual Growth Rate of Sales in Companies namely Ashok Leyland Ltd, Hero Motocorp Ltd, Hyundai Motors Ltd, Maharashtra Scooters Ltd, Maruti Suzuki Ltd, and Tata Motors Ltd were highly increased during the study period. The study on growth of Indian Automobile Industry by Sumathi (2014) for the period of 2001-2010 revealed that Industry showed the fairly satisfactory performance. The study covered seventeen automobile companies and analysed the growth on Net Sales, Total

Current Assets, Total Current Liabilities and Total expenses. The results showed the satisfactory growth in the performance of the companies.

Ali et. al (2013) studied the determinants of financial performance of textile firms in Pakistan during the period of 2005-2010. The study applied regression model and concluded that firm's performance in textile sector of Pakistan was significantly affected by Short term leverage, size, risk, tax and non-debt tax shield. Growth of BSE listed Automobile Sector in India has been studied by C. Gopala Krishna et. al (2013) in this study the researchers investigated the growth and profitability position of listed automobile sector during 2001-02 to 2011-12. The regression analysis, Analysis of Variance and Linear growth model has been used for finding the growth and profitability of the listed automobile sector. Ashraf and Rasool (2013) studied the determinants of leverages of Automobile sector firms listed in Karachi Stock Exchange during the year 2005-2010. The study applied ordinary Least Square Methods and analysed the data by STATA 11 software on the panel data. The study concluded that firms in automobile sector of Pakistan use pecking order theory for their long term financing decision. Only three variables Size, tangibility and growth were significant and other variables profitability, tax, risk and NDTs were insignificant for determining the leverage decisions in the firms. Jain and Mehta (2013) used accounting ratios and analysed the profitability position of the selected top automobile companies during the period of 2009-2013. The study applied Ratio analysis as an accounting technique and ANOVA as a statistical technique. The ANOVA statistics showed that, the ROCE of selected automobile units are different. Dharmaraj and Kathirvel (April 2013), analysed the Financial Performance of Selected Indian Automobile companies, fifteen Indian automobile companies have been selected to see to what extent they were profitable, financially strength, and liquidity position.

Das et. al (2012) studied the impact of research and development in Indian Automobile Industry during the period of 1990 to 2008 based on secondary data. The study resulted that R&D plays a vital role both for reducing cost and promoting market performance. Research and development is advantageous not only for the entrepreneurs but also for the employees of the large scale firms. Ray (2012) evaluated the performance of Indian Automobile Industry for the period of 2003-04 to 2009-10. The ratio analysis had been applied by the researcher where various ratios were calculated viz. Debt/Equity Ratio, return on Investment (ROI), Fixed Assets Turnover ratio, Profitability, Earning power ratio, export to sales, Liquidity ratio, Interest coverage ratio. The results indicated that the Automobile industry was passing through turbulent phases characterized by enhanced debt burden, liquidity crunch and low utilization of assets. The researcher concluded that the key to success for automobile companies is to improve labour productivity and capital efficiency. Jamali and Asadi (2012) studied the relationship between the management efficiency and the firms' profitability for a sample of thirteen auto manufacturing companies listed on the BSE located in Pune for the period of 5 yrs from year 2006 to 2010. The profitability has been measured by Gross Profit Ratio and managerial efficiency were measured thorough the study applied regression analysis and found that the profitability and management efficiency were highly correlated to each other. Venkatesan and Nagarjan (2012) analysed the profitability of selected steel companies in India by calculating various ratios. The study was depended purely on secondary data and the profitability of the selected steel companies was measured by the

direct and indirect expenses and two way ANOVA of ROA. The study applied some statistical tools like ANOVA and correlation analysis and concluded that profitability more or less depends upon the better utilization of resources, cut off expenses and quality of management function in the products, customer services and to manpower and goodwill and market share. Memon and Tahir (2012) analysed the performance of manufacturing companies in Pakistan during the period of 2006-10 using financial ratios. The study measured the total assets as indicator of size, total expenses as indicator of cost; Sales as indicator of revenue; Profit before tax and Return Assets (ROA) as indicators of profitability. It was found that sales and total assets were positively associated with profit before tax which indicated that selected firms enjoyed the economies of scale. It was revealed that larger firms were able to take advantage of their size.

Study by Ray (2011) measured the financial health of listed automobile industry in India during the period 2003-04 to 2009-10. The model of Altman's Z score was applied to assess the corporate financial distress of the selected firms in automobile industry in Indian. The study applied Altman's Z Score Model where Z value showed the overall index of Bankruptcy. It was found that the financial performance of the firms was viable for the study period but in near future the problem of bankruptcy may be faced by the selected firms; if regulatory measure were not taken immediately. The study by Vijayakumar, (2011) examined the determinants of profitability of selected Automobile Industry. The results showed that size was the strongest determinant of profitability followed by the variables vertical integration, past profitability, growth rate of assets and inventory turnover ratio. The selected variables had both positive and negative contribution in variation of profit rate. VijayKumar (2011) studied the management of corporate liquidity and profitability of Indian Automobile firms for the period of 1996-2009. The study found that the relationship between Cash conversion cycle (liquidity) and firm's profitability. The liquidity was associated the working capital for the firm. The control variables for the firms were Size of the firm, growth in its sales and financial leverage. The study found that firm size was positively related to profitability; the variable growth showed the positive sign while leverage was negatively associated with profitability of the firm. Goswami and Sarkar (2011), studied the association of working capital and risk with profitability of the company i.e. Tata Steel. The efficiency of working capital management was measured by various financial ratios. The result showed that out of various ratios for measuring working capital, some showed negative association and some showed positive association. The high leverages showed the high risk taken by the company.

Kuntluru et al. (2008) studied the impact of foreign ownership on financial performance of pharmaceutical firms in India. The study analysed 102 Indian pharmaceutical firms for the period 1998–2005. The researcher found that the foreign ownership has a positive and statistically significant impact on the financial performance of pharmaceutical companies in India.

Two/three wheelers industry

The two-wheeler industry in India has been in existence since 1955. It consists of three segments viz., scooters, motorcycles, and mopeds. The increase in sales volume of this industry is proof of its high growth. In 1971, sales were around 0.1 million units per

annum. But by 1998, this figure had risen to 3 million units per annum. In year 2016-17 the production of two wheelers raised to 1,84,99,970. India is the second largest two wheelers manufacturers (ACMA). Total production of two wheelers in year 2016-17 was 19929485 (SIAM). Three wheelers segment covered passenger carrier and goods carries. The total production of three wheelers in the financial year 2016-17 was 783149 vehicles.

Methodology

The study adopted Causal research design which involves the investigation of cause – and- effect relationships. The study is based on secondary data and data has collected from Annual reports of the considered two/three wheelers manufactures firms listed at BSE, India. The study has an attempted to measure the impact internal financial determinants on financial performance of 2/3 wheelers manufacturers automobile firms listed at BSE, India as on 31.03.2016. The financial performance of the firms has been measured by Return on Assets (ROA). The identified internal financial determinants were Export Intensity (EXIN), Growth (GRT), Capital Structure (CS), Profitability Ratio (PR), Research and Development Intensity (RDI), Liquidity (LIQ), Non-Debt Tax Shield (NDTS), Interest Coverage Ratio(ICR), Tax (TAX), Operating Efficiency (Dividend Pay Out (DPOT), Capital Intensity (CIN), Tangibility(TANG), Leverage (LEV), Size (SIZE), Working Capital Ratio (WCR) and Operating Profit Ratio (OPR).

Objective of the Study

The objective of the study is to evaluate the impact of internal financial determinants on the financial performance of 2/3 wheeler manufacturer firm in India listed at BSE, India.

To achieve this objective following hypothesis has been framed:

Ho: There is significant impact of internal financial determinants on financial performance of 2/3 wheeler manufacturer firms in India.

H1: There is no significant impact of internal financial determinants on financial performance of 2/3 wheeler manufacturer firms in India.

Sample Selection

The sample for the study comprised of auto manufacturers firms listed at BSE India in the category of 2/3 Wheelers. From fifteen listed firms, the sample was reduced due to delisted and bicycle manufacturers firms, as these were not considered in the present study. After removing of these firms the sample reduced to seven.

Table no. 1: Internal Financial Determinants –Dependent Variables

Measures of Financial Performance	Dependent Variable	Measure
Accounting Measure	Return on Assets (ROA)	ROA = Operating Profit/Total Assets

Table no. 2: Internal Financial Determinants –Independent Variables

S. No.	Independent variables	Measures
1	Size (SIZE)	Natural Logarithm of Total Assets (Log TA)
2	Profitability Ratio (PR)	Net Profit x 100/Sales
3	Liquidity Ratio (LR)	Current Assets/Current Liabilities (CA/CL)
4	Operating Efficiency (OEF)	Operating Profit/Net Profit
5	Growth (GRT)	Compound Annual Growth Rate of Sales (CAGRS)
6	Leverage (LEV)	Total Debt to Total Assets (TD/TA)
7	Capital Structure (CS)	Total Debts (TD) /Equity (E)
8	Dividend Payout Ratio (DPOT)	Dividend Per Share (DPS)/Earnings Per Share (EPS)
9	Research and Development Intensity (RDI)	Research and Development Expenses (R&D)/Total Sales
10	Asset Tangibility (TANG)	Fixed Assets/Total Assets
11	Operating Profit Ratio (OPR)	Operating Profit x 100/Sales
12	Working Capital Ratio (WCR)	(Current Assets-Current Liabilities)/Sales
13	Tax (TAX)	Current year tax/Earnings before tax (CYT/EBT)
14	Non-Debt Tax Shield (NDTS)	Depreciation and Amortization/Total assets
15	Capital Intensity (CIN)	Total Assets/Total Sales (TA/TS)
16	Interest Coverage Ratio (ICR)	Earnings Before Interest and Tax/Interest (BEIT/I)
17	Export Intensity (EXIN)	Net Exports x 100/Total Sales

Model specification

$$ROA = \beta_0 + \beta_1 SIZE + \beta_2 PR + \beta_3 LIQ + \beta_4 OEF + \beta_5 GRT + \beta_6 LEV + \beta_7 CS + \beta_8 DPOT + \beta_9 RDI + \beta_{10} TANG + \beta_{11} OPR + \beta_{12} WCR + \beta_{13} TAX + \beta_{14} NDTS + \beta_{15} CIN + \beta_{16} ICR + \beta_{17} EXIN + ut$$

Where;

ROA = Return on Assets, β_0 = Intercept, SIZE = Size, PR = Profitability Ratio, LIQ = Liquidity Ratio, OEF= Operating Efficiency, GRT= Growth, LEV=Leverage, CS=Capital Structure, DPOT=Dividend Payout Ratio, RDI= Research and Development Intensity, TANG=Asset Tangibility, OPR=Operating Profit Ratio, WCR=Working Capital Ratio, TAX = Tax, NDTS= Non-Debt Tax Shield, CIN= Capital Intensity, ICR=Interest Coverage Ratio, EXIN= Export Intensity & ut = Error term.

Data Quality Analysis

The present study collected secondary data and analysed using SPSS 21.0 and Stata 10.0 software for windows. Normality of data checked by descriptive statistics, Heteroscedasticity was checked by homoscedastic Breusch-Pagan / Cook-Weisberg test. Autocorrelation checked by Durbin-Watson test and multi-collinearity checked by VIF. Multi-collinearity was measured through Variance Inflation Factor (VIF) and it was found that in regression model the multi-collinearity exists and VIF for Operational Efficiency (OEF, VIF=77.152) and Operating Profit Ratio (OPR, VIF=68.007) were not under the accepted value. It was necessary to take corrective action as these two independent variables are based on operating profitability of a firm. So, on removing OEF and keeping OPR as independent variable, the results were found to be under accepted value.

Correlation Analysis

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Table No. 3: Correlation Matrix

		RO A	SIZ E	PR	LIQ	GRT	LEV	CS	DP OT	RDI	TAN G	OP R	WC R	TAX	ND TS	CIN	ICR	EXI N
RO A	Pearson Correlati on	1	.681 **	.563 **	-.023 *	0.037	-.603 **	0.063	.477 **	0.01	-.357 **	.726 **	-.008	.324 **	.251 *	-.276 *	0.211	0.139
	Sig. (2- tailed)		0	0	0.055	0.760	0	0.05	0	0.932	0.002	0	0.946	0.008	0.036	0.021	0.079	0.25
	N	70	69	70	70	70	70	70	70	70	70	70	70	66	70	70	70	70

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The above mentioned table has showed that SIZE ($r = +0.681$ at 1% level of significance), PR ($+0.563$ at 1% level of significance), DPOT ($+0.477$ at 1% level of significance), OPR ($+0.726$ at 1% level of significance), TAX ($+0.324$ at 1% level of significance) and NDTs ($+0.251$ at 5% level of significance) had shown positive and significant correlation with ROA.

GRT ($+0.037$ at 1% level of significance), CS ($+0.063$ at 1% level of significance), RDI (0.01 at 1% level of significance), ICR ($+0.211$ at 1% level of significance) and EXIN ($+0.139$ at 1% level of significance) had shown positive but insignificant correlation with ROA.

LEV (-0.603 at 1% level of significance), TANG (-0.357 at 1% level of significance) and CIN (-0.276 at 5% level of significance) had shown negative and significant correlation with ROA.

LIQ (-0.23 at 1% level of significance), WCR (-0.008 at 1% level of significance), had shown negative and insignificant correlation with ROA.

Regression Analysis

Table no. 4: Regression Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	.962 ^a	.925	.901	.11239	.925	37.831	18	49	.000	1.688
a. Predictors: (Constant), EXIN, CIN, TANG, GRT, RDI, ICR, NDTs, LIQ, CS, DPOT, LEV, TAX, PR, SIZE, WCR,										OPR
b. Dependent Variable: ROA										

The above table depicted that the value of R square is 0.925 so 92.5% variation in dependent variable; ROA, is explained by the independent variables, Export Intensity (EXIN), Growth (GRT), Capital Structure (CS), Profitability Ratio (PR), Research and Development Intensity (RDI), Liquidity (LIQ), Non-Debt Tax Shield (NDTS), Interest Coverage Ratio (ICR), Tax (TAX), Dividend Pay Out (DPOT), Capital Intensity (CIN), Tangibility (TANG), Leverage (LEV), Size (SIZE), Working Capital Ratio (WCR) and Operating Profit Ratio (OPR). This implies that model so applied is good and statistically fit.

Table no 5: Analysis of Variance (ANOVA)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.646	16	.478	37.831	.000 ^a

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	Residual	.619	49	.013		
	Total	8.265	65			
a. Predictors: (Constant), EXIN, CIN, TANG, GRT, RDI, ICR, NDTs, LIQ, CS, DPOT, LEV, TAX, PR, SIZE, WCR, OPR						
b. Dependent Variable: ROA						

The above mentioned table no. of analysis of ANOVA showed that calculated probability is (P=0.000) 0.000 which is less than 0.05 so it is significant and showing that at least some of the independent variables have significant impact on dependent variable ROA.

Table no. 6: Coefficients of Regression

Model	Unstandardize		Standardize		Sig.	95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta	t		Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	-0.396	0.157		-2.526	0.015	-0.711	-0.081		
SIZE	0.112	0.034	0.252	3.342	0.002	0.045	0.18	0.269	3.714
PR	-0.116	0.137	-0.062	-0.85	0.400	-0.392	0.159	0.287	3.483
LIQ	0.023	0.034	0.047	0.666	0.509	-0.046	0.092	0.308	3.243
GRT	-7.82E-05	0.002	-0.001	-0.036	0.972	-0.004	0.004	0.968	1.033
LEV	-0.388	0.064	-0.431	-6.075	0.000	-0.516	-0.26	0.303	3.295
CS	0.059	0.009	0.336	6.412	0.000	0.04	0.077	0.558	1.793
DPO T	-0.057	0.058	-0.051	-0.975	0.334	-0.173	0.06	0.567	1.764
RDI	-4.393	1.709	-0.13	-2.57	0.013	-7.829	-0.958	0.594	1.684
TAN G	0.514	0.091	0.385	5.633	0.000	0.331	0.697	0.327	3.056
OPR	1.833	0.237	0.828	7.738	0.000	1.357	2.31	0.133	7.497
WCR	-0.035	0.058	-0.046	-0.594	0.555	-0.151	0.082	0.25	4.007
TAX	-0.011	0.121	-0.006	-0.094	0.925	-0.255	0.233	0.442	2.261
NDT S	0.269	0.244	0.052	1.102	0.276	-0.222	0.76	0.699	1.431
CIN	0.113	0.031	0.264	3.643	0.001	0.05	0.175	0.291	3.442
ICR	-1.13E-05	0	-0.056	-1.203	0.235	0	0	0.699	1.431
EXIN	0.047	0.039	0.051	1.191	0.239	-0.032	0.125	0.839	1.191

The following regression model has been proposed:

$$\text{ROA} = -0.396 + 0.112 \text{ SIZE} - 0.116 \text{ PR} + 0.023 \text{ LIQ} - 7.822\text{E-}0.000 \text{ GRT} - 0.388 \text{ LEV} + 0.059 \text{ CS} - 0.057 \text{ DPOT} - 4.393 \text{ RDI} + 0.514 \text{ TANG} + 1.833 \text{ OPR} - 0.035 \text{ WCR} - 0.011 \text{ TAX} + 0.269 \text{ NDTs} + 0.113 \text{ CIN} - 1.113\text{E-}0.000 \text{ ICR} + 0.047 \text{ EXIN} + \text{ut}$$

Findings & Discussions

The results of the study for 2/3 wheelers manufacturers automobile segment showed that size had positive impact on financial performance. Similar results were also shown by Amal Yasin et. al. (2012) and Hong Yuh Ching (2012). The fixed assets were efficiently used to generate the profitability and when fixed assets increased the ROA has also increased. The regression results showed that Profitability Ratio (PR) had negative impact on accounting measure and statically insignificant. On analysis it has been found that the considered firms had reported losses in some of the financial years and hence PR had shown negative impact on ROA. Liquidity (LIQ) had positive and insignificant impact on ROA; similar results were found by B. Charumati (2012). Higher liquidity increased the ROA; the firms took advantages of liquidity. Another finding of the study is that the Growth (GRT) had shown almost negligible negative impact on financial performance. Another finding of the study is that the Leverage (LEV) had negative and significant impact on financial performance; increment in debts lead to decrement in ROA. More reliance on equity funds will definitely lead to improved financial performance. The firms in this segment were not efficient enough to take advantage of leverage rather it creates negative impact on ROA. Similar results shown by Ram Kumar Kakani, 2001, Zahid et. al. 2013.

Another finding of the study is that Capital Structure (CS) had significant positive impact on financial performance. Capital structure measured as the ratio of debt to equity which shows that if debts in the firm increase it saves tax payments of the firm and there was positive impact on ROA. The results of the study also showed that Dividend Payout (DPOT) had shown insignificant negative impact on ROA. Another finding of the study is that Research and Development Intensity (RDI) had shown significant negative impact on ROA. Increment in Research and Development expenditure was not able to produce sufficient sales for the firm and showed negative impact on financial performance. Research and development activities has motive to increase the product performance with lower operating cost, but in the present sample of study had shown reverse impact. Quality of research should be improved so that expenditure on R & D will match with the revenues.

Another finding of the firm is that Tangibility (TANG) had shown positive and significant impact on ROA. The employed fixed assets have motive to generate revenues and hence have positive impact on ROA. Another finding of the study is that Operating Profit Ratio (OPR) had shown positive and significant impact on ROA. The results indicated that selected firms were operationally efficient and created operating profitability.

Another finding of the study is that Working Capital Ratio (WCR) had shown significant negative impact on ROA. Tax payments (TAX) had shown negative and insignificant impact on ROA. Tax (CYT/EBT) showed the capacity of tax payments of the firm from
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the earnings before taxes. Taxes are paid from the earnings available after payments of interest and during the journey of ten financial years the firms faced losses even. So, TAX had shown negative impact on ROA. Non-Debt Tax shield (NDTS) had shown positive but insignificant impact on ROA. NDTS (Depreciation and amortization/Total Assets) indicated that due to amortization and depreciation amount the firms were able to save taxes and lessen the tax payments to the government.

Capital Intensity (CIN) had shown significant positive impact on ROA. The investments in form of fixed assets were able to generate the returns. Interest Coverage Ratio (ICR) had shown almost negligible impact on ROA. ICR (EBIT/Interest) denoted the capacity of payment of interest amount from the earning of the firm that is earned before interest and taxes.

Another finding of the study was that Export Intensity (EXIN) had shown positive but insignificant impact on ROA. The sales revenues generated by firms had contribution of exports also but results indicated that it is not significant.

Conclusion

Measuring the impact of internal financial determinants on financial performance of 2/3 wheeler manufacturer automobile firms was the basic objective of the present study and it has been by multiple regression analysis. Financial performance has been measured in terms of Return on Assets. Results indicated that financial performance was affected by selected internal financial determinants and these internal financial determinants have varying impacts on financial performance which was measured by regression analysis. Size, Capital Structure, Asset Tangibility, Operating Profit Ratio along with Capital Intensity had positive impact on financial performance. The employed assets were able to generate profitability and made the firms operationally efficient. The more the intensity of capital the larger will be the size and had positive impact on performance. Leverage and Research and Development Intensity had negative impact on financial performance. The assets were financed by debts had negatively influenced performance and expenditure on Research and Development did not created significant sales revenues for the firms.

The selected automobile firms in India are well established firms and some of them have their existence since before independence. Implementation of liberalization, privatization and globalization policy in India and later permission of 100% Foreign Direct Investment (FDI) made this industry more complex and has enhanced the competition. With this backdrop, the Indian firms are struggling and trying to improve their performance as their products and services are facing competition from global players existing in Indian market.

Implication and limitations of the study

The present study is based on the study of financial performance and impact of internal financial determinants on financial performance. The Indian 2/3 W industry has its prominent role in development of economy. Various programs initiated by Government of India recently have considered automobile industry as one of the important industries in manufacturing sector. this research work will contribute in helping the stakeholders of automobile industry in decision making in various areas of financial

performance. The findings of the study are limited to the selected firms and cannot be generalized.

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A Study on Awareness about Digital Financial Services among Students

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ABSTRACT

Utilization of Digitalization financial services increases the level of financial literacy and financial inclusion of people in the economy. Keeping in view the above objective the main aim of this study is to find out the level of awareness among students of higher educational institutes about digital financial services in Delhi. The study has a national importance to increase financial literacy. To collect the responses from students including male and female (both) of higher educational institutes a questionnaire based survey was conducted. In total 210 usable responses were collected. Data were analysed using parametric test. The result shows there is a significance difference between the awareness about digital financial services among male and female students of higher educational institutes. The significance differences about Awareness have also been found on the basis of stream of study, business and non-business. However no significant differences have been found on the basis of their Age and Qualification. The study limits to students of Higher Educational Institutes. Further only Delhi region has been covered under the study. The findings will be valuable for the policy makers about digital financial inclusion and increasing financial literacy

Introduction

Today information technology has accelerated the functions of Indian financial institutions. The current era can be rightly said as a Digital era and it has become essential for banking and financial institutions to focus on digitalization for its survival and growth. Internet has been considered as the most valuable tool for sharing of data and other relevant information. It is the fastest medium of communication (Dr Neeraj Kasuhik, 2014). Information technology is a business driver and thus can be used to reinforce competitive edge (Porter and Millar, 1985). Digital financial services (DFS) helps to deliver basic financial services to the poor people through effective and effective techno-knowledge like instruments needed for innovative technologies i.e. mobile-phones, electric money models and nowadays, platform for digital payment services. Channels provided can help to drop down costs for customers and service providers opening the doors to remote and reserved populations. Financial regulators around the world have realized the tremendous role DFS can play for financial inclusion and seek to unlock this potential by creating enabled environments for digital financial services.

In doing so, regulators seek to learn from policy and regulatory approaches that have been successfully tested and implemented in other countries. The AFI Digital Financial Services (DFS) Working Group actively supports these peer-to-peer learning efforts and provides an ideal platform for exchanging knowledge and experiences among regulators and people working for financial services. Along with adopting a digital system it has also become essential for banks to build awareness among people about digital financial products and services. The research studies around the world have shown lack of financial awareness and knowledge among college students (Greenspan, 2002; Dale and Beville, 2007; Hoffman et al., 2008). The status of digital financial inclusion in India is also very low it means people are not very aware about digital financial services and products (Abheek Barua, 2016; World Bank, 2016). Keeping in view the above problems of digital financial inclusion in the present study researchers have tried to find out the awareness about digital financial services among students of higher educational institutions in Delhi on the basis of demographic variables age, gender, qualification and their stream of study.

Conceptual Clarification (Concepts and Terminologies related to Study)

Digital Financial Services

Digital Financial Services means assessment and delivery of financial services through digital channels, including payments, credit, savings, remittances and insurance. Mobile financial services (MFS) and Online Financial Services are included as a concept of the digital financial services (DFS). In the context of Digital Financial Services, digital channels means use of internet, mobile phones (both smartphones and digital feature phones), ATMs, POS terminals, NFC-enabled devices, chips, electronically enabled cards, biometric devices, tablets, phablets and any other digital system.

Awareness for Digital Financial Services

Digital Financial Services awareness concepts surveyed in this study are: Basic understanding about credit card, debit cards, interest rates, inflation, time value of money, perceptions about risks, knowledge about online payment system, SIPs etc. Awareness about DFS increases the intention to adopt digital financial services system which in short helps to achieve the objective of financial inclusion. Very few studies around the world have surveyed the awareness of students about financial services may be due to complexity in streamlining product offerings by financial institutions (Harrison et al., 2006). This study will contribute to check the financial literacy of students by finding out awareness level.

Review of Literature

In developed nations, where people are more likely to have bank accounts, DFS provide their customers with flexibility in accessing financial services. ADB (2016) show that the low level of financial literacy and low awareness of digital finance channels can reduce customers' patronage of digital financial channels to perform basic financial platforms. Digital Financial Services (DFS) have significant potential to provide a range of affordable, convenient and secure banking services to poor people in Emerging Economies (Dr. Nageswara Rao, 2018). Technology can eliminate logistical difficulties and significantly reduce transaction costs, thereby increasing financial inclusion in rural areas (Beshouri, Chaia, Cobert, & Gravråk,

2010). The revolution in mobile technology has significantly transformed the financial landscape, prompting banks to provide financial services through digital platforms (Prakash & Gounder, 2007). India is facing lack of digital financial awareness among people because of lack of financial literacy. The wide use of digital technologies has increased the pervasiveness and scale of cyber-attacks that pose significant threat to the security and privacy of customers' data on digital channels; and regulators' awareness of cyber risks could prompt regulators to rethink the trade-off between efficiency and security in financial services (Caruana, 2016). Similarly, customers' awareness that their data is prone to cyber-attacks can make customers loose trust in digital channels, or they may avoid using digital channels to perform important financial transactions until strong customer protection frameworks are in place. Another reason why the poor are excluded from the formal financial system in some developing countries is the problem of voluntary financial exclusion. Some poor individuals in the unbanked population may voluntarily refuse to participate in the formal financial system because lack of awareness of the benefits of digital financial services, lack of good credit score or lack of education about how to use digital. Regulators are already focused on designing enabling regulatory frameworks to accommodate new players and innovative DFS; largely because DFS have been held out as key innovative solutions to improve financial inclusion Buckley, R., & Malady, L. (2015). Users of digital financial services, particularly poor and low incomes individuals, face problems of cyber-attack because of lack awareness of both digital systems and financial products. They are not financially literate and are not always required to read terms of service agreements. Lack of financial awareness have also found in college students (Hoffman et al., 2008).

Research Questions

On the basis of above literature reviews following research questions have been drawn;

RQ1. How do demographic factors in particular age, gender and education level influence the digital financial services awareness of students of higher educational institutes?

RQ2. Does a business degree promote greater digital financial services awareness of students of higher educational institutes?

Objective of Study and Hypothesis

Main Objective

To study the relationship between demographic variables with awareness about digital financial services among students of higher educational institutes in Delhi

Sub Objectives

- To compare awareness about digital financial services on the basis of gender
- To compare awareness about digital financial services on the basis of stream of study Business and Non-Business
- To compare awareness about digital financial services of level of education
- To compare awareness about digital financial services on the basis of level of age group

Research Hypothesis

Ho1: There is no significance difference between Awareness level of Male and Female Students of Higher Educational Institutions about digital financial services.

Ho2: There is no significance difference between Awareness levels of different streams of study of Students of Higher Educational Institutions about digital financial services.

Ho3: There is no significance difference between Mean Score of Awareness level of different categories of Age groups of Students of Higher Educational Institutions about digital financial services.

Ho4: There is no significance difference between the mean score of Awareness level for Qualification of Students of Higher Educational Institutions about digital financial services.

Research Methodology

Research Design

The universe of the study consists of the students of higher educational institutes in Delhi in various age groups. This research study is only based upon descriptive research designs where researcher has no control over the variables; we can only report what has happened & what is happening.

Research Setting

The proposed study is conducted on the awareness about digital financial services among students of higher educational institutes in Delhi. Convenient sampling method has been used as a sampling design and data is collected from primary source through survey questionnaire. Various tool and techniques has been used for the analysis by using SPSS.

Sampling Design

For the selection of the sample, **Convenient Sampling method** has been adopted and an attempt has been made to include all the age groups of students of higher educational institutes.

Research Tools for Data Collection

For the data collection Survey Questionnaire consisting 25 questions on the basis of 4 point scale has been used.

Sources for data collection

To conduct the investigation for achieving the objectives of the study data have been collected from both the primary and secondary sources.

Data Analysis & Interpretation

Gender-Awareness

Ho1: There is no significance difference between Awareness level of Male and Female Students of Higher Educational Institutions about digital financial services.

Levene's Test for Equality of Variances was conducted using SPSS for testing research hypothesis since the significant value was more than 0.05 which states that equal variances are assumed.

Table: 1: Group Statistics					
	1# Gender	N	Mean	Std. Deviation	Std. Error Mean
awareness	Male	96	1.67	0.5421	0.0553
	Female	114	1.88	0.5955	0.0558

Table: 2: Independent Sample Test			
Parameter	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Awareness about digital financial services	-2.72	208	0.007

Interpretation

Since the value of $p < 0.05$ in awareness about digital financial services, we reject the null hypothesis stating that there is significant difference between male and female students on awareness about digital financial services.

Stream of Study-Awareness

Ho2: There is no significance difference between Awareness levels of different streams of study of Students of Higher Educational Institutions about digital financial services.

Table: 3: Group Statistics					
	Stream of Study	N	Mean	Std. Deviation	Std. Error Mean
awareness	Non- Business Stream	115	1.696	.5612	.0523
	Business Stream	95	1.891	.5883	.0604

Table: 4: Independent Sample Test			
Parameter	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Awareness about digital financial services	-2.45	208	0.015

Interpretation

Levene's Test for Equality of Variances was conducted using SPSS for testing research hypothesis since the significant value was more than 0.05 which states that equal variances are assumed. Since the value of $p < 0.05$ in awareness about digital financial services, we reject the null hypothesis stating that there is significant difference between number of hours used on internet by students on awareness about digital financial services.

Age –Awareness

Ho3: There is no significance difference between Mean Score of Awareness level of different categories of Age groups of Students of Higher Educational Institutions.

Table: 5: Test of Homogeneity of Variances
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Awareness			
Levene Statistic	df1	df2	Sig.
.148	2	206	.862

Table: 6: ANOVA awareness					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.501	2	.750	2.249	.108
Within Groups	68.724	206	.334		
Total	70.224	208			

Interpretation

Since the value of p is .108 which is more than 0.05 therefore, we accept the null hypothesis concluding that the awareness level is not different at different age groups.

Multiple Comparisons

Table: 7: Dependent Variable: Awareness Tukey HSD		
Age in years	Age in years	Sig.
Below 18	Between 18-21	0.488
	Above 21	0.146
Between 18-21	Below 18	0.488
	Above 21	0.259
Above 21	Below 18	0.146
	Between 18-21	0.259

Interpretation

As per the results shown all the groups are having p value greater than 0.05 indicating that different age groups are not holding different awareness about digital financial services.

Qualification-Awareness

Ho4: There is no significance difference between the mean score of Awareness level for Qualification of Students of Higher Educational Institutions.

Table: 8: Test of Homogeneity of Variances Awareness			
Levene Statistic	df1	df2	Sig.
2.875	3	206	.037

In Levene's statistics the significance value .037 is less than 0.05 so data equal variances could not be assumed between different categories of qualification thus instead of ANOVA, Welch test has been used. The results have been shown in table 9.

Table: 9: Robust Tests of Equality of Means Awareness				
	Statistic	df1	df2	Sig.
Welch	1.653	3	11.049	.234
a. Asymptotically F distributed.				

Interpretation

Since the value of p is .234 which is more than 0.05 therefore, we accept the null hypothesis concluding that the awareness level is not different at different level of qualification.

Conclusion

The adoption of digital financial system by banking and financial sectors in India is increasing because of increased digitalization process in the country. The study has found that there are differences in awareness level of males and females about digital financial services. Additionally, there are no significant differences in age groups and qualification level to the level of awareness about digital financial services. It means no difference exists at different age and qualification of students in respect of awareness about different dimensions of digital financial services. These findings of this study have been supported by earlier studies by Worthington (2006) and Borden et al. (2008). The difference in awareness level has been found in the business and non-business stream students Peng et al. (2007). The current study is not free from limitations. Firstly, the study has been conducted on students of higher educational institutes of Delhi only that may not be applicable in other cities of country. Secondly, the study covers awareness about digital financial services on students only which may not be applicable to working individual, housewives, senior citizen etc. Thirdly, the sample size taken for the study is only 235 which are very small and on the basis of which 100% accuracy of result cannot be predicted. At last, only few demographic variables i.e. Age, Gender and Qualification and Background of study of respondents have been taken for study while other socio-economic variables like income of family, family environment and peer groups of individual also affect their awareness level about digital financial services.

All these variables could be investigated in future research. Since the examination has been done on the basis of self-structures questionnaire, it can lead the chances of biasness. The limitations of this study can provide a scope for future qualitative study in the field of awareness about digital financial services related to urban and rural students, working and non-working individuals, students and working differences etc. Moreover the outcomes of this study are based on primary and secondary data which have its own limitations. For future studies, researcher can try to reduce all these limitations and can include a big sample size.

In addition, many studies have found that investment in digitalization had increased economic growth and women empowerment (Islam, 2015). Therefore, this study has a significant contribution to the policy makers and practitioners.

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The Dynamic Long Run and Short Run Linkages between Exchange Rates and BSE Sensex Return

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ABSTRACT

The present study explored the dynamic effects of Exchange rates on BSE Sensex return over a period of April 2002 to March 2017. The study analyzes the long run relationship between exchange rates and BSE Sensex return, and examine short run effect of exchange rates on BSE Sensex return. The study employed statistical techniques namely, ADF Test, Correlation, OLS Regression, Co-integration Test, Granger Causality Test, VAR model and GARCH. The exchange rates play a curial role in BSE Sensex returns and deprecation of exchange rate affects growth of stock market and economy of a country. The study results found that exchange rates were negative correlated on BSE Sensex return. In regression results revealed that exchange rates were 26 percent influenced on BSE Sensex returns, especially US exchange rate recorded high negative impact on BSE Sensex return compared to other exchange rates. The results exhibited that existence of co-movement relation between exchange rates and BSE Sensex return.

There was no causal effect from exchange rates to BSE Sensex returns. In VAR results exhibited that there was short run effect and GARCH results revealed that exchange rates were significantly volatile on BSE Sensex return. The results concluded that exchange rates were significant impact on BSE Sensex return and there was existence of long run relationship between exchange rates and BSE Sensex return. The study results suggested to investor's community should aware about the movements of exchange rates; particularly in US XR because it has highly interaction with Indian stock market and it may reduce the risk from the high fluctuation of exchange rates. Policy maker should improve the policy regime and need to increases the exports comparatively import, reduce the rate of inflation, increases the production index, and government policy would positive effect the stock market and the growth of economy of a country.

Introduction

In India, after liberalization, foreign capital control and adoption of floating exchange rate system which have evidence the scope of the study, the relationship between exchange rates and stock market are interdependent. The liberalization

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of foreign capital has given a way to international investment and increase the volatility of foreign exchange market by the adaptation of floating exchange rate system. Therefore, the study examines the linkage between exchange rates and stock prices. The difficult of foreign exchange arose owing to international trade. When commodities are exchanged, there has to be some rate or ratio of exchange between them. The real exchange rate is a part of economic performance in both developed and developing countries. It has been one of the major issues of macroeconomic policy in the recent years. The exchange rates movements in India are considered to be a function of trade balance, foreign exchange reserve, ratio of WPI of foreign country to the WPI of India, ratio of net invisible earnings to the total foreign exchange earnings of India and the cross country rates between Dollar and other foreign currencies. The implication of exchange rate policy is consistently and predominately in serving to attain such sustainable economic growth. It is a crucial part of macro-economic variables and an important determinant of external sector of the economy. Generally, in macroeconomic, there is positive correlation between national income and exchange rate. The volatility of exchange rate due to internal and external shocks can produce currency crisis of the economy which causes financial sector and stock market and disturb all the macroeconomic variables even whole structure of the economy.

The impact of stock market prices variation causes by the fluctuation of exchange rates. The exchange rate causes by all macroeconomic variables and it has inter-link with development and growth of stock market. The linkage exists between exchange rate and stock prices nor on the direction of relationship between them. There are two model for determine the exchange rate, flow oriented model and stock oriented model. Flow model adopt the exchange rate is determined by a country currency account deficit or balance of payment performance. This model has positive relationship between exchange rate and stock price. On other side, stock model put stress on the role of financial account in the exchange rates determination. In this model can be illustrious on portfolio balance and monetary model. Portfolio balance assumes a negative relationship between exchange rate and stock prices and stock prices have impact on exchange rate. Monetary model, exchange rate is assuming the price of asset. The actual exchange rate has persistent by the future exchange rate. The only variable influenced the actual exchange rate, which affect the future exchange rate value. The relationship between exchange rate and stock market which has drawn the attention of investment community and policy makers, the both has play an essential role to influencing the economic growth and development of financial sector and economic of a country.

Review of Literature

This section discusses the literatures regarding to exchange rates and stock price relationship and its effects. There are numerous studies related to relationship between exchange rate and stock price, few of literature were given in following

The article entitled “The relationship between exchange rate and stock prices: studies in a multivariate model”, by Desislava Dimitrava (2005) investigated the

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impact and causal relationship between exchange rate and stock prices. The results found that the link was positive between stock price and exchange rate. The stock price leads exchange rate and when it was negative, exchange rate leads stock prices. Depreciation of exchange rate causes decline of stock market and it denoted that both variables have positive correlated. The study suggested that economic policy would be favourable for the stock market, though the nation target appreciation the exchange rate in time of rising stock prices, still the policies could remain ineffective.

The research entitled “On the causality between stock prices and exchange rates: evidence form Turkish financial market” by Yasar Kose et al. (2010) revealed the direction of relationship between stock prices and exchange rates of Turkish during the study period from February 23rd 2001 to November 4th 2009. The study found that there was unilateral linkage from stock price to exchange rates for the Turkish and results identified that the existence of causality between exchange rates and stock prices index. The results implicated that policy makers and economist to perceive the movement of stock price as a vigorous determinant, which may affect positively on the exchange rate policy.

A study by Husam Rjoub (2012), on his research entitled “Stock price and exchange rate dynamics: Evidence from emerging markets”. The study examined dynamic relationship between the Turkish stock price and exchange rates, and also considered the US stock market in both long run and short run. The study found that there was co-integration relationship between Turkish stock price and exchange rates. There was exists of bilateral relationship between Turkish stock price and exchange rates. In impulse response results revealed that there was shock among the Turkish stock prices, exchange rates and US stock prices. It's concluded that exchange rates had negative strong impact on Turkish stock prices and also results suggested to policy makers, the depreciation of Turkish lira will help to growth of an economy though it will not solve the trade problem.

Sazali Abidin, et al. (2013), “Co-integration between stock prices and exchange rates in Asia-Pacific countries”. The study explored the linkage between stock markets and exchange rates over a period from 2006 to 2008. The results found that no co-integration between stock markets and exchange rates. The study concluded that during the study period, there were no long run significant relationship between exchange rates and stock markets.

“Dynamic relationship between stock prices and exchange rates: evidence from three South Asian Countries” by Md. Lutfur Rahman and Jashim Uddin investigated the interactions linkage between stock price and exchange rates in three emerging south Asian countries as Bangladesh Taka, Indian Rupee and Pakistan Rupee and monthly data of Dhaka Stock Exchange, Bombay Stock Exchange and Karachi Stock Exchange during the period from Jan 2003 to June 2008. The study found that no co-integration relation and no causal relationship between stock prices of countries and exchange rate of countries. The results suggested that belief among the investors that there was an association between stock prices and exchange rates.

The article entitled “Exchange rate and stock price interactions in emerging financial markets: evidence on India, Korea, Pakistan and the Philippines” by Issam S.A. Abdalla and Victor Murinde, examined the relationship between exchange rates and stock prices in the emerging markets of selected countries. The objective of the study was to test the causal relationship between lead price in the foreign exchange market and stock market. The results found that unilateral causal from exchange rates to stock prices in all selected sample countries, except Philippines. The study suggested that government should be attention in their implementation of exchange rate policies, such kind of policies have effects on their stock market.

The study entitled “The impact of macroeconomic variables on Indian stock market using factor analysis approach,” by Baranidharan. S., and Vanitha. S, (2015), analysed the effect of macroeconomic variables on performance of BSE Sensex returns over the period from April 2000 to March 2014. The study found that approximately 52.54 percent accounted variance among the selected variables. The orthogonal rotation test extracted three factors namely macro-economic, capital market performance and macro-environment. It found that these three factors exhibited significant and positive affected the stock market performance during the study period.

Baranidharan. S., and Vanitha. S, (2015), on their study entitled “The effect of macroeconomic and financial related variables on stock market capitalization of global growth generator countries. The study revealed that the selected macroeconomic and financial variables had significant impact on stock market capitalization of 3G countries. Particularly, China, India and Bangladesh had high impact and exhibited stability in long run relationship whereas Indonesia showed instability impact. The study advised to investors could invest in China, India and Bangladesh stock market and policy makers should improve the polices and foreign investments which would bring the effective growth of economy of a country.

Objective of the study

- To examine the correlation relationship between exchange rates and BSE Sensex return.
- To analyse the impact of exchange rates on BSE Sensex return.
- To test the long run and short run relationship between exchange rates and BSE Sensex return.
- To investigate the causal effect of exchange rates on BSE Sensex return.
- To analyse the volatility of exchange rates on BSE Sensex return.

Hypothesis of the study

- There is no correlation relationship between exchange rates and BSE Sensex return.
- There is no impact of exchange rates on BSE Sensex return.

- There is no long run relationship between exchange rates and BSE Sensex return.
- There is no short run relationship between exchange rates and BSE Sensex return.
- There is no causal effect of exchange rates on BSE Sensex return.
- There is no volatility of exchange rates on BSE Sensex return.

Methodology of the study

a. Sample selection

In the present study, the sample is selected based on four key active exchange rates which were influenced Indian currency and economy of a country. There are four selected exchange rates namely, US dollar, Pound, Euro and Yen, BSE Sensex as considered the Indian stock market.

b. Period of the study

The study covers over a period from April 2002 to March 2017 and used monthly data for selected variables.

c. Tools used for analysis

The empirical study used tools based on the objectives of the study, the tools employed to test the hypothesis. The tools used ADF Test for stationary, Correlation for relationship, OLS regression for Impact, Co-Integration Test for long run, VAR for short run, Granger causality for Causal effect and GARCH for volatility.

1. Correlation Analysis

The analysis of correlations coefficient is to find out the relationship between variables, the sign of values indicates the relationship, it may be positive and negative. The range of correlation coefficient from -1 to 1, if the correlation coefficient 1 means strong positive or perfect correlation or if the correlation coefficient -1 means strong negative correlation. If correlation value is 0 means no correlation. The absolute value of the correlations coefficient give us the relationship strength.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

2. OLS regression

Ordinary Least Square (OLS) regression is generalized linear simple regression technique that may be used to model single or multiple explanatory variables influence approximately on dependent variable. The explanatory variables predict the impact by the linear approximately of the data.

d. Source used for study

This study is mainly based on secondary data and source are collected from India-stat website, RBI website and BSE website.

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Results and Interpretations

Table-1: Results of ADF Test for Exchange Rates and BSE Sensex Return during the study period April 2002 to March 2017

Augmented Dickey-Fuller test statistic		Test critical values			Prob.*
Name of the Variables	t-stat	1% level	5% level	10% level	
BSE Sensex returns	-11.8437	-3.46969	-2.87872	-2.57601	0
Euro Returns	-12.813	-3.46969	-2.87872	-2.57601	0
Pound Returns	-12.3682	-3.46969	-2.87872	-2.57601	0
US Dollar returns	-11.5888	-3.46969	-2.87872	-2.57601	0
Yen Returns	-11.081	-3.46969	-2.87872	-2.57601	0

Source: Data collected from www.indiastat.com, www.rbi.org.in, www.bseindia.com and computed from E-Views 7.

Table-1 represents the unit root test, Augmented Dickey Fuller test used to analyse whether time series data is stationary or not. If the time series data is stationary, it helps to do further analysis. The results of ADF test revealed that the value of t-statistic of selected macroeconomic variables and BSE Sensex were lower than the critical value at 1 percent, 5 percent and 10 percent, which means variables were stationary. Hence, the null hypothesis “There is no stationary of exchange rates and BSE Sensex returns” is rejected and alternative hypothesis is accepted.

Table-2: Results of Descriptive Test of Exchange Rates and BSE Sensex return during the study period April 2002 to March 2017

	BSE Returns	EURO Returns	POUND Returns	US Returns	YEN Returns
Mean	0.011583	0.004491	0.002567	0.002188	0.00269
Median	0.010789	0.002942	0.002974	0.000506	0.000704
Maximum	0.282551	0.089026	0.111524	0.089327	0.140642
Minimum	-0.2389	-0.07294	-0.08881	-0.06741	-0.07854
Std. Dev.	0.072442	0.029495	0.028749	0.023707	0.035216
Skewness	-0.15674	0.097418	0.224424	0.494141	0.539269
Kurtosis	4.130194	2.91584	4.071665	5.256057	4.044758

Source: Data collected from www.indiastat.com, www.rbi.org.in, www.bseindia.com and computed from E-views 7.

From the above table-2 depicts the descriptive analysis results, BSE Sensex returns exercised high mean return at 0.011583 and high standard deviation at 0.072442, US exchange rate returns recorded low mean return and low standard deviation while compare to other variables. The selected variables are positively skewed and have a long tail that extend to the right side except BSE Sensex returns and it is negative skewed. In kurtosis, the values of selected sample variables are higher than 3 which indicate that leptokurtic distribution, sharper than a normal distribution and thicker tails. This explains that high probability for extreme values, except euro returns. This test expressed the individuality-

effect of data. All the selected variables are normally performing when comparing each other, BSE Sensex returns performed well.

Table-3: Results of Correlation Relationship between Exchange Rates and BSE Sensex during the study period April 2002 to March 2017

	BSE Returns	EURO Returns	POUND Returns	US Returns	YEN Returns
BSE Returns	1				
EURO Returns	-0.08657	1			
POUND Returns	-0.24378	0.636909	1		
US Returns	-0.49005	0.326339	0.504228	1	
YEN Returns	-0.39213	0.323081	0.331952	0.605669	1

Source: Data collected from www.indiastat.com, www.rbi.org.in, www.bseindia.com and computed from E-Views 7.

Table-3 exposed the results correlation relationship between exchange rate and BSE Sensex returns. It found that BSE Sensex returns has negative correlation with Euro returns at -0.08657, Pound returns at -0.24378, US EX returns at -0.49005 and yen returns at -0.39213 which means if BSE Sensex returns increases, Euro, Pound, Us , Yen exchange rates decreases, vise verse. Euro returns at 0.636909has highly positive correlated with pound returns and moderate positively correlated with US returns at 0.326339 and Yen returns at 0.323081. Pound returns has recorded moderate positive correlated with US returns at 0.504228and Yen returns at 0.331952. US returns at 0.605669 has exercised highly positive correlated with Yen returns. The results of correlation revealed that there is inverse correlation relationship between exchange rate of Euro, Pound, US and Yen and BSE Sensex returns. This study suggests to the investors, fluctuation in exchange rates cause changes in the BSE Sensex returns so, investing in BSE stocks should always aware about the exchange rate movements and it would help to minimize the risk from over instability of exchange rates.

Table-4: Results of OLS Regression Analysis during the study period April 2002 to March 2017

Dependent Variable: BSE Sensex returns				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.014041	0.004904	2.863371	0.0047
EURO Return	0.373932	0.216943	1.723643	0.0867
POUND Return	-0.2159	0.240394	-0.89809	0.3705
US Return	-1.18945	0.28247	-4.21088	0.0001
YEN Return	-0.36433	0.176168	-2.06807	0.0402
R-squared	0.26791	Adjusted R-squared	0.249945	
S.E. of regression	0.062739	Sum squared resid	0.64159	
F-statistic	14.91255	Durbin-Watson stat	1.917003	

Source: Data collected from www.indiastat.com, www.rbi.org.in, www.bseindia.com and computed from E-Views 7.

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Table-4 represents the results of impact of exchange rates on BSE Sensex returns. The R square value 0.26791 which is bit higher than the adjusted R square value 0.249945, it indicates model complexity and better model performance. R square 26.79 percent which is approximately influence the BSE Sensex returns by explanatory variables. Durbin Watson value 1.917003 is near to one which indicates model fit. From the coefficient results, US returns at -1.18945 has strong negative impact on BSE Sensex returns with statistically significant at 1 percent. Yen returns at -0.36433 has weak negative impact on BSE Sensex returns with statistically significant at 5 percent. Pound returns at -0.2159 has weak negative impact on BSE Sensex returns but not statistically significant. Euro returns at 0.3739 has positive weak positive impact on BSE Sensex returns with statistically significant at 10 percent. The results exhibited that US returns and BSE Sensex returns were strong negative coefficient when compare with other variables. Euro returns and BSE Sensex returns were weak positive coefficient. The results suggest that investors should watch carefully the movement of US exchange rate while invest in BSE Stocks and policy maker need to improve the monetary policy which brings growth of economy. Hence, the null hypothesis “There is no impact of exchange rate of US, Euro, Pound and Yen on BSE Sensex returns” is rejected and accepted alternative hypothesis.

Table-5: Results of Co-Integration Relationship between Exchange Rates and BSE Sensex during the study period April 2002 to March 2017

Hypothesized	Trace	0.05	Max-Eigen	0.05		
No. of CE(s)	Statistic	Critical Value	Statistic	Critical Value	Prob.**	Remark
None *	239.1977	69.81889	65.89644	33.87687	0	Co-integrated
At most 1 *	173.3012	47.85613	58.87701	27.58434	0	Co-integrated
At most 2 *	114.4242	29.79707	48.79294	21.13162	0	Co-integrated
At most 3 *	65.63127	15.49471	36.24818	14.2646	0	Co-integrated
At most 4 *	29.38309	3.841466	29.38309	3.841466	0	Co-integrated
Trace test indicates 5 co-integrating eqn(s) at the 0.05 level						
* denotes rejection of the hypothesis at the 0.05 level						
**MacKinnon-Haug-Michelis (1999) p-values						

Source: Data collected from www.indiastat.com, www.rbi.org.in, www.bseindia.com and computed from E-views 7.

The above table-5 explains the results of co-integration between exchange rates and BSE Sensex returns. This test used to found that the long run relationship between the selected exchange rates and BSE Sensex returns. The Trace statistic values were higher than the 5 percent critical value and in Max Eigen statistics critical values at 5 percent were lower than Max-Eigen values which means exist of co-integration between BSE Sensex returns and exchange rate of US, Euro, Pound and Yen. The results revealed that existence of long term relationship between selected exchange rate and BSE Sensex returns. Hence, the null hypothesis “There is no co-Integration between exchange rates and BSE Sensex returns” is rejected and accepted alternative hypothesis.

Table-6: Results of Granger Causality between Exchange Rates and BSE Sensex during the study period April 2002 to March 2017

Pairwise Granger Causality Tests		
Null Hypothesis:	Prob.	Ho
EURO Return does not Granger Cause BSE Return	0.9248	Accepted
BSE Return does not Granger Cause EURO Return	0.9605	Accepted
POUND Return does not Granger Cause BSE Return	0.1918	Accepted
BSE Return does not Granger Cause POUND Return	0.0002	Rejected
US Return does not Granger Cause BSE Return	0.6772	Accepted
BSE Return does not Granger Cause US Return	0.1857	Accepted
YEN Return does not Granger Cause BSE Return	0.8291	Accepted
BSE Return does not Granger Cause YEN Return	0.6013	Accepted
POUND Return does not Granger Cause EURO Return	0.976	Accepted
EURO Return does not Granger Cause POUND Return	0.5994	Accepted
US Return does not Granger Cause EURO Return	0.8556	Accepted
EURO Return does not Granger Cause US Return	0.8203	Accepted
YEN Return does not Granger Cause EURO Return	0.6050	Accepted
EURO Return does not Granger Cause YEN Return	0.0535	Rejected
US Return does not Granger Cause POUND Return	0.5113	Accepted
POUND Return does not Granger Cause US Return	0.1012	Accepted
YEN Return does not Granger Cause POUND Return	0.6177	Accepted
POUND Return does not Granger Cause YEN Return	0.1901	Accepted
YEN Return does not Granger Cause US Return	0.2715	Accepted
US Return does not Granger Cause YEN Return	0.2173	Accepted

Source: Data collected from www.indiastat.com, www.rbi.org.in, www.bseindia.com and computed from E-views 7.

Table-6 denotes the results of granger causality test, Causality test used to analyse the cause and effect between the variables specially to find out the direction of cause. BSE returns cause to change in the pound returns in unidirectional at 1 percent significant level. Cause from Euro returns to Yen returns in unilateral relationship at 10 percent significant level and no variables causes BSE Sensex returns. Hence, the null hypothesis “There is no granger causality between exchange rates and BSE Sensex returns” is partially rejected.

Table-7: Results of Vector Autoregression relationship between Exchange Rates and BSE Sensex during the study period April 2002 to March 2017

Vector Autoregression Estimates Standard errors in () & t-statistics in []					
	BSE Return	EURO Return	POUND Return	US Return	YEN Return

The Dynamic Long Run and Short Run Linkages between Exchange Rates and BSE Sensex Return

BSE Return(-1)	0.020112	0.036381	0.128743	-0.02258	0.008449
	-0.09136	-0.03772	-0.03526	-0.03033	-0.04405
	[0.22013]	[0.96461]	[3.65155]	[-0.74465]	[0.19179]
BSE Return(-2)	0.002411	0.015959	0.048008	0.03356	0.060834
	-0.09972	-0.04116	-0.03848	-0.0331	-0.04808
	[0.02418]	[0.38769]	[1.24758]	[1.01386]	[1.26518]
EURO Return(-1)	-0.08828	-0.00559	0.094911	0.019186	0.205995
	-0.26197	-0.10814	-0.10109	-0.08696	-0.12632
	[-0.33699]	[-0.05172]	[0.93886]	[0.22063]	[1.63080]
EURO Return(-2)	-0.29873	-0.07638	0.078999	0.046137	-0.16184
	-0.2579	-0.10646	-0.09952	-0.08561	-0.12435
	[-1.15833]	[-0.71743]	[0.79379]	[0.53892]	[-1.30142]
POUND Return(-1)	0.26921	-0.01105	-0.07907	-0.05675	-0.12787
	-0.31096	-0.12837	-0.12	-0.10322	-0.14994
	[0.86573]	[-0.08608]	[-0.65893]	[-0.54979]	[-0.85277]
POUND Return(-2)	0.732317	0.016976	-0.06163	-0.05749	0.005353
	-0.27976	-0.11548	-0.10796	-0.09287	-0.13489
	[2.61770]	[0.14700]	[-0.57083]	[-0.61911]	[0.03968]
US Return(-1)	-0.40413	0.099561	0.194934	0.108928	0.314655
	-0.35791	-0.14774	-0.13811	-0.11881	-0.17258
	[-1.12914]	[0.67387]	[1.41139]	[0.91684]	[1.82328]
US Return(-2)	-0.19491	-0.01969	0.021142	0.126663	0.14695
	-0.34868	-0.14394	-0.13456	-0.11575	-0.16813
	[-0.55898]	[-0.13677]	[0.15712]	[1.09432]	[0.87403]
YEN Return(-1)	-0.01888	0.028188	0.021586	-0.01109	0.011623
	-0.21417	-0.08841	-0.08265	-0.07109	-0.10327
	[-0.08814]	[0.31884]	[0.26119]	[-0.15598]	[0.11255]
YEN Return(-2)	-0.04006	0.105622	-0.06451	-0.11182	0.041774
	-0.20618	-0.08511	-0.07957	-0.06844	-0.09942
	[-0.19429]	[1.24097]	[-0.81078]	[-1.63377]	[0.42018]
C	0.012813	0.003765	-4.69E-05	0.001773	0.000706
	-0.00611	-0.00252	-0.00236	-0.00203	-0.00295

The Dynamic Long Run and Short Run Linkages between Exchange Rates and BSE Sensex Return

	[2.09699]	[1.49263]	[-0.01990]	[0.87433]	[0.23980]
R-squared	0.062009	0.021012	0.115532	0.042396	0.085829
Adj. R-squared	0.001494	-0.04215	0.05847	-0.01939	0.02685
Sum sq. resids	0.812538	0.13846	0.121	0.089535	0.188916
S.E. equation	0.072403	0.029888	0.02794	0.024034	0.034912
F-statistic	1.02468	0.332674	2.024662	0.686231	1.455246
Log likelihood	205.9814	352.8565	364.0441	389.0405	327.0666

Source: Data collected from www.indiastat.com, www.rbi.org.in, www.bseindia.com and computed from E-views 7.

Table-7 shown the results of VAR model, comparing coefficient in the model for BSE Sensex return with selected variables, coefficient of US exchange rate at -0.02258 is negative effect on BSE Sensex return while exchange rate of Pound, Euro and Yen are positive shock in short term relationship. Coefficient of US exchange rate is small in the first lag period where as for other variables namely Pound at 0.128743, Euro at 0.036381 and Yen at 0.008449 has much higher significant values at 10 percent. The second lag period all variables are significant effects in short run. All the variables are shock in the short run relationship with BSE Sensex return though the results concluded that the stock market has been affected in short run by the selected sample exchange rates.

Table-8: Results of GARCH Analysis between Exchange Rates and BSE Sensex during the study period April 2002 to March 2017

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.01342	0.004104	3.269907	0.0011
EUOReturn	0.46243	0.218727	2.114194	0.0345
POUNDReturn	-0.24635	0.237469	-1.0374	0.2996
USReturn	-0.93794	0.253026	-3.70688	0.0002
YENReturn	-0.26337	0.153778	-1.71269	0.0868
Variance Equation				
C	-8.35E-06	7.33E-05	-0.1139	0.9093
RESID(-1)^2	0.114386	0.0421	2.717	0.0066
GARCH(-1)	0.88674	0.044773	19.80506	0
$\alpha + \beta$	1.001126			

Source: Data collected from www.indiastat.com, www.rbi.org.in, www.bseindia.com and computed from E-views 7

Above table-8 exhibits the GARCH analysis results, GARCH model used to analyse the next period volatility. The GARCH value is to estimate the model. GARCH values is close to one or one, which indicate that high volatility. It is useful to forecast volatility of asset returns other financial series. RESID (-1) ^2 as consider α and GARCH (-1) as denotes β . The value of α is 0.114386 and β is 0.88674, the GARCH (1, 1) value is 1.001126 and it denote high volatility of BSE Sensex return. The results of GARCH revealed that the significant volatility in BSE Sensex returns, it reflects that negative shock to have higher conditional variance than positive shock. The results recommended to investors should analyse the fluctuation of exchange rates while making their investments in BSE stocks.

Conclusion

The study examined the impact of macroeconomic variables namely exchange rate of US, Pound, Euro and Yen on BSE Sensex return. This study also analysed the long run and short run dynamic linkage between BSE Sensex return and Exchange rates. The study identified that selected exchange rates negatively correlated with BSE Sensex return, especially US XR recorded high negative correlated when compare to others. This results exhibit that exchange rates has inverse relationship with BSE Sensex return. The exchange rates were 26 percent influenced on BSE stock prices during the study period. Whereas US XR has negatively significant impact on BSE Sensex return, compare to other at 1 percent level. The co-Integration results observed that exchange rates of US, Pound, Euro and Yen were co-Integrated with BSE Sensex return in long run relationship. In Granger test, there were no causal effects from exchange rates to BSE stock prices but there was unidirectional effect from BSE Sensex return to exchange rate of pound. The VAR results described that exchange rates were positive short run relationship with BSE Sensex return except US XR has negative short run effect. In GARCH results reported that exchange rates were significant volatile and cause changes in the stock price of BSE. The study concluded that exchange rates were significantly impact on BSE Sensex return and it has both long run and short run linkage with BSE stock prices. The results suggested that fluctuation in exchange rates causes negative changes in BSE Sensex return. US XR has got high impact when comparing to other exchange rates but it has negative impact. If US XR increases, BSE Sensex return decreases vice versa. The results suggested to investment community should conscious about the movements of exchange rates especially US XR because it has interdependent with Indian stock market and it may abate the risk from the high fluctuation of exchange rates. Policy maker should improve the policy regime and need to increases the exports comparatively import, reduce the rate of inflation, increases the production index, and government policy would positive effect the stock market and the growth of economy of a country.

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Factors Effecting the Late-Payment of SASSA Creditors: A case of North-West Province

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ABSTRACT

The main aim of the study was to explore the causes of late payment of creditors by SASSA. In trying to achieve the above aim, a descriptive research design was adopted. In applying this design, a quantitative approach was implemented in data collection and analysis. Both primary and secondary data were consulted because very little or no research has previously been conducted in this area. Empirical data was collected through structured questionnaires that were sent to respondents through email and fax as this involved the entire North-West province. The data were analysed through the use of SPSS version 24 whereby the raw data were captured into the software under different themes and categories as per the different objectives. The findings from the study reveal a variety of reasons relating to late the payment of creditors by SASSA that were categorised into two sections, firstly, creditors motivated reasons and secondly, SASSA motivated reasons. On the side of Creditors, it was revealed during the empirical study that the delay in payment often occurred due to the delay in the submission of invoices by creditors and the submission of incomplete banking details by creditors as the most disturbing issues in facilitating invoices. It was also discovered that in other instances, there were inconsistencies in the supplied details of creditors. On the side of SASSA, the findings from the empirical study reveal that the main challenge encountered in the facilitation of invoices was as a result of a highly centralised payment system. With this system, it takes a very long time for documents to be processed at the local and district levels before being submitted at the regional office where payment is made.

Introduction

The South African Social Security Agency (SASSA) Act No. 9 of 2004 as signed by the President of the Republic of South Africa, has as its objectives to be responsible for the administration and payment of social assistance to eligible persons both young and old; provide for the prospective administration and payment of social security by the Agency and the provision of services related thereto and all matters connected. As such it follows that, everyone has the right to have access to social security, including the right to social assistance, “if they are unable to support themselves and their dependants” (RSA, 2004).

The issue of late payment of creditors for services offered to the community by the authorities, seems to be a general problem in the different sectors of the government. In relation to the above postulation, a study conducted by Thwala and Palladio (2009:533) affirms that late payment by government to small contractors is a major problem facing small contractors among many other issues like the lack of capital and technical skills. This is such a huge problem in the sense this these payment is meant to facilitate the services offered by creditors such as medical support and social facilities. Failure to make payments could directly or indirectly result in serious repercussions like starvation and increase in crime that may be discovered by the end of this study.

Background

In the United Kingdom, the issue of late-payment is basically dealt with by the National Audit office. According to the National Audit Office (NAO, 2015), deliberating on the payment of government suppliers on time, the United Kingdom government in March 2010 that they made huge effort and paid 80% of undisputed invoices within 5 working days.

This was a revision of the original payment commitment that was introduced in 2008 to pay 90% of invoices within 10 working days. It is therefore believed that if such efforts are introduced by the Social development sector in South Africa, the problem of late payment could become history. This is the result of the fact that the United Kingdom government is firmly behind all contractors by ensuring that all new contracts to subcontractors are paid within 30 days (NAO, 2015).

Prompt payment is therefore intended to improve the cash flow of companies doing business with government departments, particularly the UK's 5 million small and medium enterprises (National Audit Office, 2015).

In South Africa, the Public Finance Management Act (PFMA) No.1 of 1999 which serves as the guideline for all public servants, has as its objectives to regulate the financial management in the National government and the provincial governments; to ensure that all revenue, expenditure, assets as well as liabilities of the government are managed efficiently and effectively to provide for the responsibilities of persons entrusted with financial management in those governments (RSA, 1999). In this regard, the said committee entrusted with these responsibilities remains acutely aware of the dire impact of noncompliance, not only on businesses but to the entire economy.

According to this Act (RSA, 1999), the non-compliance in the public sector stifles the economy, especially the township economy, which has been identified as an area of great potential of growth. The Committee is of the view that non-compliance goes against the spirit of the National Development Plan (NDP), which seeks to achieve inclusive economic growth, create job opportunities, eliminate poverty and reduce inequality (National Development Plan, 2011). In addition, and according to the PFMA, (1999) and the National Treasury (2015), it remains unacceptable that departments fail to comply, especially because the stipulation is a legislative requirement contained within the Public Finance Management Act as well as National Treasury regulations. In light to the above, noncompliance is tantamount to breaking the law (RSA, 2011)

At the North West SASSA branch where this research was conducted, over 350 invoices are processed on a monthly basis, involving more than 170 suppliers including doctors, municipalities, Small Medium and Micro-Sized Enterprises, to name but a few (RSA, 2013). The fact that official complaints are made in paying suppliers within 30 days, it creates a negative impact on the operational targets as a Finance Branch in the province. Because of the non-achievement of this operational target, SASSA as a whole, becomes vulnerable to disciplinary action on non-achievement and as such become a serious concern for this researcher.

The researcher, while working as a Manager of Financial Accounting at SASSA, pondered over these challenges in his line of duty and have become the rational for conducting the study in an attempt to investigate reasons for the following predicaments:

- a) Why suppliers trust relationship is broken with the public sector;
- b) This delay as cause for undue hardship in terms of cash flow problems;
- c) Why many suppliers or SMME's opt for loans from financial institutions and why late payment attracts a lot of interest;
- d) Increase in corruption among suppliers which partly contributes to late payments;
- e) Financial crises, to name but a few.

Problem Statement

The payment of creditors is a kind of payment made by SASSA on behalf of the Ministry of Social Development to members of the community either as individuals like medical doctors or companies like municipalities for services offered to the socially disadvantaged persons of the society (RSA, 2004). This payment system has over the last couple of years been faced with series of challenges such as decline in the achievement of the set target according to the Public Finance Management Act No.1 of 1999 which states that all payments must be made within a period of 30 days (RSA, 1999). This Act in section 385(1) further states that the accounting office must settle all contractual obligations and pay all money owing, including inter-governmental claims, within the prescribed or agreed period. This is equally emphasised by the Treasury Regulations (RSA, 2001) which say that unless

determined otherwise in a contract or other agreement, all payments due to creditors must be settled within 30 days from receipt of an invoice.

In this regard, individual investigating bodies, according to SASSA, report that SASSA is currently not meeting its operational target of paying creditors within 30 days. This late payment of creditors is a contravention of the PFMA Regulation Act and hampers service delivery.

The President of the Republic of South Africa, during the State of the Nation address (SONA, 2017), equally mentioned the issue of late payment of suppliers as a matter that requires urgent attention, which to him can be addressed only through a radical economic change. While laying more emphasis on the problem, Ambe and Badenhorst-Weiss (2010:2110), explain that the public sector is being recognised as one of the most important customer groups for many suppliers and service providers because of the volume of public expenditure. The severity of the problem of late payment becomes even more intense as reported by Ambe and Badenhorst-Weiss (2012:11003) that, “in spite of Cabinet intervention launched to ensure that government departments pay contractors within 30 days, many small independently owned businesses, still do not get paid on time”. Though with very little or no existing literature regarding the late-payment of creditors by SASSA, in light of the above argument, it seems therefore that the problem to be investigated is the causes of late payment of creditors by SASSA.

Literature Review

SASSA was set up in terms of the South African Social Security Agency Act (Act No. 9 of 2004) with the aim of overseeing government management of social security in South Africa (Kaseke, 2010:162). Reddy and Sokomani (2008:49) note that the South African Social Security Agency Act (Act No. 9 of 2004) makes arrangement for the foundation of

SASSA, the management, administration and payment of social grants to illegible beneficiaries. The main aim of SASSA is to performance as the only agency to ensure the effective and efficient management and payment of social grants. Since the initiation of SASSA, its main business has been to effectively manage and pay social support grants and social insurance does not fall within the sphere of its responsibility (Kaseke, 2010).

SASSA is made up of one national office and nine different regional offices but most important decisions are made at head office in Pretoria and transmitted to the various regional offices. SASSA has a four-level organizational management procedure which are; a head office, the regional offices, the district office and the local offices (SASSA, 2010). However, this four-tier management procedure does not certainly facilitate a smoother, more cost effective and efficient service delivery of SASSA. Unless the powers to make decisions and the delegation of authority are decentralized to regional, district and local offices, this four-tier management arrangement will still be a major stumbling block in effective and efficient service delivery in the organization because correspondence with head office creates unnecessary bureaucratic bottlenecks and administrative delays (Koma, 2006). Figure.1 below is a representation of the national organizational management structure of SASSA.



Figure 1: National Organizational Management Structure of SASSA

Source: SASSA (2010)

Figure 1 above shows that the Head Office of SASSA is the focal or central point in its national organizational management structure which is situated at national level in Pretoria with a CEO who is in charge of the entity. The figure also illustrates that apart of the head office in Pretoria, SASSA consist of nine different regional offices in the nine province of South Africa which are Mpumalanga, Gauteng, North West, Limpopo, the Northern Cape, Western Cape, Eastern Cape, Kwa-Zulu Natal and Free-State regions. According to SASSA report (2010), each of these regions has its own regional office which structurally flows down through the districts offices to the local ones. The regional offices are headed by regional executive managers who provide strategic leadership and overall management regarding the administration and payment of grants in their various regions. The various regions have district offices in each district and the various districts also have local areas with local offices. The various district offices have their own district managers who provide strategic leadership and overall management regarding the administration and payment of grants in the district but not all local offices have local office managers (SASSA, 2010).

Creditors of SASSA

Creditors could be suppliers, banks or people that have provided credit to an organization. The organization owes an amount of money to its creditors which are reported on their balance sheet as liabilities. If the creditors need the organization to sign a promissory note for the amount owed, the organization will record and report such amount as notes payable. If the creditors are vendors or suppliers do not require the organization to sign a promissory note, the organization will likely report the amount owed as Accounts Payable. Other examples of creditors include organization's employees who are owed wages and bonuses), governments and customers who made deposits or other prepayments (Pepler, 2014).

Thutshini (2015) states that the creditors of SASSA include medical doctors, churches and community halls used as pay points, cooperatives and Small, Medium and Micro Enterprises (small businesses) as well as the municipalities.

- According to Thutshini (2015) medical doctors assess the recipients of disability grant applicants for SASSA to confirm that they are actually disabled and are illegible for the grant.
- SASSA is currently using various churches and community halls as pay points to pay the beneficiaries of social grants where they pay monthly rents and these organizations depend heavily on the rental amount for their survival.
- Cooperatives and Small, Medium and Micro Enterprises (small businesses) provide goods and services to SASSA such as supplying school uniforms to beneficiaries and giving beneficiaries food vouchers as well as cleaning SASSA's premises and they depend on the payment for their growth and sustainability.
- Municipalities provide electricity and water at SASSA offices and all pay points and the payment from the organization help the liquidation of these municipalities so that municipal services to the local community can be improved.

Public Finance Management Act No.1 Of 1999 (PFMA) And Service Delivery

The Public Finance Management Act is meant to regulate financial management in the national and all provincial government institutions, to ensure that very expenditure, revenue, assets and liabilities of those institutions are managed efficiently and effectively and to provide for the responsibilities of persons entrusted with financial management in the various institutions (Neves, 2009).

The Payment System of Creditors by SASSA

Mthethwa *et al.* (2016) assert that SASSA is charged with the responsibility to deliver quality service to social grant beneficiaries without system interruptions or delays, hence this agency must follow a systematic process to determine the best solution to its service delivery. Given the nature of the important services that SASSA provides in the nation, there is a necessity for an effective and tested solution and a sizeable, matching human and material investment. It is therefore important for SASSA to always present its plan to the Social Development Portfolio Committee today in

Parliament on how social grants will be paid out to the beneficiaries and clarifies all alleged uncertainties. Nevertheless, according to SASSA's report (2017), the agency is expected to be paying social grant to beneficiaries as usual and on time without any disruptions of the system. In this regard, Mthethwa et al. (2016) add that SASSA has also warned social grant beneficiaries and keeps warning them that if they are assured anything too good to be true or if they doubt anything as far as their benefits are concern, they should contact the agency on its official social media page or call 0800 60 10 11 for more information and clarity.

Causes of Late Payment of Creditors by SASSA

The Treasury Regulation 8.2.3 provides that except determined otherwise in an agreement or contract, all payments due to creditors must be paid within 30 days from receipt of an invoice which a legislative requirement of the Public Finance Management Act No 1 of 1999. The National Treasury issued an instruction note No. 34 dated 30 November in 2011 which requires government departments to submit monthly report of information by the 7th day of each month relating to the number and value of invoices older than 30 days and not paid, the number and value of invoices paid after 30 days and the reasons for late or non-payment of invoices (Ramos, 2000). Thutshini (2015) states that section 38(1)(f) of the Public Finance Management Act No.1 of 1999 provides that all accounting officers should settle all contractual obligations and pay all money owing within the prescribed period. Pepler (2014) asserts that creditor's payment period is a term that indicates the average time in days during which an organization is to settle its debts with suppliers.

Thutshini (2015) argues that it is a legal requirement for all government agencies to pay their creditors and suppliers on time because non-payment of creditors and suppliers on time is an act of financial misconduct in accordance with clause 38(f) of the Public Finance Management Act, and National Treasury regulation 8.2.3. In terms of the Public Service Act, which provides that heads of national and provincial departments are responsible for ensuring that there are consequences for poor performance by officials. Section 38 (1)(f) of the Public Finance Management Act of 1999 required Accounting Officers of all government entities including SASSA to settle all contractual obligations and pay all money owed to their creditors and suppliers within the prescribed period. Despite the above provisions, SASSA is still not complying with the Public Finance Management Act and the Treasury Regulation and this practice is severely affecting its creditors and suppliers especially the sustainability of businesses involved in outsourcing projects which relied on these contracts as their sole source of income.

The late payment of creditors and suppliers by SASSA is caused by both internal and external factors (Sean, 2012; Pepler, 2014 and. Thutshini, 2015). Sean (2012) state that the internal factors that cause late payment of creditors and suppliers by SASSA are as follows:

- According to Sean (2012), lack of internal capacity and poor financial management is a major cause of late or the non-payment of invoices of creditors and suppliers by SASSA which is attributed to poor budgeting by the agency, lack of alignment between budget and procurement plans as well as inability to adhere to procurement plans by management.

- Integrated technology (IT) systems used by SASSA often crash or breakdown due to system overloading because all government departments and agencies used the same systems which occasional cause service interruptions and this is a major cause of late or the non-payment of invoices of creditors and suppliers by SASSA.
- Another internal cause of late payment of creditors and suppliers by SASSA is that managers do not approve payments timeously due to leave or other commitments, which according to treasury regulations, officials are not supposed to go on leave or vacation with unfinished business.
- The payment of creditors by SASSA often delay because the supply chain management processes in the agency is not being followed. Where there is a legal contract, invoices submitted by SASSA's creditor or suppliers cannot be paid when there is a problem with the supply chain management process.
- Quality assurance of goods and services that takes place after capturing invoices of creditors and suppliers of SASSA, also delays their payment.
- The accumulation of unpaid invoices from one financial year to the next caused cash flow shortfalls which often delay the subsequent payment of creditors and suppliers of SASSA.
- Fraud, corruption and preferential treatment from SASSA's officials result to the late or non-payment of creditors and suppliers of SASSA.
- Bad culture in the public sector in general such as the lack of "sense of urgency" amongst SASSA's officials in particular in expediting payment of invoices on time, is one of the main causes of late payment of creditors and suppliers of SASSA.
- Pepler, 2014 contend that the external factors that cause late payment of creditors and suppliers by SASSA are as follows:
 - Some creditors and suppliers do not have official purchase orders when they submitted invoices to SASSA offices for payments which sometimes delay their payment by the agency.
 - Incomplete suppliers' banking details and non-adherence to the requirements of proper invoicing by creditors and suppliers is one of the external causes of late their payment by SASSA.
 - Late submission of invoices and Good Received Voucher (GRV) by suppliers, where services were satisfactorily enjoyed, contribute to the late payment of creditors by SASSA.
 - Contractual disagreements such as poor contract drafting, different interpretations of the contract clauses by SASSA and service providers often cause the late payment of SASSA's creditors and suppliers.
 - Qina (2015) assert that lack of consequence is also one of the causes of late payment of SASSA's creditors. The non-adherence to the payment of invoices constitute financial misconduct but however, the government seem to be reluctant to enforce this requirement to charge officials for financial misconduct where late or non-payment of invoices is due to wilful act or negligence and disciplinary actions be taken against officials that contravene the legislation or undermine systems of internal control.

Consequences of Late Payment of Creditors by SASSA

According to Du Toit (2017), late payment of suppliers by SASSA is not a new issue. The problem has escalated over the years as a result of financial crisis and this has affected all SASSA creditors especially the small and medium sized enterprises because these small businesses are highly dependent on cash flow. Over the years, SASSA has not been complying with the legislative requirement of the Public Finance Management Act No 1 of 1999 as a public entity to pay all its eligible suppliers within 30 days from receipt of an invoice and this has enormous consequences on creditors, the agency itself and the economy at large.

Jehoma (2010) avers that the late payment of doctors (creditors) by SASSA has affected the assessment of applicants of the disability grant because doctors often refused to conduct these assessments unless their outstanding payments are made. When this assessment of applicants of the disability grant is not done, it impacts negatively on the budget allocation of SASSA for the next financial year because it will be allocated based on the expenditure patterns on the previous financial year.

The late payment of churches and community halls that serve as pay points of social grants where a monthly rent is paid by SASSA, affect the smooth running of these organizations negatively since there are nonprofit making and highly depend on the rental amount from the agency for their existence (Munshedzi, 2016).

The late payment of cooperatives and Small Medium and Micro Enterprises by SASSA affects the supply of goods and provide services to the agency through these small businesses. SASSA procures goods and services from cooperatives and Small Medium and Micro Enterprises and when their payment is delayed, these small businesses often refused to supply their goods and provide their services to the agency unless their outstanding payments are made thereby hampering the smooth functioning of the organisations. The late payment of cooperatives and Small Medium and Micro Enterprises by SASSA also cause the dwindling and winding up of most of these businesses since they depend very much on the timeous payment for their sustainability and growth (Du Toit, 2017).

Du Toit (2017) further note that the late or nonpayment of SASSA's creditors, lessen cash flow which is the lifeblood of any business as well as the economy of the country. Businesses need cash to pay employees, buy supplies, service debt and invest in equipment but nevertheless, when selling to SASSA, businesses usually make sales on credit, receiving payment only after they have supplied goods or provide services and invoiced the agency and payment is supposed to be done within an agreed period or number of days after the invoice date. When a business incurs the cost of providing goods and services upfront, being paid on time is very important. If payment is not received within the agreed payment period, the supplier incurs additional costs chasing payment. Reduced cash flow may mean planned investment in the business cannot go ahead and may prompt the need to borrow more. In extreme cases, late payment of SASSA's creditors, especially cooperative and small businesses can result in a profitable enterprise going bankrupt and this can have a knock-on effect triggering the insolvency of other businesses further down the supply chain, leading to the stagnation of the economy.

Munshedzi (2016) asserts that the supervision and support functions of SASSA should form part of the key performance areas of supervisors and team leaders and that it gets incorporated in their work plan such that managers can closely monitor whether supervision and support does take place. The regional office managers, the district office managers and the local office managers, can liaise directly with front-line staff and data-captures from time-to-time in order to detect possible problems that might cause delay payment of creditors as early as possible. He adds that late payment of SASSA creditors sometimes is due to the fact that staff often experience technical difficulties with computers and sometimes wait days before they are repaired, so permanent computer technicians should be appointed at the national office and at all regional, district and local offices to expedite the fixing of technical problems. This is because according to him, such breakdown computers most often contain creditors' information which need to be access before they can be paid.

Research Methodology

The study adopted a non-experimental paradigm that was descriptive in nature in order to provide an accurate and valid representation of the factors or variables that pertain to the research question, guided by the use of a survey. A survey research, according Leedy and Ormrod (2010:187), involves acquiring information about one or more groups of people; relating to their character, opinion, attitudes, or previous experiences by questioning them and tabulating their views. In this study, different opinions, attitude and character were sampled from various SASA employees in the finance unit ranging from finance managers, directors, administrative managers and other administrative staff.

Population and sampling

The population of the study include all the SASSA staff in the finance department in the North-West province, who work either as administrators or finance managers with the responsibility of receiving and facilitating invoices from suppliers. The selection process was guided by a non-probability method known as convenient sampling. Convenient sampling, according to Maree (2014:177), refers to a situation where population elements are selected based on the fact that they are easily and conveniently available. The sample size for the study is made up of 60 respondents that comprise all the SASSA finance managers and administrators. These respondents are distributed across the province as follows

- Dr Kenneth Kaunda district= 10 respondents
- Bojanala District = 11 respondents
- Dr Ruth Momphati District =11
- Ngaka Modiri Molema District=17
- Regional office= 4

In SASSA, after receiving the invoices from the creditors, they are then forwarded to the district offices and to the Regional offices respectively for payment to be effected. As such only a limited number of respondents are involved. In this study, all the

SASSA employees were shortlisted but only those involved in facilitating invoices were selected (Financial department) which amount to about 60 personnel. It is also important to note that this sample size which is over 90% of the total population is a representation of the entire population of the study.

Data collection instruments

Data collection processes involve the different techniques that a researcher uses to accumulate information from a sample of people or objects about a particular problem under investigation. According to Creswell (2009:178), data collection steps include setting the boundaries for the study, collecting information through unstructured and semi-structured observations, interviews, document and visual materials, survey by means of questionnaires as well as establishing the protocol for recording. The planned sequence of data collection, data collection activities and techniques use in this study is demonstrated chronologically as follows to administer the consent form, followed by the questionnaire.

Development of questionnaire

The questionnaire was finalized and used for the MSS that comprised of 60 respondents which is the sample size of the study.

The rationale to this approach was to get answers to questions the regarding late-payment of creditors by SASSA. The response type of questions ranges from yes or No; agree or disagree; very important to unimportant. Also, in some questions respondents were expected to select just one choice, while in others made one choice from each row containing a multiple response type. A non-interactive approach was used to administer the questionnaire.

Data analysis

The data analysis process was done through statistical package for social sciences (SPSS) version 24 software followed by a descriptive approach of findings that were represented in the form of two-way frequency tables, charts and figures.

The research methodology applied was strictly quantitative and was made up of population and sampling techniques; data collection instrument; reliability and validity as well as ethical considerations.

A total number of 60 questionnaires were administered to the South African Social Security Agency (SASSA) staff in the finance department in the North-West province. Forty-nine of the questionnaires were filled successfully. Therefore, the response rate was 82%.

Results and Discussion

Research objective: To determine how SASSA is structured for the implementation of its programme

The results of the study showed that the payment of creditors department, grant facilitation unit, invoice facilitation unit and finance unit are involved in facilitating payment of creditors by performing different functions while the office

administration unit of SASSA is not involved in facilitating payment of creditors. Most of the respondents indicated that SASSA is well structured to facilitate payments had this also motivated by the fact that majority of the employees (84.5) involved in the finance department are permanently employed hence have at least a diploma in Accounting and Management (of over 72.9% : (45.8+27.1) which helps to boost the payment process in the sector.

Objective: To determine the causes of late payment of creditors

The results of the study revealed that delay in the submission of invoices by creditors, incomplete banking details from creditors, inconsistency with supplied details and unresolved SCM related queries are the most disturbing on the side of creditors in facilitating invoices towards their payment. The result of the study also showed that management irregularities, insufficient staff and incompetent staff are the most disturbing of the financial sector of SASSA in facilitating invoices. The study further found that the centralized payment system, late submission of invoices by Local/district office, network failure and delay in approval of payment by Regional offices are the most disturbing with the financial sector of SASSA in facilitating invoices.

Comparatively, according to Koma (2006) there is a high level of centralization that greatly affects the facilitation of invoices. Under such circumstances according to respondents, unless the power to make decisions over the facilitation of invoices are decentralized to regional, district and local offices there will be continued delays in the payment process. As indicated by Koma (2006), such a trend is a stumbling block in effective and efficient service delivery in the organization because correspondence at the head office creates unnecessary bureaucratic bottlenecks and administrative delays because they are usually the ones to approve every payment that must be made.

According to PFMA Compliance (2015), the empirical findings align with the literature in various areas such as unresolved supply chain management related queries; delays in the submission of invoices for processing, delays in the timeous approval of payments due to a highly centralised payment system, incorrect banking details of suppliers, to name but a few. It was affirmed during the empirical study that the supply of wrong banking details by creditors contributed greatly (over 95.9%: 55.1% & 40.8%) to late payment.

Research objective: To determine the consequences of late payment by SASSA to creditors

The results revealed that the delay in payment of creditors affected the smooth functioning of the organization, specifically the flow in the supply of goods and services and break down in supply chain management are considered as consequences of late payment. The study also found that the other consequence of late payment is that it can collapse small, medium Micro-sized enterprise. This is often the case because SMME often depend solely on this payment as their only means of income. Hence they allow bigger companies and stakeholders to continue to flourish.

From the literature analysis, it was equally affirmed by Ambe and Badenhorst-Weiss (2012) that the non-adherence to PFMA section 38 which stipulates a maximum of

30 days for payment to be made by SASSA is unethical and it has a bad effect on the economy of the country. This is evident in the following remarks: It weakens small business as payment on time is essential for their survival; Late payment damages supply sources in the value chain and strains relationships with suppliers; and Late payment weakens the economy, both at a macro level as it does too at a micro level, and this impacts on growth opportunities

According to Ambe and Badenhorst-Weiss (2012), the problem of late payment has often resulted in negative effects on both persons and the economy. Relating this to the empirical study, when the small, medium Micro-sized enterprises collapse persons' people are affected resulting in job loss, while the rich get richer and the poor get poorer. For young entrepreneurs therefore, having these difficulties become demoralising and puts a strain on their commitment to running their own businesses.

Research objective: To determine how the problem of late payment can be resolved

The study found that having workshops, training of staff and circulation of policy documents to staff can enhance the problem of late payment in SASSA to a greater extent. Empirical findings in fact reveal a higher number of respondent (91.9%: 32.7% & 59.2%) who indicated that amongst other things, internal control measures can enhance the problem of late payment in SASSA. This involves calling workers to order and having internal control measures in place. This is similar to the findings from the literature where Munshedzi (2016) mentions that the supervision and support functions of SASSA should form part of the key performance areas of supervisors and team leaders hence, to get incorporated in their work plan such that managers can closely monitor whether supervision and support do take place. However, the weakness of this measure points to the fact that superiors at the job site cannot, at all times run behind employees to do their job effectively. Therefore, as affirmed by Jehoma (2010), there is the need to increase adequately trained staff in SASSA national, regional, district and local offices to administer any new changes in regulations and/or any review process in the payment of creditors.

Conclusion

A discussion of findings was made based on the five objectives of the study. With regard to the objectives, the problem of late payment of creditors by SASSA was contextualised and presented by synthesizing data from the content analysis as well as that of the empirical study. This was followed by a recommendation of the study towards improving the facilitation processes of invoice. Thus, it can undeniably be said that the aims and objectives of the study were achieved as they either concurred with the findings from literature of disagree which constitute the contribution of the study.

Finally, it is remarkable to mention that the problem of late payment of creditors more often than not has affected mostly SMME's because under such circumstances they are pushed to borrow in order to complete their tasks while those that cannot do so are forced to close down. Therefore, there is need for the system to be adequately revised by revisiting the payment process that is characterized by high level of centralization. This of course must be accompanied by monitoring of the local and

district offices by the regional office followed by a constant reminder of job requirements by circulating policy documents.

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Insight towards Adoption of International Financial Reporting Standards (IFRS) in India

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ABSTRACT

This study aims at understanding the perception towards adoption of International Financial Reporting Standards (IFRS) in India. For the purpose, the Hofstede dimensions on perception is reviewed. The globalization creates an increased need for communication in the terms of language, awareness of culture differences and domestic customs. Moreover, the financial communication such as accounting and financial results is just as important for business leaders and employees to master. Hence Proponents of International Financial Reporting Standards (IFRS) claim that mandating a uniform set of accounting standards improves financial statement comparability that in turn attracts greater cross-border investment. Ministry of Corporate Affairs (MCA) has decided to go for full convergence of IFRS by 2018 through IND AS. Using Hofstede dimensions along with economic growth, demographic profile of respondents, economic openness and relative capital market size the logit regressions are analyzed. Structural Equation Modelling (SEM) is applied to test the confirmation factor analysis (CFA), accordingly path diagram is drawn. The primary data was collected with well structured questionnaire from auditors, accounting professionals working in companies and academicians. Drop-off survey was conducted and the targeted sample size is 400 across India. The results indicate that as India is developing country, the financial structure is more likely to adopt IFRS. The Hofstede dimensions do have a significant impact as an exploratory variable, suggesting that Indian financial system do need to be more optimistic in adopting these standards to meet the global requirements of the stakeholders.

Introduction

Financial reporting in India is experiencing a significant revolution owing to the acceptance of Indian Accounting Standards (Ind AS) that are united with International Financial Reporting Standards (IFRS). With the notification of 39 Ind AS standards and the implementation road map by the Ministry of Corporate Affairs (MCA) in February 2015, it has become a reality for Indian companies to adopt IFRS to fill the gaps that are existed for many years in the Indian accounting frame work on par with the leading global standards. By 2018, it is expected that all companies in major markets will be using IFRS in helping India improve its global rankings on corporate governance and transparency in financial reporting. Not only as financial

reporting change, but one that has an organization impact on strategic change, organization growth, acquisitions, foreign direct investments, joint ventures, capital raising and in larger extent for the economic growth of the country. This transition would also require changes to systems and processes, including external stake holders. It is therefore mandatory to plan in advance and invest the time, both in implementing the changes and communicating with key stakeholders. The present paper deals with the status of IFRS adoption in India.

1 (a) Historical Background of International Accounting Standards:

The foundation for international accounting standards was laid in 1966 when it was proposed that an International Study Group be started comprising the Institute of Chartered Accountants of England and Wales (ICAEW), American Institute of Certified Public Accountants (AICPA) and Canadian Institute of Chartered Accountants (CICA). As a result, the Accountants International Study Group (AISG) was set up in 1967, which published papers on important topics. In June 1973, the International Accounting Standards Committee (IASC) came into existence, with the stated intent that the new international standards it released must “be capable of rapid acceptance and implementation world-wide”.

1 (b) IFRS in India

In India, Accounting standards are formulated by council of Institute of Chartered Accounts of India (ICAI). In July 2007, the Council of the Institute of Chartered Accountants of India set a target of adopting International Financial Reporting Standards (IFRS) for all listed, public interest and large-sized entities from accounting periods beginning on or after 1 April 2011. In 2007, India has decided to converge with IFRS in 2007. ICAI started the process of developing a complete set of accounting standard that are “converged with” IFRS- which will be known as Indian AS. There is a difference between adoption and convergence to IFRS. Adoption means using IFRS as issued by IASB. Convergence means that the Indian Accounting standard board and IASB would continue working together to develop high quality, compatible accounting standard over time.

1 (3) Current Scenario of IFRS in India

In India, the businesses are intense to adopt IFRS not only for intensifying their global networks but also for standardising the financial reporting system. The Indian corporates need to be mandatory to follow GAAP to main uniformity in their accounting treatments and o deliver fair and trustworthy financial information to the stakeholders. These are also called as “principles based” set of standards which are easy to understand and apply. IASB (International Accounting Standard Board) is developed and approved these standards. Though IFRS implementation was quite challenging initially due to dual reporting requirement, from the positive perspective, this has an impact improving the present financial system as above said which would benefit the economy by increasing international business.

This study aims at understanding from auditors, accounting professionals working in companies and academicians’ perception how IFRS has improved the Indian financial system. For this purpose, Hofstede dimensions are applied to test the perception and acceptance level of the respondents.

Objectives of Study

The principal objective of this is to identify the perception of accounting experts regarding the benefits and challenges of IFRS implementation in India. Based on this, the following secondary objectives are set for the study considering demographic, socio-economic, political and cultural variables.

- a) To comprehend the applicability, implication and prospects of IFRS.
- b) To encompass the present scenario and the adoption phases of IFRS in India.
- c) To determine the impact of Hofstede dimensions on perception, with special reference to culture.
- d) To embrace the challenges faced by corporate firm in adopting IFRS and IndAS.
- e) To provide new empirical evidence in the literature.
- f) To recommend appropriate measures and policies to support the existing financial system in India.

Methodology

The study is related to the perception of respondents for the implementation and adoption of International Financial Reporting Standards (IFRS), therefore the target population was taken as the community of accounting experts. The term accounting experts include those respondents having knowledge about International Financial Reporting Standards and the existing Indian Accounting Standards. For the purpose of this study the target population of accounting experts was divided into three categories:

- Auditors,
- Accounting professionals working in companies and
- Academician's

Despite Using Hofstede dimensions along with economic growth, demographic profile of respondents, economic openness and relative capital market size the logit regressions are analysed. Structural Equation Modelling (SEM) is applied to test the confirmation factor analysis (CFA), accordingly path diagram is drawn. The primary data was collected with well structured questionnaire from auditors, accounting professionals working in companies and academicians. Drop-off survey was conducted and the targeted sample size is 400 across India. The results indicate that as India is developing country, the financial structure is more likely to adopt IFRS. The culture variables are the most significant of the exploratory variables, suggesting that Indian financial system with Hofstede dimensions are significantly more likely to adopt than those with no such cultural dimensions.

Drawing on the Hofstede's (1980) cultural dimension perspective, we propose that power distance, individualism, uncertainty avoidance, masculinity and long-term orientation as well demographic profile of the respondents are important determinants of the respondents in understanding the importance of adopting and the benefits of IFRS in Indian financial system. Survey results from 400 core financial professionals across India demonstrates that power distance, individualism, long-term orientation together with demographic profile have a statistically

significant influence on perception of IFRS adoption in Indian corporates. Practical implications are provided.

Literature Review

A study conducted by Borker DR (2013a) on adopting IFRS in developing countries like India, it is realised is very beneficiary where the quality of local governance institutions is low. It is very much essential to introduce IFRS which will facilitate better investment decisions in making capital market Borker DR (2013a). The new standards that are existing will lead to a boost or enhance financial measures, such as profitability, growth, leverage, liquidity, and size, Good Corporate Practices, quality and timeliness of management information and transparency. The global accounting standards would eliminate a frictional element to capital flows and lead to extensive and deeper investment in markets with IFRS is also in the interest of the industry since acquiescence with them would be able to create greater confidence in the mind of investors and reduce the cost of raising foreign capital Meenu Sambaru, D r. N. V. Kavitha (2014) "Indian Accounting Standards and IFRS" (2014) . Meenu Sambaru, D r. N. V. Kavitha,, 2014 in their study entitled of "IFRS in India: Challenges and Opportunities" finds out up to what extent IFRS has been adopted by the organizations, what encounters and chances companies are facing regarding IFRS, and what are the procedures that can be taken to make the process smooth and perfect. But there are many factors that hinders the IFRS adoption in India (Preeti Shrivastava et al, 2015). According to Preeti Shrivastava et al, 2015 the legal and regulatory frame work to be revised soon and destructive academic input and training shall be provided quickly to overcome the talent crunch in this new accounting and reporting management.

Theoretical Background

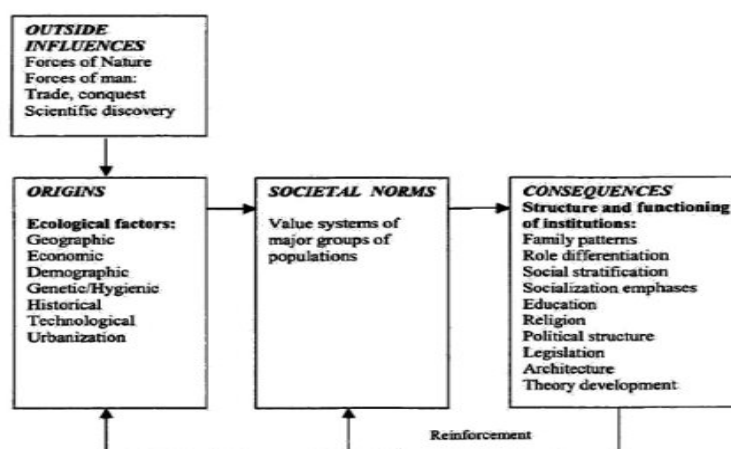
Many theories like agency theory, legitimacy theory illustrates how company management selects and applies accounting standards adoption and the factors contributing for the adoption. Agency theory illustrates how company management selects and applies accounting standards to the manager's advantage as opposed to providers of capital, stemming from the underlying benefits in management performance and compensation agreements. According to Legitimacy theory, it is a generalised perception or assumption that the actions of an entity are desirable, proper or appropriate within socially constructed norms, values, beliefs and definitions. Also elucidates how preparers of financial statements apply accounting standards to provide quality financial statements that represent the economic reality for stakeholder's financial information. Other theories such as positive and normative accounting theories explains the reactions of financial statements for changes in accounting policies (Borker., 2013).

5 (a) *Linking Hofstede cultural dimensions theory with IFRS adoption*

Hofstede cultural dimensions explains the influence of external environmental factors, ecological factors, economic factors and institutional consequences in value creation of accounting system (Gray1999). Borker and Gray in their study explore the opportunities and challenges in IFRS adoption. Gray extends Hofstede model to investigate the relationship between culture and accounting system and developed four accounting value dimensions using accounting literature and theoretical

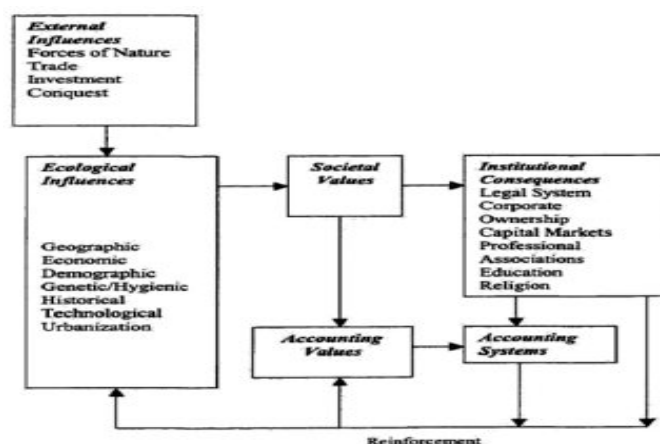
reasoning and identified professionalism, statutory control, conservatism, optimism, secrecy, transparency, uniformity and flexibility as determinants of accounting systems.

Figure1: Hofstede Cultural Dimensions (Culture, Societal Values and Consequences)



Source: Grey (1999)

Figure2: Hofstede Cultural Dimensions (Culture, Societal Norms and Accounting Standards)



Source: Adopted from Grey (1999)

- **Power Distance Index (PDI):** The power distance index (PDI) is defined as “The extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally.”
- In this dimension, inequality and power is perceived from the followers, or the lower level. A higher degree of the Index indicates that hierarchy is clearly established and executed in society, without doubt or reason. A lower degree of the Index signifies that people question authority and attempt to distribute power.
- For the purpose of understanding the acceptance of IFRS in India. This has been empirically tested for all the dimensions in empirical framework.
- **Individualism vs. collectivism (IDV):** This index explores the, “Degree to which people in a society are integrated into groups.”
- Individualistic societies have loose ties that often only relates an individual to his/her immediate family. They emphasize the “I” versus the “we.” Its

counterpart, collectivism, describes a society in which tightly-integrated relationships tie extended families and others into in-groups. These in-groups are laced with undoubted loyalty and support each other when a conflict arises with another in-group.

- **Uncertainty avoidance index (UAI):** The uncertainty avoidance index is defined as, “A society's tolerance for ambiguity,”
- in which people embrace or avert an event of something unexpected, unknown, or away from the status quo. Societies that score a high degree in this index opt for stiff codes of behavior, guidelines, laws, and generally rely on absolute truth, or the belief that one lone truth dictates everything and people know what it is.
- A lower degree in this index shows more acceptance of differing thoughts or ideas. Society tends to impose fewer regulations, ambiguity is more accustomed to, and the environment is more free-flowing.
- **Masculinity vs. femininity (MAS):** In this dimension, masculinity is defined as
- “A preference in society for achievement, heroism, assertiveness and material rewards for success.”
- Its counterpart represents “a preference for cooperation, modesty, caring for the weak and quality of life.”
- Women in the respective societies tend to display different values. In feminine societies, they share modest and caring views equally with men.
- In more masculine societies, women are somewhat assertive and competitive, but notably less than men. In other words, they still recognize a gap between male and female values. This dimension is frequently viewed as taboo in highly masculine societies.
- **Long-term orientation vs. short-term orientation (LTO):** This dimension associates the connection of the past with the current and future actions/challenges. A lower degree of this index (short-term) indicates that traditions are honoured and kept, while steadfastness is valued.
- **Indulgence vs. restraint (IND):** This dimension is essentially a measure of happiness; whether or not simple joys are fulfilled. Indulgence is defined as “a society that allows relatively free gratification of basic and natural human desires related to enjoying life and having fun.”

Empirical Framework

The questions were designed using five point likert Scales, so that the individual knowledge and perceptions of IFRS could easily be determined. Respondents were required to rate the extent to which they agreed or disagreed with these statements based on the five-point rating scale. The survey was conducted between February 2018 and June 2018. The sample size and the responses in each of the sub category are illustrated in Table1.

Table1: Perception on the opportunities of IFRS	
Survey Question	Respondents Agreeing (percentage)
IFRS are appropriate for achieving the true and fair view of the financial statements	80
Implementation of IFRS will increase the transparency of financial	96.9

statement s	
Implementation of IFRS will increase the international comparability of financial statements	96.3
Implementation of IFRS will bring in more opportunities for accessing the global market for Indian companies	83.7
Implementation of IFRS will increase the understandability of financial statements	76.4
Implementation of IFRS will increase the relevance of accounting information for decision making	81.8
Implementation of IFRS will lower the cost of capital	29
Implementation of IFRS will assure the greater accessibility to funds for Indian Companies	65.4
Implementation of IFRS will increase the cross border listings	81.8
Implementation of IFRS will provide the professional opportunities to Indian professionals across the globe	90.9

Source: Authors computation

Table1 Illustrates the perception of the respondents upon the encounters linked with the application of IFRS. The percentage of respondents agreeing as shown in Table No1 was computed from the rating, 5-point Likert scale. The responses regarding the challenges associated with the implementation of IFRS is very diverse. Complications of IFRS, training of staff, changes in accounting process. Changes in information and communication technology are more prominent.

Ordinary least squares (OLS) regression analysis is a standard widely employed statistical technique. However, a key assumption underpinning its use revolves around the dependent variable being measured on a continuous and interval scale. If this assumption is violated, such as the dependent variable is categorical, then a number of serious problems can arise with the OLS model. These potential problems are:

- (i) Meaningless estimates of predicted dependent variable
- (ii) Invalid hypothesis testing can occur with respect to the coefficients of the explanatory variables (t-values) and the regression line (F-values) due to occurrence of incorrect sampling variances and inconsistently estimated standard errors; and
- (iii) In the event of (i) and (ii), the R^2 as a measure of goodness of fit can be misleading (Peel *et al.*, 1998).

In individual's satisfaction research, self-reported responsiveness (SRR) is reported via an ordered categorical variable. The latter represents some underlying latent scale. When mapping the latent scale, individuals are assumed to adopt homogeneous reporting behaviour. The ordered probit estimator (McKelvey and Zavoina, 1975), which assumes that the mapping of the latent scale to the response categories is made through a set of constant cut-points, can be considered as an appropriate method of modelling the data. For parameter estimations, the ordered probit model makes use of maximum likelihood functions and is based upon "normal" probability distribution.

Within the ordered probit framework, the categorical dependent variable which exhibits ordered multinomial outcomes for each respondent i , assuming $y_i = 1, 2, \dots, m$.

The categorical outcomes with regards to perception are as "strongly disagree", "disagree", "neither agree nor disagree", "agree" and "strongly agree".

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The model can be represented as:

$$y_i = j \quad \mu_{j-1} < y_i^* < \mu_j, \quad j = 1, 2, \dots, m,$$

where the latent variable y^* is assumed to be a linear function of a vector of covariates x' , plus a random error ε :

$$y_i^* = x_i' \beta + \varepsilon_i \quad \varepsilon_i \sim N(0, 1)$$

where x_i' captures the independent variables which explain the level of satisfaction β . $\mu_0 = -\infty$, $\mu_j \leq \mu_{j+1}$, $\mu_m = \infty$ are the cut-points which separate the categorical outcomes.

Assuming a normally distributed error term, the probability of observing a particular

$$\begin{aligned} \text{value of } y: \quad \Pr_{ij}[y_i = j] &= \Pr[\mu_{j-1} < y_i^* < \mu_j] = \Pr[\mu_{j-1} < x_i' \beta + \varepsilon_i < \mu_j] \\ \therefore \Pr[\mu_{j-1} - x_i' \beta < \varepsilon_i < \mu_j - x_i' \beta] &= F(\mu_{j-1} - x_i' \beta) \end{aligned}$$

where $F(\cdot)$ is the cumulative distribution function (CDF) of ε_i . The regression parameters β and the $(m - 1)$ threshold parameters μ_1, \dots, μ_{m-1} are obtained by maximum likelihood methods. The signs of the β 's can be determining whether or not the latent variable y^* increases with the explanatory variables. The marginal effects are obtained as:

$$\frac{\partial \Pr[y_i = j]}{\partial x_i} = \{F'(\mu_{j-1} - x_i' \beta) - F'(\mu_j - x_i' \beta)\} \beta$$

where F denotes the derivatives of F .

Results

The estimates of these models are explained in Table 1 and Table 2. For each method, two distinct models are run. Model 1 excludes the Hofstede's cultural dimensions while Model 2 includes them. Two measures of model explanatory power are discussed. First, the F-statistic in the OLS regression and the χ^2 -statistic in the ordered probit regression test the joint hypothesis that all the coefficients of the explanatory variables are zero. Both statistics indicate a rejection of the null hypothesis that all the coefficients of the explanatory variables are zero. All regressions are statistically significant in terms of explaining worker satisfaction levels. A higher χ^2 -statistic is computed when the cultural dimensions is included, thus indicating better overall model fits. However, a lower F-statistic is uncovered for OLS regression model when including the Hofstede's dimensions. Second, the pseudo R^2 , which is so-called because it is not directly comparable to the R^2 derived in OLS regression, is based upon changes in estimated likelihood functions. In common with the conventional R^2 , the pseudo- R^2 varies between zero and one, with higher values signifying higher explanatory power. The inclusion of the cultural dimensions improves the goodness of fit for both the OLS and ordered probit models. In some measure, this reveals the importance of including these cultural dimensions in studying perception on IFRS and their exclusion can lead to omitted-variable bias problems.

As discussed above, the ordered probit model will be mainly employed to study perception on IFRS adoption. From Table 2, model 2 posits statistically significant variables for age, gender, marital status, nationality, and cultural dimensions such as

power distance, individualism and long-term orientation. Table3 reports the marginal effects for Model 2 of Table2

Table 1: OLS Regressions		
Variables	Dependent: Perception	
	Model 1	Model 2
ln(Age)	-0.51326 (0.240535)**	-0.38768 -0.237812
Gender (Baseline: Female)		
Male	-0.32509 (0.091547)*	-0.32472 (0.092684)*
Marital Status (Baseline: Married)		
Single	-0.13462 -0.082379	-0.09701 -0.083286
Divorce	-0.19883 -0.147486	-0.20522 -0.148891
Others (e.g. widow)	-0.55558 (0.260067)**	-0.53709 (0.222456)**
Hofstede Dimension		
PDI	-0.61166 (0.223482)***	-0.53199 (0.225583)**
IDV	0.368853 -0.238089	0.392451 (0.235695)*
UAI	-0.53559 (0.260792)**	-0.44218 (0.262183)*
MAS	-0.50816 (0.139731)***	-0.26705 -0.182687
LTO	0.038744 -0.051493	0.046859 -0.05352
IND	-0.30736 -0.253743	-0.22831 -0.262546
Constant	3.112721 (0.479875)***	2.884034 (0.489953)***
	2.967989 (1.172142)**	1.759869 (1.058003)*
Number of observations	400	400
F-test	48.02	45.3
Prob > F	0.0000***	0.0000***
R ²	0.6894	0.7111

Source: Computed. Robust standard errors are in brackets. ***, ** and * denote 1%, 5% and 10% levels respectively.

Table3: Ordered Probit Marginal Effects for Model 2					
Variables	dPr(y=1)	dPr(y=2)	dPr(y=3)	dPr(y=4)	dPr(y=5)
ln(Age)	0.022277 (0.01265)*	0.036486 (0.021567)*	0.067352 (0.035558)*	0.078086 (0.043353)*	-0.2042 (0.109031)*
Gender (Baseline: Female)					
Male	0.018157 (0.005646)**	0.029739 (0.011387)***	0.054896 (0.015709)***	0.063645 (0.014361)***	-0.16644 (0.041076)***
Marital Status (Baseline: Married)					

Single	0.006915 -0.004761	0.011326 -0.007555	0.020908 -0.014576	0.02424 -0.017195	-0.06339 -0.043069
Divorce	0.013043 (0.006765)*	0.021363 (0.011967)*	0.039436 (0.020852)**	0.04572 (0.021541)**	-0.11956 (0.058596)**
Others (e.g. widow)	0.025564 (0.008178)***	0.041871 (0.015064)**	0.077292 (0.02652)***	0.08961 (0.030892)***	-0.23434 (0.072701)***
Hofstede Dimension					
PDI	0.018851 (0.008928)**	0.030876 (0.015379)**	0.056996 (0.025324)**	0.06608 (0.028256)**	-0.1728 (0.073622)**
IDV	0.024461 (0.011523)**	0.040065 (0.02041)**	0.073957 (0.032413)**	0.085744 (0.037851)**	-0.22423 (0.096738)**
UAI					
MAS	(0.023733)***	-0.009779	(0.016593)*	(0.128215)***	(0.240047)*** 0.082755
LTO	-0.00903	0.036833	0.067991	(0.019012)*	(0.049469)* -0.20614
IND	-0.005575	(0.013542)***	(0.017278)***	0.078827	(0.05058)*** 0.032545
	0.022488 (0.006616)***	-0.00582	-0.01073	(0.021189)***	-0.067645
	-0.00355	-0.012096	-0.02224	-0.01245	-0.04961
	-0.007396	0.008864	0.016362	-0.026088	-0.094664
	-0.016707	-0.012096	-0.031232	0.01897	0.22501
	0.005412	-0.0402	-0.07422	-0.036613	(0.133302)*
	-0.010398	-0.026887	(0.044696)*	-0.08604	
	-0.02455			(0.0506)*	
	-0.015141				

Source: Computed. Robust standard errors are in brackets. ***, ** and * denote 1%, 5% and 10% levels respectively.

Hofstede et al. (2010) stipulate that the cultures, cultural characteristics play an important role in the perception, the same has been empirically tested in this study. From the findings, it is observed that the respondents are very positive towards adopting IFRS in Indian financial system.

Conclusion

This detailed analysis of responses provides an interesting analysis of the concept of perception towards IFRS adoption in Indian financial system. This study investigates the factors contributing to perception of respondents and implications of IFRS adoption in Indian financial system. Both OLS and probit models are applied and the results are analyzed in a comparative manner.

The analysis and the results shows that, there is a vital need to deal with the challenges and work towards full adoption of IFRS by implementing the roadmap in India. The utmost important requirement is to build adequate IFRS skills and an extensive knowledge amongst Indian accounting professionals to supervise the conversion projects for Indian corporate. Merging to IFRS standards is expected to improve the relevance, transparency, reliability and comparability of financial reports and benefit global investors. Adoption of IFRS requires commitment and dedication from various stakeholders to promote international convergence of accounting. Thus to implement IFRS successfully and efficiently, a high level of

mutual international understanding about corporate targets, financial reporting targets and harmonization targets need to be achieved.

Suggestions for Implementation:

1. Tax authorities should reflect on IFRS implications on direct and indirect taxes. IFRS should provide clear/appropriate guidelines from a tax perspective.
2. It should be made compulsory for the companies to prepare IFRS compliant statements as well as Indian GAAP compliant statements, which will help in tracing problems likely to be happen in advance and corrected as much as possible.
3. IASB should announce standards take proper feedback from the accounting profession, member countries and corporate management.
4. IASB should support member bodies to adopt IFRS and formulate and reformulate their rules as to eradicate upcoming hurdles.
5. Local stock exchange and other governing bodies of various accounting profession should cooperate in taking action against companies that fails to comply with the IFRS.
6. A sound theoretical and practical training in the light of international GAAPs, industry and academia integration is the requirement of hour.
7. The government of our country needs to format a separate committee for IFRS process and feedback purpose.
8. Intensive training, conferences, seminars, workshops from the experts to bridge the gap between Trained Professionals required and trained professionals available. IFRS should be incubated as a compulsory part in the academic curriculum.

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Impact of Digitization on Mutual Fund Services in India

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ABSTRACT

Globally digitization has gained significance as a key building block for businesses and governments. Especially for the service sector it is considered as a great boon. Digitization has caused unravelling of a new paradigm in which businesses are catering to their stakeholders in novel and cost effective ways. It is expected that digitization shall help businesses enter newer realms of operating efficiency and associated profitability.

The mutual fund sector in India is a promising case of digitization in the financial service sector. The prominent stakeholders in a mutual business are the **Asset Management Company** (AMC), **Investors** (retail as well as institutional), **Financial Advisors** (individuals as well as national level distributors), **Registrar & Transfer Agents** (RTAs) and **Banks**. These stakeholders play an integral role in the smooth functioning of the mutual fund business.

This paper evaluates the impact of digitization on the inter-relationships and functioning of the said stakeholders towards realization of respective purposes. For instance, the Financial Advisors have the objective of communicating with their customers such that there is easy flow of information regarding valuations, purchase and sell decisions and consequent execution of the agreed decision. Similarly, AMCs need to be in contact with their distributors and investors to communicate about the new developments and investment related decisions and executions of the same. This paper shall also attempt to identify the diverse areas where digitization has been taken up. Going forward an attempt shall be made to suggest areas where digitization can be helpful for mutual fund businesses.

The research question that this study seeks to answer is whether digitization has contributed to more business in terms of AUM, number of IFAs, number of new customers, number of foreign country based customers (Indian Nationals). At the second level, this paper shall answer whether digitization has improved convenience of dealing in mutual funds and also the engagement levels of stakeholders.

The results will be based on secondary as well as primary data using structured questionnaire and focus interviews. Statistical tools like paired t-test, chi-square test, correlation analysis and descriptive

statistics shall be used.

Introduction

Globally digitization has gained significance as a key building block for businesses and governments. Especially for the service sector it is considered as a great boon. Digitization has caused unravelling of a new paradigm in which businesses are catering to their stakeholders in novel and cost effective ways. It is expected that digitization shall help businesses enter newer realms of operating efficiency and associated profitability.

Digitization has become ubiquitous. Especially in the financial services space, it is the mutual fund industry that has leveraged it the most. The mutual fund sector in India is a promising case of digitization in the financial service sector. The prominent stakeholders in a mutual business are the Asset Management Company (AMC), Investors (retail as well as institutional), Financial Advisors (individuals as well as national level distributors), Registrar & Transfer Agents (RTAs) and Banks. These stakeholders play an integral role in the smooth functioning of the mutual fund business. To quote Mr. Rajesh Krishnamoorthy, MD, iFAST Financial India (India's leading technology platforms for mutual fund advisors and distributors) – "The industry has done a commendable job to make sure the client experience is positively impacted with the use of the right technologies".

The impact of digitization on Indian mutual fund industry can be studied by studying the impact on the stakeholders of the industry. The possible impact on the prominent stakeholders can be understood in the following elaboration.

Asset Management Companies (AMCs): The basic impact that AMCs would like to see is a reduced amount of paper work, if not a total elimination. At a functional level, AMCs look forward to connect with their investors and distributors through digitization in the form of mobile apps, social networking, instant messengers, etc. At the most advanced level of digitization, AMCs would like to see the entire transaction chain right from sourcing money to investments and redemption happening on the digital platform.

Financial Advisors: Financial Advisors in the Indian Mutual Fund industry can be broadly classified into Individual Financial Advisors (IFAs) or National Distributors (NDs). The basic structure of the two is a major differentiator in the extent of digitization that they could incorporate in their respective business models. For instance, BSE's StAR MF, a digital platform that enables distributors to sell or switch mutual funds on behalf of their clients, would be used by NDs as they are members of BSE; whereas IFAs would not be able to do the same.

The digitization gives such convenience to investors that they can bypass the advisors and this goes against the advisors' business. AMCs too are puzzled over this issue.

Registrar & Transfer Agents (RTAs): The objective of an RTA is to assist the AMC in data management and processing of transactions. In its endeavour, it strives to maintain zero error. But due to the human element an error here or there is inevitable. If the complete process gets digitized, it would convert into a zero error scenario.

Banks: The banks acts as an intermediary for collecting funds from investors and forwarding it to markets on the instructions of fund managers. Digitization has

helped this entity to maximum. Since every transactions needs to be routed through bank, the digital advantage has been leveraged by fund houses, RTAs and investors too.

MF Investors: In the digitized world, the investors have now got better and quicker access to information, option to invest direct and thus saving costs of investments, convenience to invest, switch and withdraw funds. They remain the most benefited lot.

Thus the costs and benefits of digitization in MF industry are varied and mixed.

Literature Review & Challenges in Front of Mf Industry

The literature available is mostly in the form of articles and columns. The research papers on digitization and banking are available but when it comes to digitization and MF, nothing concrete is available. In order to identify the variable for study the researchers have used the platform of Quora and method of focused group. Variables and subsequent questions in the questionnaire for 3 stakeholders are based on the inputs gathered as above. The review of literature has brought following issues or challenges faced by the MF industry in digitized world.

- 1) The rate of growth of MF industry is not sufficient enough to claim sufficient pie from investible surplus. Traditional investments still lead the tally. The MF marketing mix need to be worked out to take the surge from current 3% of investible household surplus.
- 2) Majority of investment in MF is coming from top 5 cities and non-retail investors. The penetration in tier 1 and 2 cities is a challenge and rural India is a distant dream.
- 3) Only few MF products are popular. Thus the investor participation is skewed towards few fund categories only. The frontline sales persons are not very clear about the best fit of product and investor needs. Most of the MF products are wrongly sold.
- 4) Distribution channels in the current form are dominating the market. Other innovative channels are not available even after digitization. Mobile based platforms like CAMS are not yet popular.
- 5) Most of the investors stay away from mutual funds considering it to be similar to equity. Creating awareness about low cost debt funds for first time investors can be a solution.
- 6) The distributors are rewarded for quantity of AUM generated and not on the Quality of advice. A digital platform can be used to gather the responses on the quality aspect of the advisory.

Research Methodology

The survey method of research was adopted to know the views of the three stakeholders namely AMC representatives, Advisors and Investors. Three separate questions were circulated and the data was collected from 10 respondents representing each stakeholder. The total sample size was 30. Since the views of AMC representatives are considered significant the sample size represents 10/48 i.e. 21% of population, 10/200 i.e. 5% of population was represented for advisors and a 0.006% of population for investors. In all 12 questions were common for all three stakeholders and the same were analysed for identifying the perceptions and

convergences/divergences between perceptions of three stakeholders, if any. The purposive sampling method was used for the survey.

Data Analysis and Interpretations

The responses collected were coded and tabulated as follows to draw meaningful conclusions:

a)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
Digitization has facilitated the ease of compliance; for e.g. e-KYC		3.75	5.00	4.75	4.40

Interpretation: Compliance has been a key agenda for the Government and the varied versions and formats have bothered investors and the associated stakeholders alike. In such a scenario, digitization of the processes has been a welcome relief for most of the mutual fund stakeholders. But within the three categories of respondents, the Asset Management Companies have not been overly optimistic in their responses. But still there is agreement that digitization has facilitated the ease of compliance.

b)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
Digitization has enabled enhanced transparency in the mutual fund industry		3.75	4.50	4.50	4.20

Interpretation: Where on an aggregate level there is a general agreement that Digitization has enabled enhanced transparency in the mutual fund industry, the Asset Management Companies are not too positive. A reason for a muted response from the AMC could be that for more than a decade, there has been huge amount of disclosures that has been mandated by SEBI for AMCs. But still, the undertone remains positive and broadly there is an agreement that transparency has improved.

c)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
Digitization has led to greater investor trust on AMCs.		3.25	4.00	4.00	3.70

Interpretation: Digitization, per se has not been too instrumental in developing the trust of investors and potential investors. Trust has been developed by the strong performance of mutual funds and the word of mouth publicity that goes with it. This industry is peculiar in the sense that investors buy hope and nothing else. Therefore, trust plays a crucial role and the layman investor predominantly believes on his advisor rather than the system which controls the mutual fund industry,

d)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
There is a substantial rise in mutual fund investments from rural and remote areas via the digital platform.		2.50	4.00	4.50	3.60

Interpretation: For a country like India, participation of the rural population is integral to the success of any product or service. Mutual funds are no different. Interestingly, where the AMC is not in agreement, Advisors who actually source the investment are positive about the contribution from rural India. The study was based in Nagpur, which is an urban centre. Possibly the AMCs did not get a lot of rural investment and thus are not too positive about the contribution from rural India.

e)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
Digitization has facilitated easy access to knowledge and information.		4.50	4.50	4.75	4.60

Interpretation: Access to knowledge and information goes a long way in building the support and infrastructure for a thriving industry especially a knowledge based industry like mutual funds. Digitization has played an integral role in dissemination of information and that too in an engaging manner leading to greater knowledge and information about the developments in the mutual fund industry and capital markets.

f)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
Digitization has helped in reducing the number of complaints from investors		3.00	4.00	3.75	3.50

Interpretation: AMCs are neither in agreement nor disagreement. A reason for the same is that the industry is in its growing phase and yet to mature. New investors are not too conversant with the working of the mutual funds and thus complaints. On the other hand, Direct investing is also on the rise due to SEBI directive which meant lesser expense for (no load) direct investors.

g)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
Digitization has enabled efficient processing of transactions in terms of accuracy and speed.		4.50	4.50	4.75	4.60

Interpretation: Almost a decade ago, most of the transaction went through the manual processing mode; i.e. a human entered the data in the system. Obviously a human error cannot be ignored. With online investing and linking of bank accounts and investments with AADHAR a good number of transactions are executed without any error. Thus, a unanimous response from all the major stakeholders. Most of the respondents across categories agree that digitization has enabled efficient processing of transactions in terms of accuracy and speed.

h)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
Digitization has helped in customizing the services as per the needs of different investors.		3.50	4.50	4.25	4.00

Interpretation: Meeting customer needs is a challenge for every business as the customers are diverse and unique. However, technological developments with the help of data analytics have been greatly helpful in serving the customers better. A higher degree of agreement has been observed among the distributors who have been a true beneficiary of digitization. The distributors feel that they are now able to deliver a better service to their clients as technology supports them in a big way. Investors also agree that digitization has helped in getting customized services.

i)

Question Statement Values:	Mean	AM C	Advisors	Investors	Overall Average
Digitization has facilitated faster updates regarding the developments in the industry and economy.		4.25	4.50	5.00	4.60

Interpretation: A natural benefit of digitization ought to be faster updates regarding the developments in the industry and economy. It has been stressed earlier that mutual fund is a part of the knowledge industry where timely information is crucial to superior returns. AMCs, Advisors and Investors have expressed high to very high degree of agreement that they get faster updates regarding the developments in the industry and economy.

j)

Question Statement Values:	Mean	AM C	Advisors	Investors	Overall Average
Digitization has led to reduced response time to Investors, Regulators and AMCs / RTAs.		4.50	5.00	4.50	4.60

Interpretation: There are several service requests in the mutual fund business. Non-receipt of dividend and redemption proceeds, non-receipt of complete brokerage, other updates regarding valuations, compliance requirements from SEBI, etc. Digitization has empowered respective stakeholders to get their desired piece of update. For instance, investors can generate their statement of investment for any given period or tax statements for a given period by accessing “www.camsonline.com”. It is thus that all the respondent categories have agreed to the question statement.

k)

Question Statement Values:	Mean	AM C	Advisors	Investors	Overall Average
Online Mutual Fund investments are safe.		3.25	3.00	4.50	3.70

Interpretation: It is surprising to find that despite the general agreement on the benefits of digitization, AMCs and Advisors who are supposedly more informed than investors are undecided about online mutual fund investing being safe. However, it is encouraging to find that majority of investors agree that online mutual fund investing is safe. As a researcher, it is point worth mentioning that share trading has been on the online platform for almost two decades now and there aren't any significant complaints of frauds or mismanagement. The benefits of the same should be passed on to mutual investing as well.

l)

Question Statement Values:	Mean	AM C	Advisor s	Investor s	Overall Averag e
Cyber security infrastructure in India is capable of detecting any fraud in digital investments.		3.00	2.50	2.50	2.70

Interpretation: In general, there has been a gross lack of confidence on the legal system in India. Cyber security infrastructure has been no exception to this lack of confidence. Only the AMCs have not clarified their stance. But Advisors as well as Investors disagree on the capability of detecting frauds in the present Cyber Security infrastructure in India.

Hypotheses Testing

The study was conducted by putting forward the two hypotheses as follows:

H₀₁: There is no significant difference between perception on improved trust on AMCs because of digitization among 3 stakeholder category

t-Test: Two-Sample Assuming Equal Variances		
	<i>AMC</i>	<i>Investor</i>
Mean	4.5	4
Variance	0.722222	3.111111
Observations	10	28
Pooled Variance	2.513889	
Hypothesized Mean Difference	0	
Df	36	
t Stat	0.856021	
P(T<=t) one-tail	0.198824	
t Critical one-tail	1.688298	
P(T<=t) two-tail	0.397648	
t Critical two-tail	2.028094	

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P(T<=t) two-tail	0.397648	
t Critical two-tail	2.028094	

Looking at the p values in both the tables for t-Test, it can be seen that $p > 0.05$ hence the hypothesis cannot be rejected. Hence it can be concluded that there is basic hitch in the mind of the stakeholders and digitization has not improved the trust on AMCs.

H02: There is no relation between access to information and perceived safety for online MF transactions of investors due to digitization

t-Test: Two-Sample Assuming Equal Variances		
	Access	onlineMF
Mean	4.75	4.5
Variance	0.194444	0.777778
Observations	28	28
Pooled Variance	0.486111	
Hypothesized Mean Difference	0	
Df	54	
t Stat	1.341641	
P(T<=t) one-tail	0.092664	
t Critical one-tail	1.673565	
P(T<=t) two-tail	0.185327	
t Critical two-tail	2.004879	

Looking at the p values in both the tables for t-Test, it can be seen that $p > 0.05$ hence the hypothesis cannot be rejected. Hence it can be concluded that the access to knowledge and information due to digitization has no bearing on the investor's perception towards safety in online MF transactions.

Suggestions

The interpretations and results of hypotheses testing are learning for AMCs in particular. If they want to get ahead with the growth and want to match the performance of other developing and developed economies at same point of time, they must make use of digitization opportunity. Trust and knowledge issues must be targeted collectively. Simply saying "Sahi Hai" is not sufficient. The whole product and marketing mix need to be revived in the context of digitalization. As you get more benefits and services on app based transactions, similar approach should be applied here too for app based or online investments. One of the advantages can be additional tax benefits for digitized transactions. After all digital transactions means more transparency, more spread and optimization of economic resources.

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Internet Censorship in India

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ABSTRACT

Time keeps on slipping and accordingly making the things to move or change from their present form keeping in mind the end goal of to take a new frame. This is true in case of censorship too, the extent of which was previously limited to print media. With the reach of internet at every nook and corner of the society, internet has moved toward becoming something which has turned out to be effective in drawing in an ever-increasing number of people thus resulting in increased tenfold of internet users from 1999 to 2013 according to a report of internet stats. At one end it is benefiting the society but at the other it is turning out into a center point of illegal matter which is harmful for the wellbeing of the society. In order to cooperate with the menace of internet use, there is a need to censor the internet. This research paper mainly focuses upon the concept of internet censorship in Indian context.

Introduction

In a nation like India where there is 1,361,182,756 number of population (2018), censorship on internet is drilled by both union and state governments. There can be many reasons to control the internet. Internet censorship can be comprehended as the control or concealment of what can be gotten to, distributed or seen on internet. It can likewise be named as content filtering. The utilization of internet is expanding day –to –day in India. Today, 462,124,989 population of India are dynamic internet clients. Internet has turned into an unavoidable piece of life of today's era. From one perspective there are different advantages of utilizing internet however at the opposite side it is being abused. Keeping in mind the end goal to come over the mis happenings by the use of internet, internet censorship is required.

Internet has given individuals the liberty to access any type of information required thus raising the levels of education, decision-making, employment of people sitting at each levels of society. It is the largest global communication and complete decentralized network with invisible boundaries as concluded by Akdeniz & Altiparmak (2008). Cohen (1997) stated that there is no owner to internet. It is accepted throughout the world and can enhance the exercise of human rights of freedom, expression, access to information, communication, etc. Due to its availability and accessibility to the wide audience, it is now a days becoming the hub illegal, harmful and undesirable contents, thus expanding the concentration of governments, regulatory agencies and international organizations towards embracing the practice of censorship.

Cohen (1997) identified some reasons for internet censorship which can be common to many countries, namely

- National security (weapons' making, illegal drugs and protection from terrorism)
- Protection of minors (abuse, forms of marketing, violence and pornography)
- Protection of human dignity (incitement to racial hatred or discrimination)

- Economic security (fraud, pirating of credit cards)
- Information security (malicious hacking)
- Protection of privacy (unauthorised communication of personalised data, electronic harassment, spamming)
- Protection of reputation (defamation, unlawful comparative advertising)
- Intellectual property (the unauthorised distribution of copyrighted works such as music, software, books, etc.)

Objectives of this Study

- To understand the concept of internet censorship in the context of India
- To have a look to the major reasons of censorship of internet
- To understand the methods of censoring internet.

Research Methodology

This study is conceptual in nature and the paper is purely based on secondary data. The facts and figures have been taken from various websites of government. The required information has also been gathered from different articles, books and research papers.

Review of Literature

Akdeniz and Altiparmak (2008) concluded that on one side humans can efficiently exercise their rights and fundamental freedoms for instance the right to freedom of expression, right to communication, access to information but on the other side it may disrespect the private life and the dignity of human beings.

Christopher S. Leberknight, et al., (2010) presented an overview of online censorship which also includes the interplay between technology and policy. also mentioned about the evolution of online censorship and the corresponding commercial applications demonstrates how censorship has been practiced and employed throughout the world as a social and political tool to control free thought and expression.

Barney Warf (2010) focused on e-governance which is taking a variety of forms these days and is becoming the essential part of the life of individuals but on the other hand the concern has been put forward towards enhancement of e-governance as it is incompatible to follow this practice with strict censorship.

Ramesh Subramanian (2011) found the need to control the internet content by portraying the examples of various democratic countries. The actions like legal, political, technical, coercive, etc taken by various governments all around the world to control the internet has been put forth in the paper.

Dr. Constance Bitso, et al., (2013) presented the extent of internet censorship which is not limited to some areas but has extended all around the world. The various positive and negative trends in countries like Australia, Chile, Finland, Libya, Myanmar, Singapore, Turkey, UK, etc., are also reflected by the researcher.

Internet Censorship in India

At present, blockage to access information is at hike keeping in mind the ultimate objective to keep up political stability, for economic reasons, with regards to national security or for preserving social values across the country. In India, hindering of online content takes place under Sec 69 A of the Information Technology Act, 2000. The directions for blocking these harmful contents can either be given by the government on its accord or on the premise of protestations made by individuals. The instances of censorship in India may range from a sudden shut down of internet in various states, mass URL blocking as well as complete close down of websites.

Various reports of Internet Censorship in India:

▪ ***OpenNet Initiative Report (ONI Report)***

This report has classified India as engaged in "selective" Internet filtering in the political, conflict/security, social, and Internet tools areas in 2011. Magnitude of censorship in a country has been classified into four areas by ONI. The magnitude are as follows:

1. Pervasive: A vast portion of content under various countries is blocked.
2. Substantial: Various categories are liable to medium level filtering or numerous categories are liable to lower level filtering
3. Selective: Few specific sites are blocked or a small number of categories are targets of filtering.
4. Suspected: Not confirmed but there is suspicion of websites being blocked
5. No evidence: There is no particular evidence of website being blocked but there may be the existence of some other controls over the website.

The 4 areas of activities are:

1. Political
2. Social
3. Conflict/Security
4. Internet tools

▪ ***Reporters Without Borders***

Reporters Without Borders added India to its list of "countries under surveillance" in March 2012 by giving the instance of Mumbai bombings of 2008.

Later, India was added to the list of current enemies of internet in the year 2014 and still it is the part of that list.

▪ ***Freedom House Report***

Freedom House's Freedom on the Net 2016 report gives India a Freedom on the Net status of "Partly Free" with a rating of 41 (scale from 0 to 100, lower is better). Its Obstacles to Access was rated 12 (0-25 scale), Limits on Content was rated 9 (0-35 scale) and Violations of User Rights was rated 20 (0-40 scale). India was ranked 29th out of the 65 countries included in the report.

Internet Censorship in India

- India's overall Internet Freedom Status is "Partly Free", unchanged from 2009.
- India has a score of 39 on a scale from 0 (most free) to 100 (least free), which places India 20 out of the 47 countries worldwide that were included in the 2012 report. India ranked 14 out of 37 countries in the 2011 report.
- India ranks third out of the eleven countries in Asia included in the 2012 report.
- Prior to 2008, censorship of Internet content by the Indian government was relatively rare and sporadic.
- Following the November 2008 terrorist attacks in Mumbai, which killed 171 people, the Indian Parliament passed amendments to the Information Technology Act (ITA) that expanded the government's censorship and monitoring capabilities.
- While there is no sustained government policy or strategy to block access to Internet content on a large scale, measures for removing certain content from the web, sometimes for fear they could incite violence, have become more common.
- Pressure on private companies to remove information that is perceived to endanger public order or national security has increased since late 2009, with the implementation of the amended ITA. Companies are required to have designated employees to receive government blocking requests, and assigns up to seven years' imprisonment private service providers—including ISPs, search engines, and cybercafes—that do not comply with the government's blocking requests.
- Internet users have sporadically faced prosecution for online postings, and private companies hosting the content are obliged by law to hand over user information to the authorities.
- In 2009, the Supreme Court ruled that bloggers and moderators can face libel suits and even criminal prosecution for comments posted on their websites.
- Prior judicial approval for communications interception is not required and both central and state governments have the power to issue directives on interception, monitoring, and decryption. All licensed ISPs are obliged by law to sign an agreement that allows Indian government authorities to access user data.

The report of 2012 says:

Tools and Technology for Censoring Internet

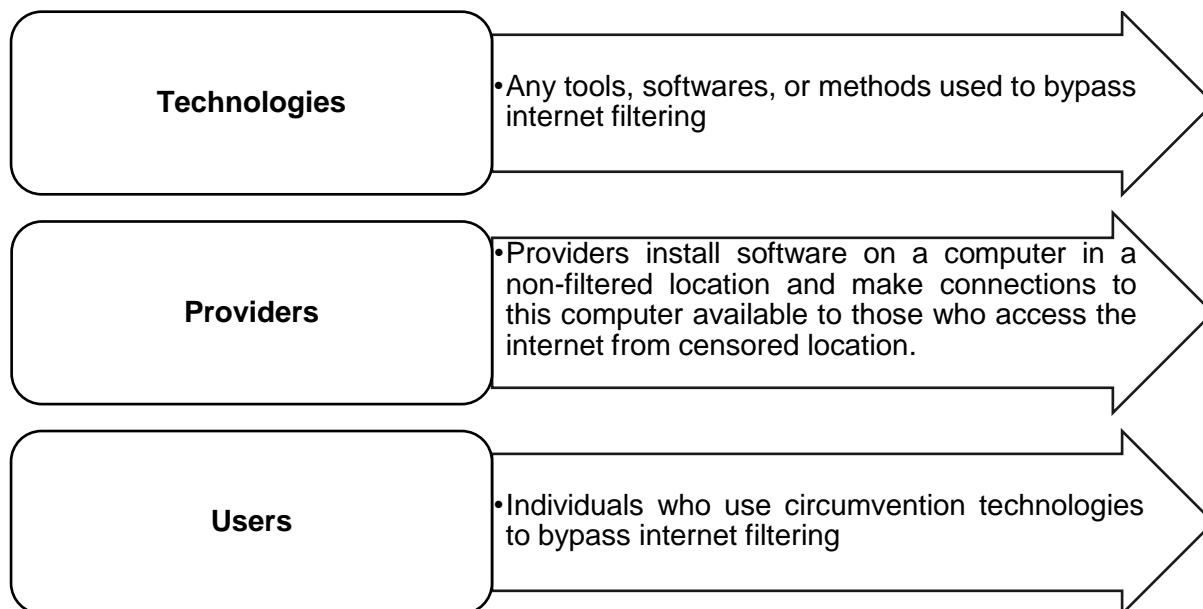


Methods	Description
TCP/IP header filtering	IP address and port number of the destination can be inspected through censor's router. If the destination is found to be on blacklist, the connection is redirected

	to the page indicating that the access is denied.
TCP/IP content filtering	the packet contents and where they are going to or coming from for any patterns or keywords that may be blacklisted are inspected through censor's router.
Domain Name Server (DNS) Tampering	Domain name resolution could fail as the router could send back an erroneous response that does not contain the right IP address, hence the connection fails through DNS Tampering.
Hyper Text Transfer Protocol (HTTP) Proxy Filtering	In some cases, users are forced to use HTTP proxies that are assigned for accessing the Internet. Those proxies may be the only way to reach the Internet and hence they can monitor all traffic that goes through them.
Hybrid TCP/IP and HTTP Proxy filtering	HTTP Proxy filtering is used for a list of IP addresses known to have prohibited content. If any of those IP addresses is accessed, traffic is redirected to a transparent HTTP proxy, which inspects the transferred stream and filters any banned content.
Denial-of-Service (DoS) attacks	DoS attacks can be launched on the host server. Such attacks are usually done by having a large number of computers requesting service from a particular server and hence, overwhelming it with too much traffic which causes the server and its connection to stall
Server takedown	A specific server could take it down and disconnect it from the Internet. The owner of the server may be able to transfer the server's contents, however – provided that a backup copy exists – to another hosting company within hours.
Surveillance	Constant technical monitoring through logging transfers between the host and the Internet user. If banned content is found in the transferred stream, actions – legal or extra-legal – could be taken against the user, the host or both. Such acts could trigger a sense of fear, causing the host to refrain from publishing such content and causing the user to hesitate from accessing it.
Social techniques	This includes the requirement to show photo identification (ID) before using public computers at libraries or Internet cafés;

	social or religious norms that force Internet users to avoid opening particular content are another form of social censorship.
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Circumvention: A Problem to Censor Internet



Recent Instances of Internet Censorship in India

J & K

Internet was shut down by state government on 17-18 March 2014-17 to stop separatists from addressing a United Nations Human Rights Council sideline event via video link in Geneva. Internet was shut down again for mobile and landline broadband in July 2016 against the backdrop of protests.

Manipur

The State government of Manipur ordered by respective DC to shutting down Mobile data service in Imphal west and Imphal east district from 17 December 2016 till further order [1]. On 18 December 2016 Home department of Government of Manipur ordered to shutdown all Mobile data service, SMS in Manipur from 10 AM of 18 December 2016 to 10 AM of 30 December 2016. Situation came up after the blocked of National Highways by UNC [2] for more than 50 days and attack to police personal at Lokchao by NSCN-IM .

Nagaland

Both SMS and internet/data services were suspended in Nagaland from the 30th of January, which were restored on the 20th of February after being blocked for 20 days. The block was initiated to prevent the spread of violence in the state. This situation came up when two Naga tribal bodies had served a three-day ultimatum to Zeliang to step down following the government's decision to hold local bodies elections with 33 per cent reservation for women in 12 towns across the state and the

death of two persons in clashes between the police and protestors at Dimapur, the commercial hub of Nagaland, on the night of January 31.

Conclusion

Internet present days is simultaneously acting as a boon and a bane for the society. At one hand, it has several advantages and on the other there are many disadvantages too. To have a control on the disadvantages, the concept of internet censorship is very useful which bans the access to the harmful content present over the internet. Techniques and methods to censor internet differs from country to country. This paper mainly focuses on the extent of internet censorship in India

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Implementing E-HRM in Cross-Country Environment: The Key to Organizational Growth

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ABSTRACT

Human Resource Management (HRM) is associated with management of people in every organization. The arena of organizational management has undergone transformation since the inception of technological advancement. Like every other area of management Human Resource Management (HRM) has also been progressively affected with the technological growth. A wide range of organizational activities comes under the purview of E-HRM. The objectives of E-HRM are to reduce cost, improve service quality and provide improved efficiency level across the department. The present study aims to evaluate the effectiveness of E-HRM from cross-country perspective based on systematic review of literature published in academic journals. The findings emerging from the present study seems to suggest E-HRM has gained prominence across the various sectors around the globe, although the outcomes of adopting E-HRM in different countries seem to be varied. Additionally, it was also found organizations embracing E-HRM seems to have enhanced level of efficiency at the HR department. Thus, it may be said E-HRM acts as the proponent to achieve dynamic growth of the organizations.

Introduction

In the present time turbulent business environment is an indispensable outcome of rapid globalization. Technology has become an integral part of mankind's daily activities. Since the time of technological advancement there has been a growing interest in the field of innovation as strategic approach enables organizations to up skill flexibility and adds competitive advantage to performance (Nooteboom, 1989; Roberts, 1998). Nowadays knowledge economy entirely depends on the skills and the expertise of the workforce.

Earlier researchers like Galbraith & Kazanijan (1984) and Vrakling (1990) described 'human assets' specifically human resource management to be one of the key factors for successful innovations. It is the humans who innovates and embraces technological advancement for betterment. With the gradual increase in accepting the potential of Human Resource Management (HR) in yielding competitive advantage, business firms have begun to perceive organizational members as invaluable 'assets' or 'investment' (Shameen and Khan, 2012). The traditional goals of the HR department are effective cost management, betterment of services and dealing with the strategic policies of the firms (Lepak and Snell, 1998; Martin, Reddington, & Alexander, 2008).

E-HRM is all about connecting employees and the executives with the HR department through electronic HR portal. This also enables employees to get electronically involved in the organizational processes. The smooth development of E-HRM is an aftermath of the combined prerequisites for accomplishing organizational goals i.e. the requirement to deal with work load efficiently and continuous up gradation of the technicalities of the information technology (Stanton & Coover, 2004; Fletcher, 2005). Implementation of E-HRM takes into consideration the necessary components of IT to be engrained in the E-HRM system (Kavanagh, Guetl, and Tannenbaum, 1990; Haines & Petit, 1997; Keebler and Rodes, 2002; Fisher and Howel, 2004).

E-HRM enables HR professionals to sharpen their decision making skills and also improvises the quality of service. The findings of a number of studies suggests E-HRM can improve the efficiency of HR departmental activities, increase the quality of HR service delivery and bring about a complete transformation of the HR function merging it with a more strategic form (Hendrickson, 2003; Ruël, Bondarouk, Van der Valde, 2007; Martin, Reddington, & Alexander, 2008).

Traditionally researchers focussed their studies related to International HRM on evaluating HRM policies and practices (Schuler, Budhwar, & Florkowski, 2002). Another area of international HRM that seems to have drawn the attention of the researchers are comparative analysis of the diverse types of emerging HRM practices across the countries and region in order to pinpoint the pattern with respect to HRM practices and organizational management (Som, 2012; Yoon & Chae, 2012; Tijdens, De Ruijter, & De Rujiter, 2013).

Thus, it may be said E-HRM has broadened the arena of human resource management. Past studies seems to indicate that implementation of E-HRM has significant positive outcomes. International HRM is one of the widely explored areas of research. Cross-country studies taking into consideration the diverse organizational components have always drawn the attention of researchers. With the emergence of E-HRM there seems to be another arena for cross-country study. Presently, it may be noted that E-HRM has become a global phenomenon. Certainly, a deeper insight into E-HRM from the cross-country point of view will bring forth a clear vision related to the outcomes of implementing E-HRM.

Objective

The present study aims to explore the effectiveness of the E-HRM from cross-country perspective based on systematic review of literature published in academic journals.

Methodology

The present study is based on systematic review (Petticrew & Roberts, 2006) of the relevant academic literature on E-HRM. Additionally, academic literature on cross-country perspective of E-HRM was also considered for the purpose of the present study.

Findings & Discussion

E-HRM

Human resource management is the most cherished and priceless asset of any organization (Ghosh, 2002). The mid-1990s, witnessed a rapid increase in the implementation of E-HRM in organizations which may be interpreted as an onset of information technology (IT) applications that integrate the HRM and with the aim to generate value within and across organizations for segmented employees and organizational management at large (Bondarouk and Ruël, 2013; Bondarouk and Ruël, 2009). Around two decades back, Beer (1997) pointed out the basic rationale behind transformation of HRM are rise in competition, onset of globalization and rapid change in the dynamics of the market and technology. Previous literature seems to suggest HR as a unit did respond to the call to embrace change due to technological advancement (Sparrow & Hiltrop, 1997; Beer, 1997; Cascio, 1998). E-HRM contributes positively in enhancing the efficiency level and reduces the work load of the administrative department which in turn helps in cost reduction. E-HRM as a whole is capable of transforming all the traditional human resource management functionaries (Noe, Hoolenbeck, Gerhart, & Wright, 2003).

Voermans and Van Veldhoven (2007) stated 'e-HRM could be narrowly defined as the administrative support of the HR function in organizations by using Internet technology'.

E-HRM is 'a way of implementing HR strategies, policies and practices in organisations through a conscious and directed support of and/or with the full use of web-technology-based channels' (Ruël, Bondarouk and Looise, 2004).

Karakanian (2002) described E-HRM as the all-round HR strategy that transform the HR department, shifts it from a standalone department and expands its frontiers to the wide range of business partners including old and new affiliated to the organization.

Some the advantages of implementing E-HRM are as follows:

1. Transforming the role of the HR executives from paper handlers of the administrative department to shaping them to become strategic partners in the organization (Broderick & Boudreau, 1992; Burbach and Dundan, 2005; Bell, Lee, and Yeung, 2006; Voermang and Van Veldhoven, 2007; Haines and Lafluer, 2008; Keegan and Francis, 2008).
2. Upgrading routine HR activities into automation mode (Tomeski and Lazarus, 1974; Martinsons, 1994; Groe, Pyle, & Jamrog, 1996; Brown, 2002; Parry, Tyson, Selbie and Leighton, 2007).
3. Overall transformation of the brand image of the organizations (Martin, Reddigton & Alexander, 2008; Parry & Tyson, 2011).
4. Diversifying the frontiers of HR professionals from administrative responsibilities to strategic activities related to people management (Hennessey, 1979; Lepak & Snell, 1998; Ruël, Bondarouk, & Looise, 2004; Shrivastava & Shaw, 2004; Martin, Reddington and Alexander, 2008).
5. Paperless talent acquisitions like e-recruitment, self-appraisal and e-performance appraisal (Martin, Reddington and Alexander, 2008).
6. Advancement of HR metrics to assist in the process of making strategic decision/s (Hendrikson, 2003; Lengnich-Hall and Mortiz, 2003; Lawler, Levenson, and Boudreau, 2004; Hussain, Wallace, & Corencius, 2007; Bondarouk and Ruel, 2009; Parry and Tyson, 2011).

7. Maintain job related employees' activities payroll and employee benefits programmes (Marler, 2009).
8. Increasing the degree of efficiency and associated cost with HRM functioning is considered to be the primary benefits of E-HRM (Buckley, Minette, Joy, & Michaels, 2004).

E-HRM functionalities include a wide spread range of HR activities like recruitment and selection, performance appraisal, compensation management, wage administration, training and development, health and safety measures, organizational retention policies related to work life balance and overall employee relations (Enshur, Nielson, & Grant-Vallone, 2002). Cost reduction and diversification of administrative responsibilities are the ideal outcomes of E-HRM (Hempel, 2004; Foster, 2010). A large number of authors to name a few, Brockbank (1997); Lepak & Snell (1998); Stanton & Coover (2004); and Bondarouk, Ruël, & Van der Heijden (2009), expressed the three fundamental goals for embracing E-HRM are cost reduction, improve HR related services and nurturing strategic approaches in the organizations. The purview of E-HRM includes transactional activities (daily transaction), traditional activities (recruitment and selection, training and development, compensation management, performance appraisal) and transformational activities (garnering value to the organization) (Thite and Kavanagh, 2009). Thus, it may be said the purview of E-HRM indeed covers an extensive range of HRM related activities.

A number of studies on E-HRM explored the range of broad objectives for embedding E-HRM as a part of the organizations (Ruël, Bondarouk, & Looise, 2004; Marler, 2009), predominantly taking into account factors such as cost efficiency, strategic goals and improvement in customer relationship. According to CIPD (2005), seventy seven per cent of UK organizations started using some form of E-HRM in 2005. A number of scholars in a unified voice agreed to the fact that E-HRM brings forth significant changes in the organizations (Gueutal and Stone, 2005; Strohmeier and Kabst, 2009). Consultancy reports since the beginning of the early 2000 shows that E-HRM projects have extensively focussed on the increasing sophisticated use of information technology (IT) (HayGroup, 2002; Cedar Crestone, 2006, Cedar Crestone, 2009).

E-HRM Outcome

The boundaries of HR activities are no longer confined to the specialised HR professionals. Since the inception of E-HRM, HR activities can now also be delivered by the line managers, information technologies and also through outsourcing (Ulrich, 1996; Tremblay, Patry, and Lanoie, 2008). Past studies have explored the possible objectives and outcomes of adopting E-HRM in organizations (Hawking, Stein, & Foster, 2004; Ruta, 2005; Ruël, Bondarouk, Van der Valde, 2007). Expected outcomes of adopting E-HRM according to Lepak and Snell (1998) are relational related to the arenas of operations, relational and transformational goals. Authors like Snell, Shierber, & Lepak (2002) and Gardner, Lepak, & Bartol, (2003) emphasized on the facilitation of strategic role of HR as one of the benefits of E-HRM. Suggestive outcomes of implementing E-HRM are drastic increase of outsourcing and interdependent services centres, with which E-HRM operates hand in hand (Martin, Reddington, & Alexander, 2008). Large firms are more willing to include new forms of E-HRM in their workplace. It is also found organizations smaller in size too have positive perception towards IT enabled HRM applications

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(Harindranath, Dyerson, Barner, & Singh, 2010). The level of sophistication involved in E-HRM also plays an important role in the functioning (Martinsons, 1994). Studies seem to confirm the number of organizations adopting and implementing E-HRM are on the rise. The growing number of literature on E-HRM indicates the significant impact it is making on the organizational management.

E-HRM & Cross-Country

One of the most extensively studied areas in the field of cross-country HR is the prevalent HRM practices prevalent in the different organizations (Cooke, Veen, & Wood, 2017). As observed by Tayeb (2001) cross-country comparative studies remains a herculean task for HRM researchers. Cross-country study in any field gives the most feasible picture of the current trends. The present study focuses on exploring E-HRM taking into consideration a selected number of countries.

India

In India healthcare sector is one of the most demanding and thriving industry. It is availed by people across the various strata of the society. Khatoon (2013) expressed a number of studies has been conducted on E-HRM are in the areas of banking, telecom and SMES. In the Indian healthcare sector, adoption of E-HRM seems to be dependent on a diverse range of factors. A study conducted by Khatoon (2013) explored the outcomes of E-HRM adoption in the Indian healthcare sector. Samples for the study were drawn from different hospitals located in the northern fringes of the Indian subcontinent. The findings of the study suggest that the attitudes towards embracing E-HRM in the arena of the healthcare is significantly dependent on factors like operational consequences, relational outcome and perceived simplicity in using it (Khatoon, 2013). Additionally, it was also noted in the study that age and gender differences did not have any influence on the pattern of E-HRM acceptance. As concluded by Khatoon (2013) decrease in cost, reforming administrative responsibilities, reduction in paper work are primarily the main components that have significant impact on the adoption of E-HRM in the Indian healthcare sector. It seems to emerge from the study adopting E-HRM in the healthcare sector is beneficial for the long run.

UK

A study examining the impact of E-HRM in organizations in UK carried out by Parry & Tyson (2011). The samples for the study were drawn from ten organizations. They selected a wide range of organizations so that E-HRM could be explored in various ways. The outcomes of the study suggested E-HRM is predominantly introduced with the sole objectives like to increase level of efficiency, service delivery, and standardization of goal, improve brand image, to empower executives and bring forth over all transformation in the HR department and shape it as a strategic functionary (Parry and Tyson, 2011). More particularly the findings of the study (Parry and Tyson, 2011) indicate objectives like efficiency improvement, service delivery and goals standardization were achieved. Taking into account the transformational parameter it was noted organizational members affiliated to the HR department had more time and relevant knowledge to assist the organization in accomplishing its various business strategies (Parry and Tyson, 2011). The findings of the study seem to suggest irrespective of the sector selected for the purpose of the study, the

requisite goals were accomplished along with expanding the frontiers of the HR department.

Belgium

A study conducted by Bondarouk and Ruël (2013) in a government organization located in Belgium to explore the strategic valuation of E-HRM. Strategic advantages in case of this study were interpreted in terms of the HR department becoming a partner in the strategic decision making process and increase in the time usable for dealing with HR related issues (Bondarouk and Ruël, 2013). The outcomes of the study showed that strategic benefits were not convincingly attained. Notably, the HR executives perceived changes in their role but the line-managers along with the other employees differed in their views. The findings also suggested the frequency of the E-HRM adoption was low, but certainly it was implemented as intended. Participants of the study also suggested there might be an increase in the strategic advantages of E-HRM provided specific criteria are met. Interestingly, Bondarouk and Ruël (2013) suggested that E-HRM does result into unintended advantages and E-HRM is one of the functionalities that shape the dynamic and operational activities in organizations. This study seems give the glimpse of how perception of the organizational members plays a crucial role while upgrading the department to align it with technological advancement.

Malaysia

Hooi (2006) examined the extent of implementation of E-HRM based on samples drawn from small and medium sized enterprises (SMES) located in Malaysia. The findings of the study showed execution of E-HRM in the SMES in Malaysia revolve around the availability resources along with the attitude of the employees in the organization (Hooi, 2006). It is to be noted availability of resources like financial and technological expertise seems to be crucial factors while implementing E-HRM in organizations. Employees are the intrinsic part of any organization, their attitude towards embracing advanced technology plays a decisive role while accomplishing the outcomes.

Cross-Country (UK, USA, Australia, Canada, New Zealand, Germany, Switzerland, Netherlands, Belgium, Norway, Finland, Austria)

A comprehensive study undertaken by Parry (2011) explored the E-HRM from the cross-country perspective. The countries included in the study are UK, USA, Australia, Canada, New Zealand, Germany, Switzerland, Netherlands, Belgium, Norway, Finland, and Austria. The findings of the large scale survey based on twelve countries indicated that E-HRM seems to enhance the value of HR by aligning to be more strategic. It also emerged from the study there was no cost reduction or savings due to decrease in the number of HR practitioners. It may be interpreted as organizations are implementing E-HRM with the aim of redeploying the HR headcount from the daily transactional activities to more strategic and value added work Parry (2011). The study seems to show cost saving does not necessarily stands for financial gains but at times utilization of resources for example diversifying work load may also be interpreted as cost reduction. The extensive study based on the twelve countries (UK, USA, Australia, Canada, New Zealand, Germany, Switzerland, Netherlands, Belgium, Norway, Finland, and Austria) seems to suggest E-HRM has gained popularity in the organizations across the globe.

Netherlands

There is diverse range of sectors generating business in every country. Researchers Bondarouk, Ruël, & Heijden (2009) examined the effectiveness of E-HRM in public sector organization located in Netherlands. The findings of the study suggested that acknowledging the contributions of E-HRM applications is linked with HRM effectiveness. Additionally, the findings of the study also indicated that E-HRM usage pattern of line managers and employees deferred (Bondarouk, Ruël, & Heijden, 2009). The study seems to suggest accomplishment of goals leads to enhancing the HRM effectiveness.

Table: E-HRM: Cross Country Perspective (Academic Literature Considered for The Purpose of the Present Study)

Sr. No.	Author/s	Year	Country
1	Khatoon	2013	India
2	Parry and Tyson	2011	UK
3	Bondarouk and Ruël	2013	Belgium
4	Hooi	2006	Malaysia
5	Parry	2011	12 Countries (UK, USA, Australia, Canada, New Zealand, Germany, Switzerland, Netherlands, Belgium, Norway, Finland, and Austria)
6	Bondarouk, Ruël, & Heijden (2009)	2009	Netherlands

Conclusion

For the last few decades' organizations around the globe have increasingly adopted E-HRM technology with the sole aim to attain administrative and strategic benefits. Undoubtedly, E-HRM as a field of study has drawn the attention of the researchers which has resulted into a growing number of literature exploring E-HRM across the globe. E-HRM territory is based on integration mechanisms and all the content of HRM shared through IT. The present study was an attempt to understand E-HRM from the cross country perspective. The findings emerging from the present study seems to suggest E-HRM has gained prominence across the diverse sectors around the globe, although the outcomes of adopting E-HRM in different countries seem to be varied. Additionally, it was also found organizations adopting E-HRM seems to have enhanced level of efficiency at the HR department. Rapid technological advancements is promoting digitalization of content for HRM practices which in a way is contributing to increased level of ownership by HRM stakeholders and organizations at large. Thus, it may be said E-HRM acts as the proponent to accomplish dynamic organizational growth.

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Cashless Transaction – Mobile Transaction

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ABSTRACT

Cashless economy in India about the cashless India initiative. It was launched on 1st July 2015 by hon. prime minister Narendra Modi with a vision to transform India in to digitally empowered society and knowledge economy faceless, paperless, cashless is one at the professed roles of digital India.

Major progress towards this goal was made in late 2016 when the govt. took steps to demonetize the counting now even small retailers and shop owners are using cashless models like PayTm for transaction

A cashless economy is one in which all transactions are made using credit, debit cards or digital devices (e. g. point-of sales (POS) machines, digital wallet) and the circulation of liquid money or paper currency is minimal.

In this economy a third- party such as the govt. or public/ private sector banks process an individual's money and can circulate that money whenever. It is not needed by the individual.

Introduction

Cashless economy in India about the cashless India initiative. It was launched on 1st July 2015 by hon. prime minister Narendra Modi with a vision to transform India in to digitally empowered society and knowledge economy faceless, paperless, cashless is one at the professed roles of digital India.

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Concept

Mobile payment (m-payment) is a point – of – sale (POS) transaction mode or received with a mobile device.

The consumer's mobile device actually becomes a security token that generates a random code for each transaction.

When consumers use mobile payment, the merchant and the mobile payment service providers share responsibility for protecting the consumer's data. The term mobile payment also includes technology that allows merchants to use mobile devices to accept credit cards. In Feb 2013, the Payment Card Industry Security Standards Council [PCISSC] released guidelines to educate merchants about the risk factors involved with using mobile points of sale. Technologies being used for mobile payments include near field communication [NFC], Bluetooth, Wi-Fi, and RFI, a short-range transmission system. As of this writing, companies who provide mobile payment systems include Apple, Google, Samsung, Android, PayPal, and Square.

Review literature

Mobile Transaction

Chaix, Turere (2011), The economic models associated to different mobile payment systems, new technology possibilities to create direct links between users, new potential intermediaries' new economic models in appropriate economic environment i.e. the operator-centric models, the bank – centric models, the independent services provider model and the collaborative model we analyse the potential at viability at each model. Chandrashekhar, Nandgopal, (2016), Mobile payment in emerging Asian market can help create greater economic efficiencies and growth given high penetration of the mobile phones (PayTm) earlier studies focus on the technology adoption model which do not address social cultural context.

Challenges

The speed of mobile payment transactions is still slow, especially at the point of sale, where consumers and merchants look for a quick turnaround, moreover, in areas of poor connectivity, transactions often fail or time out, this results in poor consumer experience, which discourages them from using mobile payment.

Third challenge is the low digital literacy of consumers. A large segment of the target population is not comfortable with technology.

Security concerns around mobile money services need to be addressed while mobile networks already have encryption on the messages transmitted across the network, mobile transfers require additional tracking and logging for regulatory compliance.

Whenever they require, especially in the remotest parts of the country because in remote locations are not easily accessible.

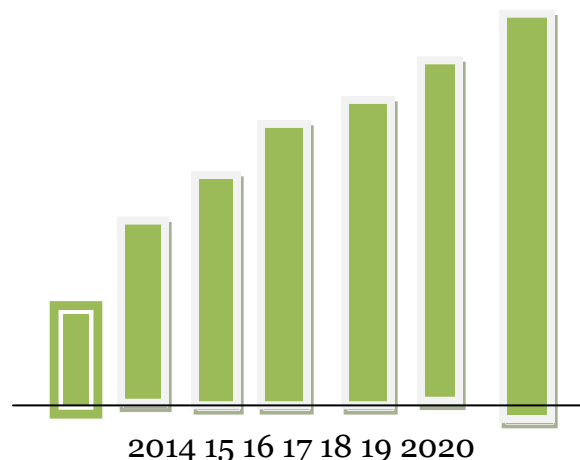
Global Index – Mobile transaction

Kenya- Estimates indicate that approximately 30% of Kenya's GDP flows through mobile transactions since its launch in 2017. M-Pesa is considered to be one of the popular and successful mobile payment services; there were more than 100 million active mobile money accounts across multiple countries as at December 2014 and the number of

mobile money accounts surpassed bank accounts in 16 countries. Kopo Kopo is a service provider in Kenya and Tanzania merchants. By the end of 2014, Kopo Kopo had an estimated 12,500 merchants across east Africa. Similarly, 2AAD, a mobile money services in Somaliland had 12300 registered merchants with an active rate of 89% as on June 2014.

China- Currently approximately 84% Chinese users access the internet via mobile and online shopping spending in the country is expected to hit US\$ 1 trillion by 2020.

Fig 1: Mobile transaction Index from 2014 to 2020 (China) Year



This state shows the transaction volume of china's mobile transaction from 2014 to 2018 and with forecast up to 2020 In 2017 the mobile payment transaction in china amounted around 10 billion yuan.

USA- Now let's look at how a developed country like the USA is adopting mobile transaction services. According to the Federal Reserve Bank's report, 43% of all mobile phone owners with a bank account used mobile banking in the year 2016 and 53% of smart phone owners with a bank account used mobile transaction between 2016-17.

This statistic shows that the global mobile payment revenue from 2015 to 2019 has been consistently growing. The world wide mobile payment revenue in 2015 was US\$ 450 billion in 2016 it grew to be \$620 billion in 2017 it further went up to \$780 billion and in 2018 it stood at \$930 billion and the year 2019 it is likely to cross one Trillian mark to \$1,080 billion.

The three most common mobile payment users with smart phone were: Paying bill through mobile phone web browser app 65%; Purchasing a physical item, digital content, remote using mobile 42% and paying for something in a store using mobile 33%.

An Index in India – Mobile transaction

There are 997 million mobile phone subscribers and 289 million smart phone users in India. mobile phones are rapidly shaping how consumers search for options before

purchases and pay for goods and services. Since the invention of smart phones a decade ago, significant innovation have been focused on mobile as a channel for financial transactions, resulting in disruptive business models across industries. As commerce moves to mobile so will payment; the volume at mobile money transaction is expected to reach US\$ 780 billion by 2017's globally and more than 85% of (POS) Point – of – sale systems are expected to accept contracted payment by 2016.

POS density in India is very low compared to similar economics such as China, Russia, and Brazil and developed country like U.S.A. An estimate of the cost incurred by a merchant for accepting payment through mobile application at POS is.

Table No. 1: Cost Consideration for Merchant

Charge type	Amount	Assumption
Low transacting charges [applicable for the month with volumes INR 25,000]	1000-1200	Premium is calculated on annual basis considered for six months for a merchant [at INR 195 Per. Merchant per month]
Annual Maintenance Charged	600 – 850	Premium based on average charges levied by service providing Banks.
Fixed cost per year	-1800	Premium
Fixed Cost per month	-150	Per Month's

Smart phone connection in India have gone up from 157 million in the year 2014 covering 17% of the total population of India. The number has grown to be 629 million, representing 51% of the population and in the Year 2020 the mobile phone owners are likely to reach 702 million covering 55% of the population of India.

Table -2: Based on industry Standard

Parameter	Assumption
Number of transactions per POS terminal	100
Average ticket size per transaction on POS terminal	INR 500
Transaction Charge	1.1 % [assuring 70% of the transaction are processed through debit cards and 30% through credit cards]
Total cost per month transaction	INR 550
Total Fixed cost per month [POS terminal]	INR 150
Total fixed chargers per POS terminal [as a percentage of volume]	0.3%
Percentage cost of acceptance per transaction on POS for merchant	1.4%

In short, Mobile has come a long way in India, from being a luxury to a utility a requirement for all. India leap from frogged the coverage through land lines and became one of the largest mobile markets in the world. At the end of 2015 there were estimated 789 million unique subscribers with 997 million connections. Similarly, smart phone penetration in India is expected to grow to 702 million by 2020.

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Gearing Up Small Businesses for Marketing in The Digital Space: An Exploratory Study

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ABSTRACT

The rapid technological metamorphosis coupled with the advent of user friendly and accessible mediums has hastened the shift of buyers and sellers from traditional selling to a more dynamic one. The buyers today are making use of channels like the internet through desktops as well as smartphones to generate more alternatives and make informed decisions. The growth of necessary infrastructure and digital skills has also catered to the growth of the big e-commerce giants in developing country like India where both the rate of technology adoption as well as penetration is on the rise. While this rise in e-tailing and e-marketing has created favorable economic situations for buyers by promoting price competitiveness on one hand, it has drastically affected the traditional businesses and sellers of the country on the other. Such businesses still employ the largest workforce as well as drive the economy in any developing country and their survival through the intervention of digital technologies in marketing has become a necessity. The paper attempts to suggest strategies that can help small businesses in India to adapt to these spaces and create a strong online presence with the available resources for relationship building, cost reduction and branding. It will also focus on the impact of e-commerce platforms like Flipkart and Amazon on small businesses in India and identify those factors that hinder the adoption of such platforms despite the benefits. The paper will involve extensive review of literature related to the use of digital channels like internet, social media by traditional small businesses that can be effectively leveraged in the Indian context to curb the growing competition.

Introduction

The small businesses are often defined as the engines of growth or backbone of any developing country. This is because they have a significant share in employment, production and exports of a country. However, despite the contribution, the small businesses are often laggards in adoption and use of technologies, the reasons of which may range from lack of resources to traditional mind set of the owner -manager, technological incapability, security and trust issues. These shortcomings have an impact on their marketing function, which is less structured and formalized than those of the large businesses. Furthermore, businesses' sales oriented marketing activities with a limited area of operations and reach add to the hardships of these businesses as they

lack sophisticated technologies and specialists to handle automations and elaborate customer support. This is undergoing a drastic change with the increased use of easily accessible technology that is supported by both public and private sector enterprises initiatives. The introduction of high speed internet services at low costs along with several programmes to propel digital skills and electronic service uses have borne fruits for marketing as well. People also spend a large part of their time online, either looking for information about the products or making direct purchases.

The digital space comprises of sets of information that can be accessed through suitable interfaces. The advent of Web 2.0 and Web 3.0 have given rise to real time interfaces which enable businesses to create constant customer engagements at reduced costs. This has also substituted the traditional communication channels with modern ones that can be effectively utilized for both Push and Pull marketing strategies. It is also marked by a significant shift in the promotional tactics which is more focused on relationship building and value creation (or conforms to relationship oriented marketing) than purely focusing on sales. Internet is projected to impact small business enterprises that generally lack the resources for making use of sophisticated communication channels.

The small businesses in India are not only realizing the potential benefits of using digital technologies for communication and branding but are also engaging in e-commerce. These can be carried out either on their own or through existing marketplaces like Flipkart and Amazon that provide ready technological and distribution infrastructure. The use of these platforms for reaching a wider audience is however less with most businesses still preferring the traditional channels. Since traditional small businesses will only take a plunge towards e-businesses and e-commerce when the benefits of their use is estimated to be more than the investments they incur for them, (ECONOMY, I. A. G. (2004), The paper in wake of this, focuses on finding the factors that hinder the use of marketplace e-commerce model by analysing the cases of Flipkart and Amazon in the Indian business landscape. In the end it also aims to suggest integrated strategies that small businesses can incorporate to develop into profitable e-sellers.

Theoretical background

Small businesses

Small businesses are defined using several perspectives in different countries. These can be based on the number of employees, the capital investment, annual turnover, informality of structures, or ownership and control. In Indian perspective, small businesses definition is similar to that of the MSME (Micro, small medium Enterprises). There are around 48 million SME's in India, and are defined in terms of minimum capital requirement of 25 lakhs to 10 crores for Manufacturing enterprises and 10 lakhs to 5 crores for service enterprises. (The Census 2011, Ministry of MSME).

Marketing in SME's

Marketing activities of small businesses differ from those of the large businesses due to several constraining factors like lack of resources as well as absence of specialized managers. This often restricts their focus to sales alone (Walsh, M. F., & Lipinski, J., 2009), referrals, W-O-M and recommendations for customer creation. (Stokes and

Lomax, 2002) However it is also accepted that developing competencies with dual focus on customers and competitors can add to the gain of the small businesses. This can be carried out either through relationship building and networking with the consumers and cost reductions, brand building and distribution channel controls for gaining a competitive edge (Jensen, K., 2001). Furthermore, networking can lead to better decision making by owners (Gilmore, A., Carson, D., & Rocks, S., 2006) as well as loyalty generation from the customers. All this will ultimately ensure organisation's survival and capitalisation of innovation (Karimi, S., & Naghibi, H. S., 2015)

Branding is the creation of unique or distinct identity or differentiation in the mind or perception of the customers. The concept includes study of brand image, identity, as well as positioning. Businesses can focus on either product, corporate or service branding. According to Ahonen, M. (2008, May). Corporate branding is a lesser known concept in SME study. Similarly, the role of technologically advanced distribution channel is also important for businesses to survive in the long run. In the present context the role of e-commerce channels is thus suitable.

The literature is replete on importance and necessities of relationship building, branding as the key factors of small businesses success. The advent of digital technologies have greatly altered the scenarios for both buyers as well as sellers. Lately, an increasing number of customers are using the internet and other technologies through PC, laptops, or mobile phones for information search, and direct purchasing and evolving into 'prosumers' through user generated content development and review sharing. This has created opportunities for sellers to engage with the customers easily through direct interaction, filling of information gaps, knowledge sharing and coordination for sustainable survival. Thus an effective utilization of the ICT and digital tools by businesses can help in adapting to this electronic transformation

Internet

The internet through e-mail, blogs and search engine marketing can be effectively channelized by small businesses to achieve marketing objectives through speedy connectivity, lower communication costs and customer support. The tools which are relevant in the study are: E-mail marketing, Online directories, Blog, Online advertising, Search engine marketing; Search engine optimization. Most of the SME's perceive the transactional and interactional benefits of internet use as most important (Thi Phuong Thao, H., & Swierczek, F. W., 2008; Heang, J. F., & Khan, H. U). This can help in building suitable brand image as well as customer base.

Lohrke, F. T., Franklin, G. M., & Frownfelter-Lohrke, C., (2006) using a transactional analysis found that small businesses use of internet can reduce transaction costs by promoting direct customer interactions. It can also reduce the inefficiencies arising due to shortcomings of the traditional channel intermediaries. Furthermore, the SME's owner-managers can handle customer support more efficiently using (Sadowski, B.M., Maitland, C. and Van Douyer, J. (2002). Thus two ways internet can benefit: first by creating presence online, and information dissemination. In all other cases where this is not possible, it can help small businesses to evolve in-house operations that will automatically reduce dependence on such intermediaries for small businesses such as for studying feedback and response for which they relied on the middlemen. It may also lead to reduced cost for the consumers in searching for all alternatives.

Social media

Is the use of new internet based tools like Facebook, Instagram and Twitter and other SNS to reach prospective consumers through Web 2.0 and generation of content by user? There are different classifications of social media based on the purpose they serve such as social networking sites like Facebook, Instagram, LinkedIn. Microblogging site like Twitter, review generating sites (TripAdvisor), or linking to other tools like website or products. Another classification that specifically focuses on use by SME's based on the target interactions, and is divided into 4 types, Business network development social networks like LinkedIn, Social networks like Facebook, Instagram for exclusively staying in touch with friends and consumers, community networks with common interest like music, groups etc. (Nakara, W. A., Benmoussa, F. Z., & Jaouen, A.,2012). The social media is seen as a platform for communication and engagement of customers through interactions, events and deals and monitoring of feedback (Bhanot, S., 2017). It can also effectively be used to generate brand awareness through content that ultimately has an impact on the brand image. (Hoffman, D. L., & Fodor, M.,2010; Bruhn, M., Schoenmueller, V., & Schäfer, D. B.,2012). However, the use of SNS technology is less effective in generating direct leads. (Pentina, I., Koh, A.C., & Le, T.T.,2012)

All the studies however emphasis on the need to integrate both traditional and modern medias and not take up one at the cost of another. While SNS was found to have a positive impact on brand awareness, traditional media impacted more of the brand equity (Bruhn, M., Schoenmueller, V., & Schäfer, D. B.,2012). Thus small businesses can suitably use SNM technologies to enhance communication flexibility while controlling their communication costs (Pentina et al., 2012).

E-commerce Platforms

E-commerce is defined as the buying and selling using the internet. It also has several perspectives, namely the communication perspective, business process perspective, service and online perspective. (Bagale, GS, 2014). The benefits of these may range from deliverance of products or information over electronic lines to automation of business processes, enhanced production efficiency and relationship building, reduced costs. There are mainly two models of e-commerce, the Marketplace model, inventory model or hybrid model. In the first model, a company acts as a link or intermediately between the end buyers and the sellers (who list their products or get registered on sites). There is no question of ownership of goods as is the case with Flipkart and Amazon. The inventory based model on the other hand is defined as the one where the companies sell only their own stocked goods. In the Indian business context, the role of such companies to assist in the digital transformation of small businesses is exemplary. The paper focuses on finding the factors that hinder the use of marketplace e-commerce model by analysing the cases of Flipkart and Amazon in the Indian business landscape. that the perceived benefits have an impact on the e-commerce adoption. Greater the benefits perceived by the owners, more would the adoption of it. (Kaynak, E., Tatoglu, E., & Kula, V. (2005).

Need for Study

1. It is clear that the digital evolution has brought a shift in the scenarios with the rise of 'prosumers' and it is important for them to develop strategies that make use of the world wide web and e-commerce to develop e-businesses that also simultaneously channelize social media. (Nakara, W. A., Benmoussa, F. Z., & Jaouen, A.,2012)
2. Formulation of strategies also help in setting measurable goals and more satisfied use of technologies like internet and social media in lead generation Nakara, W. A., Benmoussa, F. Z., & Jaouen, A. (2012)
3. SME's in India are not using the Information systems to their utmost potential despite being aware of their advantages and prospective benefits. (Sharma, M. K., Bhagwat, R., & Dangayach, G. S. (2005). Small businesses are generally found to be mostly focused on meeting small term needs or goals, and little thought is given for formulation of strategies. Stokes (2000)

Research Methodology

The paper focuses on creating a structured literature review starting with the definition of Small businesses and their marketing along with the in-depth analysis of the e-commerce sites, newspaper reports, and articles.

Case study and findings

Comparative study of E-commerce companies on small sellers

Requirements from Sellers	Flipkart	Amazon
Listing fees	No listing fees	No listing fees
Fixed charge	20 Rs	Fixed closing charge from 20-40 Rs+ 3% referral fee
Shipping charges starting	Rs 30 Rs depending on weight) slab and location	From 27 Rs per item varying on weight ((Volumetric or actual whichever is higher) and location
Registration required	GSTIN, PAN, Bank account	yes
Branded packaging material support	Provided chargeable.	Provided chargeable

Benefits to sellers	Flipkart	Amazon
Fulfillment Services (warehousing, storing, quality checks and packaging)	Flipkart advantage	Fulfillment by Amazon(FBA) (on upgradation)
Payment settlement days	7-15	7
Minimum requirement for using fulfillment services	Need good track record for using fulfillment services	No minimum requirement for FBA
Logistic support	E-kart (own logistic support)	Blue dart, Easy ship (for basic sellers) or Prime
Sellers awareness/ training programs	Webinars and Flipkart Smart learn	Seller university program
Seller insurance	Seller protection program	No direct protection.

	through seller protection fund	
Capital assistance	Flipkart Growth capital	Amazon Seller Lending Network
Seller reward program	Pilot testing starting from 2017-18.	Since 2015

Benefits to sellers

1. Multiple tie ups
2. Logistic support
3. Low investment cost of starting business as they don't need to stock resources to sell
4. Easy customer reach and therefore, enhanced business opportunity
5. Catalogue assistance and support

Barriers for sellers

1. High customer acquisition costs, order fulfilment costs (logistics, supply chain payment get away, packaging)
2. Low profitability in online platforms than own stores due to high commission charges on some products
3. High cost of operations due to returns.
4. High rate of returns: due to non-serious or dishonest buyers, lack of personal touch and colour variations between the shown product and actual product.
5. Lack of awareness among sellers regarding operations in e-commerce platforms
6. High penalty costs in case of cancellation of product or delay from sellers' side.
7. Fear of bad reputation due to false claims filed by fraudulent consumers such as Amazon's A-Z claim.

Suggestions and Recommendations

1. Internet Marketing strategy

A strong online presence by SBE or SME can be created by incorporating the use of tools like blogs, in marketing activities. These tools positively impact activities like pre-sale, after sale and marketing performance.

- a) Focus on Content building: as good quality content helps in value creation and attention generation (Öztamur, D., & Karakadılar, İ. S., 2014).
- b) Use of blogs for brand building: as they are an effective medium of indirect branding and reputation building.
- c) Use of online directories and local listings: as they can enhance visibility and offer greater reach.
- d) Use of website: as it serves as a permanent source of information that can both display product and specifications and also incorporate e-commerce (Burke, K., 2010). These should be properly constructed with a professional look. Other than this, comprehensiveness, material variety, and desktop and mobile friendliness are some features that can promote the use. (Husk, Godfrey, Abraham, Robertson, & Fleming, 2014)

- e) Other strategies such as Search engine marketing using searchable key words, e-mail marketing for sending newsletters, offer coupons etc. using automated tools can also be focused on.
- 2. *Social media:*
 - a) Identifying the most suitable network for interaction based on the purpose and target audience.
 - b) Using a mix of social medias instead of only relying on one and ensuring timely scheduling of content.
 - c) Allocating a budget for social media marketing can also benefit companies in the long run (Slade, 2016)
 - d) Regularity in Communications with quick and genuine response.
 - e) c) Use of simple and suitable language.

Limitations & Conclusion of the Study

The study does not take into consideration the heterogeneity of businesses and instead focuses on a comprehensive homogeneous view of SME's instead which may be use technologies differently. It also doesn't include the limitations of social media marketing which also offers less control over messaging and positioning. Furthermore, in e-commerce, it only studies two major platforms and does not consider PayTM or snap deal which is the fastest growing site with large number of verified sellers on board. The paper can serve as information source for further analysing the impact of such e-commerce platforms in the Indian business landscape so as to serve as opportunities instead of threats for traditional businesses.

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Study on Role of Bandhan Bank Microfinance in Women Entrepreneurship with Reference to Gorakhpur Region

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ABSTRACT

Concept of microfinance is emerged in order to meet the goal of empowerment of women, specially related to low-income and weaker section of society. Microfinance plays an important role in order to provide an entrepreneurial option for women, who are socially disadvantaged and economically exploited for their social and economic upliftment.

Microfinance is increasingly being considered as one of the most effective tools of reducing poverty and increasing financial inclusion. Mr. Chandra Shekhar Ghosh founded Bandhan financial services limited in the year 2001, in order to provide loans to weaker section of society, those who have not able to get the loans from traditional banking services. Women have also rights of good health, financial security, access of education and other opportunities and for that, microfinance has helped women to achieve these all rights in order to improve quality of their life in both economic and social settings.

And through this paper, efforts have been made to know the role of Bandhan bank microfinance in women empowerment through women entrepreneurship in Gorakhpur region, to know about the purpose of taking loans, what is the changes in the women's socio-economic settings and to know about loopholes in these process and for reducing these all drawbacks what corrective measures should be taken with reference to future prospective in order to improve the process of microfinance in Gorakhpur region.

Introduction to Microfinance

Micro finance by self-helping group act as a modern tool to fight poverty for the development of rural as well urban India. Microfinance or also known as micro-credit is a financial service that focuses on meeting financial needs of population that are financially underserved, these are individuals who usually lack the credit or resources to secure a loan and are unlikely to get approval from traditional banks. It is a financial service that offers loans, savings and insurance to entrepreneurs and small business owners who does not have access to traditional sources of capital, like

banks or investors. microfinancing is available through MFIs. They offer small loans and help to set and maintain a savings account.

The study aims to understand the concept of Microfinance and Microfinance institutions and its impact on financial inclusion with special focus on poverty alleviation and women empowerment through with the help of entrepreneurship in India. A Micro Finance Institution is an organization that acts as an interface between the formal credit delivery institutions and credit seekers, with an aim to assist for the socio-economic development of poor and marginalized people.

Need for Microfinance

The main thrust of Bandhan microfinance is social upliftment and to empower the women through women entrepreneurship who are socially disadvantaged and economically exploited.

Women Entrepreneurship

Women entrepreneur is defined as “a women or group of who initiate, organize and run a business enterprise. Entrepreneur is person who is visualizer, creator, innovator, decision maker, risk taker and leader. He/she is actively engaged in seeking change by engaging opportunities. An enterprise owned and administrative by a women entrepreneur with a minimum financial interest is 51% in share capital is termed is women entrepreneurship. Basically, Entrepreneurship refers to the act of setting up a new business so as to take advantages from new opportunities.

Current Status of Women Entrepreneurs in India

Unfortunately, women do not get as many facilities as the man do. They are discriminated and underprivileged. In spite all the efforts of government as well as non-government they have been the most overlooked client by financial sector. In recent time microfinance has emerged as a major tool for the upliftment of women mainly rural women. Both informal as well as formal sector of finance such as commercial banks are taking active part in providing facilities of microfinance to rural women. Women are taking active part in getting themselves availed of different facilities of microfinance.

Challenges Faced by Women Entrepreneurs

- Lack of finance
- Conflicts between work and domestic commitments
- Gender gaps in education
- Social barriers
- Legal constraints in family law
- Heavy and large house hold responsibilities
- Lack of family support
- Lack of capital
- Lack of confidence and faith

Rural Development Through Microfinance

- It is unable to attain sustainable development without the rural development. women form the main part in attaining sustainable development. It is important to empower women for the progress of a country. Rural women

form the main part in the development of women. Development of rural women leads to development of a country. India has a total population of about 6.40 lacs villages and most part of population is living in rural areas. Most of the female population lives in rural India. The majority of rural women lives in rural India forms the category of being below poverty lines. So rural poverty can mean the feminization of poverty. The segment of rural India forms the backbone of Indian economy. To empower a rural India it is important to empower its rural population. Government is providing aid in rural development by providing facilities like self-help group. Self-help group are taking help of microfinance in providing facilities to rural women. Helping women through self-help group by microfinance is a new innovation in the field of development.

- Bandhan microfinance focuses and serving the under banked and underpenetrated markets and it help to make the country's economic growth more inclusive.
- Its focus on the under banked and under penetrated markets allows and also helps to meet certain regulatory requirements. The RBI requires (1.) that banks locate at least 25% of their banking outlets in unbanked rural areas (2.) that at least 40% of all lending be made to priority sectors, which includes micro loans.
- Bandhan sense the opportunity and focuses on these segments (PSL or rural areas) not because of regulatory compulsion but as a business strategy and they continuously work upon it.

Range of Microloans Provided by Bandhan Bank Microfinance, Gorakhpur Branch in Order to Promote Women Entrepreneurship

SUCHANA

Minimum loan amount: Rs 1,000

Maximum loan amount: Rs 25,000

Loan tenure: Up to 1 year

Rate of interest per annum: 18.80%

- Dedicated doorstep service canter (DSC) to service the needs of customers.
- Simplified documentation for hassle free loan processing.
- Use of house held devices (HHDs) with biometric authentication at doorsteps to speed up transaction time
- Timely disbursement

SRISHTI

Minimum loan amount: Rs 25,001

Maximum loan amount: Rs 1,50,000

Loan tenure: Up to 2 year

Rate of interest per annum: 18.80%

SURAKSHA

It is designed to meet stress-free support for medical emergencies with Bandhan bank's suraksha loan that is committed to help you with timely support when you need it the most. As an existing microloan customer, you can now access funds conveniently at your doorsteps to support your family's emergency health needs without any stress.

Minimum loan amount: Rs 1,000

Maximum loan amount: Rs 10,000

Loan tenure: Up to 1 year

Rate of interest per annum: 10.52%

SUSHIKSHA

It is designed with purpose to ensure your children's education with Bandhan bank's sushiksha loan that helps you ensure their bright future. You can access funds conveniently at your doorsteps and enable your children to continue study uninterrupted.

Minimum loan amount: Rs 1,000

Maximum loan amount: Rs 10,000

Loan tenure: Up to 1 year

Rate of interest per annum: 10.52%

Review of Literature

Soumali Bose (2015) studied that micro-finance schemes of Bandhan microfinance helped to alleviate poverty at larger scale. Microfinance also act as an effective approach for financial inclusion program. Mayank Tiwari and Komaljeet Kaur (2018) analysed that Empowerment of women is a key factor to eradicate poverty as women are the major contributor to the national income. Financial assistance is required to make these poor and dependent women as emerging entrepreneurs. Union government, state governments, self-help groups, industrial organisations, micro-banks, nationalized banks, non-banking financial companies are providing financial support schemes to poor section of society. Women empowerment includes in its ambit the respect social, political, economic, and psychological aspects which are urgent requirement of modern society. Women have become more confident and stable with microfinance through SHGs but several MFIs are charging exorbitant rate of interest to the poor people which is required to be checked and controlled. Jagtap (2017) studied that the Bandhan bank focuses on Eastern India as banking penetration is still poor in the region but at the same time want to expand their loan portfolio by increasing lending funds to retail business and Micro and Small Medium Enterprises. Micro finance institutions are basically established with the objective of providing financial facilities to the needy and weaker sections of the society. They helped the government to get rid of poverty and achieve economic development of the country and Bandhan is playing a key role to achieve these objectives. In India the government should focus to examine the structure of microfinance schemes and suggest some recommendation for the proper functioning of MFIs.

Research Objectives

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- To study the role of microfinance in empowering women through women entrepreneurship.
- To know about the purpose of taking microloan from microfinance institutions in Gorakhpur region.
- To study the impact of microfinance on financial inclusion with special focus on poverty alleviation.
- To know and study about the categories and the suitability of microloans provided by Bandhan Microfinance, Gorakhpur Branch.

Research Methodology

Research Design-Descriptive Study

Sampling Method- Non-Probability, Convenience Sampling.

Data Collection- Primary Data Through Questionnaire and Secondary Data from various sources like research papers, case studies, internet websites, articles, journals etc. various studies on this subject have also been referred in this study and also Various information provided by Bandhan bank Gorakhpur branch and their doorstep service centres (DSCs) is considered. Through Questionnaire, I have collected my primary data among 150 women who shows their interest in micro loans in Gorakhpur.

Findings and Observations

Based on my questionnaire, from secondary data, Bandhan bank microfinance Employees, various journals, article and others associated topics, these are the findings and observations.

- It is found that the main occupation of 33.33% women is labour work.
- It is found that 33.63% poor women is earn below or equal Rs. 4500, therefor they need microfinance in order to generate extra income through entrepreneurship options.
- Women are mostly aware of micro credit facility.
- 35.33% women come to know about microfinance through the advertisements and awareness program by MFIs and 36% from their friends too.
- Most of cases women are helped by their friends to get avail of micro finance.
- It is found that 90% of the women agree that microfinance have helped to improve their overall socio-economic status.
- About 55 percent women agree that they are satisfied with the interest rate of loans.
- About 90 percent women think that micro finance helped them to generate extra income, and it is helpful for their family.
- It is found that 34.44% women have loan amount about in between Rs. 30 to 40 thousand.
- Duration of most of the loan is up to 2 years.
- It is found that 75.56% of the women agree that in case of non repayment of loan of any member in a group, guarantor would repay their repayment.
- Most of the women are satisfied with the grievance handling mechanism of micro finance services.
- It is found that 90% of the women agree that microfinance has helped in poverty reduction and helps to promote women entrepreneurship.

- Till FY 18 its customer base in microfinance is 10.6 million while in FY17 its customer base in microfinance is 9.08 million in all over India, which also shows its progressive improvement in direction of achievement of financial inclusion.
- Bandhan's commitment to financial inclusion is also reflected from the fact that it offered loans to 1386976 new borrowers in FY 17-18. The growth of over 30% in the aggregate micro-banking asset portfolio from Rupees 21,418 crore to Rupees 27,670 crore during FY 2017-18, is another indicator of Bandhan's commitment.

Suggestions

Basic literacy, education and business Training programmes to the women can be provided for the better performance of their business activities and for the enhancement of understanding capacity which empowers the group members. Since the repayment of loan among the members of the self help groups is quick; therefore, the banks may reduce the rate of interest on such a loan. Should open branches and doorstep service Centres (DSCs) to grow customer base for microloans.

Develop more and more products and services that actively suits to poor people. Should continuously work in order to enhance digital and technology platform to drive customer satisfaction, customer retention and reduce costs. This will also help to reduce lending rate. The Government may announce presentations and awards to the best Performing group at the district and state level. I found that that near 15% of women would not use their loan amount for actual purpose for which they have taken, so there should be a control mechanism by the Micro Finance Institutions to control this.

Government should organize trade fairs and create environment to promote the work of women entrepreneurs in the rural areas, as well as urban area.

At present, the repayment period of loan starts within one weeks from the date of disbursement of loan, my suggestion is that the repayment should not be started till 3 months. In this period, the borrower should establish their business completely and after that they repay their loan easily in weekly mode.

Conclusion

- Bandhan microfinance is playing an important role in order to provide and Promote entrepreneurship option for women in Gorakhpur region.
- Bandhan Microfinance loans and its productive utilization found to be having a profound role and impact on women empowerment through women entrepreneurship.
- Micro finance is accepted a key mantra for attaining and maintaining the sustained and long term economic growth in all over world.
- Bandhan microfinance is playing a vital role to perform financial inclusion in Gorakhpur, it is also helpful in order to generate leadership quality.
- Bandhan microfinance is playing a key role in order to remove poverty or taking efforts for poverty alleviation.

- Bandhan microfinancing is playing a pivotal role in order to uplift the socially disadvantaged and economically exploited women in Gorakhpur region.
- Bandhan Micro finance is capable of helping the poor to upscale themselves to a better living standard.
- Bandhan microfinance is also helping to reduce the gender discrimination and enhance the women decision-making process.
- At last I want to say that there is still some untouched remote areas where the requirement of finance is more and services are not yet reached. Government should support more to these MFIs in order to need and fulfilment of capital is possible as they required.

Limitation of Study

The limitation of my study is restricted to two door step service centres (DSCs) of Gorakhpur district. As the area of study needs more enquiry and project study should be spread over entire Gorakhpur district specially in more remote areas.

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Digital Financial Services: Challenges and Prospects for Liberalized and Globalized Indian Economy

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ABSTRACT

Financial services such as payments, credit, savings, insurance etc. are accessed and delivered through digital channels. In this context, the term “digital channels” refers to the internet, mobile phones (both smartphones and digital feature phones), ATMs, POS terminals, NFC-enabled devices, chips, electronically enabled cards, biometric devices, tablets, phablets and any other digital system. Therefore, Mobile financial services (MFS) are also a part of the digital financial services (DFS).

There are following objectives of this paper-1) To describe digital financial services through cashless funds flow in liberalized and globalized Indian economy. 2) To examine the prospects of digital financial services through cashless economy to the general public and 3) To highlight the challenges of digital financial services through cashless economy in India.

For fulfilling the above objectives, researcher makes hypotheses for testing the data. Present study is written in descriptive as well as exploratory form. Secondary data is collected from authentic sources like Economic Survey, journals, IMAI and Statista-The Statistics Portal website. The research will use convenient sampling for collecting primary data. The people which are easily accessible have been chosen for the study. Testing will be used for analyzing the data.

Due to innovation in digital payment technologies and increasing customer satisfaction, the growth trends in digital payments may be positive and will might continue to dominate the payment landscape in India. But the biggest challenge in front of Indian economy may digital illiteracy, inadequate rural penetration of internet connectivity, inadequate banking infrastructure, lack of awareness among rural customers, unorganized indigenous market.

Introduction

Financial services such as payments, credit, savings, insurance etc. are accessed and delivered through digital channels. In this context, the term “digital channels” refers to the internet, mobile phones (both smartphones and digital feature phones), ATMs, POS terminals, NFC-enabled devices, chips, electronically enabled cards, biometric devices, tablets, phablets and any other digital system. Therefore, Mobile financial services (MFS) are also a part of the digital financial services (DFS).

Digital economy is good for developing country like India. India has become the fastest growing economy in the world. It has seventh position in the world on the basis of GDP and third position on the basis of purchasing power parity (PPP). After 1991, India has changed their policy from licensing or controlling to the LPG model i.e. known as New Economic Policy under the Finance Minister Mr. Manmohan Singh. And since, it has been running forward.

If light is thrown on the history of economical Indian background, unfavorable BOP and BOT has been seen since 1951. This major problem was faced by the economy and it should be removed as soon as possible. So in 1991, government decided to follow LPG Model. At that time, India has faced worst condition of economically because it did not have proper natural resources as well as financial resources for the development. Therefore, a big surgical strike was used in the form of New Economic Policy that was LPG model based.

The primary objective of this model was to stand the economy of India with full capabilities as the fastest developing economy before the global world. Reforms are taken in different sectors such as business, manufacturing, and financial services for providing proficient level to the economy of the country. These economic reforms worked like an engine for the overall economic growth of the country in a significant manner.

Before knowing the role and impact of LPG policy in cashless economy, it is necessary to throw the light on different keywords. **Liberalization**¹ is defined as making economics free to enter in the market and establish their venture in the country. Economic liberalization is often associated with privatization, which is the process of transferring ownership or outsourcing of a business, enterprise, agency, public service or public property from the public sector to the private sector. In other words, Economic liberalization means lesser government regulations and restrictions with increasing the ratio of private entities or the removal of controls" like classical liberalization doctrine or free laissez faire concept in the minor part. **Privatization** is defined as when the control of economic is sifted from public to a private hand. **Globalization**² is the increasing interaction of people, states, or countries through the growth of the international flow of money, ideas, and culture. Globalization is primarily an economic process of integration that has social and cultural aspects. It involves goods and services, and the economic resources of capital, technology, and data. A **cashless**

¹ <https://en.wikipedia.org/wiki/Liberalization>

² <https://en.wikipedia.org/wiki/Globalization>

economy describes an economic state whereby financial transactions are not conducted with money in the form of physical banknotes or coins, but rather through the transfer of digital information (usually an electronic representation of money) between the transacting parties. Cashless societies/transactions means either barter or other methods of exchange such as digital formed currencies 'bitcoin.' However in this article, the term "cashless economy" is used for an economy where cash is replaced by its digital equivalent. Money is exchanged only through electronic media (Net Banking by computer, Mobile Banking etc.) that is Digital form of money. Therefore, it can be said as Digital Finance Service.

Economic reforms have an important impact on Indian economy. There are many changes in Indian economy, after adaptation of the policy of LPG i.e. Liberalization, Privatization and Globalization in 1991. Because of these reforms many good thing is happen like increase in the India's GDP growth rate, Foreign direct Investment and Per Capita Income. Policy has facilitated the flow of foreign capital, technology and managerial expertise thereby improving efficiency of industry. Also, unemployment rate is reduced.

According to the latest Economic Survey 2015-16³, the Indian economy will continue to grow more than 7 per cent in 2016-17. According to Fitch Ratings Agency, India's Gross Domestic Product (GDP) will likely grow by 7.7 per cent in FY 2016-17 and slowly accelerate to 8 per cent by FY 2018-19, driven by the gradual implementation of structural reforms, higher disposable income and improvement in economic activity. The recent steps of the Indian government have shown positive results in the growth of the GDP. According to a Goldman Sachs report released in September 2015, India could grow at a potential 8 per cent on average during from fiscal 2016 to 2020 powered by greater access to banking, technology adoption, urbanization and other structural reforms. In this respect, there have been various initiatives taken by our Honourable Prime Minister Mr Narendra Modi such as Make in India, Swatch Bharat Abhiyan, Digital India etc.

In India, technology was also entered since 1990s for personal computers and gradually spread in many sectors in the form of digital revolution. Banking services is the part of digital revolution with the technological advancement and interconnectivity of the various services that are provided by the banking sector. The digitalization brings innovation, ease of working, new job opportunities and growth in the economy. It helps to bring transparency in the system and more transparent are the flow of funds in the economy less is the problem of tax evasion, parallel economy etc. Digitalization opens the easier way of transferring money or accessing to the money for the customer with different facilities like online payment of their monthly expenses such as electricity bills, payment of premiums etc.

In spite of, the process of digital soundness has been slow. It needed a huge push. In this context, The Reserve Bank of India (RBI) published its first guideline on mobile banking

³ Economic Survey 2015-16

in 2008, and the conversation on integrating Aadhaar numbers with bank account numbers on one hand and mobile numbers on the other started as soon as UIDAI was established. However, it is the post-2010 period, with rapid growth of the e-commerce sector in India, that saw rise of digital financial services and intermediaries, and hence the demand for regulatory intervention in the sector. This essay by Shivalik Chandan tracks RBI policies and guidelines responding to and shaping the regulatory framework of the digital financial sector in India, including both mobile banking and online transactions.

Therefore, our government created an artificial threat by announcing that Rs. 500 and Rs. 1000 notes were scraped and new currency was circulated in replacement of old notes in the form of Demonetization. Demonetization (November 08, 2016) in India was the major step for pushing the country to become more digitally sound. People started recognizing the benefits of being digitally sound and how useful it is. During this phase digital awareness has generated and people learned the new modes for managing their money in the cashless way. In other words, it has also highlighted the benefits and need to go cashless (or have a less cash based economy).

In other words, the online payment options or mobile wallet or digital payment channels have helped people to survive at the time of currency crisis because government motivated Pradhan Mantri Jan Dhan Yojana in the form of accounts and operated with digitally. Therefore, Digitalization worked like boon in that period.

Objectives of the Paper

There are following objectives of this paper-

- To describe digital financial services through cashless funds flow in liberalized and globalized Indian economy.
- To examine the prospects of digital financial services through cashless economy to the general public and
- To highlight the challenges of digital financial services through cashless economy in India.

Hypotheses of the Study

Ho: There are no significant prospects of digital financial services through cashless economy to the general public in the context of India.

H1: There are significant prospects of digital financial services through cashless economy to the general public in the context of India

Methodology of This Paper

Present study is descriptive as well as exploratory in nature. Secondary data is collected from authentic sources like Economic Survey, Journals, IMAI and Statista-The Statistics Portal website. The research used convenient sampling for collecting primary

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data. The people which are easily accessible have been chosen for the study. The present study also conducted a survey of 110 respondents in 30 different District throughout in India in the month of January, 2018 for analysis through questionnaires designed on five point Likert scale to evaluate the prospects and challenges of cashless economy to the general public. One sample t-test has been applied as the statistical tool to test the hypothesis through SPSS_20 versions.

Analysis of The Data: Secondary Data Analysis

Estimated Share of Payments Done by Non-Cash Methods-

Table-1 shows that the share of payments done by non-cash methods of India is only 2% while Singapore, Netherlands, France, Sweden, Canada, Belgium and UK have more than 50%.

Table-1: Estimated Share of Payments Done by Non-Cash Methods

Country	%	Country	%
Singapore	61	Taiwan	6
Netherlands	60	Italy	6
France	59	South Africa	6
Sweden	59	Poland	5
Canada	57	Russia	4
Belgium	56	Mexico	4
United Kingdom	52	Greece	2
USA	45	Colombia	2
Australia	35	India	2
Germany	33	Kenya	2
Korea	29	Thailand	2
Spain	16	Malaysia	2
Brazil	15	Saudi Arabia	1
Japan	14	Peru	1
China	10	Egypt	1
UAE	8	Indonesia / Nigeria	0/0

Share of Smartphone Users to Mobile Phone in India

Table-2 shows the share of smart phone users to the mobile phone users from 2014 to 2019 that have increasing trend. In 2019, smart phone users would reach at 39% in India.

Table-2: Share of User

Year	Share Of Mobile Phone Users That Use A Smartphone In India	Mobile Phone Internet User Penetration In India	Ratio Of Internet Users In India	Ratio Of Mobile Phone Users In India
2013	NA	NA	NA	43.35
2014	21.2	NA	NA	47.99
2015	26.3	18.55	21.46	52.72
2016	29.8	21.28	24.39	56.50

2017	33.4	23.93	27.40	60.34
2018	36.0	26.47	30.52	64.04
2019	39.0	28.85	33.62	67.16
2020	NA	31.05	36.81	NA
2021	NA	33.05	39.52	NA
2022	NA	34.85	42.27	NA

India Smartphone Penetration

Above points show that the smart phones industry has been growing in the market of India. It was 21.2% in 2014 but now it will reach at 36% in 2018 while 59% in China and 87% in U.S.in 2018 that is much higher than India. It would be projected 39% in 2019 in India. This increment shows that smart phones are penetrating in India either in locate in rural area or urban area. Primary data of the study shows that smart phones are mostly used for bill paying or transferring money.

Mobile Phone Internet User Penetration In India

Table-2 shows that it will also increases from 2015 to 2018 in India and it has been forecasted at 34.85% for 2022. This shows the penetration of smart phones that has internet facilities in Indian market. In other words, smart phone market increases gradually in India.

Share Of Internet Users In India From 2015 To 2022

Table-2 shows that Indian also uses internet at PC or café for browsing. There were 21.46% internet users in 2015 in India while it would be reached at 42.27% in 2022. India has second position in spending their time for online.

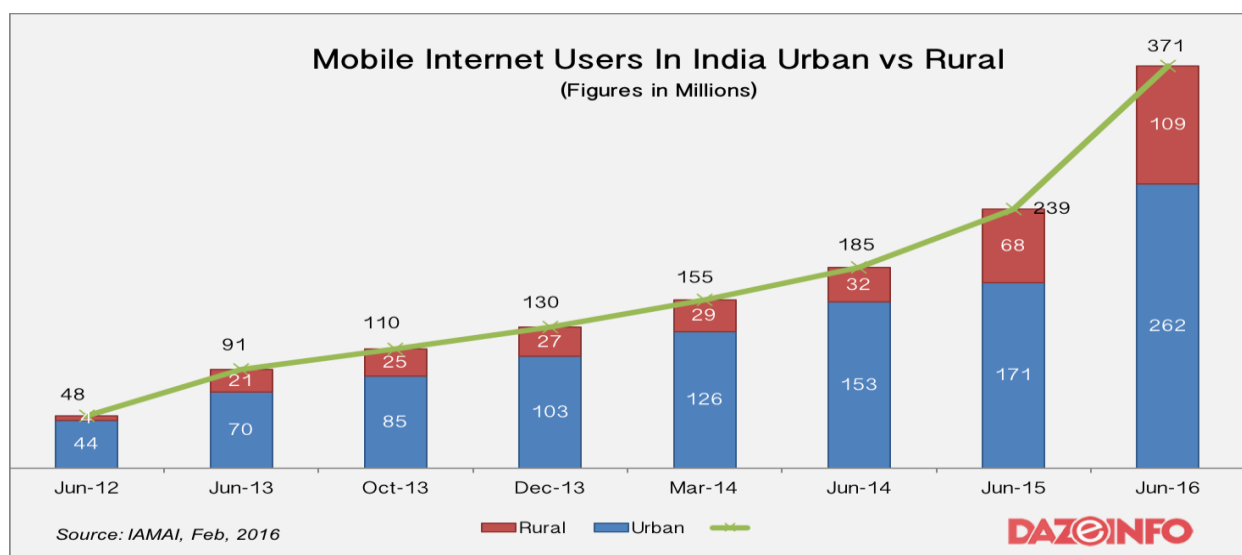


Chart-1

Number of Mobile Phone Users in India from 2013 To 2019-

The statistic shows the number of mobile phone users in India from 2013 to 2019. For 2017 the number of mobile phone users in India is 730.7 million (60.34%). In this same year the number of smartphone users in India is 340 million (33.4%) and could reach almost 468 million by 2021. As of the end of 2016, Samsung held the largest share of the smartphone market in India with around 25 percent, followed by Xiaomi and Lenovo.

Primary Data Analysis

Chart2-6 shows Demographic characters of 110 respondents, 66.36% were males and 33.64% were females.

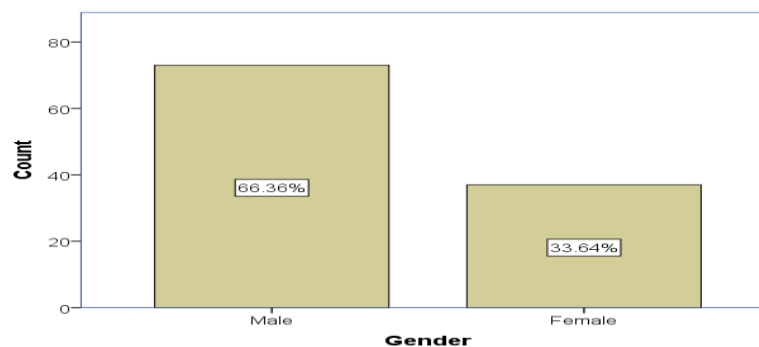


Chart-2

Moreover, 29.09% were under the age of 25 years, 34.35% were belong to the age group of 25-35 years, 20% were in the age group of 35-45 years and rest have the age of more than 45 years.

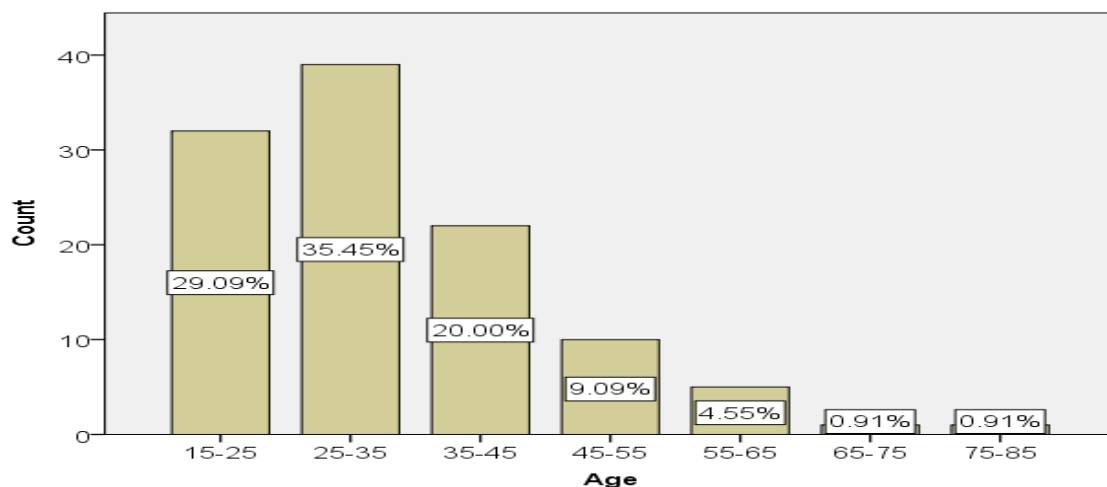


Chart-3

So far education of respondents is concerned, 36.36% were graduates, 26.36% were post graduates, 20.91% having professional training or degree, and rest are high school, intermediate and PhD. holders. Less than 1% is illiterate.

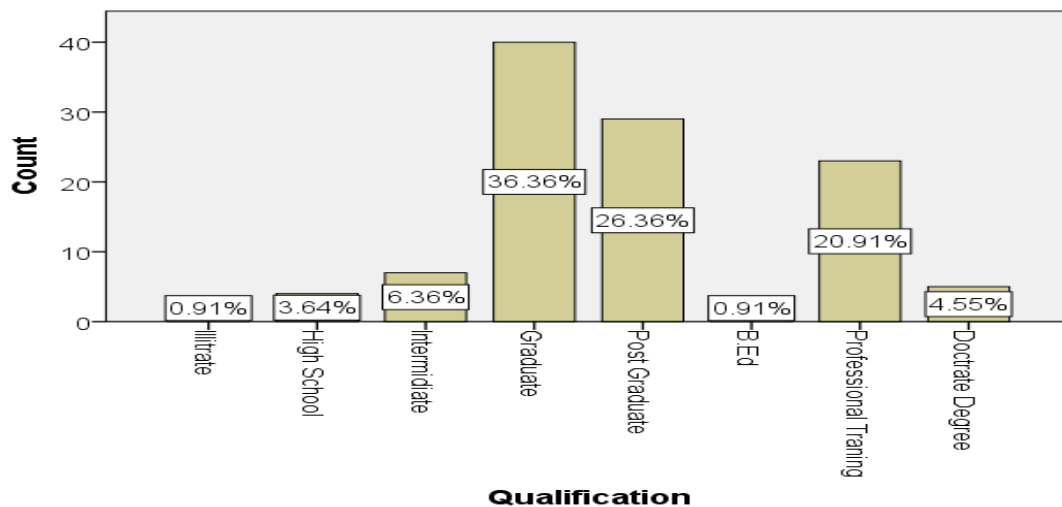


Chart-4

Moreover, the sample includes 57.27 are employed, 41.82 %are unemployed and rest are retired.

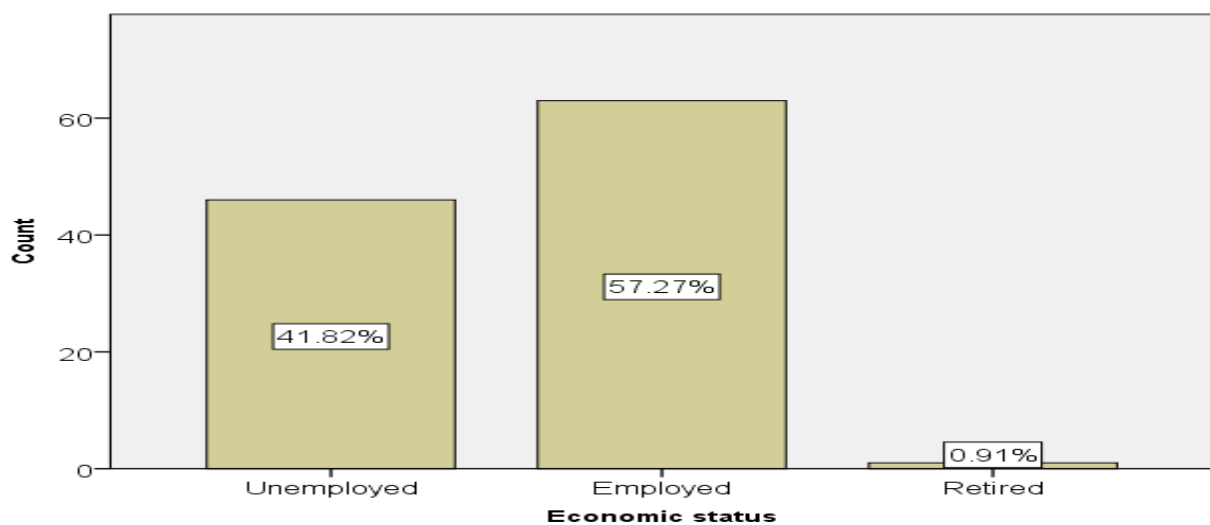


Chart-5

In which 30% are students, 17.27% are belonging to banking and financial field followed by small businessman and belonging to teaching field.

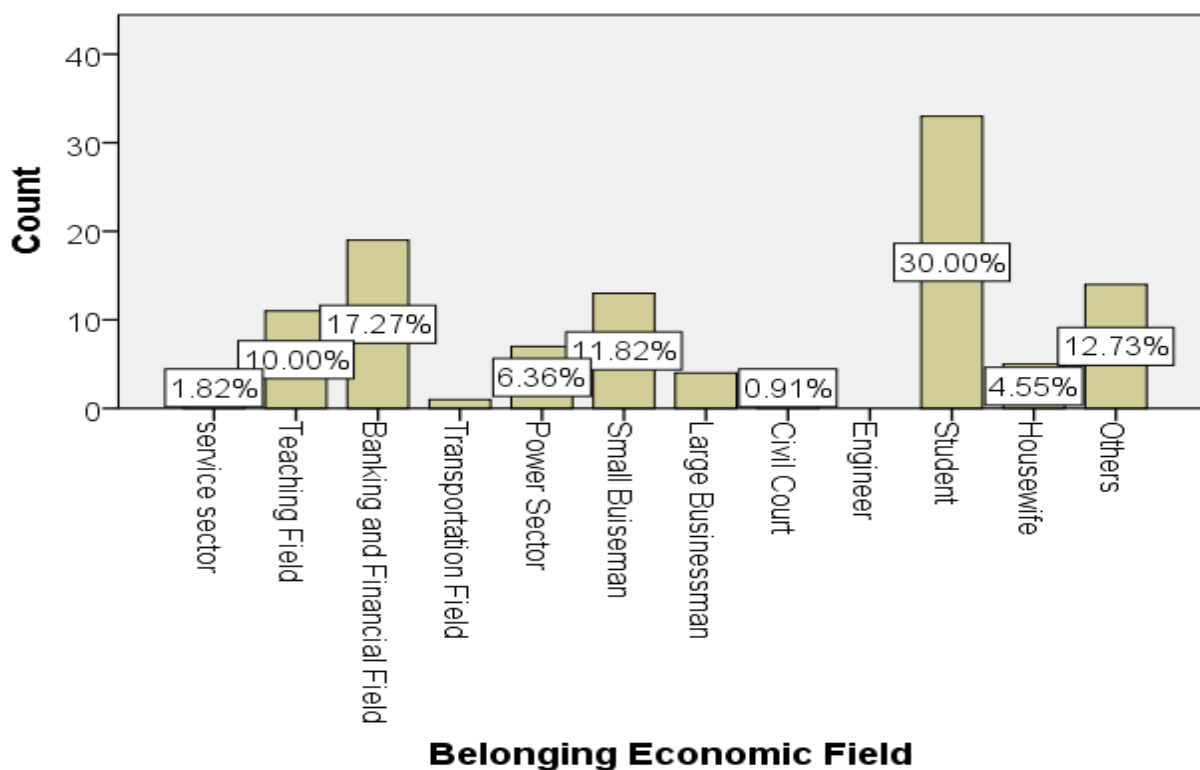


Chart-6

One sample t-test has been applied as the statistical tool to test the hypothesis. Table 3 exhibits the results of one sample t-test. It shows the mean value, standard deviation, standard error, t value, degrees of freedom and significant value of all statements used in the study. The mean values of all statements are above 2.5 and significant value in each statement is less than 0.05. Therefore, the alternative hypothesis stands accepted and it can be said that there are significant prospects of cashless economy to the general public in the context of India.

H₀: There are no significant prospects of digital finance service through cashless economy to the general public in the context of India.

H₁: There are significant prospects of digital finance service through cashless economy to the general public in the context of India

Table-3

No.	Statements	N=110					
		Mean	S.D.	S.E.	T Value	Df	Sig
1	Preferences of cashless Economy	4.18	4.122	.136	30.846	109	.000
2	Cashless Economy is Convenient	3.71	1.251	.119	31.087	109	.000
3	Cashless Economy is Time Saving	3.67	1.375	.131	28.005	109	.000
4	Cashless Economy is Cost	3.25	1.230	.117	27.754	109	.000

	Saving						
5	Cashless Economy is prevent from Queue	3.14	1.153	.110	28.525	109	.000
6	Cashless Economy is Worked 24 hours	3.31	1.254	.120	27.669	109	.000
7	Cashless Economy is Free from petty cash in hand like chiller.	3.15	1.132	.108	29.1143	109	.000
8	Cashless Economy is free from stolen money	3.16	1.129	.108	29.377	109	.000
9	Cashless Economy is Prevent money laundering and corruption	3.16	1.088	.104	30.494	109	.000
10	Cashless Economy is Reducing cost of bank services	3.07	1.106	.105	29.129	109	.000
11	Cashless Economy is Benefited for all sectors	3.15	1.243	.119	26.620	109	.000

Table-4 shows, how many respondents are having their account and digital money facilities. This table also shows their behaviour that which and where they use digital money. 101 respondents have their own account either they are employed or not. In which 93 respondents have digital facilities like ATM but they also use mobile banking and net banking. No doubt, low percentage of respondents is used E-wallet, mobile banking and net banking, while they have smart phone. Reason of low using of E-wallet, mobile banking and net banking will be explained in the section of challenges of cashless economy. Digital money uses by mostly respondents for transferring money. Near about 25% respondents are used digital money for paying government bills.

Table-4

No.	Statements	N=110	
		Yes	No
1	Having Bank Account-	101	09
2	If Yes-Having Digital Facilities	93	17
3	If using for transaction-Debit Card (ATM)	89	21
4	If using for transaction-Credit Card	17	93
5	If using for transaction-e-wallet like Paytm	27	83
6	If using for transaction-Mobile Banking	25	85
7	If using for transaction-Net Banking	37	73
8	Where you use(s)-Transferring Money	44	66
9	Where you use(s)-Purchasing Items	31	79
10	Where you use(s)-Transportation	18	92
11	Where you use(s)-Paying Bills like house tax, water tax, electricity etc.	28	82
12	Where you use(s)-Recharging Mobile	21	89
13	Where you use(s)-others	20	90

Therefore, we can interpret the prospects of cashless economy in India in the following ways-

1. Indian customers are now shifting from traditional branch banking to internet banking due to ease and convenience.
2. Availability of low cost smart phones coupled with affordable internet data packs Indian consumers are shifting from feature phones to smart phones. Demand of smart phones has reached it saturation point in Tier-1 cities whereas as it is continuously raising in Tier -2 and Tier-3 cities and rural areas. Indian banks including public sector banks are committed to provide mobile banking facilities and all most all banks have their own e-wallets which are linked with their debit or credit cards remove the hindrances of carrying physical cash in their hands.
3. Increasing use of smart phones significantly contribution in transforming Indian banking from traditional branch based facilities to technologically driven mobile / internet based facility.
4. Raising trends of online purchasing backed by many forces such as strong value proposition offered by online merchants, proliferating payment platform, strengthening delivery channels, logistics, home delivery, 24*7 active market, increasing mobile & internet penetration etc. Increasing penetration of E-commerce also contributing digital transactions in India.
5. Increasing mobile penetration, overcrowded bank branches, need of 24* 7 banking facilities with ease and convenience, increasing urbanization, organized retailing, raising education levels, raising income level, changing life style of Indian customers forced Indian banks to develop technological infrastructure for its customers.
6. In last three years Narendra Modi lead NDA government come up with innovative ideas and took several initiatives such as Pradhan Mantri Jan Dhan Yojna with a goal of opening bank account for every house hold in order to bring comprehensive financial inclusion in India.

But they feel some problems to use it. Table 5 throw the light on the problems that are felt for using digital money in the economy in which Fear from networking crime about cashless Economy is a major problem for the general public. No knowledge for operating about cashless Economy, Poorness about cashless Economy, Risky for losing money about cashless Economy, Bad networking services about cashless Economy are the other problems that are facing by general public in using digital money in India.

Table-5

No.	Statements	N=110					
		Mean	S.D.	S.E.	T Value	Df	Sig
1	No awareness about cashless Economy	1.50	.854	.081	18.421	109	.000
2	No knowledge for operating about cashless Economy	2.71	.912	.087	31.150	109	.000
3	Poorness in the economy	2.80	.886	.084	33.138	109	.000
4	Illiterate in the economy	2.27	.619	.059	38.483	109	.000

5	Not useful about cashless Economy	1.75	1.070	.102	17.103	109	.000
6	Less believe about cashless Economy	2.27	.789	.075	30.219	109	.000
7	Risky for losing money about cashless Economy	3.15	.950	.091	34.826	109	.000
8	Bad networking services about cashless Economy	3.29	1.168	.111	29.552	109	.000
9	Less digital resources about cashless Economy	2.23	.895	.085	26.099	109	.000
10	Fear from networking crime about cashless Economy	3.47	1.239	.118	29.389	109	.000
11	paid extra charges about cashless Economy	2.13	.527	.050	42.374	109	.000

Therefore, we can interpret the challenges of cashless economy in India in the following ways-

More than half of the nation still does not have knowledge to use a computer for using digital money.

People in rural areas still don't know about using and applications of smart phone in the context of electronic money. Besides, there is lack of internet facilities or bad networking services and without it a country cannot become cashless.

Low literacy rate hinders the accessibility of banking services.

Citizens should not only know how to read and write but also possess basic ICT literacy to fully enjoy the benefits of e-payments.

Internet is an English based platform.

The details on the plastic card are also in English. The message received on mobile regarding transaction is also in English. Therefore, it is required to use multiple languages regarding these processes or make everyone learn English.

Swipe machines are also not subsidy free.

It can only be afforded by rich shopkeepers. It can't be expected from an auto driver or a normal grocery seller to afford swipe card machines. Besides, many street vendors, shopkeepers don't know how to use swipe machines.

Digital money is very Risky in the context of losing money.

This is the biggest hindrance in promoting cash less transactions in Indian economy.

India is a country of over 6, 50,000 villages with an illiteracy rate of more than 25-30%.

Digital literacy is just 10% in India. In the absence of digital literacy, we can't expect the transformation of Indian economy from traditional branch based model to virtually exist cashless economy. Under the scheme Pradhan Mantri Jan Dhan Yojna that was launched in August 2014 by Government, number of beneficiaries were 29.52 crores till

august 2017 but 72% Jan Dhan accounts were dormant, this is the biggest hindrance in cashless payments in India.

Another and most mounting challenge in digital payments is cyber security issues,

with the magnitude with which digital transaction taking place after demonetization the risk of online fraud, leakage of confidential information, cyber-crimes, malware and virus attacks has been raising. This is the biggest concern to deal with in order to popularize digital payments.

Conclusion and Suggestion

Less than 40% users are using net banking; it emerged as the favorite mode of payments among internet users in India. Internet penetration in India is continuously rising in last three years. According to a report published by Internet & Mobile Association of India and market research firm IMRB mobile internet users reached to 420 million by June 2017. Further launching of Reliance jio last year and other telecom companies come up with affordable data packs continuously increasing the internet penetration in India. Due to increasing internet penetration Indian banks continuously increasing their technological infrastructure to provide innovation, affordable, user friendly services to enhance consumer experiences and gain competitive advantages.

From the above analysis, it has been found that cashless economy is an economic system in which there is little or very low cash flow in a society and goods and services are bought and paid through electronic media. Cashless economy is the economy in which transactions are made by debit cards, credit cards, cheques or direct transfer from one account to another. There are many benefits of cashless economy like Cashless Economy is Convenient, Cashless Economy is Time Saving, Cashless Economy is Cost Saving, Cashless Economy is preventing from Queue, Cashless Economy is Worked 24 hours, Cashless Economy is Free from petty cash in hand like chiller, Cashless Economy is free from stolen money, Cashless Economy is Prevent money laundering and corruption, Cashless Economy is Reducing cost of bank services, Cashless Economy is Benefited for all sectors. Despite many benefits, there are several challenges before cashless policy in India such as Fear from networking crime, no knowledge for operating computers, Poorness, Risky for losing money, Bad networking services etc.

After analysing the present study, the findings reveal that there are significant benefits of cashless economy to the general public but some homework is necessary before applying it on the Economy. Therefore, few initial steps should be taken by Indian government paves the way for its transformation in long run from traditional branch based model to technologically driven cashless economy in order to bring transparency, flexibility, efficiency, convenient, customer friendly banking facilities in India.

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Cashless Economy and Digitalization

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ARTICLE INFO

Keywords:

Less cash society;
Cashless Economy;
Digital economy;
Demonetization etc.

ABSTRACT

Cashless economy seems synonymous to Canada and Sweden as manifested in study of Forex Bonuses 2017. Cashless economy is an economic system where small amount of cash is used in transactions. Cashless economy is based on transactions made by credit cards, debit cards, wallets or digital modes.

India is majorly cash driven economy where people prefer to carry cash instead of cards however India is moving towards “less cash economy” -a phase of cultural-economic transition. It is important to curb shadow economy, corruption, terror -financing, human and drug trafficking, counterfeit-currency etc.

Cashless economy is cost effective, growth friendly, business friendly, pro-financial inclusion, etc. Government is promoting it through BHIM app, AEPS, Digishala etc. Cashless economy requires robust digitalization. It has various challenges-escaping attitudes of people, poor transaction security mechanism, insufficient infrastructure etc. it is boon to industries like UBER and OLA. Further analysis will be done on secondary data

Introduction

Economy has always moved through period of transformation from time immemorial. The age of mercantilism which witnessed trade through exchange of gold and bullion transformed into barter system. Barter system is a process in which exchange is done in commodities. Later with the arrival of industrialization, size of economy expanded which resulted into invention of money. Money is any identifiable object of value that is generally accepted as medium of exchange and at the same time it must act as a measure and store of value.

Money in broader sense consists of coins and currency notes. India is majorly a cash-driven economy where cash is still the king in Indian society. But the scenario is rapidly changing in India. India is embracing cashless economy gradually by moving towards less cash society. This is what manifested in demonetization that was announced on November 8 2016 wherein 86% of existing currency from circulation was withdrawn in order to curb the menace of cash-driven economy. But this move was not an easy one. People suffered to a great extent in that phase but at the same time they supported this step. The road of Less cash-society leads to cashless economy which itself passes through the heart of robust digital economy. All this is in sync with the global trend. Sweden is the most cashless economy of the world. According to Payment Habits in Sweden (Risbank 2018) cash now accounts for just 13% of payment stores, even Canada has on average two credit cards per person.

Vietnam announced a bold initiative to become 90% cashless retail economy by 2020.

Objective

- To study the concept of Less-cash society; cashless economy and digital economy.
- To evaluate the change in economy in pre-demonetization and current scenario.
- To evaluate cost –benefit analysis of cashless economy.

Methodology

This study is entirely descriptive in nature and is based on the secondary data. The data is taken from authentic and reliable source i.e. RESERVE BANK OF INDIA, well renowned journals and international articles.

Limitation of Study

The study is done on data on Reserve Bank of India only.

Various Concepts

Less Cash Society

Any society which uses less amount of cash in its day to day activities and use digital modes of payment.

Cashless Economy

Cashless economy is characterized by exchange of funds by cheque, debit or credit cards or electronic methods rather than the use of cash.

Digital Economy

The Digital Economy is an economy wherein all the major activities in economy becomes paperless and accomplishes with the help of electronic media.

Modes of Cashless Transaction

- Net Banking
- Aadhar-Enabled Payment system
- SMS Based Mobile Banking
- Bank cards
- E-wallets

Cost Benefit Analyses of Cashless and Digital Economy

A) Cost or Challenges in Going Cashless

- It needs digital infrastructure in adequate numbers as India is one the fastest moving economy of the world involving large number of transactions.
- It needs safe, secured, robust and cost-friendly internet connection.
- It needs wide internet penetration in rural areas.
- It needs adequate digital literacy.

B) Benefits of Going Cashless

- Elimination of Fake Indian Currency Notes: Paper currency makes easier to create FICNs, but once economy goes cashless it will not be possible.
- No Black Money: Cash can be hoarded easily and this is called unaccounted income. This unaccounted income creates loss of revenue to Income Tax Department and economy in entirety.
- Cost-effectiveness: The cost of printing Paper currency is high as raw material is imported for printing paper currency. Rs. 636 crore was spent to procure paper and ink last year. The RBI spent the highest - Rs 505 crore on currency paper alone in the past 10 years in 2014-15. This cost can be cut down as economy goes cashless. This huge amount can spend on other welfare schemes. Moreover, it will bring down logistics cost as well.
- Elimination of Grey Economy: The grey economy can be curbed as crimes, terrorism and drug trafficking etc. all thrive on Black money.
- Formalization of economy: The greater the economy digital, the higher the tax compliance. And so the formalization of economy. The Economic Survey Vol.2 released on August 12, 2017 mentions that 5.4 lakh new taxpayers were added post demonetization (tool to less cash economy)
- Ease of doing Business: It facilitates ease of doing business as economy becomes more and more transparent and every transaction is being recorded.
- Positive Externalities: Cashless and digitalization have positive externalities on economy. It will reduce cost of transaction online once large no. It stimulates other sectors like telecom sector, Smartphone industry and E-commerce.
- No Risk: The risk of carrying cash in large amount is eliminated.

Thus, in a nutshell we can say that benefits of cashless outweigh cost.

Government's Road to Cashless

- First and foremost is unified payment interface (UPI)-India's largest payment interface launched by NPCI to provide push to less cash economy.
- BHIM-APP, QR CODE.
- Appointment of Committee on Digital Payments that recommended medium term strategy for accelerating growth of Digital Payments in India with a regulatory regime. It should be conducive in bridging the Digital divide by promoting competition, open access & interoperability in payments. It explores the inclusion of financially and socially excluded groups and assimilation of emerging technologies in the market, while safeguarding security of Digital Transactions and providing level playing to all stakeholders and new players who will enter this new transaction space.

Literature Review

Jain, (2017), in her article "Making towards a cashless economy: challenges and opportunities for India" said that the impact on taxes would be negative because of compression in demand. The demand for gold and luxuries will increase as have attempted to convert cash balance into such metal. She also said that collapse of confidence has affected not just domestic investors but also their foreign counterparts.

Jain, (2006) in the article "E-Payment and E-Banking" said that E-Payment will curb black money. The technological advantage, safe and secured plus quick payments and remittances will ensure optimal utilization of resources of Banks, NBFCs and common citizens of India.

Chaudhari, (2017) in his article "The critical analysis of cashless transaction" said that Cash less transaction are not possible without internet, hence government must investigate in infrastructure availing internet. Especially free Wi-Fi zones should be made available at local market, all the major banks must have separate counter which will be specifically used for assistance in cash less transaction. He said that extra charges on Cash less transaction must be stopped. Government must officially disclose all information of demonetization so as to gain information to common man as to what will be more advantages if Cash less transactions are being utilized. He conducted Primary survey in which he discussed about fear of technology in cashless transaction. He used various analytical techniques namely percentage method, chi-square test, Kolmogorov-Smirnov test ANOVA test. He analyzed demographic profile of respondents used in research.

Vincent, (2005) in the article "Credit cards – Modern payment system", provided information about credit card functioning in India and settlement and concluded that it is a blessing to both the traders and customers.

Shendge, (2017) in their article "Impact and importance of cashless transaction in India". They used descriptive approach to analyze the impact and importance of cashless transaction. They said that financial safety over digital payment channel is important for pushing the cashless economy idea.

Balaji & Balaji (2017) in their article "A study on demonetization and its impact on cashless transaction" said that more than making transaction convenient, it hinders the spread of unaccounted money. He discussed the demonization in various countries like Myanmar, Soviet Union, Australia, Ghana, Nigeria and Pakistan as well.

Mukhopadhyay, (2014), in his article "Moving from Cash to Cashless: Challenges and Opportunities for India" conducted an extensive household survey across 8 cities (4 metros) involving 3066 households. He tried to identify the bottlenecks which prevent households to make non cash payments. According to his study, 1.38% of all household expenses are done via non cash instruments (2.92% in urban and 0.55% in rural). Approximately 7% (12% in urban and 3% in rural) households make cashless transactions in one or more items. For urban India, approximately 80% of the households make cashless transactions in only one item. He also said that Supply side constraint (that is unwillingness by the seller to accept such payments) is the biggest deterrence to cashless payments. He developed a predictive model of cashless payments. He used logistic regression to identify factors that help us to understand what makes a household go cashless (in terms of Socio Economics, payment frequency and network effect), what factors explain the 'perceived constraints' by the households.

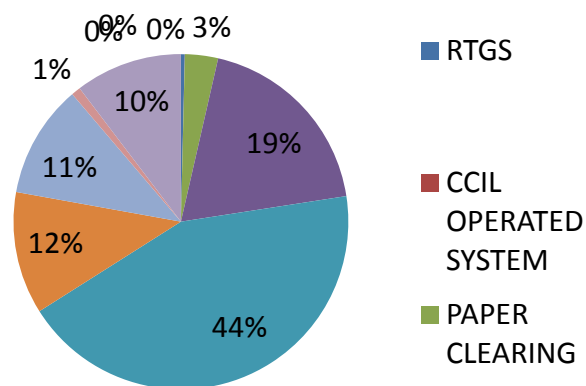
Analysis and Interpretation

The analysis for this paper is based on secondary data, sourced from RBI. The data gives a meaningful insight on India's road to cashless economy.

COMPONENTS	OCT 2016 volume (million)	JULY 2018 Volume (million)	Growth rate since DEMON
RTGS	9.01	10.97	21%
CCIL-Operated System	0.27	0.31	14%
Paper clearing	88.03	95.03	7%
Retail-electronic clearing	346.46	565.02	63%
Cards	1,032.14	1,293.28	25%
M-wallets	99.57	325.18	226%
PPI cards	27.29	26.62	-2%
Paper voucher	0.04	0.00	-100%
Mobile banking	78.12	307.74	293%
No. of ATMS	2,19,578	2,27,758	3%
NO. of POS	15,12,068	33,40,029	120%

The striking fact is that on one hand, there is 226% percentage increase in the use of m-wallets and on the other hand, there is hundred percentage decline in use of paper vouchers. This change manifests that India is rapidly embracing cashless economy by gradually shifting to less-cash

Economy. This tells the future trend of Cashless and Digital India.



Sources: RBI

This pie-diagram shows the share of various digital modes of payment in July 2018. As per data, the cards have major share which stands at 44% and e-wallets has 11% share and RTGS and CCIL operated system has least share.

India has 102,395 million bank notes in circulation (in July 2018). Even RBI'S Payment and Settlement Systems in India: Vision 2018 emphasize on encouragement of digital payment across all section of Indian society. This road to cashless economy is not an easy one Government should take necessary steps in capacity-building of people, banking infrastructure, digital infrastructure.

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Impact of Social Media in Start-Up Entrepreneur: A Demographic Study around Kolkata City (India)

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Demographic Profile,
Social Media,
Customer
Preferences,
Psychological
Factors,
Entrepreneur.

ABSTRACT

The current market scenario is very dynamic due to data revolution and increasing internet penetration. Social media is one of the best platforms where penetration encompasses larger demography. The marketers have adopted disruptive digital penetration strategies to sustain their business. This paper is an attempt to explore out the strategic impact of Social media for the Startup entrepreneur and small scale industry.

Association between the Customer and Business with respect to demographic variables like Gender, Income, and Age etc. have been checked as well as analysis of their perceptions, preferences which impact their adoption rate and studying their buying pattern after using social media platforms like Facebook.

Exploratory Factor Analysis have been used to filter out the exact constructs which Facebook project for business generation and ANOVA method have been applied to check the association between the demographic variables with Factors (extracted by Factor Analysis). 100 samples out of 120 questionnaires were collected, and results have been assessed to conclude about the impact of Facebook platform on consumer preferences and their interrelation with demographic factors which can boost entrepreneurship.

Introduction

The main aim of this paper is to determine the impact of Facebook on the growth of Businesses/Entrepreneur and how Facebook can facilitate small businesses to spread out their businesses by using Facebook applications or Facebook Business page. On the other hand, with growing internet penetration as well as mobile penetration, Social media accessing has become an official part of our professional and personal life.

Now we are going to discuss about Facebook social media because we have done our research in the area of Facebook.com. Facebook profiles are more detailed than others social network. Facebook provides great marketing and business opportunities. Facebook pages helps in great way to build relationship with the

targeted clients and customers in a more casual way and can priorities them in the top of the customers' mind.

Facebook business pages are now more equipped to provide benefit to the small business. It helps in sharing as well as targeting our business to billions of customer in a less expensive way than other advertisement media. Obviously, the increased exposure is very much necessary for the increased growth of business. Besides these, Facebook provides the platform for gathering business leads so that they can be communicated outside Facebook. Besides theses, it also helps in specific targeting, provides analysis of business by Facebook insights, and increases web traffic.

Entrepreneurs communicate to their consumers through social media and other digital platforms. Through this social media, they generate wider range of business to business (B 2 B), (B 2 C) networks which is very much essentials to build business and increase revenue generation. Various digital marketing tolls like SEO (Search Engine Optimization), Web marketing, APP marketing, paid marketing, affiliate marketing etc. are now being used by new age marketers and entrepreneurs to boost their customer relationship management system (CRM). Other methods like social media buffering and co-scheduling have been increasingly used to boost the business cognizance.

Literature of The Study

Hunt, Kristin Gunderson. (2010) in his article he has investigated that social media is an important role for the recruitment of employees amongst companies. They have researched that Corporates are using social media like twitter, Facebook to recruit and communicate to the talented and targeted candidates about their value propositions as well as enhance their brand equity. Employer branding is very important in order to recruit right candidates, not simply the masses. If employer branding is not done, it will affect the branding process badly.

Aula, Pekka. (2010), in his study, emphasized the importance of social media's impact on organization's strategic reputation management. They also emphasized that reputation management should begin before the reputation crisis. Besides these, the research depicted the significant impact on maintaining ambient publicity to maintain the organization's reputation. Many organizational strategies like strategy of absence, strategy of presence, strategy of attendance, strategy of omnipresence have been depicted. Use of Social Media Tools Company has been created their brand image and goodwill (Kaplan & Haenlein, 2010).

Cheung and Lee [4] specified that, "the decision to use online social networking technologies represents a social phenomenon that largely depends on the interactions" and detecting that "the behind the online social networks driving services are connections and community, and the usage is largely depended on subjective rule and social identity".

Abu Bashar, Irshad Ahmad, Mohammad Wasiq (2012), have depicted that social media is now indispensable part of marketing mix as well as promotion mix in order to sustain the business rather than traditional style of pure-bricks business model. They have depicted that social media plays a greater role in buying decision making of the consumer.

Internet is fully associated with Social Media and their different application which allow for making and simplification of interactions, and sharing of user-generated content (Kim & Ko, 2012; Laroche, Habibi, & Richard, 2013).

Gunther et al., (2014), There is a new trend of using Facebook by small business users due to cost saving as well time saving in order to promote their products. They have also depicted that Facebook helps in connecting business with weak ties and helps in growth of business by increasing exposure to targeted customer with less expense.

Objective

To find out the association between the buying behaviors of Facebook Users with reference to their demographic attributes.

Research Methodology

Data collection methodology and sample plan

Research type- Pragmatic in nature

Population- Customers who have the Facebook Account and buy the product through Facebook media and all the users' demographic characteristics.

Research design- The study has been partly descriptive and partly analytical. The study is based on both primary and secondary data.

Sampling method- Multistage Sampling and purpose sampling technique was used to collect the data for this study. The questionnaire was distributed only the Facebook users for online-marketing.

Tools for data Collection- Questionnaire based on 5point Likert Scale and Questionnaire consists of 20 questions and distributed among on male and female of online users.

Sampling Area- The area around urban in the city Kolkata, (West Bengal, India) were the sampling area of this survey.

Sampling Frame- Used the concept of Purposive sampling from the different areas of Kolkata.

Sample Units- Facebook Users.

Sample Size- 100

Data Collection methodology

The study was consisting of both primary and secondary data.

i) Primary data Collection: This data were collected through well-structured closed ended questionnaire from those customers who buy the products through Facebook.

ii) Secondary data: The data from secondary sources was collected through books, journals, research studies, internet sources.

Sampling: Multistage sampling technique was used for this study. Based on the single district the subdivision has classified into 2 and each subdivision has 3blocks.

Out of four sub division researcher have taken the data from two sub division randomly and purposive sampling technique. The District is divided into 2 Stratum: Stratum1: North Kolkata, Stratum 2: South Kolkata. Each sub division was dived into 3blocks.

Hypotheses Formulation

H01: There is no significant association between ‘Gender’ and ‘Buying behavior of FB users’ with respect to demographic variables.

H02: There is no significant association between ‘Age’ and ‘Buying behavior of FB users’ with respect to demographic variables.

H03: There is strongly significant association between ‘Education’ and ‘Buying behavior of FB users’ with respect to demographic variables.

H04: There is strongly significant association between ‘Income’ and ‘Buying behavior of FB users’ with respect to demographic variables.

H05: There is no significant association between ‘Marital Status’ and ‘Buying behavior of FB users’ with respect to demographic variables.

H06: There is no significant association between ‘Profession’ and ‘Buying behavior of FB users’ with respect to demographic variables.

The following Diagram shows that the sampling Design

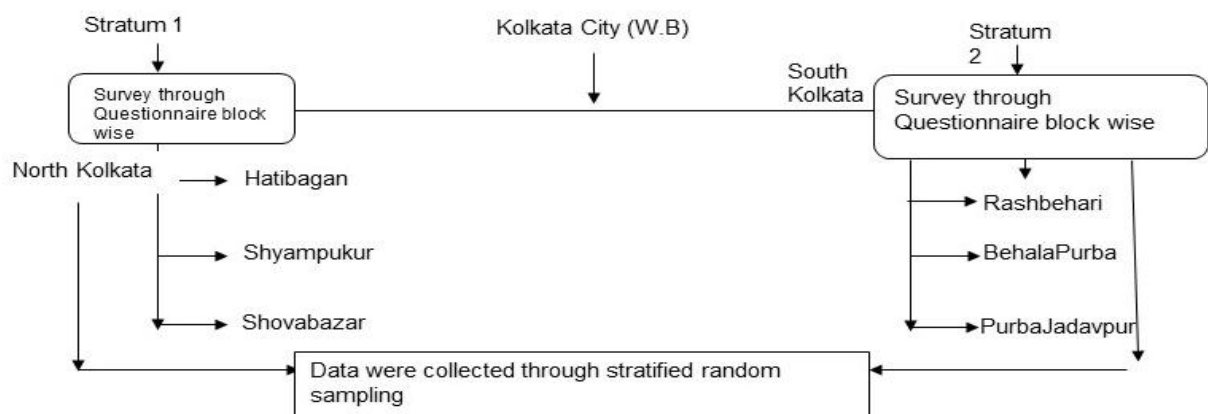


Figure: 1

Data Analysis Methodology

The data were collected from the survey those who are buy the product through Amazon portal and will be subjected to data cleaning in order to identify missing value, data redundancy, sample characteristics and meet the assumptions of normality. After the data redundancy Descriptive statistics is used to summarize the respondents’ demography. The researcher will safeguard that all items meet the acceptable limit level.

Reliability test on 20 variables

Reliability Statistics	
Cronbach's Alpha	N of Items
.714	20

Sample Design for The Objective 1

Sample Size	100
Sample unit	Facebook Users
Test	Rotated Component Matrix using Factor Analysis and One way ANOVA test through SPSS 19.0

Rotated Component Matrix

This component matrix sometimes stated to as the loadings, is the key output of principal components analysis. Matrix contains estimates of the correlations between each of the variables and the expected *components*.

Rotated Component Matrix							
	Component						
	1	2	3	4	5	6	7
Activity	-.188	.120	.131	.079	.720	.128	-.058
Out of touch	.142	-.117	.058	.708	.257	.037	.163
Shutdown	.271	-.285	.040	.226	.642	-.249	-.031
New People	-.025	-.003	.495	.457	.025	-.004	-.299
Communication	-.085	.272	.251	.183	.335	-.653	-.105
New Products	.207	.309	.139	.601	-.046	-.057	.080
Fb Ads	.141	-.275	.325	.323	.184	.273	.210
Promoted Post	-.111	.258	.130	.122	.117	.717	-.155
User review	.662	.082	-.104	.295	.113	-.004	-.198
Trendy	.238	-.478	.345	-.291	-.015	-.157	.043
New companies	.247	.057	.644	.032	.192	.031	-.011
Convenient	.649	.106	.061	.057	-.180	-.009	.013
Easy use	-.115	.032	.034	.168	-.084	-.024	.832
Life style	.656	.072	.098	.183	-.077	-.112	.308
Brand Awareness	-.023	.191	.728	.107	-.003	-.016	.156
Advertising	.175	.431	.186	-.284	.368	-.018	.467
Product							
Promotional offer	.666	-.044	.241	-.104	.133	.033	-.219
New entrepreneurs	.123	.610	.248	-.070	.109	.214	-.031
Modernity	.548	.174	.064	.000	.353	.435	.158
Commercialized	.217	.721	.080	.081	-.098	-.103	.125

Conceptual Framework on buying behavior of FB users related to Demographic output variables.

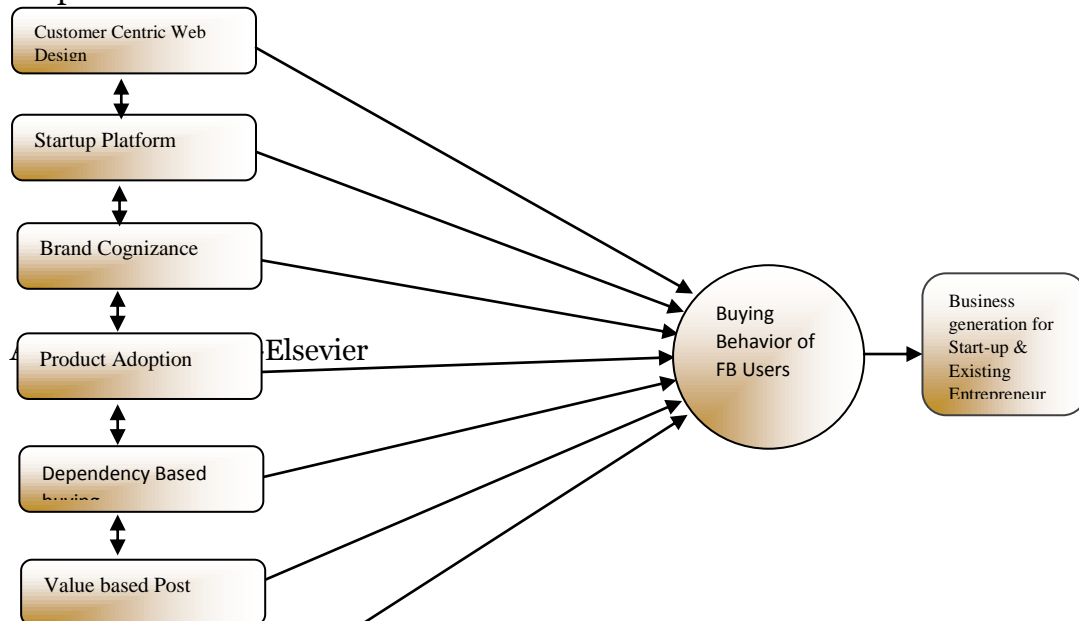


Figure: 2

The above Figure: 2 is determined that 7 output variables have been extracted from the Rotated Component Matrix which point to 20 variables of buying behavior of FB users in researcher questionnaire.

Now, in our hand only 7 variables are present and researcher will do their analysis with these variables.

So, following analysis showing that is there any association between the demographic variables and above factors which extracted through Factor Analysis with Rotated Component Matrix. If the association is existing, ANOVA will find out for which factor that is showing the association within the in-depth demographic study.

H0₁: There is no association between Buying Behavior of FB users and Gender.

H1₁: There is an association between Buying Behavior of FB users and Gender.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Customer centric Web Design	Between Groups	2.988	1	2.988	.150	.700
	Within Groups	1957.572	98	19.975		
	Total	1960.560	99			
Startup Platform	Between Groups	.524	1	.524	.107	.745
	Within Groups	480.836	98	4.906		
	Total	481.360	99			
Brand Cognizance	Between Groups	3.763	1	3.763	.804	.372
	Within Groups	458.347	98	4.677		
	Total	462.110	99			
Product Adoption	Between Groups	5.390	1	5.390	1.209	.274
	Within Groups	436.800	98	4.457		
	Total	442.190	99			

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Dependency Based Buying	Between Groups	1.093	1	1.093	.200	.656
	Within Groups	534.747	98	5.457		
	Total	535.840	99			
Value Based Post	Between Groups	2.243	1	2.243	1.097	.298
	Within Groups	200.347	98	2.044		
	Total	202.590	99			
User Friendly	Between Groups	3.841	1	3.841	1.951	.166
	Within Groups	192.909	98	1.968		
	Total	196.750	99			

From the above analysis it has been observed that P-value of all variables is $>.05$. So, we can say that there is no association in between **Gender** group and **Buying Behavior of FB users**.

H0₂: There is no association between Buying Behavior of FB users and Age.

H1₂: There is an association between Buying Behavior of FB users and Age.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Customer centric Web Design	Between Groups	334.657	6	55.776	3.190	.007
	Within Groups	1625.903	93	17.483		
	Total	1960.560	99			
Startup Platform	Between Groups	65.080	6	10.847	2.423	.032
	Within Groups	416.280	93	4.476		
	Total	481.360	99			
Brand Cognizance	Between Groups	48.792	6	8.132	1.830	.102
	Within Groups	413.318	93	4.444		
	Total	462.110	99			
Product Adoption	Between Groups	35.167	6	5.861	1.339	.248
	Within Groups	407.023	93	4.377		
	Total	442.190	99			
Dependency Based Buying	Between Groups	12.077	6	2.013	.357	.904
	Within Groups	523.763	93	5.632		
	Total	535.840	99			

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Value Based Post	Between Groups	12.638	6	2.106	1.031	.410
	Within Groups	189.952	93	2.042		
	Total	202.590	99			
User Friendly	Between Groups	9.032	6	1.505	.746	.614
	Within Groups	187.718	93	2.018		
	Total	196.750	99			

From the above analysis it has been observed that P-value of two variables is $<.05$. So, we can say that there is strongly association in between Age group and Buying Behaviour of FB users.

H03: There is no association between Buying Behavior of FB users and Education.

H13: There is an association between Buying Behavior of FB users and Education.

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ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Customer centric Web Design	Between Groups	113.956	6	18.993	.957	.459
	Within Groups	1846.604	93	19.856		
	Total	1960.560	99			
Startup Platform	Between Groups	44.539	6	7.423	1.580	.162
	Within Groups	436.821	93	4.697		
	Total	481.360	99			
Brand Cognizance	Between Groups	14.648	6	2.441	.507	.801
	Within Groups	447.462	93	4.811		
	Total	462.110	99			
Product Adoption	Between Groups	27.069	6	4.512	1.011	.423
	Within Groups	415.121	93	4.464		
	Total	442.190	99			
Dependency Based Buying	Between Groups	29.052	6	4.842	.889	.507
	Within Groups	506.788	93	5.449		
	Total	535.840	99			
Value Based Post	Between Groups	39.551	6	6.592	3.760	.002
	Within Groups	163.039	93	1.753		
	Total	202.590	99			
User Friendly	Between Groups	13.767	6	2.294	1.166	.331
	Within Groups	182.983	93	1.968		
	Total	196.750	99			

From the above analysis it has been observed that P-value of one variable is $<.05$. So, we can say that there is an association in between Education and Buying Behavior of FB users.

H04: There is no association between Buying Behavior of FB users and Income.

H14: There is an association between Buying Behavior of FB users and Income.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Customer centric Web Design	Between Groups	60.151	5	12.030	.595	.704
	Within Groups	1900.409	94	20.217		
	Total	1960.560	99			
Startup Platform	Between Groups	55.543	5	11.109	2.452	.039
	Within Groups	425.817	94	4.530		
	Total	481.360	99			

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Brand Cognizance	Between Groups	20.424	5	4.085	.869	.505
	Within Groups	441.686	94	4.699		
	Total	462.110	99			
Product Adoption	Between Groups	45.478	5	9.096	2.155	.066
	Within Groups	396.712	94	4.220		
	Total	442.190	99			
Dependency Based Buying	Between Groups	30.850	5	6.170	1.148	.341
	Within Groups	504.990	94	5.372		
	Total	535.840	99			
Value Based Post	Between Groups	2.945	5	.589	.277	.925
	Within Groups	199.645	94	2.124		
	Total	202.590	99			
User Friendly	Between Groups	15.538	5	3.108	1.612	.164
	Within Groups	181.212	94	1.928		
	Total	196.750	99			

From the above analysis it has been observed that P-value of one variable is $<.05$. So, we can say that there is strongly association in between Income group and Buying Behaviour of FB users.

H05: There is no association between Buying Behavior of FB users and Marital Status.

H15: There is an association between Buying Behavior of FB users and Marital Status.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Customer centric Web Design	Between Groups	22.396	3	7.465	.370	.775
	Within Groups	1938.164	96	20.189		
	Total	1960.560	99			
Startup Platform	Between Groups	28.531	3	9.510	2.016	.117
	Within Groups	452.829	96	4.717		
	Total	481.360	99			
Brand Cognizance	Between Groups	30.886	3	10.295	2.292	.083
	Within Groups	431.224	96	4.492		
	Total	462.110	99			
Product Adoption	Between Groups	20.109	3	6.703	1.525	.213
	Within Groups	422.081	96	4.397		
	Total	442.190	99			
Dependency Based Buying	Between Groups	36.586	3	12.195	2.345	.078

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	Within Groups	499.254	96	5.201		
	Total	535.840	99			
Value Based Post	Between Groups	9.110	3	3.037	1.507	.218
	Within Groups	193.480	96	2.015		
	Total	202.590	99			
User Friendly	Between Groups	3.597	3	1.199	.596	.619
	Within Groups	193.153	96	2.012		
	Total	196.750	99			

From the above analysis it has been observed that P-value of all variables is $>.05$. So, we can say that there is strongly association in between Marital Status and Buying Behaviour of FB users.

Ho6: There is no association between Buying Behavior of FB users and Profession.

H16: There is an association between Buying Behavior of FB users and Profession.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Customer centric Web Design	Between Groups	13.837	3	4.612	.227	.877
	Within Groups	1946.723	96	20.278		
	Total	1960.560	99			
Startup Platform	Between Groups	16.295	3	5.432	1.121	.344
	Within Groups	465.065	96	4.844		
	Total	481.360	99			
Brand Cognizance	Between Groups	22.699	3	7.566	1.653	.182
	Within Groups	439.411	96	4.577		
	Total	462.110	99			
Product Adoption	Between Groups	10.375	3	3.458	.769	.514
	Within Groups	431.815	96	4.498		
	Total	442.190	99			
Dependency Based Buying	Between Groups	20.646	3	6.882	1.282	.285
	Within Groups	515.194	96	5.367		
	Total	535.840	99			
Value Based Post	Between Groups	3.435	3	1.145	.552	.648
	Within Groups	199.155	96	2.075		
	Total	202.590	99			
User Friendly	Between Groups	5.224	3	1.741	.873	.458
	Within Groups	191.526	96	1.995		
	Total	196.750	99			

From the above analysis it has been observed that P-value of all the variables is $>.05$. So, we can say that there is no association between Profession and Buying Behavior of FB users.

Result from the objective

Findings

1. There is no significant difference between buying behavior of FB users and Gender with respect to any demographic variables.
2. There is strongly significant difference between buying behavior of FB users and Age group with respect to demographic output variables i.e. a) Customer Centric Web Design, b) Startup Platform.
3. There is a significant difference between buying behavior of FB users and Education with respect to demographic variable i.e.) Value Based Post.
4. There is a significant association difference between buying behavior of FB users and income group with respect to demographic output variable i.e. a) Startup Platform.
5. There is no significant difference between buying behavior of FB users and Marital Status with respect to any demographic variables.
6. There is no significant difference between buying behavior of FB users and Profession with respect to any demographic variables.

Conclusion

From the above analysis it has been found that Customer Centric Web Design have impactful association with the Age group as they relate more after visual display of the websites in order to make purchase decision. The Age stratification and income variance have also shown correlation with Startup Platform. The respondents based on Education have the higher association with the Value Based Post due to their higher awareness and social texture etiquette.

Limitation and Future Scope of the Study

The study was confined in the area Kolkata and their surrounding area in the field of Buying behavior and their preferences of FB users. In future Researchers can extend their area of study to other districts or even other states. In the future, researcher will explore their innovative idea and will continue to find more influencing factors that will motive to the FB users to buy the product through Facebook portal and help the small scale industry to reach their destination, promote the product, change their marketing strategy and definitely they will give their idea to the startup level company for increase their business.

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The Effectiveness of E-Advertisement towards Customer Purchase Intention: Indian Perspective

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ABSTRACT

E-advertising has brought great opportunities for marketers and therefore it has attracted interest of lot of scholars towards this area. With this regard, many concepts have been created, such as customer satisfaction, customer loyalty, perceived e-advertisement efficiency, customer experiences, customer buying behaviour, customer equity, and others. This increasing number of users of internet have also forced organization to restructure their promotions keeping in mind both online and virtual conditions.

The main aim of this research paper is identify the impact of e-advertisement on purchase intentions of consumers. The study was conducted on a sample size of 276 respondents identified using non probability purposive sampling technique. The results indicated significant impact of Social networking was found on Brand recognition and effectiveness of e-advertisement farther Brand recognition was found to be having significant effect on customer purchase intention.

Introduction

The Trend of online shopping is increasing in people, one major group that is using social media more often to gather information is youngsters e.g. when deciding what they want to purchase, then deciding the site from which they can purchase that particular product because it is more convenient, economical, and speedy to order product online. Since youngsters are turning to SNS for their purchase decisions organizations are also embracing SNS to have clearer understanding on what consumers want. Consumers now a days develop close acquaintances with online sellers and most of the time buy products from these sellers only. Organizations who are using SNS for promoting their products have to identify ways in which SNS can make consumer experiences better then before and provide them information more easier, and utilize e-WOM communication effectively to better market their products (Hafeez, Manzoor, Salman 2017).

Many researchers have found that electronic word of mouth (e-WOM) significantly influences consumer purchase decision. Zhang (2008) found a strong positive link between e-WOM and items purchased online by consumers. Investigating various prevalent motives, facilitators and barriers affecting purchase decision-making

towards products, Padmavati (2015) found that increasing number of online product analyses increased consumer's intention to buy the item.

Purchase intention refers to the likelihood that an individual will purchase from any channel of a retailer as a result of a website visit. For instance, it is common for online shoppers to perform a lot of research on e-trailer websites before making a purchase. The shoppers typically acquire product information, the shopper may purchase from the website to make a purchase or perform some other action. In this context, purchase intention of shoppers becomes important to predict the likelihood of actual purchase. For instance, Amazon.com has a purchase intent score of 92, whereas the same of Flipkart.com is 80 (Internet Retailer, 2013). In the current study a conceptual model is proposed to illustrate the relationships between social networking on effectiveness of e-advertisement and brand recognition, and how all three of these impact online purchase intentions.

Review of Literature

Social networking sites

In recent years, social media such as Facebook, Twitter, WhatsApp etc. have progressively become an eminent strategic business distribution channel over the Internet (Lin, Yan, Chen, Luo 2017). Internet has been a medium for communication, information sharing and entertainment since the 1990s. The migration to Web 2.0 has enabled instant communications through applications such as Facebook, Twitter and other social networking sites (SNS), users can create, publish and share content, data and information. Social media is a virtual landscape that facilitates quick and easy transmission of content in the form of words, pictures, videos, and audios. It allows users to form groups or communities, share common interests or goals, exchange opinions or suggestions and form relationships with other users on that platform. Social media growth trajectory has reached approx. 1 Billion and continues to project an upward trend (Leplan, 2010).

The structural and interactive features of social media encourage ongoing conversations between marketers and consumers for all three stages of the marketing process: pre-purchase (i.e., information search), purchase (i.e., sales promotion), and post-purchase (i.e., customer services) (Kaplan and Haenlein, 2010). The attitude of the users towards social media advertising (Taylor, Lewin, & Strutton, 2011), effect of social media advertising on the user's attitude towards the brand is yet to be examined. It is crucial to study the user's attitude towards the brand to understand the user's purchase intentions.

Brand recognition

Aaker (1996) delivered a comprehensive classification on brand recognition. He said that brand recognition is measured according to different ways in which consumers remember a brand such as follows: brand recognition – when consumers have prior exposure to a brand; brand recall – when consumers recall brands that meet a category need; top of mind – when consumers recall the first brand; dominant – when consumers recall the only brand. According to Yadin (2002) “brand recognition is the extent to which consumers recognize a particular brand”. Brand

recognition according to Yadin (2002) is the ability of a brand to achieve the level of pre-planned recognition and recognition.

Aaker (1996) stated that brand recognition only deals with consumers' past exposure to a brand and not the details about the place or the reason of the exposure. He emphasized that the only important issue in this respect is to remember the prior exposure. Aaker (1996) mentioned that research has proven that there is a tendency among people about anything they have a prior experience with. Brand recognition arises from advertising recognition and is actually the same as advertising recognition (Romaniuk et al., 2004). In fact, brand advertising can increase both the scope and the frequency of brand appearance, thereby empowering brand recognition (Chiaravalle and Schenck, 2007; Buil et al., 2011).

Recognition of brands that retailers carry is significant for store purchase intentions (Dawar and Parker, 1994). Brand recognition creates brand awareness and high awareness prompts the consumer towards making a purchase intention (Aaker, 1991; and Yoo et al., 2000). Superior brand recognition in the consumer's mind creates differentiation for the brand and this ultimately enhances the willingness of consumers to purchase that particular brand (Pitta and Katsanis, 1995), this also strengthens the brand's performance, which leads to increase in purchase intention of the consumer (Aaker and Keller, 1990; Keller, 1993; Park and Srinivasan, 1994; and Feldwick, 1996).

Effectiveness of e-advertisement

The emergence of internet technology has created e-advertising as the significant approach of commercial communication all over the world. "Advertising has been defined as any paid form of non-personal communication of ideas and information about products in the media with the objective of creating brand image." E-Advertising is a form of promoting brand and services to users of the social networking sites, and to deliver marketing messages to attract customers. Examples of e-advertising include contextual ads on search engine results pages, banner ads, Rich Media Ads, Social network advertising, interstitial ads, online classified advertising, advertising networks and e-mail marketing, including e-mail spam (Josh S. 2012).

The main purpose of e-advertising is to build up awareness among people regarding particular company's brand, website, or an event in order to stimulate sales and boost up profits. Traditional media such as television, magazines, newspapers etc. have been promotional mediums used by marketers for many years but now a days internet has become the primary medium which is preferred by most of the consumers

Content is one of the important features of the E-advertisement. In case of e-advertisement organization generally go for simple and static messages rather multimedia messages as it loads faster than the multimedia files (Moses, 2009). For example Google has always used simple html formats for uploading their contents online. The company has managed to attract a wide range of consumers who perceive the published content as concise and online Publishers Association (2008) found that 66% of online consumers form brand familiarity and purchase intention on the

basis of content website only. Picture and videos can also enhance advertisements and can increase advertisement effectiveness as pictures and videos always grab greater attention of consumers towards the e-advertisements. In fact, identified that pictures are more effective than content in grabbing the attention of the online customer through E-advertisement. Multimedia is a form of expression describing elements of online content such as audio, video, and animation, which makes advertisement attractive so that they can encourage the customers for purchase.

Research Methodology

The study was causal in nature where survey method was used to conduct the study. Population included individual customers of online retail stores. Total sample size was 276 respondents and the sample was selected using non probability judgemental sampling technique. on website quality, social networking, brand recognition, customer perception, effectiveness of e-advertisement and purchase intention. proposed by Nikhashemi, Paim and Fard (2013) was adapted for the study for data collection. Data was collected on a scale of 1-7 where 1 indicated minimum agreement and 7 indicated maximum agreement.

Cronbach's alpha reliability test was used to check the reliability of the questionnaires and principle component factor analysis with varimax rotation was applied to identify the underlying factors of the questionnaires. Structural equation modeling was applied to test the model and Sobel test was applied to identify the mediating effect of brand recognition and effectiveness of e-advertisement between social networking as independent variable and purchase intention as dependent variable.

Result And Discussion

Reliability Analysis

Cronbach's Alpha Reliability Coefficient was calculated using PASW 18. The Cronbach's Alpha Coefficient represents internal consistency reliability. The results of Cronbach's Alpha Reliability of all the Questionnaires of the study are given below:

S. No.	Variable Name	Cronbach's Alpha	No. of items
1	Social Networking	0.803	4
2	Brand Recognition	0.750	3
3	Effectiveness of E- Advertisement & Perception of customer toward E-advertise	0.872	7
4	Customer Purchase Intention	0.715	3

If the computed reliability of a measure is greater than 0.7, the measure can be considered as Reliable. The Cronbach's Alpha Reliability value for all the measures was higher than 0.7 as indicated by table above; therefore, all the questionnaires can be considered reliable.

KMO and Bartlett's test of Adequacy and Sphericity

S.	Variable Name	KMO Value	Bartlett's Test	Sig.
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No.			(Chi Square Value)	
1	Social Networking	0.790	369.051	.000
2	Brand Recognition	0.789	209.450	.000
3	Effectiveness of E-Advertisement	0.866	922.369	.000
4	Customer Purchase Intention	0.533	236.064	.000

Kaiser-Meyer-Olkin measure for Sampling Adequacy value for all the measures was higher than 0.5 indicating that the sample was adequate to consider the data suitable for Factor Analysis. The Bartlett's Test of Sphericity was tested through Chi-Square values which were significant at 0% level of significance indicating that the questions were not forming an identity matrix and therefore can be considered for factor analysis.

Factor Analysis

Principle component factor analysis with Varimax Rotation was applied on Personalization, Effort Expectancy, Flow, Recommendation Intention and Acceptance to find out the underlying factors of the questionnaires. The questionnaires converged on one factor only; therefore, the names of the variables can be taken as it is for future researchers.

Structural Equation Modeling

Structural equation modeling was applied to test the model having social networking sites as independent variable, brand recognition and effectiveness of e-advertisement as mediating variable and purchase intention as dependent variable. The model was first tested for goodness of fit and the results of goodness of fit tests are as follows:

Criteria Obtained	χ^2	P	Df	Absolute fit measures			Incremental fit measures		
				χ^2/df	GFI	RMSEA	NFI	CFI	TLI
				$1 < \chi^2/df < 3$	≥ 0.9	≤ 0.08	≥ 0.9	≥ 0.9	≥ 0.9
	79.437	.206	70	1.135	.962	0.022	.915	.989	.986
Note: χ^2 =Chi square; df=degree of freedom; GFI = Goodness of fit index; RMSEA=Root mean square error of approximation; NFI = Normated fit index; CFI = Comparative fit index; TLI= Tucker Lewis Index									

Chi Square was found to be 79.437 with a p-value of .206 indicating that the Chi square value was not significant indicating over all poor fit of the model to data. Whereas a smaller than 5 value of CMIN/DF (1.135) indicated that the model was a good fit.

The other goodness of fit statistics also supports the overall goodness of fit. As can be seen from the table above the value of GFI was .962, AGFI was .943 higher or closer than desired value of 0.9 the model was having a good fit.

The next set of goodness of fit statistics relate to improvement and as can be seen from the table above all the five statistics NFI, RFI, IFI, TLI and CFI are above 0.9 or very close to 0.9 indicated good fit of the model.

The badness of fit index RMSEA need to be smaller than 0.05 for the model that fits the data adequately. As can be seen from the table above the value of RMSEA is .022 indicating good fit of model to the data.

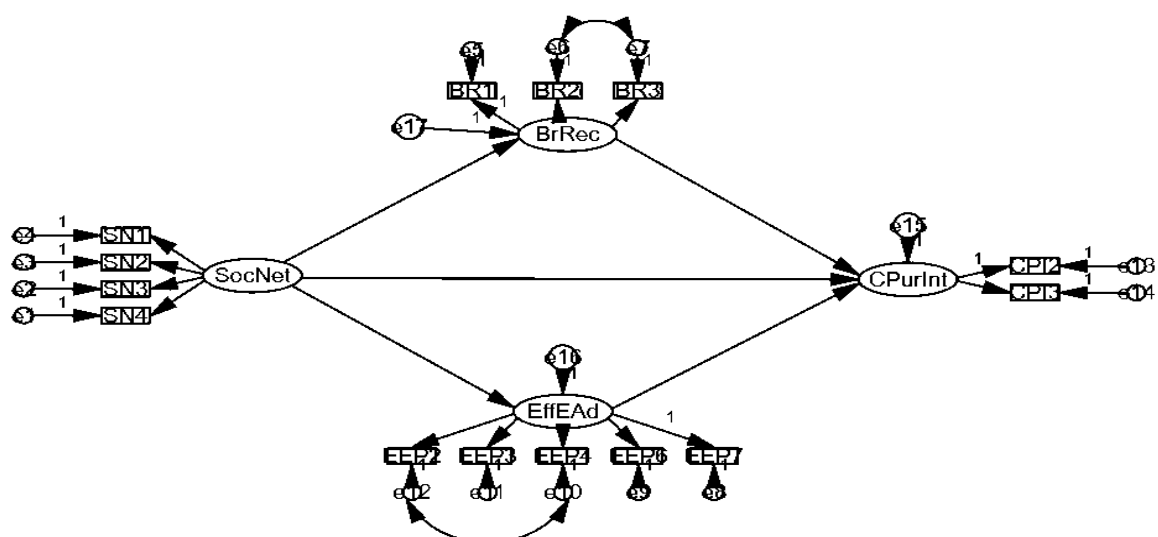
Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
BrRec	<---	SocNet	.908	.310	2.928	.003	.722
EffEAd	<---	SocNet	1.482	.474	3.127	.002	.952
CPurInt	<---	EffEAd	-.102	.587	-.174	.862	-.140
CPurInt	<---	BrRec	.374	.156	2.405	.016	.414
CPurInt	<---	SocNet	.718	1.005	.715	.475	.632

The regression value between social networking sites as independent variable as well as effectiveness of e-advertisement as dependent variable was found 0.722 and 0.952 significant at .003 and 0.002 level of significance indicating significant cause and effect relationship between social networking sites and brand recognition, social networking sites and effectiveness e-advertisement. This means social networking sites explains 72.2% variance in brand recognition and 95.2% variance in effectiveness of e-advertisement. A factor change by one in social networking will lead to .722 change in brand recognition and .952 change in effectiveness of e-advertisement.

Brand recognition as independent variable was having significant cause and effect relationship with customer purchase intention with regression weight .414 significant at .016 level of significant therefor brand recognition explains 41.4% variance in customer purchase intention. A factor changes by one in brand recognition would lead to .414 change in customer purchase intention. On the other it was found effectiveness of e-advertisement as well as social networking does not have significant cause and effect relationship with customer purchase intention with regression weight 0.140 and .632 significant at .862 and .475 level of significant.

The final model after refinement is as follows:



Sobel's Test

Independent variable	Mediating variable	Dependent variable	A	Std. a	b	Std.b	Sobel's test	P value
SN	BR	CPI	.499	.034	.165	.041	3.881	0.000
SN	EEA	CPI	.418	.025	.081	.019	4.131	0.000

Sobel's test was applied to identify the mediating effect. The test result indicated that brand recognition is a strong mediator between social networking and customer purchase intention also effectiveness of e-advertisement was found significant mediator between social networking and customer purchase intention as indicated by sobel's tests value in the table above that are significant at 0% level of significant.

Conclusion

Reliability and factor analyses was applied to restandardize the standardized questionnaire on social networking, brand recognition, effectiveness of e-advertisement and customer purchase intention to test these questionnaire in Indian context. The test result indicated that the data was reliable and can be used for current study.

Significant impact of social networking was found on brand recognition and effectiveness of e-advertisement further brand recognition was found to be having significant impact on Customer purchase intention.

SEM was applied to test the model having Social networking and persuasiveness as Independent purchase intention as dependent variable, brand awareness and effectiveness of e-advertisement as mediating variance. The result indicated that the model was a good fit and significant impact of Social networking was found on Brand recognition and effectiveness of e-advertisement farther Brand recognition was found to be having significant effect on customer purchase intention.

Sobel test also indicated that brand recognition and effectiveness of e-advertisement mediate the relationship between social networking sites and customer purchase intention

Finally, from the result it can be concluded that if the organization are promoting their product through social networking sites it improves effectiveness of e-advertisement and it also help in improving brand recognition, further increases customer purchase intention therefore organization are suggested to promote their brands on social networking sites so that they can increase brand recognition and also purchase intention towards their brands. In the era of social networking sites most of the buyer's attention can be grabbed on the advertisement of the brand if the advertisement is attractive enough so the organization should make attractive advertisement to grab customer's attention on their brands.

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A Blessing in a Disguise!

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ARTICLE INFO

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ABSTRACT

The case reflects on the emergence of one crisis situation in the city of Gwalior in India. Some of the shop holders were asked to vacate their shops in a posh area in the disputed basement of one property there. The apartment owners of the property were facing huge parking issues and the builder had not kept to his promise. The local municipal corporation served the notices and forced the shop holders to vacate the basement to be used for parking. There was also one well established saloon in the basement and its owner was very active to find a new location for his business. No doubt it was a tough time that unleashed his true potential. Over the years he never thought of expanding his business and didn't tried to get out of his own comfort zone. However he could only realize his worth amidst adversity. Besides the shop holders also took the legal route against the builder. They received a green signal by the authorities to continue at the basement. The saloon owner continued his services at both the places. The business is doing good and with the help of good promotional strategies able to gain more popularity now.

Introduction

One serious issue emerged for some shop owners in a posh area in Gwalior. Gwalior is one of the most famous and historical cities of India and is situated in the state of Madhya Pradesh. The shop owners were directed to vacate the shops in the basement of a multi building property. Some of the shops in the basement had been taken on rent by the shop holders while others were sold out by the builder of the property. The property was a disputed one and it was considered to be an illegally constructed one. The property was located in a very prominent area in Gwalior and there was no parking for cars available. It was because of this reason the apartment owners were demanding quick action to get the basement free from shops and park their cars there. It was a long pending case. The builder of the property was a suspect in the case who had not kept his promise. The resident owners association moved to the authorities but there was no recourse available. In the interim, the shop holders at the basement kept operating their businesses from the basement. Suddenly after several years, based on the complaints and the subsequent parking problems, a notice was issued. The shop holders were directed by the local municipal corporation to vacate the shops in the basement in a short period of time. After serving the notice, the corporation itself demolished the establishments. There was big hue and cry and the shop holders began to find the alternatives.

The presence of students and young population as well the working executives gives big opportunity for the businesses in the locality. There was also a well established saloon in the basement. The saloon had earned name and fame in the area. Instead of taking big panic like his fellow shop holders, he acted cool and calm. He began to think differently and in rational terms. While others were in a fix how to react with the crisis, he immediately found a new rented property at a nearby place. The saloon owner put both his mind and work together. He immediately started his makeshift saloon at a new place. He was well determined not to lose a single business day. Meanwhile the shop holders took the legal route against the property builder. They were expecting the authorities to find out a justified solution for their problem. There were many families who were dependent on these basement shops and they had to suffer badly. They were demanding that the builder must compensate them or rehabilitate their business at some suitable areas. After meticulous examination of the problem, the authorities finally decided to allow the shop holders to continue their businesses in the basement. The property builder was directed to highly compensate the residential property owners of the apartment. After the verdict, the well established saloon owner not only started his main business point, but he retained the rented property and hired some more people to offer his services. It was a blessing in a disguise for the owner. He expanded his operations because of the crisis that occurred suddenly to him. The business is using a crisp, attractive, vibrantly printed newsletters, flyers and direct mail postcards that boasts the new location with all pertinent contact information and new address is one of good ways to keep his customers loyal. The saloon is gaining more popularity day by day and the business is doing exceptionally well.

Case Outcomes

- The case will help to learn the outcomes of being deceptive in business.
- To understand the need and significance of right decisions at a right time.
- To know the importance of being proactive in a business scenario?
- To understand how disguise can prove as a blessing but subject to certain conditions in business.
- To learn the promotional strategies for new location of business.

Methodology

The case study can be taught through role plays, group presentation on takeaways of the case.

Target audience:

The target audience suitable for this case are commerce and management students and aspiring entrepreneurs.

Sources of data

The source of the data is primary in nature and collected through personal interviews and observations.

Lead Questions

1. Do you believe in the right decisions at right time in business. Share your views.
2. Why it is imperative for business owners to be proactive in their decisions?

3. Do you believe in blessings in a disguise? Why or why not?
4. There are ways to relocate a business that will not only improve current operations but also foster growth. Discuss the good strategies for the saloon.
5. 'You can't afford to lose a single day in your business'. Share your views.

Teaching plan

Cumulative Time	Topic	Content
0-10 Minutes	Introduction	The instructor will appraise the students about the emergence of dispute in the case.
10-30 Minutes	Decision Points involved	Decision points involved will be property dealer's betrayal. Discussion will follow on how saloon owner exhibited sharp reactions.
30-45 Minutes	Stakeholder Analysis	Discussion on saloon owner's thinking in good ways while others were the sufferers due to their inactive approach.
45-60 Minutes	Conclusion	Instructor will conclude the class with major takeaways from the discussion.

Combating Unbalanced Datasets with Generative Adversarial Network

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ABSTRACT

Data is a highly important factor in Deep Learning. The presence of a large, labelled, noise-free and balanced dataset is often essential for a model to perform optimally at a particular task. However, finding such data in the real world is rare, and creating these datasets is a tedious task. The aim of this project is to overcome one of the aspects of difficulties with datasets: unbalanced data across different classes. In more detail, Generative Adversarial Networks (GANs) have been used on an existing unbalanced dataset to create synthetic data of the lesser represented classes. A survey of existing literature shows that GANs have not been used for such a purpose before. Using Deep Convolutional GANs after perturbing the Discriminator on the dataset gave promising results which surpassed the baseline method and almost matched the original dataset.

Introduction

Deep Learning is pushing the boundaries of what Artificial Intelligence can achieve. In roughly the past five years, since the creation of some key methods and techniques which enabled Deep Learning to reach the level of performance it currently boasts, Deep Learning has become a popular “go-to” method, and is often the first approach considered to solve a problem.

However, solving any problem using Deep learning requires large amounts of data. Furthermore, for the best performance, the data should be correctly labeled, free from noise and consist of balanced classes. This is often a challenge; as such data is not readily available for many tasks. As creating ‘ideal’ datasets for every problem is both expensive and tedious, other alternatives must be considered.

In this work, a solution for one of these issues has been proposed: the problem of unbalanced datasets; using Generative Adversarial Networks. A Generative Adversarial Network is an amalgamation of two coupled networks which work together to generate new data similar to the data it has been trained on.

The vanilla GAN, and its variants, have been used to generate synthetic data belonging to the underrepresented class, thus balancing the dataset as a whole. Various augmentation methods have been implemented and the performance of each method has been judged by the accuracy of a Convolutional Neural Network classifier applied on each of these datasets.

This method can eventually be extended from augmenting one class of a dataset, to augmenting datasets as a whole, in domains where data is not readily available. However, the current framework may not work on datasets with very scarce data, as the GAN is bound to over fit, and the addition of synthetic data shall have the same effect as merely oversampling the data.

Related Work

Generative models are divided into two categories: parametric and non-parametric. Parametric models have been explored extensively and methods like GANs (Goodfellow et al., 2014) and variation sampling approaches to generating images (Kingma, 2013) have had some success. Generative Adversarial Networks were introduced by Goodfellow et al. in 2014. They have been used for a multitude of tasks from image generation (Radford et al., 2015) and colourising images, (Cao et al., 2015) to text to image synthesis (Reed et al., 2016). Based on the literature survey performed so far, no mention of using GANs to handle imbalanced data has been found. However, as GANs are a popular model still being used to solve new problems, there is a lot of work on them which can be integrated into this project. The original GANs still had many limitations, which are gradually being overcome. Perhaps, the most significant improvement in GAN training came about with the creation of the Deep Convolutional GAN (Radford et al., 2015) and techniques like Feature Matching and Minibatch Discrimination (Salimans et al., 2016). Goodfellow et al., 2014, Salimans et al., 2016, Adiwardana et al. and Taigman et al., 2016 mention use of Semi- Supervised GANs. Goodfellow et al., 2014 mentions using features from the Discriminator to improve performance of classifiers when data is scarce. The Discovery GAN or Disco GAN (Kim et al., 2017) learns relations across domains to generate images of a particular class from another class. The authors used this to create images of cars from chairs and faces from cars, among others. The DiscoGAN was considered for this project, to create images of one class, using information of another class.

Approach

Generative Adversarial Networks

A Generative Adversarial Networks (GAN) consists of two networks coupled together: A generator and discriminator. The Generator creates data which it believes it must create and sends it to the Discriminator. The Discriminator is able to differentiate between real and fake images and sends feedback to the Generator on how it can make its images more realistic. This process continues until the Discriminator is unable to recognize the images from the Generator as fake. The Discriminator is a binary classifier that determines whether an image resembles a real image from the dataset or an artificially created image. This takes the form of a convolutional neural network (CNN). The generator model takes random input values and transforms them into images through a deconvolution neural network. Over the many iterations, the weights and biases in the discriminator and the generator are trained through backpropagation. The discriminator learns to tell "real" images of handwritten digits apart from "fake" images created by the generator. At the same time, the generator uses feedback from the discriminator to learn how to produce convincing images that the discriminator can't distinguish from real images.

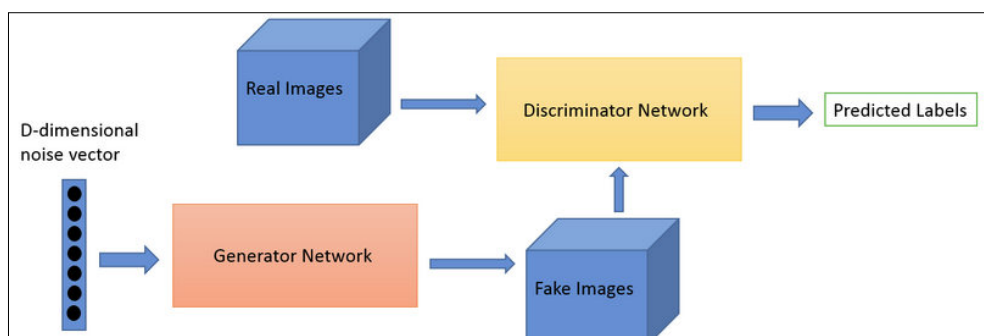


Fig 1. High Level structure of a Generative Adversarial Network

(Source: <https://www.oreilly.com/learning/generative-adversarial-networks-for-beginners>)

The Discriminator D is trained to maximize probability of assigning the correct label to both training examples and samples from the Generator G . Simultaneously, G is trained to minimize $\log(1 - D(G(z)))$, where z is the input noise to G . Thus, D and G play a minimax game for the value function given below (Goodfellow et al., 2014).

$$\min_G \max_D V(D, G) = \mathbb{E}_{\mathbf{x} \sim p_{\text{data}}(\mathbf{x})} [\log D(\mathbf{x})] + \mathbb{E}_{\mathbf{z} \sim p_{\mathbf{z}}(\mathbf{z})} [\log(1 - D(G(\mathbf{z})))]$$

The original GANs still had many limitations, which are gradually being overcome. Perhaps, the most significant improvement in GAN training came about with the creation of the DCGAN or Deep Convolutional GAN (Radford et al., 2015).

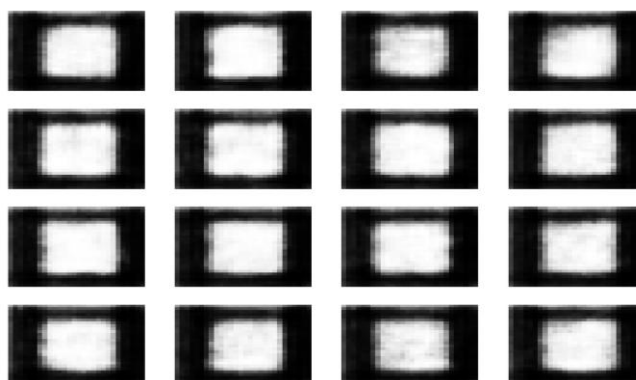


Figure 2. Output of the Generator of a basic GAN after 30 epochs on the MNIST dataset. The images are clearly of poor quality.

Deep Convolutional Generative Adversarial Network

Deep Convolutional Generative Adversarial Networks (Radford et al., 2015) or DCGANs are known to perform better than ordinary GANs. There are some key changes made. Instead of max pooling, a strided convolution is used to down-sample data in the Discriminator. Similarly, fractional strided convolution is used in the Generator. Batch normalization is implemented in the Generator and Discriminator. In very deep models, fully connected layers are avoided or kept to a minimum. The Leaky ReLU non linearity is used in the Discriminator, while the Generator uses the ReLU activation function in all layers, except the last, where the tanh function is used.

Salimans et al., 2016 add further techniques to improve DCGANs. Feature Matching is performed by specifying a new objective for the Generator that ensures it does not

overtrain on the Discriminator. Minibatch Discrimination ensures the Generator does not collapse to a setting where it always gives the same output. Historical averaging is used to modify the cost for the Generator and Discriminator.

DCGANs themselves need a large amount of data to be trained. As they shall be training on data from a single under-represented class, they are not expected to create very realistic images. To address this issue, some form of transfer learning may need to be applied on the system to train the Discriminator on other classes of the dataset as well.

A DCGAN has been used to develop synthetic data in this project. The system has been implemented in Python 3.5. As a deep learning approach is being used to solve the problem, Tensorflow, an open-source software library for machine intelligence, is being utilized. Keras, a wrapper for Tensorflow has also been utilized. General python utilities like Numpy and Matplotlib are also being used. Apart from this, the EC2 cloud computing service of Amazon Web Services is being used.

Transfer Learning

Convolutional Neural Networks are successful due to their ability to learn rich mid-level image representations. However, large amounts of data are required to learn these features.

Transfer Learning (Oquab et al., 2014) is a method of transferring knowledge from a related domain, to a new problem. The network learns low to mid-level features from the transferred domain, and thus requires a lesser amount of data from the new domain.

As data from the unbalanced classes in this project are scarce, transfer learning has been integrated into a DCGAN. Additionally, a high correlation noted among the classes proves this task to be useful. The Discriminator has been trained on other classes of the same dataset, and knowledge from them has been transferred to train the GAN on the under-represented class. This has shown a significant boost in performance.

Experiments

Dataset

As GANs are known to be notorious to train, the MNIST dataset was initially used. The dataset was altered where the class for the number '6' was down-sampled by 90%. However, even after down-sampling, the evaluation CNN scored an accuracy of 97.74%, and precision of the down-sampled class became 1. The overly simplistic structure of MNIST would cause ambiguity in currently gauging performance. For this reason, the FMNIST dataset was used instead.

The Fashion MNIST dataset, like MNIST, consists of 28x28 greyscale images, with 60,000 training examples and 10,000 test set examples. However, the images are divided into ten classes of different clothing types. Xiao et al., 2017, the creators of FMNIST state three main strengths of using this dataset as a replacement to MNIST: (1) MNIST is too simplistic, as CNNs and even classic machine algorithms easily reach an accuracy of 97% on it (2) MNIST is overused, and (3) MNIST cannot represent modern CV tasks.

After a successful initial implementation of the proposed method on FMNIST, the same method was applied to the CIFAR-10 dataset, which is small enough to avoid major computational expenses, but is still more representative of real world images.

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However, training the proposed architecture on this dataset was extremely time consuming and thus had to be terminated.

Baseline Method

The performance of the different ‘dataset augmentation techniques’ in this paper have been evaluated by gauging the accuracy of a Convolutional Neural Network trained to perform classification on these augmented datasets.

The CNN consists of a single convolutional layer with 32 3x3 filters, followed by a ReLU activation layer, max pooling layer, and dropout of 0.25. After one fully connected layer, the softmax function is used to calculate scores for each class. The Adam optimizer with a learning rate of 0.002, was used and accuracy based off cross entropy loss was used as a metric.

The baseline performance has been measured by removing a certain percentage of a certain number of classes from the original dataset, and training the CNN on this ‘down sampled’ dataset. For the FMNIST dataset, 90% of a particular class was removed, while 60% of a class was removed from CIFAR-10.

An accuracy of 89.93% was reported on the original, balanced dataset. When down-sampling one class of FMNIST (the ‘T-Shirt/ Top’ class), the CNN scored an accuracy of 88.90%. The original CIFAR-10 dataset scored 62.85%, and scored 59.98% after removing 60% of the class ‘dog’.

DCGAN on FMNIST

Architecture

The DCGAN architecture in Wang et al., 2018 (github.com/jacobgil/keras-dcgan) was used as initial reference. However, since it generates data from MNIST, through experimentation, the structure of the GAN was changed to the following:

Discriminator

Three sets of convolutional layers with 5x5 filters and Leaky ReLU activation; followed by one fully connected layer with a sigmoid activation function. Instead of 2x2 max pooling, strided convolutions with stride 2 have been applied. Dropout of 0.3 was added. The Adam optimizer was used with learning rate of 0.0002 and beta as 0.5.

Generator: The first fully connected layer takes 100 dimensional noise as input, and batch normalization is applied, followed by Leaky ReLU. This is followed by three sets of up-sampling, transpose convolutions with 5x5 filters, batch normalization with momentum of 0.9 and Leaky ReLU layers. A final convolutional layer, with a tanh activation function, creates the final generated image. The Adam optimizer was used with learning rate of 0.0002 and beta as 0.5. The network was trained for 200 epochs; however, the network seemed to converge after around 120 epochs.

Experimentation with Implementations

(1) Increasing the number of convolutional layers in the Discriminator D caused an increased Generator G loss, but resulted in visually better images generated by the GAN. This suggests that the loss of G cannot be considered a good metric.

(2) Making G more powerful helps the GAN to train better when D is powerful. Thus, increasing the transpose convolution layers and adding batch normalization and dropout lead to improved GAN performance.

(3) Adding batch normalization in D deteriorates performance. This may be as it makes D too strong for G to be able to efficiently learn.

(4) A smaller batch size of 64 created visually better results during the initial training epochs, and also made the D and G losses more ‘jumpy’. Since these factors did not affect the end performance of the GAN, a batch size of 128 was used.

Results and Inference

Class	Baseline			Proposed Method		
	Precision	Recall	F1 Score	Precision	Recall	F1 Score
0	0.95	0.58	0.72	0.90	0.71	0.79
1	0.99	0.97	0.98	0.97	0.99	0.98
2	0.85	0.83	0.84	0.87	0.78	0.83
3	0.83	0.92	0.88	0.91	0.87	0.89
4	0.82	0.87	0.85	0.77	0.92	0.84
5	0.98	0.97	0.97	0.98	0.97	0.98
6	0.62	0.77	0.69	0.66	0.75	0.70
7	0.94	0.97	0.96	0.97	0.92	0.95
8	0.97	0.98	0.97	0.97	0.98	0.98
9	0.97	0.95	0.96	0.92	0.98	0.95
Accuracy	88.19 %			88.82 %		
Training time	314.38 s			318.84 s		

Table 1. Comparison of the Baseline Performance and the Proposed Dataset Augmentation method. The scores mentioned are obtained by training a CNN to classify both versions of the dataset

90% of the class ‘T-shirt’ was removed. N images of this class were generated by the DCGAN where N is 90% of the average class size, thus balancing the dataset.

As shown in Table 1, the proposed method accuracy of 88.82% is almost 1% more than the baseline accuracy of 88.19%. The recall of the underrepresented class (label 0) has also increased by a significant amount (0.58 to 0.71). The proposed method can thus be considered effective.

Interestingly, the F1 score of class 6 (‘Shirt’) also reduced significantly on removing images from the visually similar ‘T-Shirt’ class. This shows a certain amount of correlation between classes, which inspired the idea of incorporating transfer learning to the GAN (described in section 4.6).

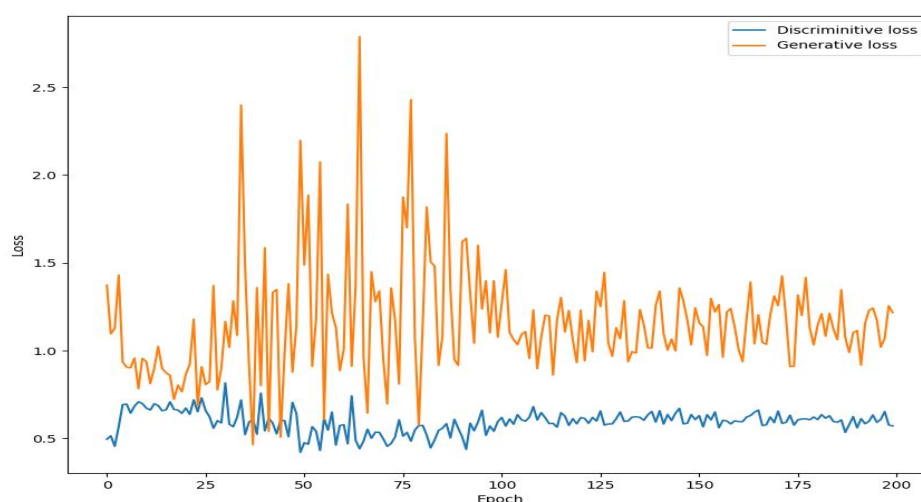


Figure 3. Top: Losses for the Generator G and Discriminator D while training the GAN over 200 epochs. Bottom: A random sample of images generated by the GAN after training



DCGAN on FMNIST, with Multiple Classes Unbalanced

As the results of the previous experiment seemed promising, the same procedure was performed with multiple classes unbalanced. 70% of the data of each of the classes 'T-Shirt', 'Pullover', 'Coat', 'Shirt' was removed. The images of these classes are more similar than other classes of the dataset like 'shoes', and were thus selected to create an added challenge for the proposed method.

Architecture

The same architecture from section 4.3 has been used. The GAN is trained 4 times over each of the four classes, after which the dataset augmentation is performed.

Results and Inference

The accuracy of the baseline is higher than the baseline when one class was unbalanced. This shows that the CNN may be overfitting to the dataset, after the removal of a vast number of images. Due to this, the CIFAR-10 dataset was next considered.

Class	Baseline	Proposed Method
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	Precision	Recall	F1 Score	Precision	Recall	F1 Score
0	0.89	0.73	0.80	0.86	0.73	0.79
1	0.98	0.98	0.98	0.99	0.97	0.98
2	0.86	0.79	0.82	0.83	0.80	0.81
3	0.80	0.95	0.87	0.75	0.96	0.84
4	0.80	0.84	0.82	0.82	0.78	0.80
5	0.97	0.98	0.98	0.97	0.98	0.97
6	0.70	0.68	0.69	0.69	0.60	0.65
7	0.95	0.96	0.96	0.95	0.96	0.95
8	0.95	0.98	0.96	0.90	0.98	0.94
9	0.96	0.96	0.96	0.97	0.96	0.96
Accuracy	88.52 %			87.28 %		
Training time	222.73 s			335.05 s		

Table 2. Comparison of the Baseline Performance and the Proposed Dataset Augmentation method. The scores mentioned are obtained by training a CNN to classify both versions of the dataset

The GAN to generate images from classes 0 and 2 were trained for 150 epochs. However, due to computational limitation, the GAN was trained for 75 epochs for the classes 4 and 6, as the GAN losses appeared to converge by that point. As the images finally created from the 4 and 6 classes were not of the same quality as those from class 0 and 2 (as shown by a reduced F1 score), it once more points to the fact that the generator loss can be a misleading metric.

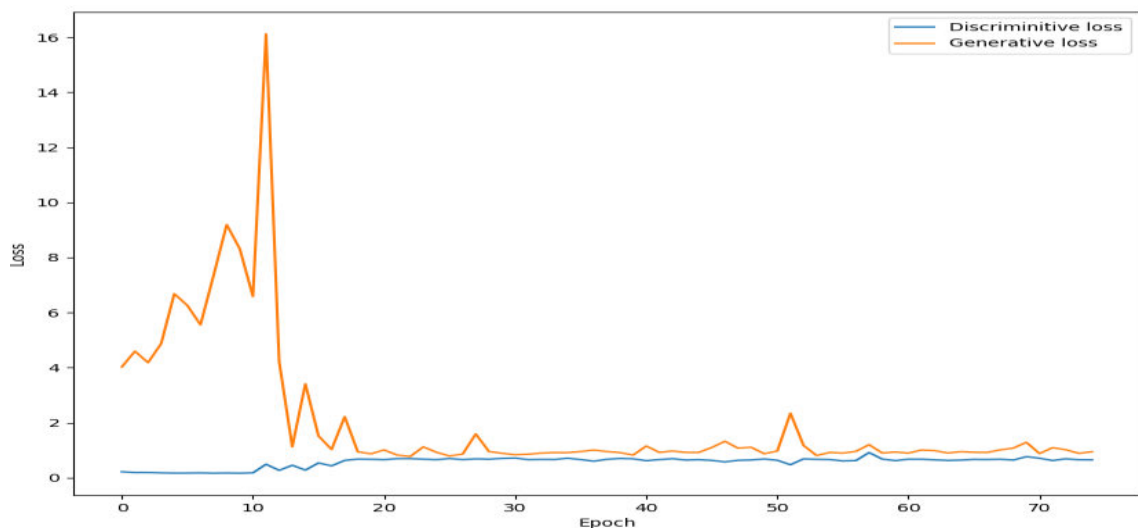


Figure 4. Top: Losses for the Generator G and Discriminator D while training the GAN on the 'Coat' class over 75 epochs. Bottom: A random sample of images generated by the GAN after training



The overall accuracy of the proposed method is now lower than the baseline. This shows that due to the high visual similarities between classes, generated images of class 4 and 6 may resemble those from other classes. This is effectively the same as adding new images with incorrect labels to the dataset, which is a possible reason for the reduced accuracy of the CNN on the augmented dataset.

DCGAN on CIFAR-10

Due to the limitations created by the FMNIST dataset in the previous section, the CIFAR-10 dataset was considered. The dataset contains RGB images of real world objects, thus being a better representative of real world datasets than FMNIST.

Architecture

To handle the increased complexity of images from CIFAR-10, an additional set of convolution and batch normalization layers with leaky ReLU was added to the generator. The architecture of the discriminator is the same as in previous experiments.

Results and Inference

60% of the images of the class 'dog' (class 5) were removed from the original dataset. Unfortunately, training the GAN was highly time consuming and slow to converge. After training the model for 115 epochs over multiple days, the images generated by the GAN were vaguely beginning to resemble dogs. This gives the optimistic impression that this model shall, over increased training time, give sufficiently good results.

During the training of a GAN, the generator loss goes through an initial 'spiky' phase where losses drop and increase sharply. Following this, the generator loss graph becomes smoother. I believe that most of the GAN training was spent in the 'spiky' phase. Another possible conclusion is that models trained longer sometimes collapse to a single oscillating mode (Radford et al., 2015).

While the accuracy of the CNN on the augmented dataset was higher, the recall of class 5 dropped. This may be due to the fact a 'new' class of bad images was essentially added to class 5.

Class	Baseline			Proposed Method		
	Precision	Recall	F1 Score	Precision	Recall	F1 Score
0	0.64	0.68	0.66	0.66	0.67	0.66

1	0.74	0.76	0.75	0.75	0.74	0.74
2	0.34	0.68	0.46	0.42	0.53	0.47
3	0.46	0.44	0.45	0.46	0.47	0.46
4	0.55	0.52	0.54	0.52	0.58	0.55
5	0.66	0.25	0.36	0.68	0.22	0.33
6	0.83	0.58	0.68	0.58	0.82	0.67
7	0.63	0.75	0.69	0.70	0.68	0.69
8	0.80	0.66	0.73	0.72	0.74	0.73
9	0.72	0.67	0.70	0.73	0.64	0.68
Accuracy	59.98 %			60.75 %		
Training time	425.95 s			547.97 s		

Table 3. Comparison of the Baseline Performance and the Proposed Dataset Augmentation method. The scores mentioned are obtained by training a CNN to classify both versions of the dataset

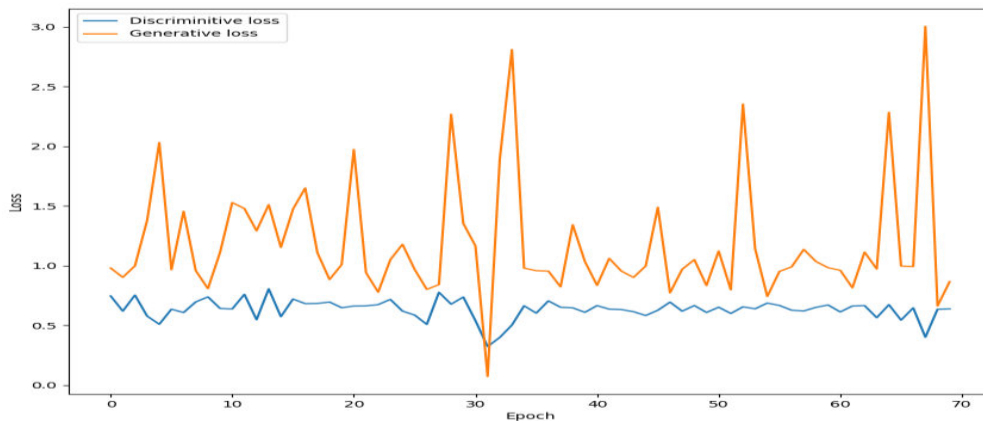
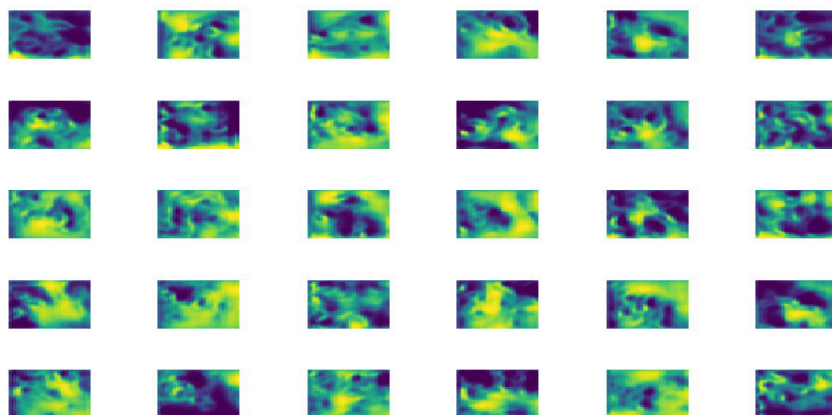


Figure 5. Top: Losses for the Generator G and Discriminator D while training the GAN on the 'Dog' class over 115 epochs. Bottom: A random sample of images generated by the GAN after 115 epochs of training



DCGAN with Transfer Learning

The method used so far involves training the GAN on a limited number of images from the under-represented class. However, as shown in previous sections, there is a

clear correlation between many classes of the dataset. This inspired the idea of transferring information from other classes. The discriminator D is trained on all classes of the dataset. Following this, the GAN is trained on the under-represented class, helping it use that data to create more refined images. Due to computational limitations, implementation was required to be shifted back to the FMNIST dataset. 90% of the ‘T-shirt’ class was once again removed.

Architecture

The architecture described in previous sections was used. The fully connected layer and the top convolutional layer of the discriminator are fine-tuned while the other weights are frozen after pertaining. As the discriminator is now more powerful, it is harder for the Generator to effectively learn during the GAN training. To avoid this issue, the Generator is trained twice for every run of the Discriminator training.

Results and Inference

Class	Baseline			Proposed Method		
	Precision	Recall	F1 Score	Precision	Recall	F1 Score
0	0.95	0.58	0.72	0.87	0.76	0.81
1	0.99	0.97	0.98	0.97	0.98	0.98
2	0.85	0.83	0.84	0.80	0.88	0.84
3	0.83	0.92	0.88	0.87	0.92	0.90
4	0.82	0.87	0.85	0.84	0.84	0.84
5	0.98	0.97	0.97	0.97	0.97	0.97
6	0.62	0.77	0.69	0.72	0.69	0.71
7	0.94	0.97	0.96	0.95	0.97	0.96
8	0.97	0.98	0.97	0.97	0.98	0.97
9	0.97	0.95	0.96	0.97	0.96	0.96
Accuracy		88.19 %		89.45 %		
Training time		395.70 s		337.63 s		

Table 4. Comparison of the Baseline Performance and the Proposed Dataset Augmentation method. The scores mentioned are obtained by training a CNN to classify both versions of the dataset

This method shows the best performance so far. The accuracy of the proposed method exceeds the baseline by more than 1%, and is comparable to the accuracy of the CNN on the original balanced dataset (89.5%). The recall and F1 score of class 0 also shows significant improvement over the baseline. The Generator loss is also the lowest recorded so far, being almost half of the losses recorded in previous sections. The images appear visually similar, but differences in the small image sizes of the dataset are hard to identify visually. Additionally, the F1 scores of class 3 and 6 have also increased, which once again points to the visual similarity between classes.

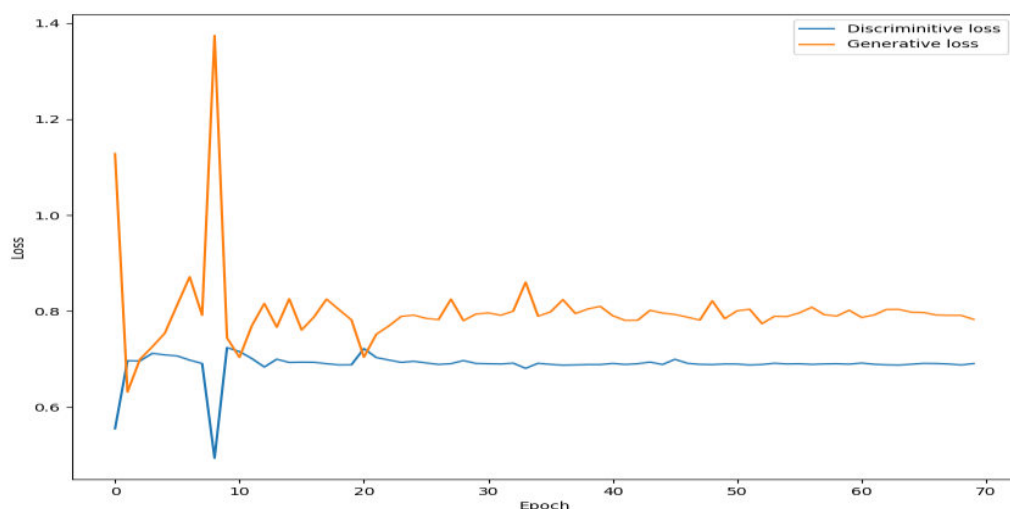


Figure 6. Top: Losses for the Generator G and Discriminator D while training the GAN on the ‘T-Shirt/ Top’ class over 70 epochs. Bottom: A random sample of images generated by the GAN after 70 epochs of training



Conclusion and Future Scope

The final method of using the DCGAN with transfer learning shows promising results. However, the method must be gauged on more realistic datasets to see its true effectiveness. The differences in accuracies for FMNIST are very small and not a clear indicator of whether the proposed method is definitely effective.

Two major limitations of this study were computational limitations and the inherent difficulty of training GANs.

As transferring knowledge from other classes was promising, the idea of using a powerful ImageNet trained network (like VGG) as the discriminator seems promising (Huh et al., 2016). Using a powerful discriminator will add additional difficulties in training the GAN, the solving of which is part of future scope.

Progressive GANs (Karras et al., 2017) are a new type of GAN which follow a novel training methodology, allowing them to far outperform all existing GANs. The DiscoGAN (Kim et al., 2017) and Semi Supervised GAN also show some promise to solve this problem. Incorporating these into the project are also part of future scope.

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Finally, exploring other generative models and identifying an ideal data augmentation architecture is something that shall be explored.

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Green Electronics – Fostering Eco-Technovation

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ABSTRACT

The explosion in the tech world has resulted in alarming growth of unwanted electric items creating a new environmental issue “E-waste,” which pose a risk to sustainable economic growth and the environment emphasizing on the need for management of e-waste. There has been a growing pressure on tech manufacturers as a result to build “greener electronics.” To cater to this need the EPEAT, was developed by the Green Electronics Council (GEC), to assist thousands of public and private entities around the world in the purchase of “Greener” and environmentally preferable electronics. This paper analyses the role played by EPEAT and the support it extends to manufacturers in encouraging greener thinking among the purchasers.

Introduction

In recent decades’ rapid evolution of electronics and growing demand for consumer goods, has increased the consumption of electrical and electronic equipment, making the production of EEE one of the fastest growing manufacturing activities worldwide. This explosion in the tech world has resulted in majority of the population now owning newer and fancier electronics seemingly appearing on the market every few months. Unsurprisingly, the number of unwanted electric items as a result, is growing at a rapid rate. As a result of alarming growth of unwanted electric items a new environmental issue “E-waste,” or old electronics has appeared, that pose a risk to sustainable economic growth and the environment.

Review of Literature

Rapid innovations in the ICT fuelling the growth of e-waste had increased global demand for many greener products that eventually end up as e-waste. Many of the researchers have explored their way towards a greener environment.

Mahesh C. Vats & Santosh K. Singh (2014) in their paper Status of E-Waste in India - A Review analyzed the sources & generation of e-waste, treatment of e-waster, its employment along with the legal support available, stating the hazards in e-waste and the strategies for e-waste disposal.

Mihai Irimia-Vladuab (2014) stated that the main aim of the research “Green” electronics: biodegradable and biocompatible is to create paths for the production of human and environmentally friendly electronics in general and the integration of such electronic circuits with living tissue in particular.

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Ms. Sukeshini Jadhav (2013) In “Electronic Waste: A Growing Concern In Today’s Environment Sustainability” analyzed the composition of e-waste, Global and Indian E-waste scenarios and different hazardous materials found in the E-waste, along with best available practices to find the hazardous materials insisting on the guidelines for the manufacturer and creating awareness among the public about the proper disposal of e-waste.

Rakshana (2013) in “Enabling Green Computing through EPEAT” provided guideline on how procurement standards such as EPEAT can be used to streamline green IT procurement objectives.

Mihai Irimia-Vladua,b; Eric. D. Glowackib; Gundula Vossb; Siegfried Bauera & Niyazi Serdar Sariciftcib (2012) in “green & biodegradable electronics” analysed the initial steps taken to address the issue of electronic waste with biodegradable organic electronic materials and highlights on the recent progress in these classes of materials.

M.L.Socolo; J. Geibig; P. Dillon(2006)in their work “Electronics Environmental Benefits Calculator: A Tool to Measure the Benefits of EPEAT and the Federal Electronics Challenge” reviewed on the development of electronics environmental benefit calculator (EEBC) to quantify the purchasing benefits of products registered under the Electronic Product Environmental Assessment Tool (EPEAT) program by institutional purchasers and the federal government and of improving the operation and end-of-life management of computers.

Objectives

- To give an Overview on Electronic Product Environmental Assessment Tool
- To highlight on the performance of EPEAT

Methodology

The study is mainly based on the secondary data collected from various articles, journals, websites and resources.

E-Waste

The term "e-waste" is an abbreviation of "electronic waste". It is also referred to as WEEE (Waste Electrical and Electronic Equipment), electronic waste or e-scrap in different regions. The definition of e-waste that has been agreed by Step initiative 2014 is: "E-Waste is a term used to cover items of all types of electrical and electronic equipment (EEE) and its parts that have been discarded by the owner as waste without the intention of re-use."

E-waste consists of all waste from electronic and electrical appliances which have reached their end- of- life period or are no longer fit for their destined original use and are ordained for recovery, recycling or disposal.

Precious metals such as Gold, silver, copper, platinum etc., turns recycling of e-waste into remunerative business opportunity. On the other hand, the recycling of hazardous e-waste such as lead and arsenic if not properly handled can cause serious health risks

and environment dangers. There arises a need for management of e-waste as e-waste components may cause severe health risks and environmental damage.

While many recyclers, such as ERI, have developed systems to responsibly process e-waste it requires special handling and proper recycling methods as it contains both valuable as well as hazardous materials. There has also been growing pressure on tech manufacturers to build “greener electronics.”

Categories of E-Waste as per European Council [1]	
S. No.	Categories
1	Large Household Appliances
2	Small Household Appliances
3	IT & Telecommunication Equipment
4	Consumer Equipment
5	Industrial Tools
6	Lighting Equipment
7	Toys, Leisure & Sports Equipment
8	Medical Devices
9	Monitoring & Control Instruments
10	Automatic Dispensers

The idea of “green electronics” in part refers to the materials used in the production of computers, cell phones, televisions and dozens of other electric devices [2]. Another important component of creating greener electronics is lowering the amount of energy used and carbon emissions released during the entire production process, from the gathering of materials to the shipping vessels used to transport them to stores. Thus Green electronics represents not only a novel scientific term but also an emerging area aimed at identifying compounds of natural origin and establishing economically efficient routes for the production of materials that have applicability in environmentally safe and biocompatible devices. The Green Electronics Council (GEC) was formed in 2005 due to the increased realization for a need of sustainable devices.

Green Electronics Council [3]

The Green Electronics Council (GEC) is a non-profit organization that collaborates to achieve a world in which only sustainable IT products are designed, manufactured, and purchased. GEC promotes green computing and "envision[s] a world where green electronics is a cornerstone of a healthy and vibrant world". Dozens of groups work hard around the world to develop new environmental and electronics standards every day, where the Green Electronics Council is most engaged is the convergence of those two:

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Environmental Leadership Standards for Electronics that kick-started the successful EPEAT program.

Electronic Product Environmental Assessment Tool (EPEAT)

The Electronic Product Environmental Assessment Tool (EPEAT) is a voluntary online procurement and environmental rating tool for electronic computing equipment that is designed to help consumers evaluate a product's attributes as they relate to the environment.

EPEAT, was originally developed between August 2002 & May 2006 under a grant from the U.S. Environmental Protection Agency (EPA) and managed by the Green Electronics Council (GEC), to guide thousands of public and private entities around the world in the purchase of "Greener" PCs and Displays, Imaging Equipment, Televisions and environmentally preferable electronics.

The EPEAT® eco-label for sustainable IT products was conceived and developed through the collaboration of government, advocacy, academic arenas and stakeholders from the business. EPEAT to measure sustainability and overall efficiency evaluates items on more than 50 different criteria where some are required and others are optional. Products, depending on how many optional criteria they meet are rated Gold, Silver or Bronze. Although EPEAT isn't a legal requirement, it has influenced many manufacturers to design products that meet dozens of environmental attributes that their customers demand.

EPEAT Products & Environmental Criteria

The EPEAT registry includes

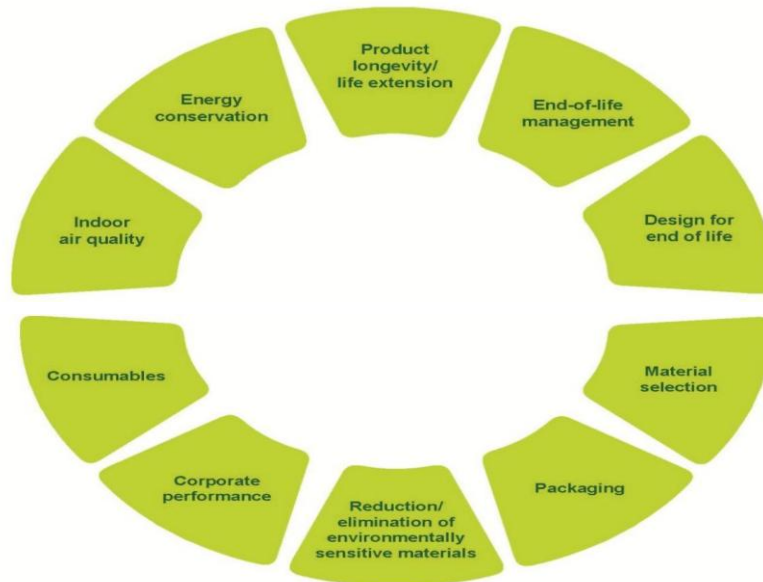
Currently

Desktops, Laptops/Notebooks, Workstations, Thin Clients, Displays (Computer Monitors), Televisions, Printers, Copiers, Scanners, Multifunction Devices, Fax Machines, Digital Duplicators and Mailing Machines.

Future: To Include

Mobile Phones, Servers, Solar Modules.

EPEAT®-registered products meet strict environmental criteria that address the full product lifecycle, from energy conservation and toxic materials to product longevity and end-of-life management offering a reduced environmental impact across their lifecycles. EPEAT-registered products can be identified even, based on specific attributes valued by an organization (reduction of toxic materials, recyclability, use of recycled plastic, etc.). EPEAT currently tracks more than 4,400 products from more than 60 manufacturers across 43 countries.



Source: Green Electronics Council-Understanding Environmental Rating for Electronics 2013[4]

Epeat: Manufacturers

EPEAT includes in its list more than 68 Manufacturers with Registered Products. Manufacturers register products in EPEAT based on the devices' ability to meet certain required and optional criteria that address the full product lifecycle. Manufacturers' claims of compliance are subject to verification by qualified certification bodies. EPEAT's Participating Manufacturers must annually report on their sales of all EPEAT registered products. Products found non-conformant are announced publicly and removed from EPEAT to ensure that the system can be used by purchasers worldwide.

Epeat: Purchasers

EPEAT purchasers include Government, Healthcare, Education, Enterprise, Hospitality, and Consumers.

The system helps purchasers to search for electronics based on product category, manufacturer, geography or EPEAT rating to determine whether a device will meet their sustainability directives.

The data on purchase of EPEAT-registered products during a given year when shared with the Green Electronics Council, qualifies the purchaser for annual recognition along with calculating

their specific financial and environmental benefits.

There are literally thousands of EPEAT Purchasers around the world driving environmental improvement in electronics design and delivery by specifying EPEAT as a purchasing requirement. Using the free EPEAT system, purchasers in more than 40 countries have access to easy-to-use search tools, intuitive product comparison features, plug-and-play model purchasing language, and more.

EPEAT: Environmental Benefits [5]

- Makes it easy to select high-performance electronics that meet an organization's IT and sustainability goals.
- Its global applicability allows large organizations to standardize procurement around a common specification.
- Helps purchasers of all sizes reduce the overall environmental impact of their electronics purchases.
- Helps to reduce energy costs & recycling-related requirements can ease end of life disposition.
- These electronics will result in the reduction of greenhouse gasses.
- Helps in the elimination of hazardous waste & reduction of solid waste.
- Electronics Environmental Benefits Calculator helps to calculate their lifecycle impacts.
- Helps in the savings of electricity & avoidance of water pollutant emissions.
- Helps to reduce the use of toxic materials, including mercury & primary materials.

Epeat: Purchaser Awards

Identifying a 'sustainable' electronic product can be complicated to all purchasers as a result the EPEAT eco-label was established and EPEAT Registry, the leading online rating system of sustainable IT products is made available by the Green Electronics Council for large scale public and private sector purchasers globally to identify and purchase sustainable IT products. To recognize excellence in the procurement of green & sustainable electronics the EPEAT Sustainable Purchaser Awards program was debuted in the year 2015. The Awards allows recognizing those organizations that chose to realize significant cost savings and positive environmental benefits by making informed decisions about the IT products they purchase." (Melanie Bower, Director of EPEAT).

The combined impact of the Sustainable Purchasing Award winners in 2017 resulted in: [6]

- Savings in cost of more than \$33.8 million across the lifetime of their purchased products.
- Reduction of greenhouse gas equivalent to removing more than 40,000 passenger cars from the road for a year.
- Avoidance of 513.8 metric tons of water pollutant emissions.
- Saving of solid waste equivalent to that produced by 2,078 average U.S. households each year.
- Reduction of 769 metric tons of hazardous waste & energy usage by 327.5 million k Wh.

Table: 1: Epeat: Purchaser Awards				
Year/Star	Number of Purchasers			
	3Star	2 Star	1 Star	Total
2015	9	4	4	17
2016	10	16	12	38

2017	10	15	12	37
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Source: <https://www.epeat.net/epeat-purchaser-awards/>

The above Table No.1 shows the number of EPEAT Purchaser Award winners who received awards from 2015 to 2017 in recognition of their leadership in the procurement of sustainable IT products. One star is awarded to an organization for each product category in which all of the eligibility requirements have been met. It can be stated that the number of award winners kept increasing under all the 3 categories implying that they are committed to purchasing EPEAT registered products thereby reducing impact of the products on the environment over the years. EPEAT Purchaser Award Winners for the year 2018 will be honoured at a celebration on May 14, 2018 in Minneapolis, MN.

Epeat: Indian Scenario

India plays a vital role in the global technology market where purchasers spent \$9.5 billion in 2013 on computing hardware alone [7]. In India IT spending in was forecasted to reach \$72.4 billion in 2017, up by 6.9 percent from 2016 estimated spending of \$67.7 billion [8]. Considering the size and scope of the Indian electronics market the Indian government considered adopting policies for green procurement and had no specific plans for how they might identify greener electronics.

As the ICT sector in India was very much concerned with the environmental impacts of product design, manufacturing and end of life recovery, EPEAT got an opportunity to provide an internationally accepted system for identifying green electronics and prevent the creation of another set of green requirements. The system expanded to cover India as the 43rd country in the year 2014.

EPEAT registrations in India are supported by major organizations representing Indian industry, including the Confederation of Indian Industry and Center for Responsible Business. “EPEAT can help Indian purchasers to procure greener electronics that save on energy costs and reduce the carbon footprint of Indian business on the planet,” (Chandra Kishore, IEN Founder).

The Indian Environment Network (IEN) established in 1999, is an electronic community of top Indian Environment Professionals from more than 2,000 organizations and institutions, working throughout the world was declared as an EPEAT® Champion by the Green Electronics Council.

Indian manufacturers’ will be supported to reap market rewards based on their products’ environmental performance in both internal and external markets by participating in EPEAT’s globally recognized environmental rating program which shall provide a globally accepted, transparent and effective method to ensure greener electronics.

Indian purchasers like the national governments of the United States, France, Canada and Australia, hundreds of healthcare, education, local, regional governments and enterprise purchasers around the globe will be able to “green” their purchasing and reward manufacturers for environmental initiative, by leveraging the EPEAT system.

Highlights

IEN will promote EPEAT among its member professionals & organizations as a way for them to identify& select environmentally preferable TVs, computers, monitors, & imaging equipment.

IEN as an EPEAT Champion hosted an informative webinar about the EPEAT system as one of its first activities on “How to Purchase Green Electronics.” Which was already been viewed more than 4,500 times by IEN members from India to South Korea & from South Africa to the UK.

IEN will continue to work with the Green Electronics Council on activities to promote the EPEAT system in India and by Indian environment professionals worldwide. Thus IEN is committed to sharing cutting edge knowledge and information about environmentally preferable products and services with organizations across the world so that their members can make the right choice.

The Confederation of Indian Industry’s Centre of Excellence for Sustainable Development (CESD) also celebrated the Indian debut of the EPEAT® environmental-rating system for electronics in July 2014 with an event in Delhi co-hosted with the Green Electronics Council. “The availability of EPEAT registration will enable bulk-consumers of ICT products to increase the net benefit of these activities by easily identifying and selecting environmentally responsible products.” (Seema Arora, Executive Director of CII-CESD).

Dell and HP have already registered 146 PC and Display products in India, VXL Instruments of Bangalore has joined the EPEAT system as a Participating Manufacturer and other manufacturers are preparing to register.

Indian purchasers now have a way to easily and reliably identify greener electronics, joining with others around the world to reward the development of more environmentally sound devices,” (Robert Frisbee, CEO of the Green Electronics Council).

Table No: 2A Epeat: Product List Registered by Manufacturers in India						
Company/ Product	COMPUTER & DISPLAYS					
	Acer Inc.	Dell Inc.	HP Inc.	Lenovo	TPV Technology Ltd.,	Total
Desktops	10	22	49	14	0	95
Monitors	3	0	77	1	1	82
Notebooks	29	66	107	20	0	224
Integrated Desktop	2	3	29	2	0	36
Work Stations	0	7	12	0	0	19
Thin Clients	0	12	6	0	0	18

Tablets/Slates	0	4	13	1	0	18
Signage Displays	0	0	0	0	0	0
Total	44	114	293	38	1	490

Source: EPEAT Manufacturers Registry

The EPEAT system currently rates PCs & Displays, Imaging Equipment (printers, copiers, scanners etc.), and Televisions with standards for Servers and Mobile Phones in development. The above Table No.2A shows that a total of 490 products by different manufacturers under the head Computer & Displays are currently registered by the in India. It can be stated that HP ranks first in Computer& Displays product category with 298 products followed by Dell, Acer, Lenovo and TPV Technology Ltd.

Table No: 2b: Imaging Equipment			
Company/ Product	Ricoh		
	Multifunction Device (MFD)	Printer	Total
	30	5	35
Total	30	5	35

Source: EPEAT Manufacturers Registry

The list of products under Imaging Equipment includes digital duplicator, MFD, facsimile machine (FAX Machine), copier, mailing machine, Printer and Scanner. The above Table No.2B shows that a total of 30 MFD's and 5 Printers manufactured by a single manufacturer Ricoh is included currently in the EPEAT manufacturers registry. The third classification includes TV's which does not find place in the list as on date.

Epeat Ratings

EPEAT-registered electronics meet dozens of environmental measures referred to as "Criteria". Products are measured against both Required and Optional criteria. EPEAT has divided product environmental attributes into eight major categories with 51 criteria of which 23 criteria are required and the remaining 28 are optional. Products that meet all 23 required criteria would be awarded the Bronze status; products that meet all 23 required criteria and 50% of the optional criteria would be award the Silver status and those that meet all 23 required criteria along with 75% of the optional criteria would be awarded the Gold status.

Table No: 3: Epeat Ratings						
Gold Ratings: Computers & Displays						
Co. / Year	2018	2017	2016	2015	2014	Total
Hp	1	16	10	19	1	47
Acer	4	25	12	4	Nil	45
Dell	Nil	6	Nil	Nil	2	8
Total (A)						100

Silver Ratings: Computers & Displays						
Hp	11	76	73	70	15	245
Dell	15	48	21	19	Nil	103
Lenovo	1	26	13	Nil	Nil	40
Tpv	Nil	1	Nil	Nil	Nil	1
Total (B)						389
Bronze Ratings: Computers & Displays						
Dell	Nil	Nil	Nil	1	Nil	1
Total (C)						1
Total (A) + (B) + (C)						490
Silver Ratings: Imaging Equipment						
Ricoh	Nil	Nil	35	Nil	Nil	35

Source: EPEAT Registry

The products receive Gold, Silver, and Bronze ratings according to their criteria specifications. The above Table No: 3 show the level of ratings given to 490 products of various companies' based on their fulfilment of required & optional criteria. It can be stated that out of 490 products 100 products received gold rating, 389 products received silver rating and one product alone received bronze rating under the category Computers & Displays. It can also be stated that HP has more ratings to in both the gold & silver category followed by Acer in Gold rating and Dell in Silver rating. The above table also states that the Multifunction device & Printer, currently included in the list of imaging equipment have received silver ratings.

Conclusion

It can be concluded that a world filled with green electronics is a team effort. Not only do companies need to develop and provide more energy efficient devices and appliances but consumers need to purchase them as well. Consumers, manufacturers and the government by working together, can properly promote the development and use of greener electronics with the overall goal of a cleaner and safer planet for us all.

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Upcoming Webinar: Green electronics in India Feb 2014.

E-Commerce in India: Opportunities and Challenges

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Awareness.

ABSTRACT

Electronic Commerce is the business environment in which information for the buying, selling and transportation of goods and services go electronically. E-Commerce allows business as to remain open for 24 hours a day, 7 days a week, giving customers and partner's access at any time of the day or night. E-Commerce is less expensive E-Commerce reduces errors by minimizing the handling of data and provides more results from limited resources using electronic commerce, businesses can share information and automatic many of the activities that are currently implemented by manual processes. E-commerce is being recognized as a cost- effective tool for managing critical transactions such as ordering, information sharing, payment processing, inventory control, and other business activities with their partners and suppliers. E-Commerce is a business online. It is about using the power of digital information to understand the needs and preferences of each customer and each partner to customize products & services for them, and then deliver the products & services as quickly as possible. Many companies today engage in electronic commerce for direct marketing, selling and customer service, online banking and billing, secure distribution of information, value chain trading and corporate purchasing. Types of E-Commerce:- Business to Business (B2B) (2) Business to consumer (B2C) (3) Consumer to Consumer (C2C) (4) Government to citizen (G2C) (5) Government to citizen (G2C) (6) Government to Government (G to G) (7) Consumer to Government (C2G) (8) Business to Government (B2G). The objective of the study is to identify and solve a customer pain point. Lack of knowledge and information about rights that provides legal uncertainty. Consumer awareness of the offers and competitive prices from burden retailers. Online customer market place to improve risk skill in fraud and cyber security cashless transmit to attract customers and increase online traffic decreasing documentation and reducing paper work.

Introduction

Commerce refers to the paperless exchange of business information using EDI, email, electronic bulletin boards and other network-based technologies. Electronic commerce includes electronic trading of goods, services and electronic material. E-

Commerce has included the handling of purchase transactions and funds transactions and transfer over computer networks. The e-commerce sector has seen unprecedented growth in 2014. The growth was driven by rapid technology adoption led by the increasing use of devices such as smartphones and tablets, and access to the internet through broadband, 3G, etc. which led to an increased online consumer base. The growth shown by homegrown players such as Flipkart and Snapdeal and the huge investor interest around these companies displayed the immense potential of the market.

With the entry of e-commerce behemoths such as Amazon and Alibaba, the competition is expected to further intensify. Both these international players come with deep pockets and the patience to drive the Indian e-commerce market. Also, their strong domain knowledge and best practices from their international experience give them an additional edge. Indian companies realize this, and are therefore aiming to continue their focus on expanding sellers and selection on their platforms, innovating on multiple customer touch points, and providing seamless and rapid delivery services in order to compete with the international entities. Competition is expected to continue, with these e-Commerce companies experimenting with different ways to attract customers and increase online traffic.

The Indian government's ambitious Digital India project and the modernization of India Post will also affect the e-commerce sector. The Digital India project aims to offer a one-stop shop for government services that will have the mobile phone as the backbone of its delivery mechanism. The programme will give a strong boost to the e-commerce market as bringing the internet and broadband to remote corners of the country will give rise to an increase in trade and efficient warehousing and will also present a potentially huge market for goods to be sold.

India's overall retail opportunity is substantial, and coupled with a demographic dividend i.e. young population, rising standards of living and upwardly mobile middle class and rising internet penetration, strong growth in e-commerce is expected. E-commerce processes are conducted using applications, such as email, fax, online catalogues and shopping cards, electronic data interchange (EDI), file transfer protocol and web services and e-newsletters to subscribers. E-Travel is the most popular form of e-commerce.

The e-commerce business will continue to attract investor interest. With mobile apps being developed by most e-commerce websites, smartphone is increasingly replacing PCs for online shopping. In 2013, only 10% of the mobile users used smartphones, and only 5% of the e-commerce transactions were made through a mobile device. Most mobile transactions so far are for entertainment, such as booking movie tickets and music downloads.

E-commerce is increasingly attracting customers from Tier 2 and 3 cities, where people have limited access to brands but have high aspirations. According to e-commerce companies, these cities have seen a 30% to 50% rise in transactions. Online Shopping, customers are also shopping online for weddings and festivals, thanks to wider range of products being offered and aggressive advertisements. The free and quick shipment and wider choice of products, along with the ease of shopping online as compared to in-store shopping, is also helping e-commerce gather momentum.

There is a recent trend of relatively newer products such as grocery, hygiene, and healthcare products being purchased online. Indian jewelry has also been in great

demand among customers outside India. Export comprises 95% of cross-border e-commerce, with the US, UK, Australia, Canada and Germany being the major markets.

Types of E-commerce

➤ ***B2C (Business-to-Consumer)***

E-commerce the online selling of goods and services to final consumers. Online consumer buying continues to grow at a healthy rate. Consumer online spending include travel services, clothing, computer hardware and software, consumer electronics, books, music and video, health and beauty, home and garden, flowers and gifts, sports and fitness equipment, and toys. The internet provides e-marketers with access to a broad range of demographic segments.

➤ ***B2B (Business-to-Business)***

Business-to-consumer (B2C) Web sites, consumer goods sales via the Web are dwarfed by B2B (Business-to-business) e-commerce. In 2003, just \$282 billion in 2000. One study estimates that as much as one-third of all U.S. B2B spending will occur online by 2006. These firms are using B2B trading networks, auction sites, spot exchanges, online product catalogs, barter sites, and other online resources to reach new customers, serve current customers more effectively, and obtain buying efficiencies and better prices. B2B marketers now offer product information customer purchasing, and customer support services online. B2B e-commerce takes place in open trading exchanges-huge e-marketplaces in which buyers and sellers find each other online, share information, and complete transactions efficiently.

➤ ***C2C (Consumer-to-Consumer)***

The Internet provides an excellent means by which consumers can buy or exchange goods or information directly with one another. E.g. eBay, Amazon.com. Growing Internet diversity continues to open new e-commerce targeting opportunities for marketers. Web now reaches consumers in all age groups. C2C involves interchanges of information through Internet forums that appeal to specific special-interest groups. C2C means that online visitors don't just consume product information-increasingly, they create it. They join Internet interest groups to share.m/, information, with the result that "word of Web" is joining "word of mouth" as an important buying influence. Word about good companies and products travels fast.

➤ ***C2B (Consumer-to-Business)***

Today's consumers are finding easier to communicate with companies. Most companies now invited prospects and customers to send in suggestions and questions via company Web sites. Consumers can search out sellers on the Web, learn about their offers, initiate purchases, and give feedback. For example, using Priceline.com, would-be buyers bid for airline tickets, hotel rooms, rental cars, and even home mortgages, leaving the sellers to decide whether to accept their offers.

➤ ***B2B Business to Business***

Businesses sell to other businesses. For example, Intel sells its chips to other businesses who make computers. Many companies like Tata, IBM, Bajaj Auto, Samsung Electronics and TVS Electronics are using e-commerce in some way or the other.

E-Commerce Companies Need to Do to Accelerate Growth

▪ ***Customer experience***

Easy transitions between ordering on tablets, mobile phones or PCs will have to be facilitated. They should also ensure sufficient after sales service and support. Online product reviews and rating, video more advanced sizing and fitting tools should be provided.

▪ ***Technological advancements***

E-commerce companies constantly have to upgrade their offerings with changing technology. Shopping through mobiles have truly arrived, they need to devise easy to use mobile apps for their websites. They need to ensure that their websites have the required speed to do fast business, especially during sale, deals and discounts, Solution enabling seamless integration of back end and front end infrastructure.

▪ ***Convergence of online and offline channels***

Easy transitions between ordering on tablets, mobile phones or PCs will have to be facilitated. They should also ensure sufficient after sale service and support. Online product reviews and ratings, videos, more advanced sizing and fitting tools should be provided.

▪ ***Delivery experience***

With lack of integrated end to end logistics platform, the ecommerce industry is facing issues related to procurement operations and transportation. Online purchases from Tier – 2 and Tier- 3 cities are expected to significantly increase, thanks to the emergence of low cost smartphones.

▪ ***Payments and transactions***

India continues to be a cash-based society due to limited banking and credit card penetration. This, combined with a lack of consumer trust in online merchants, has forced companies to offer CoD services, which imposes significant financial cost for firms in the form of labor, cash handling and higher returns of purchased items. Data protection and the integrity of the system that handles the data and transactions are serious concerns.

▪ ***Tax and regulatory environment***

Laws regulating ecommerce in India are still evolving and lack clarity. Favorable regulatory environment would be key towards unleashing the potential of ecommerce and help in efficiency in operation, creation of jobs, growth of the industry, and investments in back-end infrastructure.

▪ ***Operational Framework***

Companies in e-commerce will need to adapt and innovate constantly to sustain their business. Companies entered into the ecommerce industry as startups and have grown to a huge size aided by the continuous growth in the market but lack well defined capabilities and organizational structure.

- **Digital infrastructure**

Digital disruption has driven change in the e-commerce industry with shoppers embracing multiple touch points in their purchase journeys. Companies should spend enough resources on technology development as also advertising and branding.

- **Customer Acquisition**

The customer acquisition costs in Indian e-commerce have been climbing rapidly due to intense competition between multiple well-funded players. Only 2% of website visits currently result into transaction. Thus, there is a gap between potential and actual buyers. Coupled with high transaction costs, this area could pose serious problems.

- **Addressable markets**

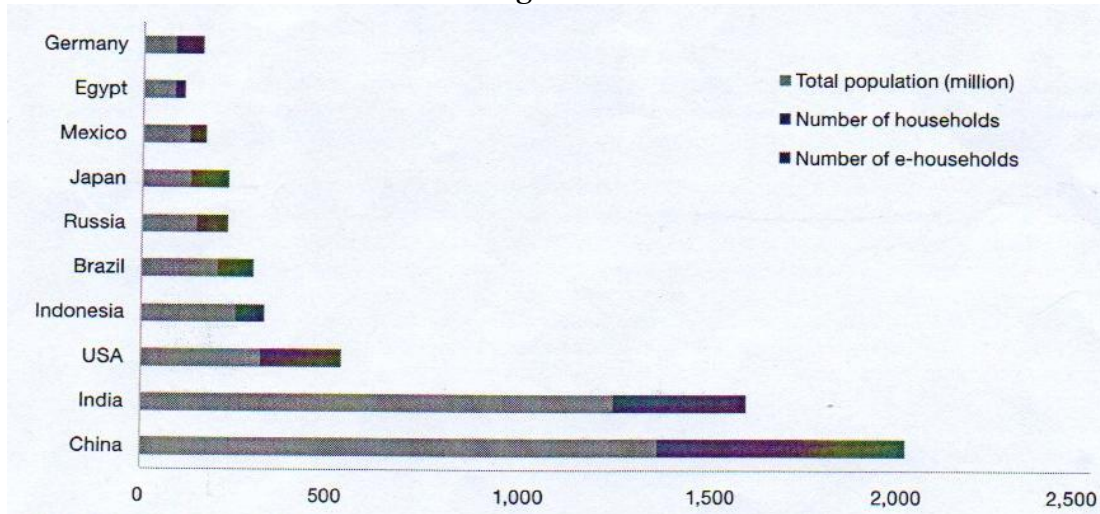
To grow their businesses, the Indian e-commerce sector needs to closely watch the growth of their markets in the Tier 2 and 3 cities. They need to improve their logistics and supply chain management in these cities.

Fig No. 1



E-commerce players in India need to address key aspects of their business, both internal and external.

Fig No. 2



Top 10 Countries in term of population and corresponding e-households.

Source: Ecommerce Foundation, 2017

Review of Literature

Ronald E Rice & James E-Katz (2000) With the popularity of the internet, more and more people are turning to their computers for health information advice, support and services. With its information based firmly on research, the internet and Health communication provides an in-depth analysis of the changes in human communication and health care resulting from the internet revolution.

Elizabeth Glod smith & Sue L.T. M.G. Gregor (2000)He analyzed the impact of e-commerce on consumers public policy, business & education.

Arvind Panagariya(2000)He reported that access to internet services and access to services that can be traded electronically. The former deals with to access to Internet infrastructure while the latter relates to specific commitments in electronically tradable services. E-Commerce offers unprecedented opportunities to both developing and developed countries.

Diana Oblinger(2001) Reported that one is that education and continuous learning have become so vital in all societies that the demands for distance and open learning will increase. As the availability of the Internet expands as computing devices become more affordable and an energy requirement and form factors shrink, e-learning will become more popular.

Jackie Gilbert Bette Ann Stead (2001): Reviewed the incredible growth of electronic commerce and presented ethical issues that have emerged security concerns, spamming, websites that do not carry an “advertising label, cyber squatters, online marketing to children, conflicts of internet, manufactures competing with intermediaries online and ‘dinosaur’ were discussed.

Andrew D. Mitchell (2001): Examined the key issues that electronic commerce poses for global trade, using as a starting point the General Agreement on trade in services (GATS), World Trade Organization (WTO) agreement most relevant to e-commerce.

Nir B Kshetri (2001) The analysis indicated that the twin forces of globalization and major revolutions in ICP are falling the rapid growth of global e-commerce.

Available on SSRN-Elsevier

Prithviraj Das Gupta & Kasturi Sengupta (2002) Reported that the recent growth & Internet Infrastructure and introduction of economic reforms in the insurance sector have opened up the mono politic India income market to competition from foreign alliances although the focus of e-commerce has been mainly on business to consumer (B2C) applications. The Insurance Industry provides an appropriate model that combines both B2C and B2B applications.

James Christopher (2004) Examined all the best elements of e-commerce does not guarantee consumers will visit or remain loyal. But looking at what they want and their satisfaction levels of other well-established e-tailors such as Amazon and e-bay who have already invested significant recourse to understand what consumer's needs, wants and desires.

Werther H and Ricci F (2004) Reported that e-commerce in travel and tourism industries are continuously increasing despite of tough economic problems. This industry is adopting application of B2B and B2C. This industry has changed the ways of do business for traditional ways to modern way i.e. e-commerce via. Web and another online transaction software. Web is changing the behavior of consumers as well as they are becoming less loyal, take less time for choosing and consuming the tourism products. Due to adoption of e-commerce in travel and tourism industry consumers are becoming more powerful player as they can choose their destination and sites in few minutes.

Kim (2004) Examined there are main two factors for conducting successful e-commerce strategy which are security of the e-commerce system and user-friendly web interface. Security means not only security of own system but also providing security assurance to users who are using the sites or online software user friendly web interface give consumer trust and it is easy to convenience for customers. Zabihollah Rezaee, Kenneth R. Lambert and W.Ken Harmon (2006), reported that the rationale for infusion of e-commerce education into all business courses in that technological development are significantly affecting all aspects of today's business. An e-commerce dimension can be added to the business curriculum by integrating e-commerce topics into existing upper level business courses. Students would be introduced to e-commerce education.

Mauricio S. Featherman, Joseph S Valacich & John D. Wells (2006) Reported that as companies' oracle to digitize physical based service processes repackaging them as online e-services, it becomes increasingly important to understand how consumers perceive the digitized e-service alternative. E-service replacements may seem unfamiliar artificial and non-authentic in comparison to traditional service processing methods.

Law and Bai (2008) On their research paper there are two types of customers who use travel companies' websites, those are buyers and browsers. Buyers are those people who actually intend to buy the services whereas browsers are those who internal to surf and get information only. Those browsers can be converted to buyers by improving the website contents making it attractive, provided very rich in contents and very user friendly to use.

Jonathan Denner (2008) The recent studies of mobile (cellular) phone use in the developing world, and identifies major concentrations of research. It studies along two dimensions. One-dimension distinguished studies of the determinants of mobile adoption from those that assess the impacts of mobile use, and from those focused on the interrelationships between mobile technologies and users. A secondary

dimension identifies a subset of studies with a strong economic development perspective.

David Blumenthal, Mathew F. Burke, Michael C Hoaglin, Melinda Beeuwkes Buntin (2011) An unprecedented federal effort is under way to boost the adoption of electronic health records and spur innovation in health care delivery. We reviewed the recent literature on health information technology to determine its effect on outcomes, including quantity, efficiency and provider satisfaction.

Ray (2011) As a symbol of globalization, E-Commerce represents the cutting edge of success in this digital age and it has changed and is around the world. (Development in internets and web-based technologies have bridged down that difference between traditional and e-marketplace leading to e-commerce fast becoming the new convention.)

Chanana & Goele (2012) E-commerce is the use of electronic communication and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or many organisation and between organizations and individuals.

Mishra & Lotkar (2015) Trace the timeline and development of B2C e-commerce in “A study on current status of E-commerce in India.” A comparative Analysis of Flipkart & Amazon with its inception in the mid 1990’s through the advent of matrimonial and job portals. However, due to limited internet accessibility, weak online payment systems and lack of awareness, the programs were very slow. The Indian B2C e-commerce industry got a major boost in mid-2000’s with the expansion of online services to travel and hotel booking which continue to be major boost in mid-2000’s with the expansion of online services to travel and hotel bookings which continue to be major contributors even today.

Rina (2016) The utility of e-commers is not limited to just sale and purchase of goods and services over computer networks but entail the entire online process of developing, marketing selling, delivering, servicing and paying for products & services.

Khosla (2017) Explains why E-commerce boom in India. Why online shopping in here to stay. The study conducted on the retail market in India suggests that the growing popularity of online shopping is affecting offline retailers since online companies are offering better prices and have attractive promotional strategies. It is also easy to reach the consumers online. The Online channel gives consumers the opportunity to shop anytime anywhere with the help of the internet this is motivating the retail chains to get into the online business.

Ka Math (2017) GST to benefit e-commerce the most as he believes Goods and Services Tax (GST) will eliminate supply chain issues which are important from E-Commerce perspective. There will be less documentation in case of shipment and return of goods. Efficiency in supply chain is the key to quicker deliveries and GST is expected to play a role. Goods can be priced and margins can be calculated properly.

Objective of the Study

1. To study the problems and prospects of customers in the process of E-Commerce.
2. To attract customers and increase online business.

3. To study the decreasing documentation & reducing paper work.
4. To create a culture of electronic payments and e-commerce usage that will support economic growth.
5. To study the real involvement of customers and businessman in the process of E-Commerce.

Scope of the study

1. **Financial Services:** Banking clients no longer need to stand in queues at the banks for any transaction. They can just do it comfortably from their home, office, or even from a remote location across the world. New deposit combinations, 24 hours ATM centers, 20 second electronic fund transfer, online application submission, online investment & fund information, interactive banking, including access to accounts and details of transactions, are among the services already available.
2. **Advertising:** A type of marketing that hopefully leads to new customers: Through advertising is a costly affair on any conventional or traditional media, especially a global advertisement. However, without advertising, it is hard to sell products. Now take advantage of cheaper online advertisements over Internet/Intranet.
3. **Reservation:** Transaction of products and services as ticket reservations can be sold as easily as normal products. Reservation of hotels, tickets, transports, movie etc. are also possible.
4. **Product demonstration:** Showing demo version of the products, which have to be custom designed and which are still in the development phase including global collaborative product design.
5. **Entertainment:** Movies on demand, video cataloguing, interactive advertisements, multiuser games, online discussions etc. are feasible.
6. **Education and Training:** Interactive education, video conferencing, online data bases, Internet purchasing, digital library access and search services, CAD-CAM, etc. can be provided easily at lower costs.
7. **Bill Payment:** Bill payment is a big application. Services based on bill presentment and payment have the potential to grow into the single largest source of revenue from internet services.
8. **Direct selling or selling of real products :** It includes all the essential services products such as, home shopping products, electronic catalogues, tele-medicine etc.
9. **Content selling including the selling of information:** This is a new growing area of doing business. By putting the information on the web, one can provide simultaneous access to thousands of people for which a fee may be charged. The content may be for new knowledge and information based products, tourism, health care, Internet publishing, digital libraries with access and search services on any subject including arts, literature, entertainment etc.
10. **Stock exchange:** The placing of purchase and sale orders for securities, auctioning of liabilities, issuances of notices to brokers etc. all can be done in electronic form. The National Stock exchange (NSE) is an electronic stock exchange system that legally recognizes a range of electronic transactions.

Research Methodology of the Study

Research methodology of the study is based on the secondary data in journals, books, various articles, websites and research papers have been used to study the eruption, conceptual frame work, key players, present trends, growth prospects, modes of payments, future prospects and challenges of E-Commerce.

SWOT Analysis

▪ Strength:

- (1) Changing environment (2) Time saving (3) user friendly
- (4) low operating cost (5) Intent Transactions (6) Expand business
- (7) Increasing customer base tracts.

▪ Weakness:

- (1) Privacy and security (2) Extra expense (3) Inadequate facilities for electronic payment. (4) Lack of personal interactions (5) Hidden cost (6) Delay to receiving goods.

▪ Opportunities:

- 1) Online business (2) Online shopping (3) Cash on delivery (4) Electronic cash (5) Location based services (6) Customer relationship management (6) Customer relationship management (7) Social customer Acquisition (8) Improving customer experience (9) Care and regulatory environment online Retail education (10) Payment of Transaction. (11) Opportunities new Businesses.

▪ Threats:

- (1) Customer and digital experience (2) Product & market Strategy
- (3) Risk, fraud and cyber security (4) Compliance framework (5) Tax and Regulatory structure. (6) Payments and Transactions.

Fact Finding of the Study

Lack of knowledge and information about rights that provides legal a certainty.

Lack of consumers' confidence in E-commerce while shopping cross border online.

To create a culture of electronic payments and e-commerce usage that will support economic growth.

Identify and solve a customer pain point.

The E-commerce sector is maturity and number of serious players are entering the market.

Payments and delivery systems are the vital ingredients that determine the ultimate success of e-commerce.

Conclusion

Emergence of new technologies especially mobile, in India has sparked a social change that's difficult to quantify. While mobile, internet, and social media

penetration and growth can be quantified, describing the changes in social values and lifestyles that have accompanied those trends is far more challenging. Virtual walls help customers scan barcodes for items on an electronic wall using their mobile phones and place orders with retailers. Thanks to rising internet penetration, the gross number of online users in India now exceeds the number of people who have completed primary education. This shift emphasizes the increasing relevance of India's digital economy.

With India's GDP growth pegged at 6.4% by the International Monetary fund and the World Bank, it is expected to grow rapidly. The India e-Commerce industry has access to funds from within the country and international investors. The e-commerce sector is maturing and a number of serious players are entering the market. This will not be without its share of challenges, be it operational, regulatory, or digital.

Suggestion & Recommendation

- To define cybercrimes and suggest penalties and punishments.
- We need multi-channel shopping platform.
- Cash on delivery is the preferred payment mode.
- Online customer market place.
- Beware our website will be hacked.
- E-commerce has reshaped the entertainment industry and it will continue to do so.
- The e-commerce business will continue to attract investor interest.
- Coordinating public and private sector electronic commerce facilities.
- Awareness education & skills to the consumer and students.
- Ensuring flexibility in public/private sector relationship.

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Economic Impacts of Nanotechnology Industry: Case Study on Egypt

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ABSTRACT

Sustainable economic development would never be possible without having a strong scientific and technological basis. Economics science has evolved in understanding how new technologies help in transforming societies and generating a continuous chain of wealth and progress. Both Microeconomics and Macroeconomics have long recognized the importance of technological developments in economic systems. In particular in Macroeconomics, the idea of explaining how technology creates economic growth has been extensively explored. Nanotechnology industry is considered as the core of the next boundless technological revolution and it has a significant role spurring global economic growth. This paper aims to focus on the economic impacts of the nanotechnology industry with a special focus on the Egyptian case. We have found that the Egyptian nanotechnology industry is still lacking behind its peer countries, and therefore we underline the importance of setting a national plan aiming to take serious actions in developing the nanotechnology industry in Egypt to stimulate the national transformation towards a knowledge-based economy.

Introduction

Nanotechnology industry is having an important role in economic development because of its strong connection channels with other industries. Scientists, researchers, investors and policy makers in the world are aware of the potential power of the nanotechnology industry as it has wide range applications in all sectors.

The industrial sector is the engine of economic growth. It helps in creating more job opportunities, encouraging new technological innovations, raising output rates and achieving a higher standard of living. The utilization of material properties at the nanometer has important applications in all aspects of life, especially in manufacturing. By using nanotechnology in the benefit of manufacturing sector, it will be possible to direct the placing of the atoms in the reaction in a specific way, so that the resulting materials will be more precise and refined than the traditional production techniques and then increasing the product quality as well as reducing the energy consumed which leads to a reduction of the cost of production.

The Egyptian manufacturing sector has many structural problems that can be overcome by changing the pattern of technologies used in production and introducing new ways utilizing the nanotechnology techniques.

The purpose of this paper is to study in first place the effects of the nanotechnology industry from an economic perspective, to identify what are the promising nanotechnology fields, to predict the future developments and to highlight the contribution of nanotechnology to socio-economic development. In second place, we will analyze the Egyptian nanotechnology position with recommendations for future expansion and greater contribution in the economic growth.

Nanotechnology: Definition, Uses and Applications

Nanotechnology is a group of enabling technologies that are capable to develop structures, systems, and devices in a scale ranging from 1 to 100 nanometers (nm). The nanotechnology industry is a growing market, all the branches of nanotechnology's products can have a profound impact in the market of innovative goods and also change consumer management in the near future.

Industrial sustainability is another advantage of the specialized nanotechnology's products. The consumption of raw materials coming from wasted resources and the use of methodologies that consume low amounts of water and energy are necessary to protect human health and the environment (Morganti, P. 2013).

Technologies and scientific applications hold a defined stance towards advancing strategic sectors of the country's economy and, specifically, economic growth. The applications of nanotechnology to traditional materials offers a chance for the industry to increase its innovative capacity and also speed up their progress towards national and global sustainability (Oke, A. E 2017).

In general, nanoscale materials offer unique opportunities for developing our society, for example, for improving our fundamental knowledge and for providing high performance technological appliances (electronics) that make life simpler and subsequently better by releasing human resources from physically demanding hard tasks. The field is witnessing new innovations every day, which allows it to remain interesting and vivid (Mishra, Y. K., 2017).

The application of nanotechnology to commercial products will require tough standards of reproducibility, reliability and safety. It is therefore important to establish a common scientific standard for safety in diverse products based on nanotechnology, and long-term investments in basic research will be essential to sustain the momentum of advances in nanotechnology (Yeh, N. C. 2013). Nanotechnology is providing new products in all industrial sectors. Here below, we will mention some example of the industrial applications of nanotechnology:

Biomedical applications: Nanoparticles are used for disease diagnosis, drug delivery, gene therapy of cancer, pulmonary diseases and prevention of other infections also. Cancer is malignant neoplasm, and there is uncontrolled division of cells which enter into normal adjacent tissues and destroy them.

Nanotechnology in agricultural and food production: A variety of nanomaterials, mostly metal-based nanomaterials and carbon-based nanomaterials, have been exploited for their absorption, translocation, accumulation and effects on growth and development of crop plants. (Singh, N. 2017).

Nano-fertilizers: Traditional fertilizers' substitution by Nano-fertilizers is a way to release nutrients into the soil gradually, Nano-fertilizers have unique features like ultrahigh absorption, increase in production, rise in photosynthesis and significant expansion in the leaves' surface area. The use of Nano-fertilizer leads to an increased efficiency of the elements, reduces the toxicity of the soil. (Singh, N. 2017).

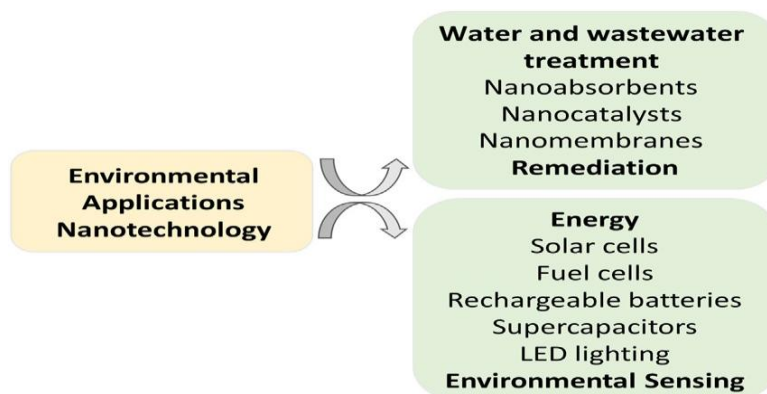
Nano-agrochemicals: Pesticides are commonly used in agriculture to improve crop yield and efficiency. Nano-pesticides are new strategies used to address the problems of agriculture.

Nanotechnology in the textile industry: Nanotechnology is applied in textile industry due to the increased durability of fabrics, comfortless, hygienic properties and reduced production cost. Nanoparticles can provide high durability for treated fabrics as they possess large surface area and high surface energy, Silver nanoparticles are used in socks and sports clothing because of their ability to kill bacteria and inhibit unwanted odors (Singh, N. 2017).

Nanotechnology in the oil industry: Nanotubes have been used to create lighter, stronger and more corrosion-resistant structural materials in the oil industry. Nanotechnology could help improve oil and gas production by making it easier to separate oil and gas in the reservoir. (Singh, N. 2017).

Nanotechnology has also many uses in the environmental sector that include wastewater and contaminated soil treatment, remediation, sensors, and energy storage. The key focus of the environmental nanotechnology also includes safe design of nanomaterials with potential environmental benefits and promotion of sustainable development of those materials (Pathakoti, et al 2018), and improvement of production processes through the introduction of more resistant or efficient materials (Delgado-Ramos, G. C. 2014).

Figure 1: Schematic representation of nanotechnology applications for environmental industry



Source: Pathakoti, K., Manubolu, M., & Hwang, H. M. (2018). Nanotechnology Applications for Environmental Industry. In Handbook of Nanomaterials for Industrial Applications (pp. 894-907). Elsevier.

Here below, we will mention some example of the application of nanotechnology for environmental uses:

Sustainable energy: The use of renewable energy sources for sustainable and green energy production has been emphasized globally. Nanotechnology has a great potential to enhance energy efficiency, clean energy production, energy conversion, energy storage, and energy usage and saving. Nanomaterials can be used for production of more efficient solar cells and fuel cells as an alternative clean energy source device such as environmentally-friendly batteries (Pathakoti, et al 2018).

Energy Conversion: Green energy can be produced using nanotechnology to create solar and fuel cells as potential sources of commercially available alternative clean energy sources with a significant cost reduction. This technology is economically practical for large-scale power generation.

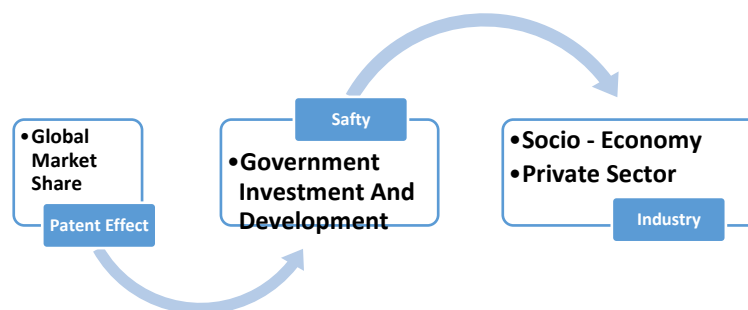
Carbon Capture: Typically, most of the energy utilized in industry is generated from fossil fuels through combustion, thereby releasing high levels of carbon dioxide into the atmosphere, consequently causing global climate change. Nanotechnologies have received attention for CO₂ capture due to their unique properties (Pathakoti, et al 2018).

Industrial water treatment: Recent progress in nanotechnology may provide new prospects for development of advanced water and wastewater technology processes (Pathakoti, et al 2018). New technologies capable of effectively and affordably treating impaired and unconventional water are critical to sustainable economic development and the environment. New nanotechnologies may enable treatment of complex waste streams, aiding in reclamation of water and recovery of energy and high-value materials. (Jassby, D., et al 2018), to structure innovation models that can make regional and national economies flourish. (Edward Cupoli, 2010).

Nanotechnology Competitiveness

Technology sector is considered the most important in the infrastructure sector. By nanotechnology competitiveness, we mean the measurement of different factors that are having a significant impact in upgrading the development of nanotechnology in the future (Bae, Sung – Hoon 2016). When these factors develop and improve, the competitiveness of the nanotechnology industry increases, next figure is showing these factors (Figure2).

Figure 2: Nanotechnology index indicator



Source: Bae, Sung - Hoon, Kim, Jun - Hyun, Shin, Min - Min, Yoon Jin - Sun, Shin Min - su, & Sang - Gyu Kang. (2016). Development of Nanotechnology Competitiveness Index. Journal of the Korean Society of Manufacturing Technology Engineers, 25 (5), 345-353.

The nanotechnology competitiveness is basically measured by the following factors:

Nanotechnology and Sustainable Economic Development

Nanotechnology is an important field heavily utilized in Economics (Lau, R. W. M et al, 2013), With the use of nanotechnology, firms can produce goods with lighter and thinner materials (Olawoyin, R. 2018). Actually, the nanotechnology is considered as a foundational technology for all sectors of the economy in industrialized countries (Mihail C.Roco, Nora Savage 2019).

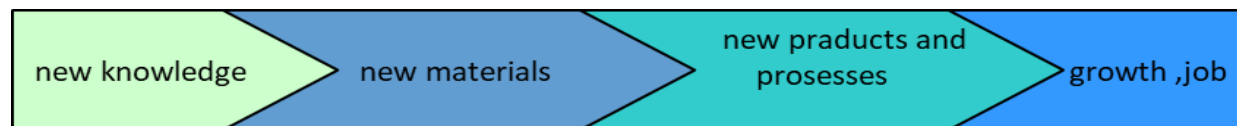
In today's global economy, the highly developed countries are competing with each other in nanotechnology in a parallel and compatible manner (Dong, H et al, 2016). Nanotechnologies will underpin a new wave of industrial expansion that will magnify existing resource and energy use, as measured by economic growth, improved health and longevity, environmental protection, strengthened security, social vitality and enhanced human capabilities (Purohit, R et al, 2017).

Nanotechnology is introducing a completely new industrial revolution that will incorporate breakthroughs in computer efficiency, pharmaceuticals, nerve and tissue repair, surface coatings, catalysts, sensors, materials, telecommunications, and pollution control. In addition, many economists have considered nanotechnology as an essential contributor to get out of the global recession through the door of green innovation (Murphy, P, et al 2011).

Nanotechnology is a general-purpose technology that enhances the productivity and quality of a particular industry in the value chain of different industries. Because of this role played by nanotechnology, the impact of nanotechnology on different industries is very wide and deep (Bae, Sung – Hoon 2016). The nanotechnology global market is growing as more goods are incorporating and are expected to incorporate some type of nanotechnology, and figures as a technological front that is both relevant and of great potential for the country (Delgado-Ramos, G. C. 2014). For instance, the global nanodevices market is estimated to be about a third of the size of the nanomaterials market. Most estimates of the current growth rate of the nanotechnology market converge on around 20% CAGR¹ over the next decade. The most optimistic projections suggest that the total worldwide annual nanotechnology market will exceed 40 billion USD by the end of this decade (Jeremy J.Ramsden 2018)

Nanotechnology cuts across multiple industrial sectors, technology is a bundle of promising options (Robinson, D. K., & Rip, A. 2013). Hence wide ranges are seen in estimates of nanotechnology jobs that can employ a significant share of the labor force. (Shapira, P., & Youtie, J. 2015).

Figure 2: Nanotechnology and development



¹ The compound annual growth rate (CAGR) is the mean annual growth rate of an investment over a specified period of time longer than one year.

Source: Baucher, M. A., Scott, R., Cannizzaro, C., Standridge, S., Nesbitt, E., & Fadel, T. (2013). Symposium on Assessing the Economic Impact of Nanotechnology: Synthesis Report.

Summary of national socio-economic Impacts of Nanotechnologies		
Short-term	Medium-term	Long-term
Partnership structures and strategic alliances organized New research facilities and instrumentation in place Initial research objectives met/increased stock of technical knowledge	Supply-chain structure established New-skilled graduates produced Compression of R&D cycle New technology platforms and infra-technologies produced Commercialization of new products, new processes, licensing	Broad industry and national economic benefits: 1. Return on investment 2. GDP impacts

Source: Baucher, M. A., Scott, R., Cannizzaro, C., Standridge, S., Nesbitt, E., & Fadel, T. (2013). Symposium on Assessing the Economic Impact of Nanotechnology: Synthesis Report.

Patent of nanotechnology and economic growth

Patent policy is an important tool used by policy makers to stimulate innovation and economic growth (Saito, Y. 2017). Patent of nanotechnology is considered as the most important characteristics in a knowledge-based economy. Scientific activities have increasingly played an important role in the industrial innovation and development (Wang, G., & Guan, J. 2010). Basically, innovation has a major role in increasing economic and social welfare. (Niwa, S. 2016).

A growing number of industrialized and emerging economies are now having the character of innovation economies, their main engine of economic growth being the patent. Innovation consists of the introduction of a new product or service, a new process, ability to share and cooperate, the higher the patent's output, hence the higher the economy's aggregate output. (Thompson, M. 2018).

Science and technology factors are crucial for a sustainable economic growth of any society. (Saito, Y. 2017). Therefore, there is need to investigate relationship between science and technology factors and economic development. In appendix1, we have done the statistical analysis of simple regression between patent and economic growth, in selected countries (Japan, Korea, and China), they have all shown that there is a positive relationship between patent of nanotechnology and economic growth.

Nanotechnology industry in Egypt

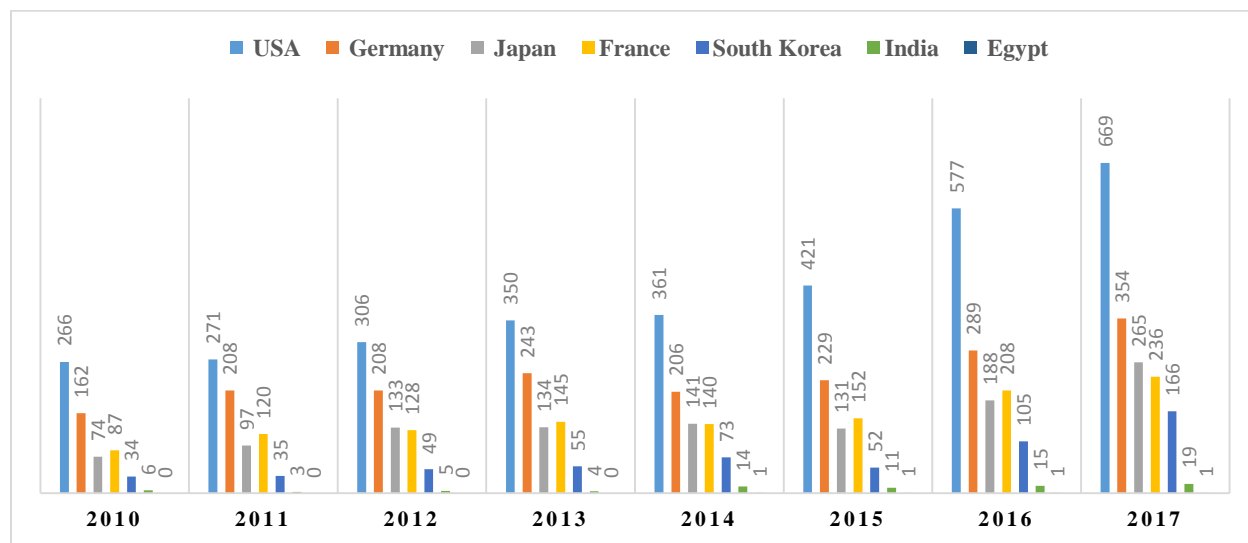
The Egyptian economy is suffering from inefficient research and development institutions and generally the lack of an enabling environment for scientific research and encouragement. The scientific production in Egypt is weak or almost non-existent compared to the scientific production of peer developing countries. Two major obstacles

are still facing the national research and technological production in Egypt: Lack of financing, and the international marketing for new patents.

As shown in graph 4 the contribution of Egypt to the inventions related to nanotechnology is so little compared to the other countries in the comparison panel. USA comes in the first for its contribution to the patents of nanotechnology followed by Japan and Korea, and the volume of spending on this technology reached billions of dollars in these countries.

We notice that the progress achieved by developed countries in technical and economic development and control of global markets is mainly due to their success in investing intensively in the nanotechnology industry (Table1), and in harnessing scientific research in the service of economic and industrial development and innovation through the establishment of effective scientific policies (Ali Boukmeish, 2014).

Graph 1: Nanotechnology granted patents: Egypt vs selected countries



Source: <http://statnano.com/report/s103>

Table 1: Example of developed governments investment in nanotechnology (Million \$)				
Country	2012	2013	2014	2015
European Union	200	225	400	650
Japan	245	465	720	800
USA	1857	1550	1538	1537

Source: <http://statnano.com/report/n3>

Egypt has been interested in a number of research projects based on nanotechnology by establishing a number of specialized laboratories in the field of nanotechnology, as follows (Table2):

Table: 2 Government financial resources for nanotechnology in Egypt during 2009 to 2015

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Constructions	Investment cost (in Egyptian Pounds)
Nano Center at Mansoura University	5 million
Nanotechnology Laboratory at the Agricultural Research Center in Cairo	20 million
The center of Nanotechnology Research at Cairo University in cooperation with the Ministry of Communications and the University of the Nile	150 million
The Nano lab in Zewail City is funded by National Bank of Egypt	100 million
Total	275 million

Source: data collected by the researchers.

International organizations and some developed countries have also giving supports funds the Egyptian nanotechnology industry, table 3 gives some example of these international supports:

Table : 3 As well as support for nanotechnology research in Egypt from 2012 to 2015	
Funding source	Fund amounts
EU support for the signing of a number of agreements to establish joint research projects with the European Union, Germany and the United States	10 million Egyptian pounds
Researchers at the Center for Nanotechnology Technology received international funding for research projects in USA and Europe at the Egyptian Center for Nanotechnology, Cairo University, at the University of Sheikh Zayed.	2.2 million euros, equivalent to 18.45 million Egyptian pounds The value is based on 1 euro = 8.39 Egyptian pounds in 2015.
Support from the Science Research Fund of the Ministry of Scientific Research of Nanotechnology Laboratories	80 million pounds
Total	108.45 million pounds

Source: data collected by the researchers.

Egypt's spending on nanotechnology industry from national financial resources in addition to the support provided from abroad, is only 383.45 million pounds, which is equivalent to 48.96 million dollars², which is very small compared to other countries, for instance: USA 1536.9 Million dollars, Japan 800 million dollars, the European Union 650 million dollars for 2015.

Moreover, Egypt suffers from a weak investment in Nano applications according to the requirements of development programs in Egypt is illustrated by:

² Calculated on the basis of the exchange rate of 1 dollar = 7.83 Egyptian pounds for 2015

Table: 4 Nanotechnology industry in Egypt vs. world's countries	
Nanotechnology in Russia	Nanotechnology in USA
<p>-A Russian official source said that the company "Ross Nanotechnology " will allocate more than 14 million US dollars to produce unique optical lenses using nanotechnology, noting that other companies will reduce similar amounts for the same purpose.</p> <p>"The application of such modern technology will involve a wide range of devices," Ivanov said, noting that the project will be implemented in two phases, pointing out that the first phase starts between 2008 and 2010 from the manufacture and processing of the necessary new equipment, before the industrial chain starts in The second phase, taking into account the phase between 2010 and 2012.</p>	<p>- The US National Science Foundation predicts that the market for nanotechnology services and products will reach \$ 1 trillion by 2015, and those who are led by nanotechnology will control the world economy in the 21st century.</p> <p>- Economic estimates indicate that in 2006, products manufactured by nanotechnology were sold to 15 billion dollars, which is expected to increase to 4 billion dollars in 2008.</p>
Nanotechnology in Israel	Nanotechnology in Taiwan
<p>-The Nanotechnology Research Institute (NRI) at a cost of \$ 88 million, and the Israel Technological Institute (ITI) in Haifa, capitalized on \$ 4 million and mobilized 200 scientists from all disciplines.</p> <p>They also set up the Nanotechnology Research Institute in 2003 and monitored about 90 million dollars at the end of that year, in addition to the support of the United States of America for 250 million dollars. About 80 companies in the entity were created from a total of 820 companies around the world. To produce and market nanotechnology products.</p> <p>- Israel's production in this sector is expected to reach one trillion dollars by 2015</p>	<p>- The government set up the Industrial Institute for Technological Research in 1973 (ITRI) to support industrial research, especially the electronic industries. The vision was to be one of the largest research laboratories and employ technological innovation to make Taiwan able to face future challenges.</p> <p>- Taiwan has several silicon chip factories, including the two largest global companies in the field "TSMC and UMC"</p>
Nanotechnology in Korea	Nanotechnology in Singapore
<p>- Korea is the largest producer of integrated circuits, especially in the field of memory and monitors.</p>	<p>- Singapore focuses on precise electronic designs that contain a large amount of intellectual property, which makes the financial return very rewarding.</p>

<p>- Korea has relied on giant Korean companies to set up powerful electronic industries such as Samsung and Goldstar.</p> <p>In the Chinese market, there are about 245 companies working in the field of electronic design and nanotechnology, 19% of which have a total sale of more than 15 million US dollars. In Taiwan, the ratio is higher, with the total income of 37% of companies exceeding 15 million dollars.</p> <p>Nanotechnology in Malaysia</p>	<p>- The Institute of Electronic Research is located within the scope of the technology complex, a large area of space and centers of research centers of multinational companies.</p> <p>Nanotechnology in Egypt</p>
<p>-Two factories were opened in 2001 with an investment of about \$ 3.5 billion in partnership with some Japanese and US companies. A modern commercial laboratory operating in the field of 90 nm.</p> <p>- The volume of production of the electronic factory exceeded 40 billion dollars a year, which is close to or exceeds the value of electronic production of UK.</p> <p>- In the past 10 years, the Malaysian government has carried out several programs to encourage local companies to work in the field of electronics, including through the establishment of the Smart Village with an investment of over one billion dollars.</p>	<p>-The research of nanotechnology is still the same as that of research in other fields, if not the worst. Scientific research in Egypt suffers from the scarcity of production, its weakness in the basic fields, semi-absence in advanced fields, low spending on it and low numbers of qualified workers.</p> <p>- There is interest in the holding of some educational conferences such as the Second International Conference of Nanotechnology and Science, South Valley, February 2015, and the conference of the Egyptian Society for the use of nanotechnology for cancer treatment in October 2015.</p>

Source: data collected by the researchers.

From previous table, we can notice that that developed countries acquire nanotechnology in addition to most of the research, development, patents of nano-inventions and various products and nanomaterials, and this raise concerns that developing countries cannot access the infrastructure of nanotechnology and the necessary financing. The human resources needed to promote and support research and development, leading to the marginalization of Egypt in the global system from technically underdeveloped countries, have a negative impact on the economies of the developing world.

Conclusion and Recommendations

Nanotechnology industry will become the basis for remarkably powerful and inexpensive computers, enabling cost-effective alternate energy technologies, fundamentally new medical technologies that could save millions of lives water treatment and remediation technologies that will address the global problem of water scarcity, making sensors that are important in military applications as well as environmental protection, and development of new zero pollution manufacturing methods that could create greater material abundance for all, nanotechnology will have a significant impact on society, business, and economic growth. Nanotechnology has significantly contributed in benefiting society and shaping the nature of modern life, nanotechnology can boost the economic growth as well as improve the capacity and quality in industrial sectors. It can significantly change the human life, social environment and country's economy.

Egypt still lack behind its peers developing countries in the nanotechnology industry. And as it faces many obstacles that prevent fast development of nanotechnology on national level, we suggest the following recommendations for a faster and efficient nanotechnology industry in Egypt:

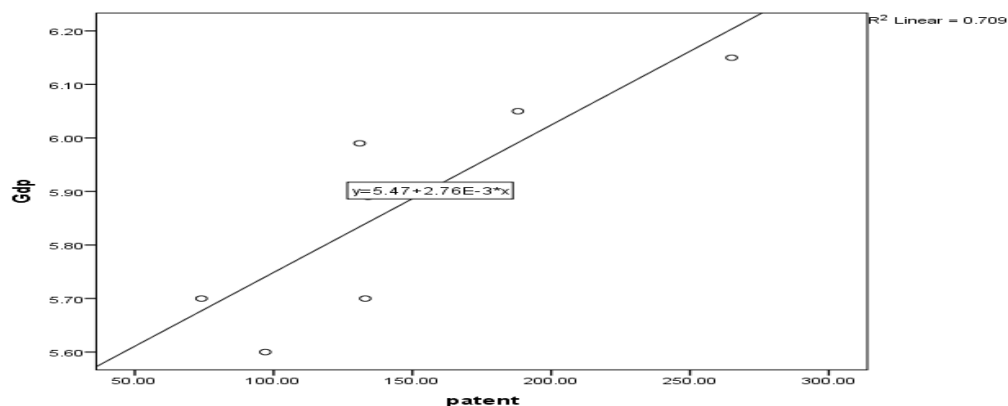
1. Supporting and building a modern scientific economy based on applied science techniques.
2. Spreading awareness and culture of nanotechnology science among young researchers and university students through workshops, training courses and conferences.
3. Initiating national programs to encourage the public and private sector to invest in the applications of nanotechnology in Egypt.
4. Establishing centers for nanotechnology in Egypt, based on providing nanotechnology training researchers in laboratories.
5. Launching partnerships between Egyptian universities and foreign universities.
6. Taking the necessary measures to support scientific research and providing material resources for researchers and scientists to enable them to continue their research.

Appendix 1

Statistical Analysis of Simple regression between patent and Economic growth						
	Japan		South Korea		China	
years	Patent	GDP (constant 2010 hundred US Billion \$)	Patent	GDP (constant 2010 US hundred Billion \$)	Patent	GDP (constant 2010 US hundred Billion \$)
2010	74	5.7	34	1.1	98	6.1
2011	97	5.6	35	1.14	136	6.68
2012	133	5.7	49	1.17	225	7.21
2013	134	5.89	55	1.19	270	7.77
2014	141	5.91	73	1.24	357	8.33
2015	131	5.99	52	1.27	393	8.91
2016	188	6.05	105	1.31	416	9.51
2017	265	6.15	166	1.35	524	9.51

Source: world bank data and <http://statnano.com/report/s103>

Scatter plot of Japan

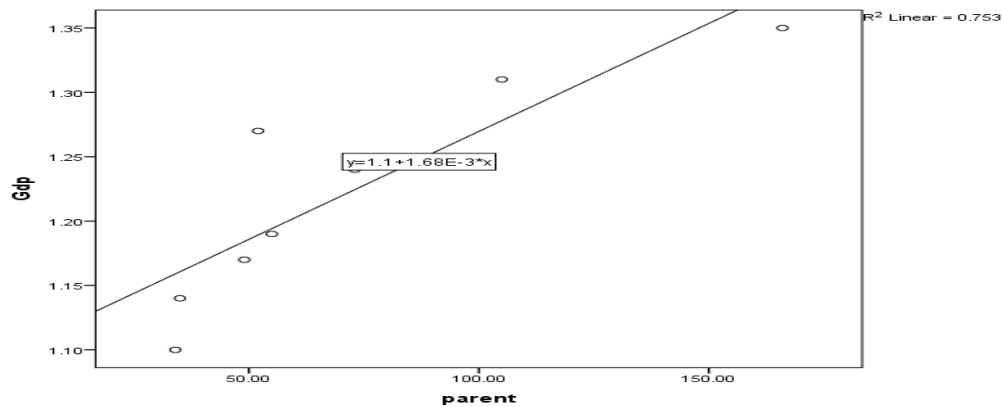


Source: Prepared by the researchers, based on world bank data 2010-2017, spss 24

Goodness of fit: The value of the coefficient of determination R^2 is 0.709, that mean the independent variables (patent) contribute to the interpretation of the gross domestic product (dependent variables) by 70%, while the remaining 30% is explained by other variables not included in the model.

Scatter plot of Korea

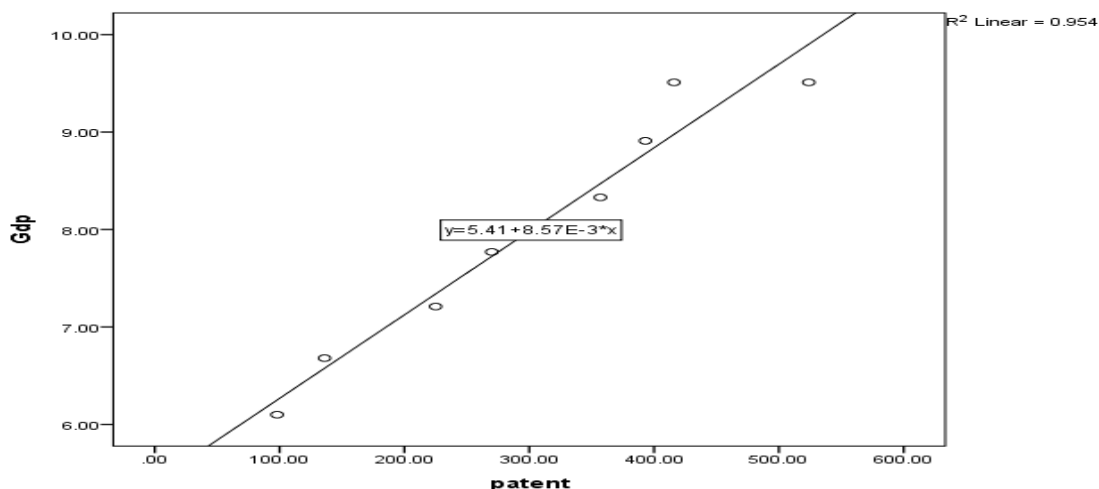
Economic Impacts of Nanotechnology Industry: Case Study on Egypt



Source: Prepared by the researchers, based on world bank data 2010-2017, SPSS 24

Goodness of fit: The value of the coefficient of determination R^2 is 0.75, that mean the independent variables (patent) contribute to the interpretation of the gross domestic product (dependent variables) by 75%, while the remaining 25% is explained by other variables not included in the model.

Scatter plot of china



Source: Prepared by the researchers, based on world bank data 2010-2017, spss 24

Goodness of fit: The value of the coefficient of determination R^2 is 0.95, that mean the independent variables (patent) contribute to the interpretation of the gross domestic product (dependent variables) by 95%, while the remaining 5% is explained by other variables not included in the model.

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Application of Fuzzy Concept in Fuzzy Group Redefined

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ABSTRACT

The concept of fuzzy set introduced by L.A. Zadeh was applied by Rosenfeld in 1971 to generalize some of the basic concept of groupoids and groups. The definitions of fuzzy subgroupoid and fuzzy groups were extended by him to cover other so-called non-deterministic structure which are similar to ordinary algebraic concepts like- Ideals- fuzzy ideals- homomorphism image fuzzy homomorphism image etc. But, some mathematical structure which seems to be “fuzzy” do not satisfy the definition of Rosenfeld. Hence it would be proper to modify these definitions. Anthony and Sherwood in 1979 observe that the use of minimum in the definition of fuzzy subgroupoid and fuzzy subgroup given by Rosenfeld restricts the notion rendering it not useful in various fuzzy situations, and hence they introduced t-norm place in of minimum and re-define fuzzy algebraic structure and have given independent proof of some theorems there in.

Some Definitions

Fuzzy Subgroupoid: Rosenfeld define fuzzy subgroupoid as:

Let \times be a groupoid. Let a function μ such that $\mu : \times \rightarrow [0,1]$ will be called as a fuzzy groupoid of \times , if

$$\mu(xy) \geq \text{minimum} \{ \mu(x), \mu(y) \} \text{ for all } x, y \in \times$$

Fuzzy Subgroup: Let \times be a group and μ be a fuzzy subgroupoid of \times . Then μ will be called as a fuzzy subgroup of \times , if $\mu(x)^{-1} = \mu(x)$ for all $x \in \times$.

Fuzzy Subgroup Redefine: Let \times be a group and μ a fuzzy subgroupoid of \times w.r.t. a triangular norm T. Then μ will be called a fuzzy subgroup of \times w.r.t. a triangular norm T if and only if

$$\mu(x^{-1}) = \mu(x) \text{ for all } x \in \times$$

In this definition we can say that fuzzy algebraic structure is being suggested to relax the condition imposed by minimum.

Now we shall discuss some examples to show that the classes are not in general fuzzy algebraic structure with respect to the definition given by Rosenfeld.

Theorem 1

Let μ_T be a characteristic function of a subset T of X then μ_T is a fuzzy subgroup if and only if T is a subgroup.

Proof

Let X be a subgroup and $T \subseteq X$. Then the characteristic function of T is denoted by μ_T and is defined as

$$\begin{aligned}\mu_T(x) &= 1, \text{ iff } x \in T \\ &= 0, \text{ iff } x \notin T\end{aligned}$$

Let us suppose that μ_T be a fuzzy subgroup of X . Then, we shall show that T is a subgroup.

In order to show that T is a subgroup, it is sufficient to show that $x \in T, y \in T \Rightarrow xy^{-1} \in T$, where y^{-1} is the inverse of y in X .

Let $x, y \in T$. Then we have $\mu_T(x) = 1, \mu_T(y) = 1$. since μ_T is a fuzzy subgroup, it is a fuzzy subgroupoid. Hence, for all x, y in $T \subseteq X$.

We have $\mu_T(y^{-1}) \geq \mu_T(y) = 1$

Thus $\mu_T(y^{-1}) = 1 \Rightarrow y^{-1} \in T$

$$\begin{aligned}\text{And } \mu_T(xy^{-1}) &\geq \min \{ \mu_T(x), \mu_T(y^{-1}) \} \\ &\geq \min \{ \mu_T(x), \mu_T(y) \} \\ &= \min (1, 1) \\ &= 1\end{aligned}$$

$$\therefore \mu_T(xy^{-1}) = 1 \quad (\text{by def.})$$

Hence $xy^{-1} \in T \Rightarrow T$ is a subgroup.

Conversely, suppose that T is a sub group of the group X .

Hence $x \in T \Rightarrow x^{-1} \in T$ and $x, y \in T \Rightarrow xy \in T$

Also μ_T is the characteristic function of $T \subseteq \times$

Therefore $\mu_T(x) = 1, \mu_T(x^{-1}) = 1$ and $\mu_T(xy) = 1$

$\therefore \mu_T(xy) = 1 \Rightarrow \mu_T(xy) \geq 1$

$$\Rightarrow \mu_T(xy) \geq \min(1, 1)$$

$$\Rightarrow \mu_T(xy) \geq \min[\mu_T(x), \mu_T(y)]$$

$\therefore \mu_T$ is a fuzzy subgroupoid

Also $\mu_T(x^{-1}) = 1 \Rightarrow \mu_T(x^{-1}) \geq 1 \Rightarrow \mu_T(x^{-1}) \geq \mu_T(x)$

Hence μ_T is a fuzzy sub group.

Theorem 2

The intersection of any collection of fuzzy subgroups be again a fuzzy subgroup.

Proof

Let \times be a group and $\{\mu_i : i \in I, I \text{ be an arbitrary index Set}\}$ be a family of fuzzy subgroups of \times . Let $x \in \times = x^{-1} \in \times$.

$$\text{We have } \bigcap_{i \in I} \mu_i(xy) = \inf_i \mu_i(xy) \geq \inf_i \min\{\mu_i(x), \mu_i(y)\}$$

$$\geq \min\left\{\inf_i \mu_i(x), \inf_i \mu_i(y)\right\}$$

$$\geq \min\left\{\bigcap_{i \in I} \mu_i(x), \bigcap_{i \in I} \mu_i(y)\right\}$$

$$\text{Thus } \bigcap_{i \in I} \mu_i(xy) \geq \min\left\{\bigcap_{i \in I} \mu_i(x), \bigcap_{i \in I} \mu_i(y)\right\}$$

$$\text{Also } \left[\bigcap_{i \in I} \mu_i \right] (x^{-1}) = \inf [\mu_i(x^{-1})] \geq \inf [\mu_i(x)]$$

$$= \left[\bigcap_{i \in I} \mu_i \right] (x)$$

$$\text{Thus } \left[\bigcap_{i \in I} \mu_i \right] (x^{-1}) \geq \left[\bigcap_{i \in I} \mu_i \right] (x)$$

$$= \left[\bigcap_{i \in I} \mu_i \right] \text{ is a fuzzy subgroup}$$

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Hawaishop: Plunging Ahead for Global Market

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ABSTRACT

The present market scenario in India is very dynamic due to exponential penetration of internet and data revolution. Hence it has turnstiled the arrival of numerous online shopping portals of both indigenous and international origin. In the midst of their growth phase, many online shopping entrepreneur have struggled to survive inspite of having deep seated sustainable market potential. The present case study is an approach to explore the potential of Start up based Online shopping portals in India as well as a trajectory of Hawaishop from local organization to global brand through adoption of various strategies and overcoming challenges.

Company Background

Hawaishop is now a renowned brand for exporting leather based finished items and online shopping for such products like wallets, bags. It was co-founded by Mr. Shirshendu Ghosh. The organization exports wide variety of wallets, purses and bags. The client of the organization is from European country like Germany and other nations like Poland, Netherland, Australia and South Korea etc. Previously, they had registered their vendor in flipkart. Their merchandise mainly belongs to handicrafts and few varieties of leather based item initially. Later they had diversified their products to selective ranges of leather products. But their sales fluctuated (was not well enough) highly due to increased competition through other vendors. The organization decided to launch their own online portals. Hence online shopping startup as Hawaishop.in was launched to achieve the vision and mission of the organization in a more efficient way.

Market for online portals in India

The online shopping market in India is growing with striking inflection at prodigious pattern since 2013. The internet penetration and increased number of mobile users has made it in competitive favorable list among the countries like USA and China. Though the adoption rate of online shopping technology was slow in India as compared to USA, but India have shown increased Internet users specially after disruptive strategy adapted by few brands. India's ecommerce market was worth 12.6\$ billion in 2013. In 2014, their growth expanded to 16.32USD billion. In 2016 B2C ecommerce market have shown growth of 31.31 USD billion indicating unparalleled growth. In 2013 the global share of B2C ecommerce Sales was 1.4%. Later this trend have increased with increased share in global platform resulting into increased share of 1.7% and 1.8% in 2015 and 2016 respectively.

Similar trends have been observed in retail ecommerce sales. The initial retail ecommerce sales growth was 3.59 USD dollar billion in 2012 and with recent increased contribution leading to 7.69 USD,10.68 USD and 14.18 USD billion in 2015,2016 and 2017 respectively.

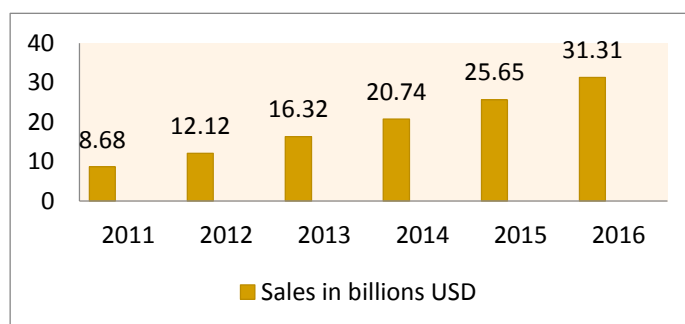


Exhibit 1: B2C E Commerce sales consecutively from 2011 to 2016

Source: www.fundoodata.com

Market of Leather Industry in India

Indian Leather industry has faced several phases of change due to Socio Economic and policy level changes at both micro level as well as macro level. During the time of 70's, India was a major exporter of raw materials required for making finished leather products. But as time passed with changes in Our Country, India is now among the major contributors of Leather based finished goods to other countries. The factors behind these can be attributed to globalization and liberalization in trade policies. Besides these, India has become biggest livestock producer in the world, which also make it one of the major leather producing as well as the exporter of the world. Currently, India produces about 2065 million pairs of various categories of footwear and exports about 115 million pairs.

Indian leather Industry is one of the oldest manufacturing Industries in India. The quality of Indian leather along with availability of cheap labour and craftsmanship of workers has made Indian Leather Industry demanding throughout the globe.

Production and Manufacturing in leather industry:

Constituents of Leather Industry in India

Livestock:

India holds a sufficient livestock to meet its domestic demand as well as it is having sufficient capacity to become top exporter. According to 18th Livestock census India have ranked top in livestock numbers of cattle and buffalo.

Raw Hides and Skins: The basic raw materials for the leather Industry is hides and skins of animals which are obtained from meat industry as by product.

Tanneries: According to the reports from Central Leather Research institute, there are about 378 tanneries in UP and 538 tanneries in West Bengal.

Leather Making: The leather making process consists of following steps: 1) Liming 2) Deliming 3) Bating

4) Pickling 5) Tanning 6) Neutralization 7) Retaining 8) Dying 9) Fat liquoring 10) Drying 11) Finishing

Production and Trading of Final Products: The leather which has been converted to consumable leather is then subjected to buying, selling and marketing activities.

Launch of Hawaii Shop:

In 2013, Mr.Sirsendu decided to sell its own products through its own portal known as Hawaii shop. The address of the portal is <http://www.hawaishop.in/>. The company started selling wallets and bags. But it was firstly available for domestic market. Though there were low meager revenue generation from the domestic market initially, the founders of the brand want to increase their revenue and increase the brand cognizance to the larger number of consumers.

Product Profile:

Wallets: Wallet was one of the flagship product of the company. It was available in brown and black colour. Wallets are available under the following brand name:

- i) Hawaii Elegant Tan Color Men's Wallet
- ii) Hawaii Casual Canvas Men's wallet
- iii) Hawaii Bi-Folder Black Wallet for Men

Documents and Card Holder: It was launched in tan colour, black and brown. It was launched under following brand name

- i)Hawaii Tan colour Card Holder
- ii) Hawaii Men Black genuine Leather document holder
- iii) Hawaii Black Travel Passport holder
- iv) Sling Bags: Varieties are given below:
 - a) Hawaii Modish Leather Sling(Tan)

Serial Number	Category	Number of Products	Sub Category	Product variety
1	Men	1263	Leather Wallets Documents and Card Holder Sling Bags Backpacks and Laptop Bags Utility Bags	Hawai brown smooth high quality leather belt, Hawai elegant tan color mens wallet Hawai canvas hunter leather wallet for men, Hawai premium 24 slit card holder,Hawai brown passport holder
2	Women	3842	Clothing Bags and Wallets Eyewear Jewellery	Adone women brown genuine leather ladies wallet (4 card slots),hawai women multicolor artificial leather wallet,hawai women casual brown, black clutch, hawai

				beautiful leather bag for women
3	Unisex	245	Bags Eyewear	Adone exclusive black genuine leather sling bag,hawai smart genuine leather sling bag/ messenger bag (tan),hawai yellow temple RECTANGLE FULL RIM EYEGLASS

b) Adone Three Zip Stylish Leather Sling Bag (Tan),

Competitive Landscapes: When Hawaii launched its own products through online portals, there were many domestic and international competitors available. Especially in retail offline stores, there were Sreeleathers, Khadims. But this brands mainly produces and market shoes majorly. But fewer brands have wallets and belts as its major product for market penetration. In the meantime a brand known as Wild Horn was launched. WildHorn have also diversified range of leather products such as wallets, Messenger Bags, Laptop Bags, Belts, Shoes. For women, it contains other range of products like wallet, bag and belt. The Wild Horn is known for its low priced quality leather products. Hence the platform for Hawaishop was not so easy to upsurge their sales. Firstly, Wild Horn have unique distribution strategy: The wild horn was at some advantageous position due to its good relation with its manufacturing vendors. This gives wild horn a favorable position to launch and sell its products at lower price. This was a challenging factor for hawaishop as its founder have aimed to increase the revenue generation and reaching to more number of the consumers.

Strategies I at Initial stage: Hawaishop started finding the factors to be at competitive advantageous position and increase its cognizance to more number of people. The Co-founders and management team decided to focus on the quality assurance and quality testing. Since in the meantime reports about the returns of many leather products have been obtained.

Major reasons of returns:

- i) Colour fading of wallets
- ii) Broken Buttons of the wallets.

The company revamp its quality assurance and quality testing policies. They have strictly instructed its manufacturing vendor to have quality testing especially with regards to colour testing and fading. They have organized sessions with the manufacturing hub and framed their policies after deep discussion with them. After that the colour of the product was tested and then packed, the buttons of the wallets was checked properly. The fitting and designing unit of the manufacturing plant was informed about this issues and quality control was also done in this finishing department. Hence Hawaishop revamp its quality control and quality assurance policies.

Strategy II at Initial stage:

Orientation for Global Market: The Company now decided to increase its product penetration in the global market. For this the company started registering its portals and product information in various online portals which are specifically made for export market. This had helped company to communicate with people worldwide about their products and their hardship they bear for crafting and designing their products.

The Hawaishop have registered them in the following platforms:

Indiamart: The Indiamart is Indian B2B market place. It is the second largest in its domain after Alibaba.com. The company (Hawaishop) had registered itself in the Indiamart.

Alibaba.com: It is a multinational company providing platform for consumer to consumer, Business to consumer, and business to business platform. It provides services in Business to Business services through providing payment services, shopping search engines, and cloud computing services. The business to business venture of alibaba group is known as alibaba.com. Hawaishop had also registered itself in the portal to increase its export operations over other countries of the world.

Client response: Though Hawaishop had registered itself in the Indiamart earlier, but client response was on moderate rate. Over the year, they had obtained only one or two clients with medium bulk order. After registering themselves with the alibaba, they got more number of response as compared to Indiamart. The reason can be attributed to better cognizance of the alibaba.com and its wider range of services to its clients which positioned it at favourable strategic location as compared to Indiamart. The Hawaishop got response from the following countries:

RESPONSE TIME	COUNTRIES
INITIALLY	AUSTRALIA
	BAHARAIN
Middle	USA
	AUSTRALIA
	GERMANY
LATER	NETHERLAND
	POLAND
	SINGAPORE

Competitive landscape globally:

Competition from China: Hawaishop had started its business with its international clients. All the formalities related to export of materials have been accomplished properly. But they have faced strict competition from Chinese exporters. China was manufacturing leather based finished items like wallets, bags and other products from artificial leather. On the other hand they were selling the products at cheaper prices. The artificial leather was so expertly furnished that it was hard to distinguish them from original leather from layman's point of view. This condition was challenging factor in global market.

Challenges due to changing scenario of demand pattern: Another problem raised due to changing demand patterns from the clients across globe. Initially orders were given in bulk quantity of items belonging to same items. But contemporary trends of export order have changed drastically. Now the clients place

the order of few quantities but of different designs.it means few quantities of one design are placed. This had provided hurdle for the bigger manufacturing plants. But newer entrepreneurs have taken this changing pattern of orders placement in their own court.Hawaishop had tackled this condition well-crafted planning and design.

Strategies to increase export revenue:

Increasing Digital Content: Hawaishop used the digital media to increase their trustability.Whenever any clients communicate to them through portals like alibaba.com, Indiamart they communicate to them with proper responsiveness and timeliness. They told clients about their manufacturing plants, warehouses and operational offices through showing them live videos. Even they have uploaded their videos in the YouTube. Few of their products had been uploaded and advertised in Youtube, Facebook. This has helped them to increases trustability among the clients.

Quality control and Quality Assurance: In the later phase, they have strengthened their quality control and quality assurance system and policy. They have also targeted to execute their operations ranging from manufacturing to design and production of finished product. Besides these, the initial problem of colour fading have been minimized to reduce the return rate. Reduction of return rate have saved a greater expense as returning items from global market was quite cost incurring.

Cross cultural demands: Cross culturally the clients are of different in nature.it was reported to Hawaishop from clients in Australia that customers want warranty and validity cards of the products. The company responded to this feedback immediately. They started giving warranty cards with the products.

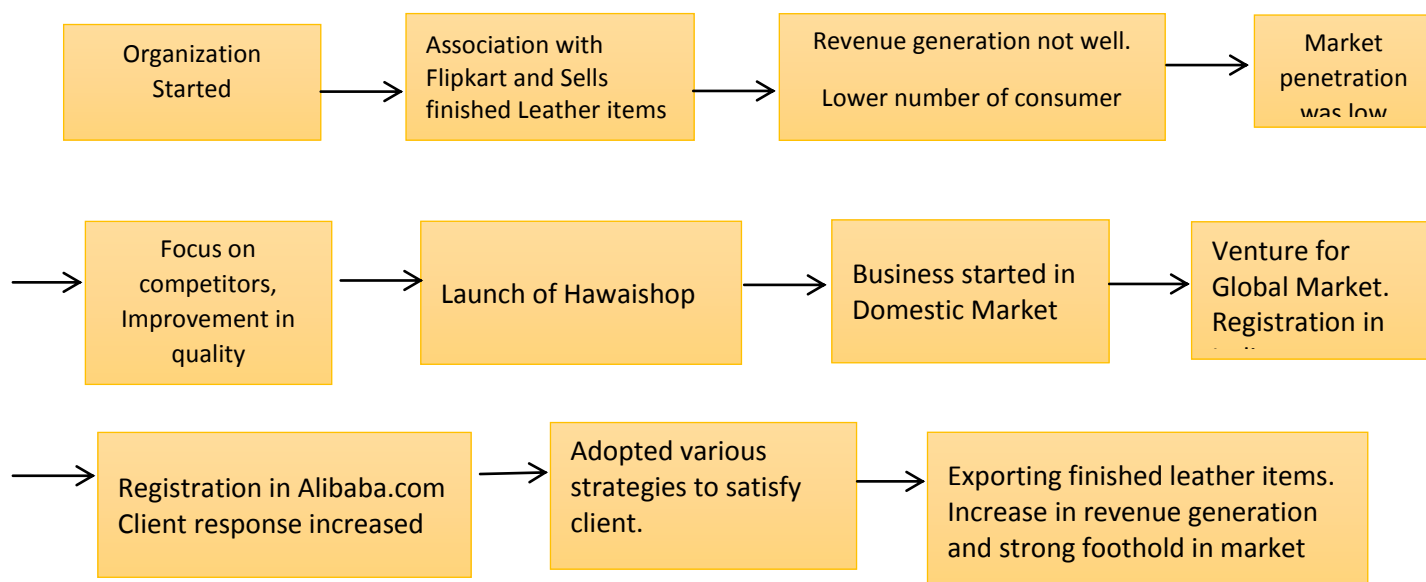
Packaging of International Standards: Packaging is the very essential step to increase the consumer's affinity towards a product. Packaging leaves a psychological impact among the consumers. It creates a sense of surprise element among the consumers mind. More the layers in the product packaging, more the surprising elements it creates. This gives a positive impact among the consumers about the product and leaves a deep impression.

Providing Hanger Clips: The products exported were even sold to the departmental stores and shopping malls. To display the products properly, this product requires hangers.Hawaishop even included hangers with each product without comprising the quality. They have applied the system of lean management and quality principles to optimize their operational expense. The strategy adopted by the company helped it to achieve client as well as consumer's satisfaction.

Providing barcode labels: The organization started labeling barcode on each product. This have helped the international clients in proper inventory management and Automatic Identification and Data Capture (AIDC) while selling.

Concluding Remark: After applying this strategy, the client response have increased remarkably. Majority of the client was from Australia, Germany and Netherland etc. The quantity of orders have increased which have helped to increase the revenue generation as well as brand cognizance. For example, the clients from Australia have given total order worth 80lakhs from 2016 to 2018.Similar trends of increased amount of order have been recorded for other countries too.Henceforth,the adoption of digital web portals and customizing the operational and marketing strategy according to clients have helped Hawaishop to plunge ahead for global market.

Conceptual Framework of Case Study:



Exhibits

Serial Number	Country	Revenue from export(INR)
1	Australia	80 Lakhs
2	Germany	60 lakhs
3	Netherland	30 lakhs
4	South Korea	10 lakhs
5	Bahrain	8 lakhs
6	USA	12 lakhs
7	Poland	14 lakhs
8	England	7 lakhs

Exhibit 1: Table showing the revenue generation from export country wise

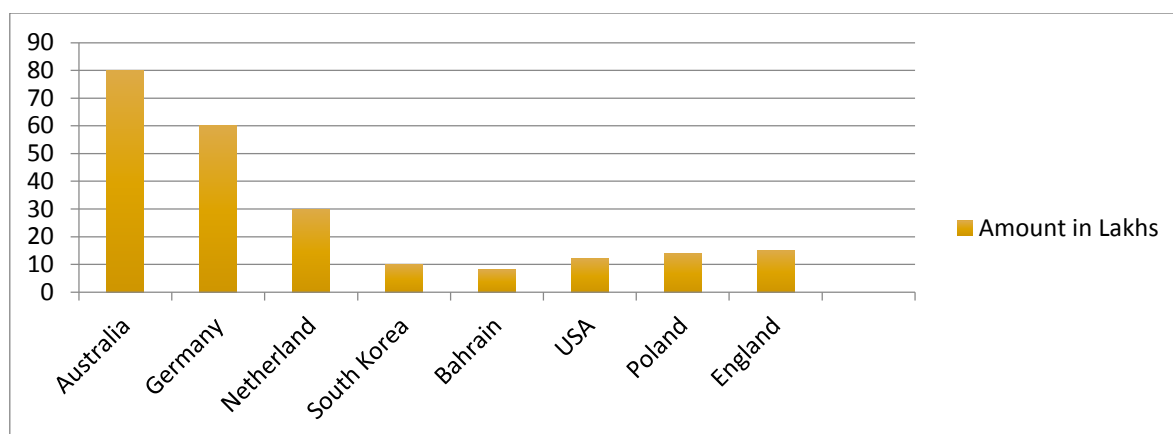


Exhibit 2: Histogram showing amount of revenue generated from export from 2016 to 2018.

Revenue earned from export

Serial Number	Country	Number of Clients
1	Australia	2
2	Germany	2
3	Netherland	1
4	South Korea	1
5	USA	1
6	Bahrain	1
7	Poland	1

Exhibit 3: Table showing the number of clients from 2015 to 2018.

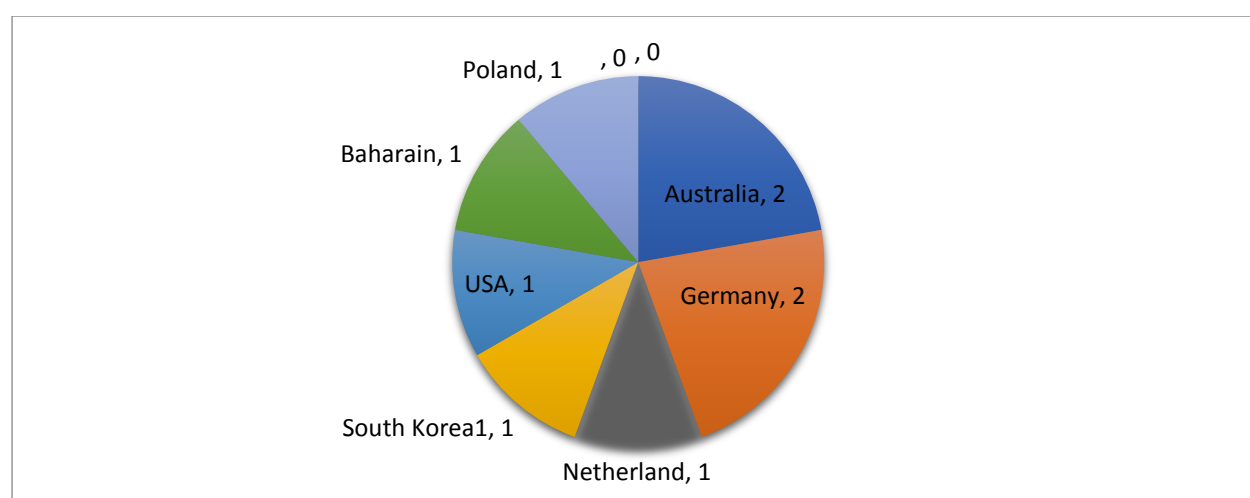


Exhibit 4: Pie Chart showing number of clients globally.

Serial Number	Country	Revenue generated in 2016-2017(in lakhs)	Revenue generated in 2017-2018(in lakhs)	Percentage increase in revenue from export
1	Australia	37	43	13.95
2	Germany	27	33	18.18
3	Netherland	0	30	100
4	South Korea	0	10	100
5	USA	0	12	100
6	Bahrain	0	8	100
7	Poland	5	14	64.28
8	England	0	7	100

Exhibit 5: Table depicting the percentage increase in revenue from export between 2016-2017 and 2017-2018

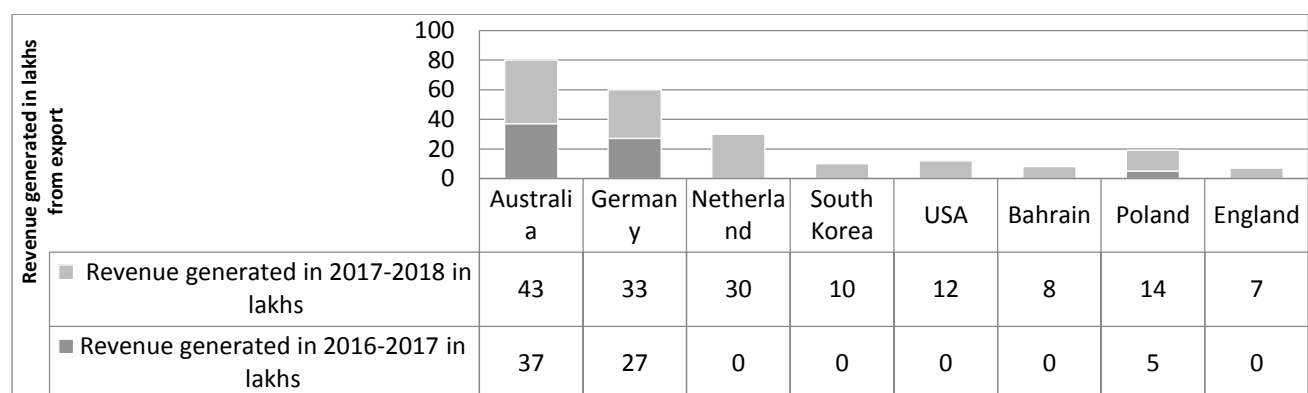


Exhibit 6: Comparative revenue generation analysis from export country wise

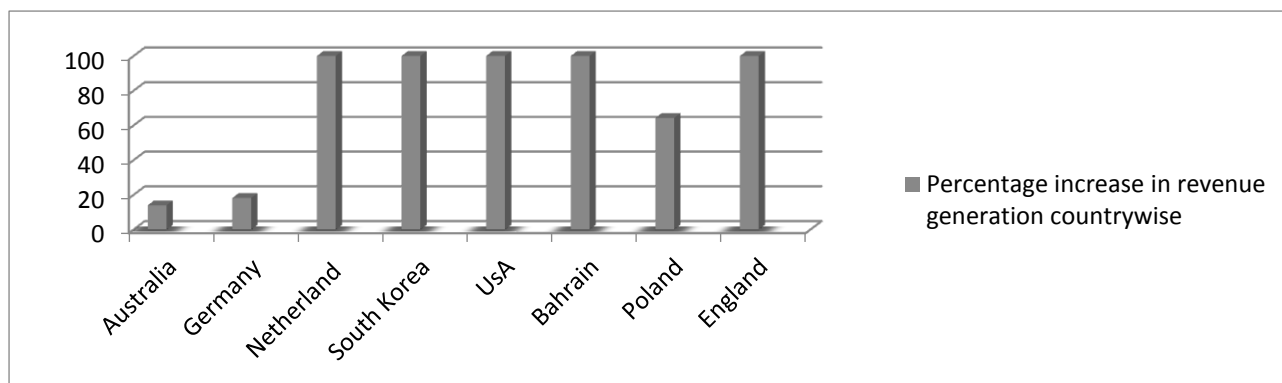


Exhibit 7: Comparative analysis depicting percentage increase in revenue generation from export between 2016-2017 and 2017-2018.

A Study on Some Theorems on Fuzzy Prime Ideal of Gamma-Ring

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ABSTRACT

In this paper, we study about fuzzy prime ideal of a Γ -ring via its operator rings.

We will obtain a characterizations of fuzzy primary ideals of a Γ -ring and proved several theorems related to the fuzzy prime ideals of gamma-rings.

Introduction

The notion of fuzzy ideal in Γ -ring was introduced by Y.B. Jun and C. Y. Lee in 1992. Some earlier work on fuzzy ideals of Γ -ring may be found in the work of Dutta and Chanda. They studied some properties of fuzzy ideals of Γ -ring. In this paper, we prove a characterization of a fuzzy prime ideal, already obtained by Jun, in different way and also get few more characterizations of fuzzy prime ideal of a Γ -ring.

Some basic definitions and examples

Definition 2.1 Γ - Ring

Let M and Γ be two additive Abelian groups. M is called a Γ -ring if There exists mapping $F: M \times \Gamma \times M \rightarrow M$, $f(a, \alpha, b)$ is denoted by $a\alpha b$, $a\alpha b \in M$, $a \in \Gamma$, satisfying the following conditions for all $a, b, c \in M$ and for all $\alpha, \beta, \gamma \in \Gamma$;

1. $(a + b)\alpha c = a\alpha c + b\alpha c$,
2. $a(\alpha + \beta)b = a\alpha b + a\beta b$,
3. $a\alpha(b + c) = a\alpha b + a\alpha c$, and
4. $a\alpha(b\beta c) = (a\alpha b)\beta c$.

Definition 2.2: Left Ideal of Γ – Ring

A subset A of a Γ - ring M is called a left ideal of M if A is an additive subgroup of M and $m\alpha a \in A$ for all $m \in M$, $\alpha \in \Gamma$, $a \in A$.

Definition 2.3: Right Ideal Γ – Ring

The subset A of the Γ – ring M be called a right ideal of m if A is an additive subgroup of M and $a\alpha m \in A$ for $m \in M$, $\alpha \in \Gamma$, $a \in A$. if A is a left and right of M then A is called a two sided ideal of M or simply an ideal of M .

Definition 2.4: Commutative Γ – Ring

A Γ – Ring M is said to be commutative if, $a\gamma b = b\gamma a$ for all $a, b \in M$, $\gamma \in \Gamma$.

Definition 2.5: Right Operator Ring

Let M be a Γ -ring and F be the free abelian group generated by $\Gamma \times M$. Then $A = \{ \sum_i n_i (\gamma_i, x_i) \in F : a \in m \Rightarrow \sum_i n_i a \gamma_i, x_i = 0 \}$ is a subgroup of F .

Let $F = \frac{F}{A}$ be the factor group of F by A . Let us denote the coset $(y, x) + A$ by $[y, x]$. It can be verified that

$$[\alpha, x] + [\beta, x] = [\alpha + \beta, x], \text{ and}$$

$$[\alpha, x] + [\alpha, y] = [\alpha, x + y], \text{ for all } \alpha, \beta \in \Gamma \text{ and } x, y \in M.$$

We define a multiplication in R by

$$\sum_i [\alpha_i, x_i] \sum_j [\beta_j, y_j] = \sum_{ij} [\alpha_i, x_i, \beta_j, y_j].$$

Then R forms a ring. This ring R is called the right operator ring of the Γ -ring M .

Definition 2.6: Left Operator Ring

Similarly we can construct left operator ring L of M , where $L = \{ \sum_i [x_i, \alpha_i], x_i \in M, \alpha_i \in \Gamma \}$ and the multiplication on L be defined by $\sum_i [x_i, \alpha_i] \sum_j [y_j, \beta_j] = \sum_{ij} [x_i, \alpha_i, y_j, \beta_j]$. For the subsets $N \subseteq M, \phi \subseteq \Gamma$, we denote it by $[\phi, N]$ the set of all finite sums $\sum_i [\gamma_i, x_i]$ in R where $\gamma_i \in \phi$ and $x_i \in N$ and we denote by $[(\phi, N)]$ the set of all element $[\emptyset, x]$ in R , where $\emptyset \in \phi$ and $x \in N$. This in particular,

$$R = [\Gamma, M] \text{ and } L = [M, \Gamma].$$

3. Fuzzy Primary Ideal of a Γ -Ring

Let \mathfrak{z} be a fuzzy ideal of a Γ -ring M . Then \mathfrak{z} is called a fuzzy primary ideal of M . If \mathfrak{z} is non-constant and for any two fuzzy ideals μ, ν of M , $\mu \Gamma \nu \subseteq \mathfrak{z} \Rightarrow \mu \subseteq \mathfrak{z} \text{ or } \nu \subseteq PR(\mathfrak{z})$.

Theorem 3.1

Let $\mu \in FPI(M)$. Then μ is a fuzzy primary ideal of M if and only if μ is non-constant and $\sigma_0 \theta \subseteq \mu$ where, $\sigma, \theta \in FI(M)$. Implies that either $\sigma \subseteq \mu$ or $\theta \in PR(\mu)$.

Proof

The proof follows since $\sigma_0 \theta \subseteq \mu$ if and only if $\sigma_0 \Gamma \theta \subseteq \mu$. Where, $\sigma, \theta \in FI(M)$.

Lemma

If \mathfrak{z} be a fuzzy ideal of M such that $\mathfrak{z}(0_m) = 1$ then $PR(\mathfrak{z}_*) \subseteq (PR(\mathfrak{z}))_*$, where $PR(\mathfrak{z}_*) = \cap \{P : P \text{ is a prime ideal of } M, \text{ such that } \mathfrak{z}_* \subseteq P\}$.

Proof

Let $x \in PR(\mathfrak{z}_*)$. Then $x \in p$ for all prime ideals p of M such that $\mathfrak{z}_* \subseteq p$.

Let θ be a fuzzy prime ideal of M such that $\mathfrak{z} \subseteq \theta$. Let, $m \in \mathfrak{z}_*$. Then $\mathfrak{z}(m) = \mathfrak{z}(0_m) = 1 = \theta(m)$; so $m \in \theta_*$. Hence $\mathfrak{z}_* \subseteq \theta$. As θ is a fuzzy prime ideal of M , θ_* is a prime ideal of M . Also, $\mathfrak{z}_* \subseteq \theta$. So $x \in \theta_*$. Hence $\theta(x) = \theta(0_m) = 1$. Now

$$(PR(\mathfrak{z}))(x) = (\cap (\mathfrak{z}_*)) (x)$$

$$\begin{aligned}
 &= \inf[\theta(x) : \theta \in FPI(M), \mathfrak{z} \subseteq \theta] \\
 &= 1 \\
 &= (PR(\mathfrak{z}))(0_m).
 \end{aligned}$$

So $x \in (PR(\mathfrak{z}))_*$. Thus $PR(\mathfrak{z}_*) \subseteq (PR(\mathfrak{z}))_*$.

Theorem 3.2

Let \mathfrak{z} be a fuzzy subset of a Γ -ring M . If $\mathfrak{z}(0_m) = 1$. \mathfrak{z}_* is a primary ideal of M and $\mathfrak{z}(m) = \{1, t\}$ where $t \in [0, 1]$. Then \mathfrak{z} is a fuzzy primary ideal of M .

Proof

Clearly \mathfrak{z} is non-constant and \mathfrak{z} is a fuzzy ideal of m as \mathfrak{z}_* is an ideal of $m[\mathfrak{z}]$. Let μ, ν be two fuzzy ideals of the Γ -ring M such that $\mu \Gamma_\nu \mathfrak{z}$. Suppose that $\mu \not\subseteq \mathfrak{z}$ and $\nu \not\subseteq PR(\mathfrak{z})$. Then there exist $x, y \in M$ such that $\mu(x) > \mathfrak{z}(x)$ and $\nu(y) > PR(\mathfrak{z})(y)$. Since $\mathfrak{z}(0_m) = 1 = PR(\mathfrak{z})(0_m)$, $x \notin (\mathfrak{z}_*)$ and $y \notin (PR(\mathfrak{z}_*))_*$.

$y \notin (PR(\mathfrak{z}_*))_*$. Again since $(PR(\mathfrak{z}_*) \subseteq (PR(\mathfrak{z}))_*$, $y \notin (PR(\mathfrak{z}_*))$. Hence $x \Gamma m \Gamma y \notin (\mathfrak{z}_*)$ as \mathfrak{z}_* is a primary ideal of M . hence $\mathfrak{z}(x \gamma_1 m \gamma_2 y) = t \neq 1$ for some $\gamma_1 \gamma_2 \in \Gamma, m \in M$. Since $x \notin (\mathfrak{z}_*)$, $\mathfrak{z}(x) \neq \mathfrak{z}(0_m) = 1$. So $\mathfrak{z}(x) = t$, hence $\mu(x) > \mathfrak{z}(x) = t$. Again since $\mathfrak{z}(y) \leq [PR(\mathfrak{z})(y)] < \nu(y)$, $\mathfrak{z}(y) \neq 1$. So $t = \mathfrak{z}(y) < \nu(y)$.

Now $t = \mathfrak{z}(x \gamma_1 m \gamma_2 y) \geq (\mu \Gamma \nu)(\mu \gamma_1 m \gamma_2 y) > \min\{\mu(x), \nu(y)\} > t$ which is a contradiction. Hence \mathfrak{z} is a fuzzy primary ideal of M .

Corollary 3.1

If Q is a primary ideal of M , then λ_Q is a fuzzy primary ideal of M .

Proof

Clearly $\lambda_Q(0_m) = 1$, $\lambda_Q(m) = \{1, 0\}$ and $(\lambda_Q)_* = Q$ is a primary ideal of M . Hence λ_Q is a fuzzy primary ideal of M .

Theorem 3.3

Let M be a Γ -ring And \mathfrak{z} be a non-constant fuzzy ideal of M . Then there exists a fuzzy prime ideal of μ of M such that $\mu \in \mathbb{V}\mathfrak{z}$.

Proof

Since \mathfrak{z} is not-constant, there exists $m \in M$ such that $\mathfrak{z}(m) \neq \mathfrak{z}(0_m)$. Let

$\mathfrak{z}(m) < t < \mathfrak{z}(0_m)$. Then $\mathfrak{z}_t \neq M$ and \mathfrak{z}_t is an ideal of M . So there exists a prime ideal p of M such that $\mathfrak{z}_t \subset p \subset M$. Let μ be a fuzzy subset of M defined by

$$\mu_{(m)} = \begin{cases} 1, & \text{if } m \in p \\ t, & \text{if } m \notin p. \end{cases}$$

Then μ is a fuzzy prime ideal of M , let $x \in M$. Then either $\mathfrak{z}(x) \geq t$ or $\mathfrak{z}(x) < t$. If $\mathfrak{z}(x) < t$ then obviously $\mathfrak{z}(x) \leq \mu(x)$. If $\mathfrak{z}(x) \geq t$ then $x \in \mathfrak{z}_t \subset p$, so $\mu(x) = 1$. Hence $\mathfrak{z}(x) \leq \mu(x)$. Thus $\mathfrak{z} \subseteq \mu$. Hence $\mu \in \mathbb{V}\mathfrak{z}$.

Theorem 3.4

Let M be a Γ -ring and $\sum_{i=1}^k [\delta_i, e_i]$ $\delta_i \in \Gamma, e_i \in M$, where, $i = 1, 2, 3, \dots, n$, be the right unity of m and \mathfrak{z} be a non-constant fuzzy ideal of M .

Let $m \in M$ be such that $\min_i \{\mathfrak{z}(e_i)\} < \mathfrak{z}(m)$. Then there exists $e \in \{e_i : i = 1, 2, 3, \dots, n\}$, such that $(PR(\mathfrak{z}))(e) < \mathfrak{z}(m)$.

Proof

Let $\mathfrak{z}(m) = s$ and $\min_i \{\mathfrak{z}(e_i)\} = t = \mathfrak{z}(e^1)$, where $e^1 \in \{e_i : i = 1, 2, 3, \dots, n\}$. Let $t < r < s$. Then \mathfrak{z}_r is a proper ideal of M , since $e^1 \notin \mathfrak{z}_r$. Let P be a prime ideal of M such that $\mathfrak{z}_r \subseteq P$ $p \neq m$. Let μ be a fuzzy subset of M defined by,

$$\mu_{(m)} = \begin{cases} 1, & \text{if } m \in p \\ t, & \text{if } m \notin p. \end{cases}$$

Then we can prove theorem 3.3, $\mu \in \mathbb{V}\mathfrak{z}$.

Now as P is a proper ideal of M , there exists at least one $e \in \{e_i : i = 1, 2, 3, \dots, n\}$.

Such that $e \notin P$ for if $e_i \in P$ for all $i = 1, 2, \dots, n$, then $x = \sum_i x \delta_i e_i \in P$ for all $x \in M$ that is $P = M$. a contradiction. Hence $\mu(e) = r$. As $\mu \in \mathbb{V}\mathfrak{z}$, $PR(\mathfrak{z}) \subseteq \mu$. Now, $(PR(\mathfrak{z}))(e) \leq \mu(e) = r < s = \mathfrak{z}(m)$.

Theorem 3.5

If \mathfrak{z} be a fuzzy ideal of M such that $\mathfrak{z}(M) = \{1, t\}$, where $t \in [0, 1]$. Then $(PR(\mathfrak{z}))_* \subseteq PR(\mathfrak{z}_*)$.

Proof

Let $x \in (PR(\mathfrak{z}))_*$. Then $(PR(\mathfrak{z}))(x) = (PR(\mathfrak{z}))(0_m) = 1$. This implies that $\theta(x) = 1$ for all fuzzy prime ideal θ of M with the condition $\mathfrak{z} \subseteq \theta$. Thus $x \in \theta_*$ whenever $\theta \in FPI(M)$, $\mathfrak{z} \subseteq \theta$. Let P be a prime ideal of M such that $\mathfrak{z}_* \subseteq P$. Now we define a fuzzy subset V of m in the following way,

$$V(m) = \begin{cases} 1, & \text{if } m \in P \\ s, & \text{if } m \notin P \end{cases} \quad \text{where } s \in [0, 1], s > t.$$

Then V is a fuzzy prime ideal of M such that $\mathfrak{z} \subseteq v$, hence $x \in v_* = P$ so $x \in \cap P$, where P is a prime ideal of M with the definition $\mathfrak{z}_* \subseteq P$. Hence $x \in PR(\mathfrak{z})$. Thus we have $(PR(\mathfrak{z}))_* \subseteq PR(\mathfrak{z}_*)$. Now we have the converse of the theorem 3.2

Theorem 3.6

Let M be a Γ -ring and \mathfrak{z} be a fuzzy primary ideal of M . Then $\mathfrak{z}(0_m) = 1$, $|\mathfrak{z}(m)| = 2$ and \mathfrak{z}_* is a primary ideal of M .

Proof

Suppose that $\mathfrak{z}(0_m) = s < 1$. let $\{\min_i \{\mathfrak{z}(e_i)\} = r < \mathfrak{z}(0_m)\}$. Then there exists $e \in \{e_i: i = 1, 2, 3 \dots \dots n\}$ such that $(PR(\mathfrak{z}))(e) = t < s$ (theorem 4.11). Let $s < q \leq 1$. Then $r \leq t < s < q \leq 1$. Let μ, ν be two fuzzy subsets of M defined by $\nu = s_m$ and $\mu(x) = q$.

$$\mu(x) = \begin{cases} q, & \text{if } x \in \mathfrak{z}_* \\ r, & \text{if } x \in \mathfrak{z}_* \end{cases}$$

Then μ, ν be two fuzzy ideals of M . Let $x \in M$. If $x \in \mathfrak{z}_*$ then $\mathfrak{z}(x) = s$ and $(\mu \Gamma \nu)(x) \leq s = \mathfrak{z}(x)$, since $\nu(x) = s$ now if $x \notin \mathfrak{z}_*$, then since $\mu(x) = r$, $(\mu \Gamma \nu)(x) = r = \min_i \{\mathfrak{z}(e_i)\} \leq \mathfrak{z}(x)$. So $\mu \Gamma \nu \subseteq \mathfrak{z}$. Now $\mu(0_m) = q > s = \mathfrak{z}(0_m)$, so $\mu \not\subseteq \mathfrak{z}$. Again for some $e \in \{e_i: i = 1, 2, 3 \dots \dots n\}$, $\nu(e) = s > t = (PR(\mathfrak{z}))(e)$. Hence $\mu \not\subseteq \mathfrak{z}$, $\nu \not\subseteq PR(\mathfrak{z})$.

That is a contradiction since \mathfrak{z} is a fuzzy primary ideal of M . Hence $\mathfrak{z}(0_m) = 1$. Since \mathfrak{z} is non-constant, $|\mathfrak{z}(m)| \geq 2$. Suppose that $|\mathfrak{z}(m)| \geq 3$. Let $\{\min_i \{\mathfrak{z}(e_i)\} = r$.

Then there exists $s \in \mathfrak{z}(m)$ such that $r < s < 1$. Let $m \in M$ be such that $\mathfrak{z}(m) = s$. Then there exists $e \in \{e_i: i = 1, 2, \dots \dots n\}$ such that $(PR(\mathfrak{z}))(e) < \mathfrak{z}(m)$. Let μ, ν be two fuzzy subsets of M such that $\nu = s_m$,

$$\mu(x) = \begin{cases} 1, & \text{if } x \in \mathfrak{z}_s \\ r, & \text{if } x \notin \mathfrak{z}_s \end{cases}$$

Then μ, ν be two fuzzy ideals of m and $\mu \Gamma \nu \subseteq \mathfrak{z}$. Now $\mu(m) = 1 > s = \mathfrak{z}(m)$. Thus $\mu \not\subseteq \mathfrak{z}$. For some $e \in \{e_i: i = 1, 2, 3 \dots \dots n\}$, $\nu(e) = s = \mathfrak{z}(m) > (PR(\mathfrak{z}))(e)$. Thus neither $\mu \subseteq \mathfrak{z}$ nor $\nu \subseteq PR(\mathfrak{z})$, which is a contradiction hence, $|\mathfrak{z}(m)| = 2$.

Let $\mathfrak{z}(m) = \{1, t\}$, where $t \in [0, 1]$. Let A and B be two ideals of M such that $A \Gamma B \subseteq \mathfrak{z}_*$. Let $\mu = \lambda_A$ and $\nu = \lambda_B$. Then $\mu \Gamma \nu \subseteq \mathfrak{z}$. Since \mathfrak{z} is fuzzy primary, either $\mu \subseteq \mathfrak{z}$ or $\nu \subseteq PR(\mathfrak{z})$. If $\mu \subseteq \mathfrak{z}$ then $\subseteq \mathfrak{z}_*$. If $\nu \subseteq PR(\mathfrak{z})$ then, $B \subseteq (PR(\mathfrak{z}))_* \subseteq PR(\mathfrak{z}_*)$ (theorem 4.12). Hence \mathfrak{z}_* is a primary ideal of M .

Corollary 3.2

Let Q be an ideal of M such that λ_Q is a fuzzy primary ideal of M . Then Q is a primary ideal of M .

Proof

Since λ_Q is a fuzzy primary ideal of M , $(\lambda_Q) = Q$ is a primary ideal of M .

Theorem 3.7

Let M be a Γ -ring and \mathfrak{z} be a fuzzy primary ideal of M . Then $PR(\mathfrak{z})$ is a fuzzy prime ideal of M .

Proof

Since \mathfrak{z} is a fuzzy primary ideal of M , $\mathfrak{z}(0_m) = 1$, \mathfrak{z}_* is a primary ideal of M , $\mathfrak{z}(m) = \{1, t\}$, where $t \in [0, 1]$ (theorem 4.13). Now $((PR(\mathfrak{z}))_* = PR(\mathfrak{z}_*))$ is a prime ideal of M and $PR(\mathfrak{z})(x) = 1$, for $x \in \mathfrak{z}_*$. Let μ be a fuzzy subset of m such that

$$\mu(x) = \begin{cases} 1, & \text{if } x \in (PR(\mathfrak{z}))_* \\ t, & \text{if } x \notin (PR(\mathfrak{z}))_* \end{cases}$$

Then $\mu \in \mathbb{V} \mathfrak{z}$ and $\mu_* = ((PR(\mathfrak{z}))_* = PR(\mathfrak{z}_*))$.

Let, $x \notin (PR(\mathfrak{z}))_*$. Then $t = \mathfrak{z}(x) \leq (PR(\mathfrak{z}))(x) \leq \mu(x)$. Thus $PR(\mathfrak{z})(m) = \{1, t\}$, $t \in [0, 1]$, $(PR(\mathfrak{z}))(0_m) = 1$ and $((PR(\mathfrak{z}))_*)$ is a prime ideal of M . Hence $PR(\mathfrak{z})$ is a Fuzzy prime ideal of M .

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Antecedents of HR Challenges in Tourism Industry with reference to Agra

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ABSTRACT

Researchers across the world are actively studying tourism management and its applications in diverse organizational settings to develop the managerial performance. Based on this statement, the primary research objective of this study rests on presenting and validating reasons for the antecedents of HR challenges in the light of skills shortages in tourism, education and training in tourism, recruitment, retention and turnover as a whole. The findings of the study suggest some solutions to improve the quality of skill supplied to the industry and also some implication to make this industry more attractive and lucrative for the potential talented lot. It also focuses on some issues to ensure these challenges which met head-on and can make the workplace more settled and peaceful for everyone.

Introduction

Tourism is generally perceived as being multidimensional, social, cultural, economic and political characteristics. Worldwide tourism is ranked second highest revenue-generating Industry. The foregoing analysis of the growth of tourism in India shows that although the industry has registered an all-round substantial development in the country during the last two-three decades, most of the potential, for its growth has not yet been exploited and much more is left to be desired. The limited, and rather unsatisfactory, growth of this industry in our country has been due to a number of problems it is beset with and various difficulties it has been facing.

The HR Perspective

The tourism industry is facing an acute shortage of skilled manpower and there are many obstacles as far as development of Human Resources in tourism industry is concerned, the conference observed that the people working in tourism industry are highly uneducated, unmotivated, unskilled and unproductive; and these are due to the unattractive salaries and working hours. In India also the salaries paid by the tourism industry are comparatively far less than the salaries paid by the other industries like IT, call centers, retail, banking, insurance, finance, telecom, real estate etc also as tourism sector comprises mostly of small and medium sized enterprises the HR practices are not standardized, lack professional approach, vision, clear career path, secured & long term employment, growth opportunities, learning, development and quality of work life is

resulting in high employee dissatisfaction and attrition moreover a poor perceived image of Hospitality & tourism sector and inadequate and inefficient training and education programs are also discouraging the competent people and talented lot to opt the industry as a career option which is resulting in less and poor supply of manpower.

For this the hospitality and tourism industry is a noteworthy contributor to the economies of many countries. As a result, countries need an educated, skilled and committed workforce to be successful. To fill this need, colleges and university have developed programs to study for improving the quality of human resources (HR) working in this industry. This study considers antecedents of HR challenges and some predictors of commitment to a career in hospitality and tourism among 440 male and 218 female tourism students of Uttar Pradesh. Implications of these findings for university tourism programs and employers of graduates of university tourism programs are offered.

Research Methodology

Objectives of the study

1. To identify the reasons as to why the tourism industry lacks competent professionals and talented lot is not attracted towards the industry to opt it as a career.
2. To analysis the existing infrastructure and facilities available for tourism education and training in India and quality of skills provided by these institutions.
3. To offer some suggestions and solutions to improve the quality of skill supplied to the industry and also some implication to make this industry more attractive and lucrative for the talented lot based on the findings of the study.

Scope of the study

The study confines its analysis to the problems and prospects of human resources in the Indian tourism industry especially with the focus on supply of human resources, problems regarding attraction and retention of talented people in India. The study restricts itself to the Travel trade and 'Tourism sector' and does not include hospitality and other areas. Moreover, the study analyses the Tourism Management Courses being run by various universities and Institutes in India and does not include other diploma or certificate courses being offered by various institutes in tourism and hospitality.

Method

The relevant data for the study has been collected through online, telephonic and field survey conducted on various stakeholders of the industry viz ; educational institutions, students' communities, travel, travel agent's/tour operators, employees of various approved travel agencies in the study area through structured questionnaires, personal interviews, discussions and mails. Two set of questionnaires were designed one for industry stakeholders and another for the student communities pursuing tourism education in various universities and institutes in different part of the states. The questionnaires were sent to 920 students studying in six tourism schools in Agra (Public and Private). 689 surveys were returned. Hence, the response rate became 74.89%

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where 31 incomplete surveys were eliminated. Data was collected during the class time by faculty members in these schools between September 03 and October 25, 2018. Students in the first, second and third year classes were participated. The questionnaire designed had both open and closed ended questions. The observation was done using Likert's scale and the hypotheses were tested. This result is based upon the responses gathered with the help of questionnaire 2 whereas the demographic characteristics were obtained through general check list.

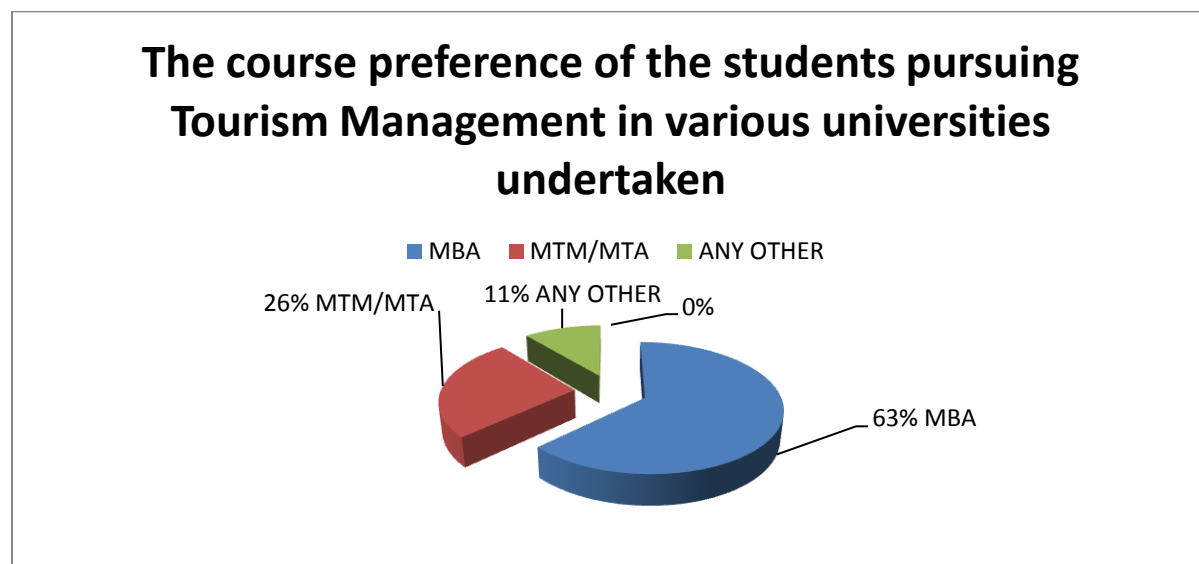
Respondents (Questionnaire 2):

Table 1: Demographic Characteristics		
Gender	N	%
Male	440	66.86
Female	218	33.13
Class		
First	212	32.21
Second	287	43.61
Third	159	24.16
Family Monthly Income (Rs.)		
Less Than 6,000	25	3.79
6,000-10,000	133	20.21
10,001-15,000	167	25.37
15,001-25,000	198	30.09
25,001-35,000	89	13.52
35,001 And Above	46	6.99
Relatives In Tourism		
Yes	102	15.50
No	556	84.49
Choose Career Willingly		
Yes	187	28.41
Somewhat	174	26.44
No	297	45.13
Intend To Work In Tourism		
Yes	156	23.70
Somewhat	239	36.32
No	263	39.96

Questions	Strongly Agree (5)	Agree (4)	Neither Agree Nor Disagree (3)	Disagree (2)	Strongly Disagree (1)	Total
India Tourism Industry lack competent professionals to serve the Industry?	70	51	17	6	8	152
Education and Training Institutions have not been able to churn out the professionals who can meet out the industry's expectations.	48	24	23	30	10	135
The tourism industry has not been able to attract the talented lot to pursue it as a career.	45	32	16	14	11	118

HRD is indisputably one of the best ways to increasing efficiency and introducing organizational change.	56	23	23	13	11	126
The mere acquisition of knowledge is not enough for tourism development.	43	34	24	14	12	127
TOTAL	262	164	103	77	52	658

Table: Showing different responses during survey.



Results and Discussions

- The respondents were strongly agree with the fact the tourism industry lacks competent people one of the major reason for the same was that the people who are joining the industry majority of them are simple graduates and under graduates not having any specific degree or diploma of tourism courses.
- The industry also does not have any specific recruitment policy regarding recruitment of specialized people in the industry. Most of the respondents were agree with the fact that the salary packages offered by the industry are quite less than the salaries offered by other industries in service sector also they were of the opinion that HRD practices in most of the organizations leaving some big organization are missing and there is no clear cut defined career path which is a big impediment as far as talented lot is concerned to take it as a career option.
- Respondents expressed their concern over the fact that still the industry is perceived as the industry of ticketing agents, guides and brokers.
- The young generation still opt MBA as their first course option when they go for management education which indicates that tourism courses have not been promoted well and lack salability.
- Professors and faculties at universities and institutes also admitted that the student

intake in the courses is of average and poor quality; quality students go for MBA and other courses also during the counseling sessions seats of MBA and Finance courses get filled first and the remaining lot then opt for tourism or other courses which clearly shows that the tourism industry which has tremendous employment potential is still not attracting good candidates.

- The courses taught at university seriously lack employability and are very much theoretical in nature; the course curricula have not been revised for long. The syllabus for tourism studies has not been revised as per the need of the current competitive scenario.
- Students pursuing tourism education were of the opinion that the course delivery lacks practical orientation; Guest faculties from the industry are available in big cities but when it comes down to other cities a rare industry interface is available also the course curriculum does not lay much emphasis on soft skills and personality development which is very essential to perform efficiently in the jobs.
- Students also opined that the courses offered are providing the basic level knowledge of tourism and other related discipline, the courses curriculum designed is hybrid in nature covering travel and tour operation, hospitality, airline and cargo management but it seriously lacks specialization in any specific field.
- A strange revealing came out of the survey in a university where some girls revealed that they are pursuing this course because of the family pressure as it is easy to get admission in this course and a management degree helps them in matrimonial purpose.
- In most of the universities and institutes there are only 2-3 faculties who are specialized in tourism education rest of the faculties come from other discipline also there are very few or no faculty development and training programs for competence building of the teachers teaching in tourism department also there are very few facilities available for research and development.
- In some of the universities which are providing varieties of management courses there is no separate placement cell for tourism management courses.

Job Level Requirements (from Questionnaire 1)

LEVEL	REQUIREMENTS
Limited Skill	Range of useful skills is narrow. Involves functional performance of routine tasks with negligible latitude for judgment. No adherence to rigid standards and specifications.
Semi-skilled	The ability to do a practical job of work at a high level of efficiency and manipulative skill to pre-defined and consistent standard. Task involves dexterous use of hands, tools, machines and materials.
Broadly Skilled	Ability to perform wide range of skilled tasks at a higher level of competency, the mental skills to solve problems, make decisions, understand work processes, have better control on TQM and assist in directing other worker's activities. Emphasizes more upon manual skills and the application of knowledge of tools, machines, materials and principles of occupation.
Supervisor	Ability to perform wide range of technical operations at a higher level of

	competency and possesses the supervisory skills necessary to lead and direct others. Functions involved include supervisory and coordinating activities of group of workers.
Technician	Possesses the mental skills necessary to translate the theories of professional education into practical and economic actions at the work place. Capable of specifying production processes, advise and assist professionals in designing work, and have the practical skill to foreseen the continuous improvement to become good.

Conclusion

The HR practices still lack professionalism in most of the organizations in the industry; less salaries, long working hours, improper career path, lack of professional growth, lack of training & development, quality of work life and improper work-life balance are the key issues in tourism industry; which need to be addressed by the industry in order to reduce attrition; moreover a good manpower planning, job description and specification and proper career planning is required at all the level of the organizations. The supply also has not been of quality due to lack of initiatives and actions taken by the educational institutions by not revising the courseware to make it meet to the international standards and requirements of the industry. It is the high time now to take the issues of the quality of supply of talented manpower on priority to keep the industry up on the growth path as it has enormous potential to contribute in the social and economic development of the country.

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General Check-list

Gender	Tick Mark
Male	
Female	
Class	
First	
Second	
Third	
Family Monthly Income (Rs.)	Tick Mark
Less Than 6,000	
6,000-10,000	
10,001-15,000	
15,001-25,000	
25,001-35,000	
35,001 And Above	
Relatives In Tourism	Tick Mark
Yes	
No	
Choose Career Willingly	Tick Mark
Yes	
Somewhat	
No	
Intend To Work In Tourism	Tick Mark
Yes	
Somewhat	
No	

Impact of Self-Efficacy, Organizational Commitment and Job Involvement on Job Performance in Private Bank Employees

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ABSTRACT

Present scenario and organizational environment is volatile and uncertain and it creates hindrances in the accomplishment of individual goals and organizational goals as well and after demonetization private banking sector is going through high work pressure and highly uncertain work environment. To remove the encumbrance of uncertainty and to grow in an efficient, effective and productive manner organizations need employees who are confident, committed and involved in their job and finally give the best results. Committed and confident employees are the backbone of any organization and it requires a great amount of effort to understand that which factors affects the level of commitment, level of involvement and level of confidence the most. The purpose of this study is to explore the impact of self-efficacy, organizational commitment and job involvement on job performance among private bank employees of Uttarakhand and Uttar Pradesh. Exploratory Factor Analysis extracted the two factors of self-efficacy, four factors of organizational commitment, two factors of job involvement and two factors of job performance. Further multiple regression analysis reveals that self-efficacy have significant impact on job performance whereas organizational commitment and job involvement have insignificant impact. Although various studies have been done previously using aforesaid variables but there is a lack of literature of the collective study in private banking sector in Indian context. Several researches mentioned that this kind of study can be performed for further development in related research. Hence the researcher attempted to validate the scales which will be helpful for academicians, researchers and for those who have stake in this study to formulate the strategies for organizational success.

Introduction

Economic development of a country depends a lot on banking sector. Banking organizations play a very crucial role in enhancing the economic conditions of any country. With the advent of new technologies work pressure and work complexities are

increasing day by day for the employees of private banks. Banking organizations need to create a healthy work environment because employees are an essential and crucial source for smooth and hassle free operations in banks. Banking employees have a very contributing role in decision making and delivering the services to the ultimate customer in the most efficient manner. Enhanced self-efficacy could be a possible solution as it helps to trust in one's own capabilities and skills in times (Tiwari et. al, 2017).

After demonetization scenario has changed rapidly and workload has increased in banking sector. Hence it is dominant concern for banking organization to invest in the development of employees' skills and motivation which will further facilitate them with high self-confidence, high organizational commitment and high job involvement as well. The success and productivity of banking organizations are the results of employee's hard work and their efficient performance. Bandura (1986) was the first to define self-efficacy as a person's sense and confidence in his/her abilities to achieve his/her goals. More specifically, the term "self-efficacy" refers to a person's personal critique on his/her capabilities to organize and perform a specific behavior (Staple, Hulland & Higgins, 1999). According to Bandura and Wood (1989), "self-efficacy refers to beliefs in one's capabilities to mobilize the motivation, cognitive resources and courses of action needed to meet given situational demands".

Being self-confident and self-motivated works better when accompanied with commitment and involvement and these factors further helps in improving the performance. Organizational commitment can be identified as a psychological bond between the worker and the organization and with having loyalty to, having a desire to be involved in, and being less likely voluntarily to leave the organization (Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2010). Robbins et.al (2008) stated the "Organizational Commitment is the degree to which an employee identifies with a particular organization and its goals, and wishes to maintain membership in the organization". Researchers have highlighted that commitment has a great impact on the successful performance of an organization (Nehmeh, 2009). Allen and Meyer (1990) developed a three-dimensional model of OC. They identified normative, affective, and continuance commitment as dimensions of organizational commitment. Affective commitment is defined as the extant of an individual's emotional attachment to an organization and is "characterized by acceptance of organizational values and by willingness to remain with the organization". (Somers, 1995).

Allen and Meyer (1990) describe continuance commitment as a function of "two factors: the magnitude and/or number of investments (or side-bets) individuals make and a lack of alternatives." That is, individuals who invest a great deal of time and effort in learning a certain organization-specific skill are betting that they can 'win.' In this case, employees can only win if they stay on in the organization. Continuance commitment results from individuals' calculus of potential losses to their investments of time and effort if they were to leave the organization. Individuals who have a lot of investment in their organizations are less likely to leave. Continuance commitment also depends on

individuals' recognition of the availability of alternatives if they were to leave the organization (Meyer et al., 1993).

Normative commitment to an organization results from perceived duty towards the organization and develops as a result of socialization experiences that stress loyalty to the organization (Meyer et al., 1993; Somers, 1995). The term of job involvement can be described as "the degree to which one is cognitively preoccupied with, engaged in, and concerned with one's present job" (Paullay et al., 1994). Many researchers claimed that the employee involvement clearly forecast employee outcomes, organizational performance and organization success. (Bates, 2004; Baumruk, 2004; Harter et al., 2002; Richman, 2006). Job performance is the most important variable considered in industrial and organizational psychology research (Borman 2004a; Borman & Motowidlo 1997; Organ 1997). According to Jex and Britt (2008) and Motowidlo (2003), performance is oftentimes assessed in terms of financial figures, as well as through the combination of expected behavior and task-related aspects.

The employee's job performance is indivisible from organizational performance. When the employees are high at self-efficacy, shows full commitment and fully involved in their job then the organizations will definitely outperform. Due to the work stress in private banks employees are not willing to stay longer in the organization. The objective of the study is to identify how the aforesaid variables are affecting employee's job performance in present scenario of private banks.

Literature Review

Bandura's social-cognitive theory consists of the construct of self-efficacy represents which represents the one core aspect of Bandura's theory (Bandura, 1994). Berneth (2004) explains that self-efficacy is an important factor for the success of change. Previous researches has shown that self-efficacy has a strong relation with learning and motivation (Pajares, 2002; Zumrah, 2013). Srivastava et. al (2017) in their study among school teachers of Uttarakhand found that self-efficacy is positively and significantly correlated with job performance and indicated that measures of self-efficacy and job involvement can be generalized in the context of secondary school. Tiwari et. al (2017) conducted a study to provide an idea to the organization to enhance employee's efficacy through increased workplace spirituality. Their study validates the conceptualized linkage between self-efficacy and workplace spirituality in IT industry and the results indicates a significant positive linkage between workplace spirituality and self-efficacy with age and experience as moderator. It is clear that managers are always willing to know the impact of self-efficacy on employee's performance and behavior, it is correlated with the job performance of employees at workplace (Chaudhary, Rangnekar, & Barua, 2012).

The issue of organizational commitment continues to receive attention from both practitioners and researchers in organizational behavior research (e.g. Avolio, Zhu, Koh, & Bhatia, 2004; Sturges, Conway, Guest, & Liefoghe, 2005; van Knippenberg &

Sleebos, 2006). Employee commitment and work commitment was continuously being researched as early as the 1950s in terms of a single and a multidimensional perspective (Suliman & Iles, 2000). Meyer and Allen (1991) proposed that organizational commitment is a psychological state linking employees to the organization, which is multifaceted in both, form (affective, continuance, normative) and focus (organizational, work team, top management team leader).

Although job involvement is considered to be a pivotal factor influencing major individual and organizational outcomes (Lawler, 1986), researches exhibits a limited success in finding a significant impact of job involvement on performance (Brown, 1996; Diefendorff et al., 2002). Job involvement has been explained as the extent of one's own identification with one's jobs by Noe, Hollenback, Gerhart, and Wright (2011). Generally, it is believed that job involvement by positively affecting employees' motivation and effort, leads to higher levels of in-role job performance (Brown, 1996).

Several studies reveal that job performance is the most important variable considered in industrial and organizational psychology research (Borman 2004a; Borman & Motowidlo 1997; Organ 1997). According to William and Anderson (1991) employee performance is a mutual result of effort, ability, and perception of tasks. On a macro level (organisational), performance is defined as a process where the processing of inputs (energy, labour) into outputs (profit, number of units), according to certain quality and quantity specifications (level of customer satisfaction), while attempting to achieve certain work goals (Williams, 1998; Roe, 1999). Job involvement and organizational commitment measures have been found to have an impact on employee motivation (Blau, 1988).

Any impact on an employee's commitment towards his or her career is found to be linked with his ability and capability to link his motivation to her performance levels and self-efficacy has been found as an antecedent to this motivation is (Morrow, 1993). There has been several studies which has linked the importance of employee self-efficacy and his performance including the ability to adapt to advanced technologies in the workplace like internet or new software (Hill et al., 1987), ability to cope with current changes in career plan (Stumpf et al., 1987), ability to generate new ideas and grow to a managerial level (Gist, 1989), ability to perform better as a team (Wood et al., 1990), ability to acquire more skills (Mitchell et al., 1994).

Innumerable researches have been done in the area of self-efficacy, organizational commitment, job involvement and job performance in different sectors including banks. But very less literature has been found on their collective study in private banking sector. There are problems prevailing in aforesaid variables related to their measurement in banking sector. Therefore, this study aims to validate the previously developed scale in private banking sector and extracted the factors according to the rotated component matrix. It has been evident from observations that employees are getting more frustrated, stressed and dissatisfied at their workplace after demonetization. Therefore, it becomes inevitable to put some attention on employees of private banks to identify the problematic areas and their solutions as well.

Research methodology

For the present study a questionnaire based survey of primary method was adopted for data collection from the employees of private banks. This method of survey was adopted as the strategy of research for two foremost reasons. First, questionnaire based survey would be helpful in comparing the previous research work on aforementioned variables. Second, a survey allows the researcher to enlist a large number of respondents, including respondents in different sectors (Saunders et al., 2003).

Measurement Scale

Researcher has adopted the below mentioned scales from previous studies and validated the same in the context of proposed study. 8 item scale of self-efficacy was adopted from previous work of Chen, Gully & Eden (2001), 24 item scale was adopted from Meyer & Allen (1997) to measure organizational commitment, for job involvement 10 item scale was adopted from Kanungo (1982) and at the end for job performance 11 item scale has been adopted from the work of Tsui, A., Pearce, J., Porter, L., & Tripoli, A. (1997) and were measured using a five point -likert scale range from (1= strongly agree to 5= strongly disagree).

Sample Size

A sample size of 150 private bank employees was taken for the study. Sample was drawn from the various branches of AXIS Bank, ICICI Bank and HDFC Bank of Uttarakhand and from western Uttar Pradesh. Collected data were entered into SPSS for descriptive and exploratory factor analysis (EFA) for validating the scale which was used in the study.

Objective of The Study

1. To validate the adopted scale in the context of present study.
2. To examine the impact of self-efficacy, organizational commitment and job involvement on job performance in private banks.

Hypothesis

H₀: There is no significant impact of self-efficacy, organizational commitment and job involvement on job performance.

Results

For the Identification of dimensions of self-efficacy, organizational commitment, job involvement and job performance Exploratory Factor analysis was performed. Prior to conducting EFA the suitability of the data for this test was established by various means. Cronbach's coefficient was calculated with a value of 0.841 this confirmed the reliability of the scale within the sample. Both Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were conducted to measure sampling adequacy. The KMO value for Self efficacy was 0.810, which was greater than the recommended value of 0.6 (Kaiser,

1974). For Organizational Commitment the KMO value was .748. For the Job Involvement the KMO was 0.836 and for Job Performance KMO was .886 which was also higher than the given standards.

A scree plot was used to identify the number of rationale factors which extracted factors from self-efficacy, four factors from organizational commitment, two factors from job involvement and two factors were identified from job performance. Table I, Table II, Table III and Table IV depicts the Eigen-values associated with these identified factors, and the variance explained by each of the factors.

TABLE -I

Self-Efficacy				
Factor Name	Eigen Value	Variance explain	item convergence	Factor Loadings
Self competence -	3.180	36.240	SE8 SE7 SE6 SE5	.804 .785 .713 .692
Self- Belief	1.118	25.167	SE1 SE3 SE2	.793 .753 .611

The identified two components explain a total of approx 61 per cent of the variance. More specifically, Factor 1 explains 36 per cent of the total variance and factor 2 explains 25 per cent of the total variance. Next, the fifth column of the matrix shows a clear structure, with meaningful strong loadings for both the components individually. Factor 1 which was named as self – competence has four statements, and factor 2 which was named as Self Belief has three statements.

TABLE-II

Organizational Commitment				
Factor Name	Eigen Value	Variance explain	item convergence	Factor Loadings
New Normative	2.571	22.425	NC2 NC3	.743 .570

Commitment			NC1 NC7 NC5 NC6 NC8	.758 .567 .670 .615 .528
Visceral Commitment	4.513	13.472	AC1 AC2 AC3 NC4 AC7	.753 .722 .714 .612 .609
New Continuance Commitment	3.237	12.573	CC2 CC3 CC7 CC5 CC8	.774 .741 .664 .571 .508
Low Association Commitment	1.405	12.189	AC5 AC6 AC8 CC1	.807 .763 .690 .649

The selected four components explain a total of approx 60 per cent of the variance. More specifically, Factor 1 explains 22 per cent of the total variance; factor 2, 13 per cent; factor 3, 12 per cent; and factor 4, 12 per cent of the total variance. Next, the fifth column of the matrix shows a clear structure, with meaningful strong loadings for each of the four components. Factor 1 which was named as New Normative Commitment have seven statements, factor 2 which was named as Visceral Commitment consists of five statements, factor 3 which was called New Continuance Commitment consists five statements, and factor 4 which was called Low Association Commitment also have four statements.

TABLE-III

Job Involvement				
Factor Name	Eigen Value	Variance explain	item convergence	Factor Loadings
Work Involvement	3.799	33.399	Jl10 Jl6 Jl9 Jl8	.821 .803 .772 .517
Personal Involvement	1.122	28.109	Jl3 Jl1 Jl5 Jl4	.811 .690 .626 .613

The selected four components explain a total of approx 61 per cent of the variance. More specifically, Factor 1 explains 33 per cent of the total variance with Eigen value 3.799 whereas factor 2 explains 28 per cent of the total variance with Eigen value 1.122. Next, the fifth column of the matrix shows a clear structure, with meaningful strong loadings for each of components. Factor 1 which was named as Work Involvement have four

statements and factor 2 which was named as Personal Involvement consists four statements with some similarities.

TABLE-IV

Job Performance				
Factor Name	Eigen Value	Variance explain	items converged	Factor Loadings
Skill Orientation	5.155	32.808	JP10	.774
			JP8	.742
			JP6	.739
			JP9	.718
			JP7	.611
Productivity Orientation	1.148	30.221	JP3	.844
			JP1	.843
			JP2	.752
			JP4	.560
			JP5	.542

The selected four components explain a total of approx 63 per cent of the variance. More specifically, Factor 1 explains 33 per cent of the total variance with Eigen value 5.155 whereas factor 2 explains 30 per cent of the total variance with Eigen value 1.148. Next, the fifth column of the matrix shows a clear structure, with meaningful strong loadings for each of components. Factor 1 which was named as Skill Orientation have five statements and factor 2 which was named as Productivity Orientation consists five statements with some commonalities.

TABLE-V

Dependent Variable				Job Performance			
Test of Independence by Durbin-Watson test				1.647			
R square Value				.231			
F value of the model				14.613			
Significance				.000 @ df (regression,3), (residual,146)			
Predictors (Independent Variables)	Unstandardized Coefficients		Standardized Coefficient	T	Sig.	Collinearity	
	B	Std. Error	Beta			Tolerance	VIF
Constant	5.570	3.106		1.793	.075		
Efficacy	.801	.127	.457	6.292	.000	.997	1.003
Commitment	.020	.052	.032	.392	.695	.784	1.276
Involvement	.126	.087	.118	1.440	.152	.783	1.277

Multiple regression modeling is used to test the impact of self-efficacy, organizational commitment and job involvement on job performance. Tests for multi-collinearity indicate very low value of VIF and Tolerance for Model hence no multi-collinearity has been assumed for the independent variables (Variance Inflation Factor VIF is well below upper threshold limit 10 & Tolerance value above .10). The test of independence is satisfied as the value of Durbin-Watson is equals to 1.647 which lie in between 0-4. The

predictor contributes around 23% of variance in the outcome variable. **B** weight explains the relationship between job performance and each independent variable. In the finding all the B values are reflecting positive relationship between independent and dependent variable. Results of regression analysis model partially confirm the research hypothesis. The model was found to be fit ($F(3, 146) = 14.613, p < .001$) for impact of self-efficacy, organizational commitment and job involvement on job performance. Self-efficacy with the significance .000 shows a significant impact on job performance whereas organizational commitment and job involvement reveals an insignificant impact on job performance having significance value .695 and .152 respectively hence the null hypothesis is partially accepted.

Discussion

This study has contributed to the existing literature related to self-efficacy, organizational commitment, job involvement and job performance. The finding of the study supported the research objectives and partially accepted the hypothesis as well. Precisely the result has generated a framework that exhibit self-efficacy in two dimensions named Self- competence and Self-belief, Organizational commitment in four dimensions namely Visceral Commitment, New Continuance Commitment, Moderate Commitment and Association Commitment. Further the analysis divided the job involvement in two dimensions named as Work Involvement and Personal Involvement and job performance has been dimensional zed into two parts i.e., Skill Orientation and Productivity Orientation. The framework generated by the study can be compared with previously developed frameworks. Hence, the first objective has been achieved as researcher has validated the scale in context of present study through performing EFA. All the scales have been adopted from the previous studies consisting total fifty-three items (see Annexure I).

According to Bandura (1977a, 1977b), self-efficacy for a particular task varies along 3 dimensions: magnitude, strength and generality. These dimensions have been used rigorously in the studies related to students, teachers and several other organizations. The scale adopted in this study consists of 8 items (see Annexure I). After collecting the data from private bank employees EFA has been performed to extract the dimensions of self-efficacy. To support the findings, result reveals that the KMO value is .835 but the extraction loadings of SE4 in communalities was below .5 hence the researcher has removed the item and again performed EFA which produced the result with KMO= .810 and all the items greater than the given standards. It divided the self-efficacy in two dimensions (see Annexure II). Similarly, organizational commitment scale has been validated through EFA which provided KMO .751 which is also greater than $> .05$ after that looking at the values of anti-image matrices there are two variables less than $< .06$ AC4 and CC4 and CC6 didn't come under any factor in rotated component matrix (see Annexure II). After eliminating these variables twenty-one final factors were extracted for organizational commitment. Further analysis identified factors job involvement into two factors. It provided KMO .808 which is greater than $> .05$ after that looking at the

values of communalities there was one item less than $< .06$ JI2. After removing JI2 again EFA has been performed and it resulted in KMO value .805 and the value of JI7 was less than $< .06$, hence researcher removed JI7 and finally the analysis extracted eight items of job involvement and divided then into two dimensions namely Work Involvement and Personal Involvement (**See** Annexure II). With the same procedure factors of job performance have also been identified. After getting the KMO= .892 and looking at the communalities JP11 was supposed to be eliminated as it was less than $< .06$. Once the item eliminated rotated component matrix divided the job performance under two factors i.e., Skill Orientation and Quality Orientation (see Annexure II).

However, researcher draw attention to our identification of the 2 key dimensions of self-efficacy, 4 key dimensions of organizational commitment, 2 key dimensions of job involvement and 2 key dimensions of job performance in this research. Further researcher attempted to investigate the impact of self-efficacy, organizational commitment and job involvement on job performance and it has been found that self-efficacy have significant impact on job performance whereas organizational commitment and job involvement have no significant impact on job performance.

Conclusion

The researcher attempted to validate the adopted scales of variables in the context of private banks and strived to extract the variables from the scale in more understandable form. This study examines the direct impact of self-efficacy, organizational commitment and job involvement on job performance among private bank employees of Uttarakhand and Uttar Pradesh. Employees of private banks are showing deviant behavior after demonetization. Though they have full confidence in their skills and knowledge but still they are low in commitment and thus are not able to get involved in their job. This study reveals a significant impact of self-efficacy on job performance whereas it shows an insignificant impact of organizational commitment and job involvement on employee's job performance. The paramount reason behind this finding could be increased work pressure, long working hours and stress after demonetization. The finding of the exploratory factor analysis and multiple regression analysis done in this study will be advantageous for those who have interest in this area and are willing to conduct research among private bank employees. The results of the study are found contradicted to earlier studies (Pala et.al, 2008), (Balay et.al, 2010), and (Kamasey et.al, 2014) hence the banking organizations that follows the concept of achieving organizational goals through getting individual goals need to understand the reason behind these insignificant relationships. Future research could be done in various manners with the private bank employees. For this study all the scale has been adopted but in future researchers should do minor adaption or should develop new scales to measure the factors specifically in private banking sector. A comparison can be done among variables on the basis of several demographic factors with large sample size of different regions within the country.

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ANNEXURE-I

All the responses were taken at five point Likert scale of:

1. Strongly Agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

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Self-Efficacy	
SE1	I will be able to achieve most of the goals that I have set for myself.
SE2	When facing difficult tasks, I am certain that I will accomplish them.
SE3	In general, I think that I can obtain outcomes that are important to me.
SE4	I believe I can succeed at most any endeavour to which I set my mind.
SE5	I will be able to successfully overcome many challenges.
SE6	I am confident that I can perform effectively on many different tasks.
SE7	Compared to other people, I can do most tasks very well.
SE8	Even when things are tough, I can perform quite well.

Organizational Commitment – Affective Commitment	
AC1	I would be very happy to spend the rest of my career with this organization.
AC2	I enjoy discussing about my organization with people outside it.
AC3	I really feel as if this organization's problems are my own.
AC4	I think that I could easily become as attached to another organization as I am to this one.
AC5	I do not feel like 'part of the family' at my organization.
AC6	I do not feel 'emotionally attached' to this organization.
AC7	This organization has a great deal of personal meaning for me.
AC8	I do not feel a 'strong' sense of belonging to my organization.
CC1	I am not afraid of what might happen if I quit my job without having another one lined up.
CC2	It would be very hard for me to leave my organization right now, even if I wanted to.
CC3	Too much in my life would be disrupted if I decided to leave my organization now.
CC4	It wouldn't be too costly for me to leave my organization now.
CC5	Right now, staying with my organization is a matter of necessity as much as desire.
CC6	I feel that I have very few options to consider leaving this organization.
CC7	One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.
CC8	One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice—another organization may not match the overall benefits I have here.
NC1	I think that people these days move from company to company too often.
NC2	I do not believe that a person must always be loyal to his or her organization.
NC3	Jumping from organization to organization does not seem at all unethical to me.
NC4	One of the major reasons I continue to work in this organization is that I believe loyalty is important and therefore feel a sense of moral obligation to remain.
NC5	If I got another offer for a better job elsewhere I would not feel it was right

	to leave my organization.
NC6	I was taught to believe in the value of remaining loyal to one organization.
NC7	Things were better in the days when people stayed in one organization for most of their careers.
NC8	I do not think that to be a 'company man' or 'company woman' is sensible anymore.

Job Involvement	
JI1	The most important things that happen to me involve my present job.
JI2	To me my job is only a small part of who I am.
JI3	I am very much involved personally to my job.
JI4	I live, eat and breathe my job.
JI5	Most of my interests are centred around my job.
JI6	I have very strong ties with my present job which would be very difficult to break.
JI7	Usually I feel detached from my job.
JI8	Most of my personal life goals are job oriented.
JI9	I consider my job to be very central to my existence.
JI10	I like to be absorbed in my job most of the time.

Job Pe	
JP1	My quantity of work is higher than average
JP2	My quality of work is much higher than average
JP3	My efficiency is much higher than average
JP4	My standards of work quality are higher than the formal standards for this job
JP5	I strive for higher quality work than required
JP6	I uphold highest professional standards
JP7	My ability to perform core job tasks is better than average
JP8	My judgment when performing core job tasks is the best with requirement
JP9	My accuracy when performing core job tasks is concerned with highest professional standards
JP10	My job knowledge with reference to core job tasks standard than average.
JP11	My creativity when performing core tasks is higher than average

ANNEXURE-II

Self- Efficacy		
Self Competence	SE5	I will be able to successfully overcome many challenges.
	SE6	I am confident that I can perform effectively on

Self Belief		many different tasks.
	SE7	Compared to other people, I can do most tasks very well.
	SE8	Even when things are tough, I can perform quite well.
	SE1	I will be able to achieve most of the goals that I have set for myself.
	SE2	When facing difficult tasks, I am certain that I will accomplish them.
	SE3	In general, I think that I can obtain outcomes that are important to me.

ORGANIZATIONAL COMMITMENT		
New Normative Commitment	NC2	I do not believe that a person must always be loyal to his or her organization.
	NC3	Jumping from organization to organization does not seem at all unethical to me.
	NC1	I think that people these days move from company to company too often.
	NC7	Things were better in the days when people stayed in one organization for most of their careers.
	NC5	If I got another offer for a better job elsewhere I would not feel it was right to leave my organization.
	NC6	I was taught to believe in the value of remaining loyal to one organization.
	NC8	I do not think that to be a 'company man' or 'company woman' is sensible anymore.
Visceral Commitment	AC1	I would be very happy to spend the rest of my career with this organization.
	AC2	I enjoy discussing about my organization with people outside it.
	AC3	I really feel as if this organization's problems are my own.
	NC4	One of the major reasons I continue to work in this organization is that I believe loyalty is important and therefore feel a sense of moral obligation to remain.
	AC7	This organization has a great deal of personal meaning for me.
New Continuance Commitment	CC2	It would be very hard for me to leave my organization right now, even if I wanted to.
	CC3	Too much in my life would be disrupted if I decided to leave my organization now.

Low Association Commitment	CC7	One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.
	CC5	Right now, staying with my organization is a matter of necessity as much as desire.
	CC8	One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice—another organization may not match the overall benefits I have here.
	AC5	I do not feel like ‘part of the family’ at my organization.
	AC6	I do not feel ‘emotionally attached’ to this organization.
	AC8	I do not feel a ‘strong’ sense of belonging to my organization.
	CC1	I am not afraid of what might happen if I quit my job without having another one lined up.

JOB INVOLVEMENT		
Work Involvement	JI10	I like to be absorbed in my job most of the time.
	JI6	I have very strong ties with my present job which would be very difficult to break.
	JI9	I consider my job to be very central to my existence.
	JI8	Most of my personal life goals are job oriented.
Personal Involvement	JI3	I am very much involved personally to my job.
	JI1	The most important things that happen to me involve my present job.
	JI5	Most of my interests are centred around my job.
	JI4	I live, eat and breathe my job.

JOB PERFORANCE		
Skill Orientation	JP10	My job knowledge with reference to core job tasks standard than average.
	JP8	My judgment when performing core job tasks is the best with requirement
	JP6	I uphold highest professional standards
	JP9	My accuracy when performing core job tasks is concerned with highest professional standards
	JP7	My ability to perform core job tasks is better than average
Productivity Orientation	JP3	My efficiency is much higher than average
	JP1	My quantity of work is higher than average
	JP2	My quality of work is much higher than average

	JP4	My standards of work quality are higher than the formal standards for this job
	JP5	I strive for higher quality work than required

Impact of Mentoring Towards Organizational Goal and Work Culture (A Study in Hotels of Delhi, NCR)

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ABSTRACT

Mentoring is considered as a semi-structured supervision program in which sharing knowledge, skills, and experience takes place between two people or group of people in order to built-up the successful professional life as well as self -personality with new perceptions and enthusiasm. The aim this research was to explore the impact of mentoring on the organizational performance in hotels of Delhi and NCR. This study was run to identify mentoring as an as an important strategy of HR, to analyze different mentoring strategies that helps to enhance work culture and organizational performance. The findings of the research are that mentoring is a proficient connection between mentor (experienced person) and protégé (to be mentored), in mounting precise skills and knowledge that would enhance the organizational need towards its goal and culture.

Introduction

The improvement of HR is imperative to guarantee quality, adequacy and awareness in an association with respect to the complex and regularly varying business climate. Without giving proper training to employees, business organization can't get long haul presence (Nickson, 2007). In any case, the significance of preparing employees isn't only clear for associations yet additionally critical of their individual advancement and strengthening since it liable to enhance individual qualities and aptitudes that is fundamental for forthcoming occupation improvement of the individuals (Aswathappa, 2007).

Mentoring is an imperative sort of guidance which is measured as the range of 'talent management' because of it stresses on the advancement of unique aptitudes that advantage the organization and in addition the people or it helps individuals grow new procedure of reasoning which encourage individuals to vanquish deterrents and build up their career through upgrading associations through more skilled people (CIPD, 2014). In such manner, this study looks at the impacts of mentoring on employee performance in the hotels of Delhi/NCR.

Different organizations utilize diverse strategies to create talent and deliver an exceedingly accomplished workforce. As indicated by University of Wolverhampton (2010), proficient mentoring plans are the famous procedure of enhancing learning and advancement of profession amongst newcomers, budding supervisors and graduates in the course of the most recent twenty years. Mentoring is a system of training that depends on one to one talk that intends to build learning, abilities or work performance (CIMA, 2008). Mentoring symbolizes by receptiveness to new thoughts, energy, excitement to tune in, & urging individuals to wind up engaged with accomplishing new employment encounter. The mentoring plans can be offered at relatively minimal effort that works as a talent management tools for associations in present focused business condition (CIPD, 2014). Mentoring employees in the organization conveys various advantages to associations for quite a while (Levinson et al., 1978; Roche, 1979). For example work fulfillment, advancement and high pay installment can be recorded as critical advantages of mentoring (Fagenson, 1989, Whitely et al. 1991, Chao et al., 1992, Whitely and Coetsier, 1993, Turban and Dougherty, 1994). So, previous research demonstrates that mentoring is in a basic situation as far as profession fulfillment, profession responsibility and turnover expectations (Noe, 1988, Chao, Pat and Gardner, 1995). Mentoring helps to improves profitability and execution of the related representatives which prompts increment the nature of administration and at last upgrade the economic performance of the association (Bhatia, 2006).

Peel (2004), stated mentoring & training of employees can assist the associations with enhancing worker execution; enhance their qualities, representative fulfillment, nature of client administration, and general cost for every representative. It is subsequently, the interest in training and mentoring in hospitality segments can have high centrality in enhancing representative execution.

The employee's performance is connected to upgrading learning, aptitudes, inspirational states of mind, capacities and certainty (Armstrong, 2009). Along these lines, the upgrade of execution is ending up more obligatory for the associations as it will helps organization to compete in the changing business.

Organizations use employee appraisals to make their personal development plan. These appraisals are done once in a year with only a couple of input talks between the manager and an employee. In any case, is it in reality enough to have employee's evaluations just once per year? The criticism discourses are vital to lift up in the hotel business. The small discussions between employee and manager once or twice a year is not sufficient and discourses on a more normal premise might be the option, since the employees need to feel bolstered and inspired all the time. This, thus, will build the enthusiasm to work from the employees view, yet in addition the inclusion and the strengthening as a representative. In today's hotel organizations, employees are under stress. Mentoring is to help and persuade the employees, yet in addition to give them the expert, i.e. strengthening, in certain critical choices. Motivated employees are something that each association goes for, and the productivity of the representatives may increment by actualizing authority through mentoring.

Gåserud (2001), working as an advisor in the field of mentoring, examines that amid effective minutes, a man's life moves towards a positive heading – in work

environments, private life or school. As a rule, someone else needed to do with that achievement, for instance when guardians energize their youngsters and reveal to them when they accomplish something right or off-base. It could likewise be an associate or chief giving a challenging assignment and the employee prevailing with regards to explaining it. This is the thing that mentoring is about, to help, challenge, motivate and help the employee so he or she grows speedier and gets in good shape

As per Kets de Vries (2005), mentoring should likewise be possible in groups with a specific end goal to make high performing groups. Further, mentoring is critical for the reasons that it could offer strengthening to the employees, in view of the benefit to have a responsibility. It could likewise expand the inspiration to change, and it encourages collaboration between the workers.

Literature Review

The hospitality business in these days is a worldwide industry and is considered as a vital employer in nations around the world. It gives a complexity to the general population and the private segment henceforth the work on inspiration, strengthening, and adaptability ends up vital (Foley, Lennon and Maxwell, 1997). Working in the hotel industry can introduce an assortment of difficulties notwithstanding those that are "common to all service industry jobs". Specific issues with hotels are that they give very little time for training, and fewer prospects for progression. Numerous hotels had actualized mentoring programs in order to help their employees with difficulties such as "stress, work disappointment and turnover goal". Mentoring programs usually "involve a superior or senior employee helping less experienced employees to adapt to the organization's culture, improve their performance and develop their career trajectories". It does not include "instructing or telling", but should engage a "dyadic learning partnership" that helps the mentee to "take charge of their own development, release their potential, and achieve the results that they value".

Mentoring can be viewed as the "development process in which a more skillful or more knowledgeable individual, filling in as a good example, educators, supports, empowers, counsels, and gets to know a less skillful or less knowledgeable individual with the end goal of promoting the latter's proficient and additionally self-awareness" (Anderson and Shannon, 1988).

As per Eggers and Clark (2000), mentoring is to comprehend another individual and help him or her in the self-awareness, where the profound correspondence is a standout amongst the most essential tool. This thusly could additionally prompt expanded strengthening at work. Great instructing likewise affects the workplace in which individuals encounter and gets positive respect. Individuals fabricate trust and they could be heard, respected and hardly judged. Mentoring is a critical device to acquire constructive individual change, however since mentoring is a better approach for working with the employees, the circumstances and end results isn't known yet. The mentor likewise attempts to comprehend the person according to the person. The management of organizations has understood that so as to build the profitability of their

employees, the directors/managers need to adjust an authority style based on training, since it could prompt a change in the entire association culture (Whitmore, 2003).

Bowen and Lawler (1992) consider mentoring as a tool for sharing information, prizes, knowledge and power with frontline employees. Service organizations tend to demonstrate an expanded enthusiasm concerning the employee's contribution and cooperation keeping in mind the end goal to increase, generate more involvement in service quality and decrease the employee turnover. In the event that the employees feel great in their working place, the strengthening will obviously expand (Whitmore, 2003).

The significance of the administration experience and the employees plays a key part in the service industry and helps to contribute a rising need and empowerment has much to offer service organizations. Engaged employees will respond to guests need and grumblings and will discover the service experience as a standout amongst the most important methods for increasing upper hand in the service business (Bowen and Lawler, 1992).

In some ways mentoring could be connected to strengthening; however are hotel directors mindful of this subject? A standout amongst the most critical difficulties in the present service associations, and especially in the tourism and hospitality segment, is to accomplish enhancements in guest benefit. The thoughts of value in tourism and hospitality associations have changed in the previous 25 years, and are currently critical in all areas.

As a rule, service quality is associated with a promoting focused idea while it has real ramifications for the nature of human resource. This is in especially critical for training and development exercises. It is hence important to center on this human resource dimension in the tourism and hospitality division, particularly the practices that happen each day in service domain (Garavan, 1997). Zeithaml and Bitner (2002) imply that to give service quality, the employees require consistent training and opinion in both specialized abilities, i.e. the booking framework in a hotel, and intelligent aptitudes, i.e. preparing in enabling the employees to give caring, responsive, and sympathetic service. Successful organizations put much in teaching their work force and ensure that their employees fit the association's business objectives and procedures.

Benefits of Mentoring to organization

Hotel industry is the industry of the people, by the people and for the people. Hotel business is personal. A front desk attendant's association with the customer is personal. The smile and greeting that the engineering man gives the guest, walking down the floor is personal. The housekeeper's longing to create luxury in all the guest rooms with uniqueness is personal.

Commitment towards the hotel guest can only be achieved by the company, when company maintains its commitment towards its employee. To maintain this personal commitment, employer has to nurture, train, and support, encourage, compensate and respect their employees. All these variables can be easily attained by acclimatizing mentoring program within the sections/department/hotel. Mentoring is extensively seen as important ingredients in achieving successful outcomes.

“Customers of an organization can be satisfied by it, only when its employees are satisfied”-

Taj Hotels

“If you take care of your people, your people will take care of your customers and your business will take care of itself”-JW MARRIOTT

Mentoring in the hotel industry can be applied at all levels, whether assisting new recruits in knowing the organization and his job, or to the employees in giving their better performance or to the trainees in getting the knowledge about the industry and work which will help them in molding the budding managers of the industry.

Employees working in hotels benefitted from mentoring programs, which likewise advantage hotels by decreasing staff turnover (Kim, 2016). Mentoring encourages less skilled representatives to adjust in the association and adapt to the work and related pressure. Top notch mentoring, might be a "successful human asset system" for handling different employment related issues in the hotels part.

Instructing and mentoring incorporate joining knowledgeable/skilled people groups with other less skilled representatives that can be utilized to help adjusting to the working environment culture and condition. This can include joining an accomplished proficient with new representatives to help them understand the hierarchical goals, objectives and culture of the workplace (Clutterbuck and Megginson, 2005). Mentoring regularly shows up when present or new workers can be profited through individual direction on specific methods, work obligations or duties.

In an authoritative level, mentoring gives number of benefits. As per Bhatia (2006), it can help the association in empowering employee's faithfulness. At the point when an experienced proficient help molding the profession of mentee and giving them prospects, at that point they may feel higher sense of responsibility and association with the business. Mentoring helps individuals to feel good with their seniors and even the administration, and urges them to contribute in open communication that assistance improves positive work understanding. That upgrades representative maintenance inside the association (Kinlaw, 2000). Retention accordingly encourages the association to spare cash on progressing enlistment and choice, and preparing of recently substitute workers.

With reference to the hotels, mentoring is again vital for the company, guests, workers and different partners. As a matter of first importance, presence of mentoring in hotel industry gives criticism to mentee and enhancing their relations with guests and their co-workers (Dirsmith et al, 1997).

The Savoy Society established a Mentoring scheme in 2008. It is the association of ex-Savoy hotel trainees, who have decided to address and mentor the fresher's of hotel industry. They implement their program from the final semester of the college, when students opt for the industry as their career choice, as it is one of the vast platforms from where a student can opt to be a hotelier or can quit the industry easily. They also help the fresher's to retain and grow in the industry.

New Castle Hotels and Resorts, Shelton, Connecticut have an Open Door Policy which supports employees to call Corporate Communication Hotline to resolve their problems. And if still disappointed, they can approach the Dispute Resolution Board, which comprise same level as well as managerial level. And the Board decision is considered as the final statement, intervening GM decisions, if required.

Research Methodology

The hospitality industry is one of the world's largest employers (Reigel, 1998). Hospitality & tourism sector has grown rapidly in the past decade and is still growing at high pace.

Although workforce is increasing but there are several challenges faced by the employees such as irregular work hours, inadequate practical knowledge, need of mentoring, low salary structure, and improper promotion strategies. These challenges are creating very adverse effect not only on the performance of the employees but also on the organizational performance and work culture. To meet out the present challenges and to be ready for future threats of career the industry recruiters must be capable to deal with these challenges. Thus, this research focused on one of the major issue i.e. mentoring.

Objective

The objective of this research paper is to analyze the impact of mentoring on organizational work culture

Sampling and Sample size

The sample population consisted of employees and managers from different hotels of Delhi, NCR region. Total of 400 questionnaires were circulated and 339 respondents had returned properly filled questionnaires. Convenience sampling method is used to collect the data. The data were collected from 52 hotels of Delhi/NCR of different star categories ranging from five star deluxe to one star/budget hotels.

Data Analysis

To find the impact of mentoring on organizational goal and its work culture, received data was analyzed with the Pearson correlation and linear regression test. The results for correlation is summarized and presented in Table 1 and to predict the impact of mentoring towards work culture Table no. 2, 3 and 4 are summarized and presented.

Findings revealed that mentoring help in bridging the gap between conventional and contemporary generation in hotel, which help in linking the theoretical and practical knowledge gap of both the generations ($r=0.784$, $\rho<0.01$). As mentoring helps in bridging the gap between different generations working in the hotel, it directly impacts the team spirit ($r=0.521$, $\rho<0.01$), work culture ($r=0.811$, $\rho<0.01$) and organizational values ($r=0.220$, $\rho<0.01$). Besides when mentoring is able to create link between theoretical and practical knowledge gap, then it also impacts towards enhancing team

spirit ($r=0.621$, $\rho<0.01$), work culture ($r=0.211$, $\rho<0.01$) and organizational values ($r=0.910$, $\rho<0.01$).

Although mentoring enhances team spirit among the employees which impacts work culture ($r=0.522$, $\rho<0.01$) and organizational value ($r=0.310$, $\rho<0.01$). And overall mentoring enhance work culture with increased organization values within the employees ($r=0.730$, $\rho<0.01$)

The result in Table 2 indicates that all five predictors (work culture, linkage, bridging gap, team spirit, link gap, and organizational value) explained Value of R, which indicates degree of correlation of all the factors and in this case it is 0.652 percent which indicates moderate correlation. While R square value indicates variation of dependent variable, and in this case, probability of predicting effect of mentoring on work culture by 66% ($R^2=0.660$).

The Table 3 reports how well the regression equation fits the data (i.e., predicts the dependent variable). Result summed that the F-value of 62.457 with a p value of 0.000 significant at 4% highlights that the regression model is significant, hence, the joint contribution of the independent variables was significant in predicting importance of mentoring towards work culture of an organization. This result shows that the variation in the regression can be explained by the predictors and this is further verified by the residual mean square which displays that variation exists but its error is minimal i.e. 0.402.

The regression coefficient Table 4 shows that bridging gap, team spirit and organizational values have significant effects on overall organizational performance as $\beta = 0.060$ and $P = 0.46$, $\beta = 0.214$ and $P = 0.00$, and $\beta = 0.078$ and $P = 0.123$ respectively, which is less than 0.05 . But, linkage has not significant effects on overall organizational performance as $\beta = 0.038$ and $P = 0.64$ which is greater than 0.05.

Conclusion

The benefits and challenges collected from this research work provide indication that mentoring impacts organizational level at its high level, if it is being opted at all the levels of the organization and department of the hotel. It has to be determining at all professional levels with the specific pattern for protégé and mentor and for assistance as well as assessment for both. From the above findings, it's been clear that mentoring helps to bridge the gap between different employee generations, team spirit and organizational values. Thus overall helps in enhancing the organizational performance.

Table 1: Understanding the importance of mentoring strategies towards organizational work culture

	Bridging gap	Linkage	Team spirit	Work culture	Organizational value
Bridging gap	1				
Linkage	0.784**	1			
Team spirit	0.521*	0.621**	1		
Work culture	0.811*	0.211*	0.522**	1	

Organizational value	0.22	0.91	0.31	0.73	1
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Table 2: Model Summary for mentoring strategies

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.652 ^a	0.66	0.055	0.634
a. Predictors: (Constant): Organizational Value, Linkage Between, Team Spirit, Bridging Gap				
b. Dependent Variable: Work Culture				

Table 3: ANOVA for mentoring strategies

Model		Sum Squares	df	Mean Square	F	Sig.
1	Regression	10.315	4	2.579	62.457	0.000 ^b
	Residual	147.038	366	0.402		
	Total	157.353	370			

a. Dependent Variable: Work Culture

b. Predictors: (Constant), Organizational Value, Linkage, Team Spirit, Bridging Gap

TABLE 4: Linear Regression Analysis for mentoring strategies

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.053	0.137		7.668	0
Bridging gap	0.06	0.081	0.06	0.738	0.461
Linkage	0.038	0.082	0.038	0.466	0.641
Team spirit	0.237	0.057	0.214	4.17	0
Organizational value	0.048	0.031	0.078	1.544	0.123

a. Dependent Variable: work culture

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An Inquiry into the impact of the Fourth Industrial Revolution on Employment: A Review

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ABSTRACT

Labour processes stand on the cusp of a change as the incorporation of artificial intelligence, machine learning and 3D printing are set to transform production processes. Against this backdrop, the study, using relevant literature, investigates the role of the fourth industrial revolution vis-à-vis employment. The paper determines both the intensity and the rate of job losses, and in deploying content analysis technique, it discerns both ends of the spectrum. On the one hand, while World Bank and Oxford University highlight excessive job losses worldwide, whereas studies from Mario Pianta and Marco Vivarelli, using similar data structures but different techniques, point to limited job destruction, that too, in the Schumpeterian sense. Thus, analysing literature, the paper presents a review of studies from IZA, OECD, J Stanley Metcalfe and others, to establish that the impact of such changes has either been over amplified or understated. A valid inference, thus, could be that fourth industrial revolution may not impact all countries evenly, and may have a varying effect on different countries.

Introduction

Technology has been at the forefront of capitalist society ever since the advent of capitalism and innovation. The first of the innovations that reduced the labour power helped the capitalist restructure the society on the basis of production. Not only It helped the capitalist gain more profit by reducing cost, but it also helped him gain more control of the floor. But the development of technology has not been even throughout the history of capitalism. Instead, the capitalist restructuring of society has been uneven throughout the history of technology. So much so, that the prophecies and theories some of the best economists have been rendered wrong by the force of technology.

To understand the dialectical relation that technology shares with the capitalist organisation of society, it is essential to divide technology into phases of development starting from the 19th century. This chronological organisation of technology not only helps us veer through the structure of society as technology progressed, but also create watersheds for technology based on the spate of innovations that have occurred through the century. This classification helps us to

classify different innovations under one head, while also allowing for a lens to look at the impact labour has had via the development of technology.

For this paper, we only focus on the employment impact of technology and not drive our energies in decoding the impact technology has had on the evolution of the new education system across the world, even though it comes highly intertwined with the structuring of work over centuries. The chronological timescale does set the stage for discussing the availability of skills and the redundancies that technology has created, but it gets easily translated into the employment effect of such innovations. Besides, the impact of technology on education can be a study in itself. The focus of this study, thus, is to gain an understanding on the theories of technology and automation that have gained prominence over the last decade as a spate of innovations including advanced robotics, artificial intelligence and 3D printing have become more accessible. More important, to deduce the impact on employment given the wide variation in the analysis to decode the implications of technology.

But any study on technology would be futile if we do not take into considerations the predictions of economists from the classical, Keynesian and Marxist era, who have written extensively on the growing influence of technology and have reached differing conclusions on the impact replacement of labour would have for employment and society. The paper gives precedence to these theories to form a base for the pragmatic approaches that have developed in the later years. Moreover, such a structuring also helps in defining the chronological timescales set up to understand the march of innovations. The first section discusses theories of the likes of Ricardo, Marx, Schumpeter and Wicksell to present a theoretical structure to the theory of technology. The second section looks at the analytical approaches to technology followed by contemporary economists and the likes of Acemoglu, Pianta, Vivarelli, Spritz-Oener, Autor and Frey and Osborne to assess whether technology has had any significant impact on employment structures. The next two sections divide these approaches into two categories, ones that over specify the role of technology and others that underplay the impact technology will have on jobs of the future. The “Conclusion and further analysis” provides a critique of the two approaches emphasising how each has either exaggerated or downplayed the impact of employment, in the process also suggesting a more robust approach that can give a holistic view of technology and job losses.

Job losses and automation: Lessons from theory

That technology is synonymous with jobs losses has been a foregone conclusion for many economists and theorists throughout the history of capitalism. The first instance of any such manifestation technology can be seen from the 1436 invention of Guttenberg, which displaced the workers in the print industry. Similarly, in 1589, the Queen failed to grant a patent to a technology of spinning mill that she felt would destroy the jobs of the workers. Movements by guild workers and violent protest by Luddites in the early part of the 19th century tried to quell the advance of technology but to no avail. This is evident from Josiah Tucker’s view on technology where he sees the machine as a manifestation of labour that can not only help achieve higher productivity and lower costs but also expand the output of the economy, thereby leading to more employment as wages increased. “That System of Machines, which so dramatically reduces the Price of Labour, as to enable the Generality of a People to become Purchasers of the Goods, will in the End, though not immediately, employ more Hands in the Manufacture, than could possibly have found Employment, had no such machines been invented (Tucker quoted in Rashid, 1987). Tucker’s

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formulations are also accepted by the later economists like Smith, Say and Ricardo. But it is Ricardo, that turns against this tide of technology explaining how the machine can be a harbinger of job losses for a majority of the population. As a machine goes on to replace labour in one part of the manufacturing process, Ricardo contends, the capitalist shall reap the gains that accrue from increased productivity as they employ more machines that labour to further productivity.

Ricardo, thus, in his chapter “On Machinery” regards technology as the tool that can bring about a Malthusian thinning of the herd as it replaces labour and adds to the growth potential of the economy. As less labour is employed, Ricardo, explains, the stock of wages would fall below the minimum subsistence, which will lead to underemployment and eventually hunger amongst masses. This grim reality will catch on with Malthus’ theory and will lead to deaths amongst workers as productivity and output increases for the capitalist. (Humphrey, 2004)

But Ricardo was not the only one to contend a constant replacement cycle, Marx, who had already explained his theory of reserve army of labour to keep the wages at a bare minimum, in his chapter on Grundrisse also points to a similar fate as dead labour or the machinery replaces living labour at an increased pace.

Schumpeter reached a similar conclusion in 1962 but via a different analysis. Unlike Marx and Ricardo, Schumpeter was of the view that it was not the machinery but bursts of innovation implemented by the entrepreneur that was to blame for this phenomenon of unemployment. Although Schumpeter believes that another counters this wave of innovation in business cycles, an extension of his model can mean less and less number employed over time. But Schumpeter’s contribution comes from looking at technology from the lens of cost-effectiveness, to give a better perspective of its application by the entrepreneur.

Similarly, Veblen presents a view of technology where the innovation is borne out of society’s needs and not of capitalist’s concern. Although Veblen does not offer much in the form of analysis of this transformation of technology, one of the significant differences in approach from Schumpeter is the idea of considering technology as a social and political factor and not just a business decision.

But the broad support of the idea comes from Keynes, who gives technological unemployment a role in the crisis of capitalism, something that he believes can outrun the pace at which we find new uses of labour. (Keynes, 1933)

But Ricardo, Marx, Schumpeter, Keynes have their detractors as well. McCulloch opposes Ricardo’s view contending that even if technology replaces some of the labour working in one industry the increased production and output, due to lowering of prices, increase in wages and increased demand would demand investment in new sectors. In the case of machinery, McCulloch argues that the machine making industries would find labour employment as jobs are lost from industries using machines. A similar analysis is reached by Wicksell, who staunchly opposes Ricardo’s replacement theory arguing for more positions in lieu of an increase in production.

Analysis suggests that neither of them is wrong and neither of them is correct. If we were to chronologically order the impact technology has had on the production cycles, we can safely say that not only are Wicksell and McCulloch vindicated, but the coming years shall prove that even Ricardo, Marx, Schumpeter and Keynes’ stand would be justified.

- **19th-century analysis: Rise of machines and expansion of low-skilled labour**

The rise of machines and the introduction of the machine on the factory floor brings about new changes to the society and social ordering of the labour force. Despite protests and demonstrations against the implementation of machinery at the workplace, the capitalist unhindered went on to expand production. These gains accrued not only to the capitalist but the labour as well. Rather, machine stripped of the monopoly of the few over the process of production. The artisan was dealt a final blow, as machine became a tool for the capitalist to act against guilds while also an employment source for millions looking for work with a low-level of skill. The labourer becomes empowered for the first time as there is no investment required on his part to become a factor in the production process. This process continues right until the 20th century when Fordism provides more support to deskilling of labour by taking away complex tasks from artisans and transferring them to the labour on a large scale and at a much affordable price thereby increasing the demand for more goods and industries, generating more jobs than ever.

- **20th-century analysis: Computer throws skill back in demand**

One of the greatest inventions of the 20th century has been the introduction of computers and some form of robotics to the factory floor. While Fordism had already done enough for the job market, the computer brought back into vogue the importance of skills. While earlier a low-skilled worker could readily be employed on the factory floor, computers brought about the advent of the service industry, also transforming the manufacturing floor in the process. Now, the focus shifted from low-skilled labour to medium skill industry especially to those who could operate this piece of machinery. More important, as years progressed and in the latter half of the 20th century, as a man could do more behind a computer than a machine, it transformed the way employment is viewed. The capitalist no longer needed a low-skilled worker, and thus the process led to massive scale unemployment for such workforce with replacement from the skilled workforce. But even this process did not lead to erosion of jobs, as the boom fuelled by the computer and service industry led to employment in other avenues, where a human touch became more critical. Besides, each computer while improving efficiency did need a man behind the desk.

- **21st-century analysis: Automation and end of labour**

This though is the age of robotics. Labour processes stand on the cusp of a new change with the incorporation of artificial intelligence, machine learning and 3D printing. It is no surprise that a recent World Bank study suggests that developing economies are set to lose two-thirds of their jobs to automation. Research by the University of Oxford highlights that over 47% of the jobs worldwide would be automated within the next two decades.

Moreover, this change will not restrict itself to the manufacturing sector but shall impact services too. Although the fears are similar to the post-1980s era when computers were seen as a means of erosion of labour order, in fact, ended up creating more jobs, the current spate of innovations seem different. The computers did automate specific processes, but what they could not do was self-correct. Robotisation, now, has reached a point where it can reduce labour from the manufacturing process drastically.

Events from the contemporary scenario suggest that not only can new technology achieve all this but will be able to do more in a few years and even global institutions have been wary of this progress. Take the case of 3D printing, according to a PwC survey of over 100 manufacturing firms in the US, 11% had switched to volume production with 3D printing.

Moreover, given that 3D is becoming more affordable it is being put widely in use. Not only as a technology that is customisable, but also as a resource that is environmentally friendly because of low wastage costs. With consumerism taking over, companies have tried to switch to traditional flexible manufacturing processes, which take in more capital and advanced labour for production, with 3D not only can they cut down on capital, they can standardise customisation as all a printer requires is an electronic design. A case in point being the Adidas experiment with Future craft 3D shoes, which go into mass production in 2018. With companies having to comply with changing environmental regulation, 3D can be a quick, easy and cheap solution.

Similarly, for services, robotisation can prove to be resourceful to cut down on variable capital. For instance, in the case of banks technology has led to cutting down on the labour force and an increase in business per employee.

Analytical approaches

While theory provides a reasonable justification for the change in employment structures due to changes in technology, with the availability of data for advanced economies, economists have been able to test theories predicting the impact of technology on jobs. One of the first works in this respect comes from a seminal paper from Paul Samuelson *Ricardo was Right!* (1989) where using mathematical tools, he is able to provide conclusive evidence in support of Ricardo. On the other hand, Acemoglu analysis of data from the industries supports this viewpoint. Similarly, an approach of Acemoglu and Restrepo (2015) on data on US jobs show the impact of technology on jobs. But an earlier study by Bresnahan (1991) shows the effect of technology on cashiers and telephone operators. Although they do not focus on the other aspects of employment created by the technology they do show the impact of technology on employment. Two critical works that form the basis of our study is the OECD paper (2016) that highlights sector wise and employment wise details on the impact of new technologies on employment, and by Frey and Osborne (2013) which highlights using O*NET data, using six-point classification the effect of technology on jobs. Similar work has also been done by Piva and Vivarelli (2017) which highlights using Schumpeterian analysis the labour friendly impact of R&D expenditures primarily in medium and high tech sectors and having no effect on low tech industries.

Over specifying job losses

Although Autor et al. (2003) emphasis on the impact of technology on job losses, so do studies by Autor and Dorn (2013) none of them lay as much research on their work as one by Frey and Osborn (2013) which emphasises 47% of jobs to be automated due to automation in the near future. Frey and Osborn using parallels from Offshoring studies of (Jensen and Kletzer, 2005; Blinder, 2009; Jensen and Kletzer, 2010; Oldenski, 2012; Blinder and Krueger, 2013) build on the work of Blinder (2009) who predict 22-29% job losses due to offshoring. They use the revised O*NET data for the US economy rely on occupational characteristics to show the change technology has brought about in jobs. To create a further classification, they

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use the SOC correspondence of O*NET to link occupational characteristics to 2010 Bureau of Labour Statistics (BLS) employment and wage data. As the O*NET occupational classification is somewhat more detailed, they aggregate these occupations to correspond to the six-digit 2010 SOC system, for which employment and wage figures are reported. Further, they use means of O*NET aggregates also to classify the six-digit classification to arrive at 702 categories. (Frey and Osborn, 2013).

Further analysis of computerisation bottlenecks is created to assess which jobs are based on three types of perception and manipulation, cognitive abilities and social intelligence for calculation of the probability of job losses in each of the categories. Using this analysis, they highlight that sales, office and administrative support, services, and production are at high risk of automation, while education, computer engineering and management are in low or medium of the risk of automation. Thus, they claim that 47 per cent of total US employment are in the high-risk category, meaning that associated occupations are potentially automatable over some unspecified number of years, perhaps a decade or two. (Frey and Osborn, 2013)

Underscoring the rate of job loss

The main criticism of Frey and Osborn is focused on their over specifying the pace of job losses due to automation. Thus, for this paper we point to two contemporary studies, which we believe grossly underscore the rate of job losses due to automation. The one by Piva and Vivarelli uses Schumpeterian analysis of job losses to emphasise on the scale of job losses owing to product and process innovation. Using Marx's compensation principles Piva and Vivarelli highlight the impact product and process innovation can have on job losses. More important, they emphasise on the Fordist and post-Fordist ideas of jobs as well to put forth their point. They show that for medium and high tech sector's R&D innovation has a labour friendly impact, while there is no effect on low-tech industries. On the other hand, capital formation is negative related to employment; process innovation has a labour saving effect due to embodied technical change.

The paper by Arntz et al. (2016) is in direct contrast with the study of Frey and Osborn as it focuses on which particular occupation structures are open to automation, criticising the technique used by Frey and Osborn. Most studies, like Frey and Osborn, tend to over-estimate the impact of jobs as they follow an occupation-based approach to automation, as some high-risk occupations may still contain jobs that are not easily automatable or may have a human component, they believe. The authors follow a task-based approach, unlike those followed by Frey and Osborn, to illustrate the loss in jobs due to automation. At 9%, less number of jobs are automatable, than occupation-based approach. There are heterogeneities across countries given the difference in workplace organisation, previous investments and disparities in education.

Taking data from PIACC, which is double-digit code data, they have tried to infer the automat ability in each of the tasks rather than going sector by sector. In taking this approach, they have relied on multiple imputations. Automat ability is regressed on characteristics of jobs, using GLM from Papke and Woolbridge where the dependent variable is transferred to a non-restricted interval.

Thus, the central argument of the study is that

- A. "Estimated share of jobs at risk must not be equated with actual or expected job losses", as utilisation of technologies may not catch up to economic, legal and societal hurdles, leading to a slower rate of "technological substitution".
- B. Job switching may provide the answer to technological unemployment.
- C. New technologies may create more jobs

Conclusion and further analysis

Although all the approaches present a cogent analysis of the coming times, we believe that there is irrationality in the way studies have either overemphasised and underemphasised the impact of job losses. The Frey and Osborne study while providing a detailed analysis on the jobs does tend to over specify the rate of job losses by making the whole occupation automatable, even if some parts of that job may be automatable. But on the other hand, analysis by Piva and Vivarelli does not tend to cover the impact of latest technologies on product innovations. Even if we were to assume that innovation does take place and in fact is labour friendly, can we say that product innovations will be able to compensate entirely for the losses arising from process innovations. More important, what the authors do not classify is whether AI or 3D printing would come under process or product innovations.

On the other hand, for Arntz, even though we agree with their criticism of Frey and Osborne, there is an under specification of their job loss model. For instance, while they assume that automat ability of jobs with higher educational qualifications (engineering bottlenecks) is lower, we believe that the description of high educational jobs can be a problematic instance as, in this case, educational qualifications required have increased over the last decade or so.

More important, even if we were to ignore that the study does not mention the rate by which people may lose jobs. When they assume that 4% of retail sales personal will lose jobs as against 92% predicted by the FO model, they do not take into account the release of employees given the automation and increase in productivity.

Although Arntz et al. (2016) assume that the impact is often over-estimated as economists tend to overemphasise on the ability of robots to take over jobs. And, the scenario is also dependent on adoption of technology and the knowledge as companies often wait for new education and wide-spread adoption to come before they go ahead with technology adoption and relative factor prices constitute an important part of technology switching. The problem with such approach is to consider rationality in the process of innovation and competitiveness. As Ricardo has highlighted there is no rationality in adoption of technologies once the market starts competing for shares and employment may lose relevance. Although it is right that lowering of wages owing to technology may lead to a relook at the human labour component, but with cost of technology decreasing, the nature of work may not be the same. More important, would humans even be a component of such change once a company moves towards technological upgradation remains to be seen, as these technologies will surely not be backward compatible.

Similarly, the complementarity argument may work in certain instances, it may not work in all as for the first time you do not need a person to sit behind a computer or a machine. More important, even oversight has been taken care of.

Arntz et al. also argue that FO does not take into account positive demand effects, and neglects that jobs of the future are likely to be complementary to new technologies. We believe that even though the positive demand effects are over amplified, it certainly does have an impact for instance 3D printing industries would require people to create 3D printers, and unless those also get automated, there would be jobs in such sectors. More important, with incorporation of new products and time for more innovation, new technologies may not be automatable right from the start and would require some human component.

Moreover, evidence from the past revolutions may not suffice in case of labour productivity, and its impact on higher wages, employment and labour income, as the labour wages may still increase for those left in the profession, but the unemployment may create more people with no wages. Besides, what also needs to be considered that labour wages may not serve as a parameter as demand of luxuries for those still employed may increase leading to larger consumption in sectors where again employment is minimal.

Finally, even if we say that labour saving technologies have increased profits, thus money in the hands of the entrepreneur, thereby creating new demand for labour in the past, this may not be the case for future technologies. For once, as the capitalist accrues more part of the profit, he/she will try to reduce the component of living labour, not reduce it, as even government's would turn over protective with policy to save labour, like some developing economies, like India, are to this day. Graetz and Michael's (2015) study does highlight improvement, but we cannot say for sure the nature of work that such industrial robots were carrying out. More important, the issue may not be, at least in the initial years, of unemployment, but of job addition in the market, something that is evident from Indian banking sector. In considering automation and education there are a few drawbacks. One, the nature of the job may not reflect the educational qualification of a person. Two, even if it does the nature of automation besides organisation of work, use of capital, availability of technology may also depend on the ICT technologies present in the economy. It may be the case that where ICT penetration is high there can be a case for higher level of automation, than where it is low, but the opposite can also be true for economies which are fast in catching up with ICT and may adopt new modes. Thus, we would need a new lens to look at developed and developing economies as the impact on such may not be the same. David Harvey in "Marx's refusal of Labour Theory of Value" (Harvey, 2008) does emphasise on the futility of single labour theory, propounding theories for each region given the cultural context. His analysis of innovation becoming an industry not leaving much choice for people to adopt it presents a precise picture of today's world, but analysis in this study will side with Marx in this instance. Given the pervasiveness of technology and the imposition of it on capitalists in an urge to find cheaper mechanisms, there may exist one theory in an automated society, with different stages within that system being played out across geographies.

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Employee retention practices in hospitality industry in Nepal: Investigating the moderating effect of management hierarchy, age group and gender

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ABSTRACT

In view of indispensability of quality human resources (HR) and talents and their retention in the organisations, it is imperative and relevant to investigate into the HR retention practices. Hence, the present study seeks to examine the influence of human resource management practices on employee retention and the moderating effect of level, age group and gender on the determinants of employee retention in the hospitality industry companies of Nepal. The study employed a cross sectional descriptive survey design with a sample of 292 respondents from six out of eight five star hotels of Nepal stationed in the capital Valley of Kathmandu. The study has made use of correlation analysis, Jonckheere-Terpstra test, as well as post hoc and Mann-Whitney U tests. Measured by management hierarchies, the study concludes that entry level category of employees are most influenced by rewards and compensation increasing their commitment towards the organisation to reduce their turnover, whereas in case of higher level managers, the employer branding is an important retention measure. Likewise, the negative and significant relationship exists between career growth and age group indicating such age group employees are interested in balanced work life and employer branding for retention. The study also concludes that for male hotel employees, career growth and balanced work life are the strongest and weakest retention measures in Nepalese five star hotels.

Introduction

In the global business environment, employee commitment, productivity and retention issues are emerging as the most critical workforce management challenges (Caplan & Teese, 1997). As a result of globalisation and liberalisation, competition of labour market has increased and the war for talents has intensified. Today's organisations value their intellectual assets more than their hard assets and physical resources. Due to increasing levels of importance for recognition of the workforce, employee skills, employee knowledge and employee experiences, recruitment and retention of employees has become a major concern for organisations (Arachchige & Alan, 2013).

Employment and retention of the new talent has been significant in continuous growth of an organization. The retention of employees has shown to be significant to

the development and the accomplishment of the organisation's goals and objectives especially in building competitive advantage over other organisations in the phase of increased globalisation (Armstrong, 2001). Tourism and hospitality industry has continued to receive rigorous attention of academics, business tycoons and economic analysts because of its growing effect on the economy (Uddin, Das, & Rahman, 2008). The hotel industry is a dynamic service sector where optimal human resource management is required to ensure professionalism and efficiency in service delivery (Hanzaee & Mirvaisi, 2011). Employee retention is vital for the hospitality sector as it employs more people than any other industry within the private sector both domestically and globally (Ogbonna & Lloyd, 2002). The process of retention will be a gain for the organisation as follows; first the cost of turnover increases company's expenditure and reduces profits (Oster, 2004). However huge problems exist in attracting and retaining a skilled workforce in this industry.

Statement of the problem

High employee turnover is one of the major problems (Fladetta, Fasone , & Provenzano, 2013) and a continuous challenge for the hospitality industry (Brown, Thomas, & Bosselman, 2015). The value of employee retention in the global hotel industry is irrefutable as this sector has experienced problems with retaining their employees over a period of time (Farrell, 2001), which has affected the ability to deliver a consistent brand experience, harming business; and the fact that not enough people see the growing industry as somewhere to build their careers (Druce, 2007).

With the exit of an employee, new employees have to be recruited, selected, oriented and trained. In fact, it is estimated that it costs an organisation approximately 1½ times the salary of the vacated position to replace an employee (Lips-Wiersma & Hall, 2007). The negative effects of an organisation not being able to retain its employees over a period of time ranges from loss of productivity, strained communication between management and employees, increased costs of hiring and training new employees, employers losing their invested resources to their competitors, loss of corporate memory, employee-customer relationships being strained and above all the morale of existing staff goes down (Kysilka & Csaba, 2013).

Employee turnover can have a demoralising effect on an organisation, and it may also severely impact the overall efficiency of the organisation. This becomes even more critical in such service-oriented organisations as hotel industry. Hence, it is increasingly important for practitioners and scholars to understand the reasons behind the high employee turnover rate (Qui, Hung, Haobin, & York, 2015) and effective practices for high retention in the industry. In view of this context and reality, the present study has been undertaken for exploring the determinants of retention in five start hotels in Nepal.

Significance of the study

The study has sought to incorporate insights into how different retention strategies or practices can contribute towards making an organisation more attractive for employees. It provides an action-oriented outline for the enterprises in improving their organisational attractiveness and matching their retention strategy with the needs of workforce and to ensure the intake of new talented workers and successful retention of the existing employees. The present study findings are expected to be beneficial to managers as they help the latter in figuring out what career development practices they can adopt in retaining employees and best suit their

organisations. In addition, it enables organisations to know which retention strategies would motivate employees to remain with the organisation and improve their performance. The study can add value to policy makers, especially the human resource managers who want to come up with retention strategies in their corporate policies to retain their human resources and talents, and reduce labour turnover. For academicians, this study can help form the foundation upon which other related and replicated studies can be based. It is expected to add value to the existing body of knowledge in this area for the concerned scholars.

Objective of the study

The major objective of the study is to explore determinants of employee retention at five-star hotels of Nepal. The main aim of the study has been broken down into the following specific objectives:

- To explore the differences on the human resource retention variables across management hierarchy (level), age group and gender of the employees;
- To examine the relationship of the HR retention variables with management hierarchy (level), age group and gender of the employees; and
- To analyse the effect of management hierarchy (level), age group and gender on the HR retention variables

Model of the study

The study has extracted the HR retention variables from three different models, namely, Met Expectations Model, Causal Model of Turnover and Integrated Process Model. The concept of 'Met Expectations' is described as the discrepancy between what a person encounters on this job in form of positive and negative experiences and what he expects to encounter (Porter & Steers, 1973). Under this hypothesis, when an individual's expectations—whatever they are, are not met, his propensity to withdraw would increase. The model was developed by aligning with Vroom's theory. The Causal Model of Turnover (Price, 2001), which is a short reflection on the determinants of employees' voluntary turnover. The model has posited four individual exogenous variables that have direct impact on turnover intention: general training, job involvement, positive affectivity and negative affectivity. General training has a significant positive relationship to turnover intention with assumption that increased general training produces a greater amount of turnover.

The third model adopted in the study is 'Integrated Process Model' by (Jackofsky, 1984), which is influenced by (March & Simon, 1958), which consisted of desirability and ease of movements. In the basic model, ease of movement was referred to as the opportunities and alternatives provided by other organisations or extra-organisational factors such as good labour market conditions. Whereas, the desirability of movement was implied to be the employee's job satisfaction and for this mostly referred to possible intra-organisational factors (Thwala, Ajagbe, Enegbuma, Bilau, & Long, 2012). These two movements were considered as main factors which would stimulate the intention of employees to leave the organisation voluntarily. Basically, skilful employees would be rewarded with incentives such as higher bonus, year-end travelling vouchers and others compared to poor performers. Those rewards would definitely boost their contribution in their organisation; however, this factor is also expected to be negatively related or unrelated to job performance; as high performers might also receive better job alternatives from other organisation and leave to join competitors (Abdullah, Bilau, Enegbuma, Ajagbe, Ali, & Bustani, 2012).

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Related literature review

The related literature review is based on four different variables extracted from Met Expectations Model, Causal Model of Turnover and Integrated Process Model, namely compensation, career growth, work life balance and employer branding.

Compensation

Compensation is an important feature of human resources management (Torrington, Hall, & Taylor, 2008). Compensation is defined as monetary benefits that accrue to employees both intrinsically and extrinsically. The compensation system that an organisation offers to its employees plays an important role in determining the commitment levels of employees and their retention (ILO, 2010). Gardner, Van, & Pierce (2004) highlighted that the compensation strategy is extremely important as the right compensation strategy helps to build the effective and competitive organisation and the wrong setting of the compensation strategy can destroy the organisation with low retention rates and not utilising the full potential of employees. An organisation can only be successful in its retention strategy if it offers competitive, market-related pay and benefits, because this motivates employees to become committed to the organisation (Lockwood, 2003). Compensation plans consists of explicit policies, practices and procedures which are organised and managed as a whole (Armstrong, 2009).

Employees are likely to stay in organisations where they believe that their capabilities, contributions and efforts are appreciated (Davies, Taylor, & Savery, 2001). Similarly, (Tessema & Soeters, 2006) concluded there is a positive correlation between compensation practices and employee retention. However, regardless of many studies reporting that financial rewards to be a poor motivating factor, remuneration packages still remain as a tactic employed by several organisations to improve employee commitment and retention (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001). However, the study showed that there was much individual variability in the importance of financial rewards for employee retention (Pfeffer, 1998). Therefore, an organisation's compensation strategy should be able to attract the right quality of employees, retain suitable employees and also to maintain equity amongst the employees.

Career growth

In today's competitive environment, it is necessary that all organisations create a work environment which will enhance employee's career growth and development. Career development is a system which is organised, formalised and it is a planned effort of achieving a balance between the individual career needs and the organisation's workforce requirements (Leibowitz, 1986). Career development practices are key strategic considerations for all organisations regardless of market or profile (Meyer & Allen, 2001). It helps companies attract and retain high performing employees. The programmes of career development are the processes through which employees' career goals and aspirations are nurtured to fulfilment; and at the same time aligning these career goals with the organisational needs, opportunities and goals (Schultze & Miller, 2006).

The development of the capacity and capability of the organisation employees has a fundamental impact on efficiency, effectiveness, morale and profitability of an organisation (Armstrong, 2001). It has become evident that in order to foster the necessary growth and development of organisation, all organisations should develop

a career development programme in the workplace (Prince, 2005) to ensure that employees are well developed before they move up the next higher level in the hierarchy which benefits both individual employees and the organisation as a whole.

For organisations to acquire a high rate of employee retention, organisations should understand, encourage and enable their human capital with personal growth to ensure they acquire self-actualisation (Ontario, 2005), as an increment in employee retention bring a reduction in recruitment thus saving the organisation time and costs in recruitment and training (Philips & Edward, 2008). Werther and Davis (2002) pointed that such a move will enhance organisational loyalty among employees, result in higher levels of job satisfaction, lower employee turnover, and fewer employee complaints. As a result, it is prudent for organisations to adopt the concept of career development to enhance employee retention.

Work-life balance

Although there has been much research on work life balance (WLB), it is still an area that causes concern for the any industry. Armstrong, Riemenschneider, Allen, and Reid (2007) defined the quality of work life as satisfying an employee's needs via the resources, activities and outcomes that arise from involvement in the workplace. The long and unsocial hours, low pay and often low status of some tourism jobs, especially in the hospitality area neither easily attract new staff nor retain existing staff, as it hampers the work life balance (Deery, 2008). Rowley and Purcell (2001) argued that the hospitality industry has higher than average skill shortages, labour turnover and hard-to-fill vacancies.

With specific attention on the impacts on the work life balance, Smith and Gardner, (2007) suggested that conflict between work and home life is linked to job dissatisfaction and staff turnover. Deery and Shaw (1999) examined the role that a turnover culture has on employee satisfaction and organisational retention and showed that if the organisation accepts high levels of employee turnover as normal, employees are less satisfied and retained. As (White, Hill, McGovern, Mills , & Smearton, 2003) argued, less satisfied and committed employees have a diminished quality of work life and so leave the organisation. Huang, Lawler, and Lei (2007) found that having a work-life balance decreased employees' intentions to leave an organisation. Glen (2012) found a strong positive relationship between work life balance, employee retention and career development aspects. McDonald, Brown, and Bradley (2005) identified flexible working conditions as one of the important dimensions in terms of the factors that influence employer attractiveness.

Guest (2002) over-viewed the work-life balance by relating to the attitudes and values of two groups of workers such as those in Generation X appear to seek greater balance in their work and family life while older workers do not do this. The millennial employees are unlikely to remain with the same company or industry for their entire careers as old generations do (Solnet, Krali, & Kandampully, 2012). Doherty (2004) examined the work-life balance for women in the hospitality industry and found that it was the very long hours and the lack of flexibility that deterred women from seeking senior levels. In this regard, top management ought to recognise this by acting proactively and to retain talented people of different strata by developing appropriate strategies.

Employer branding is a relatively new approach towards recruiting and retaining the best possible human talent within a recruiting environment that is becoming increasingly competitive and it has captured considerable attention in recent times.

Attracting skilled people is equally as important as acquiring the equipment or technological resources that are required to build competitive advantage (Backaus & Tikoo, 2004). The employer branding concept was highlighted due to the growing competition among rival companies which required talent to compete and achieve growth and sustainability (Mosley, 2007). In much the same way that organisational brands communicate the benefits of using a product or service to potential consumers, employer brands communicate the benefits of employment to potential employees (Ambler & Barrow, 1996), who had first conceptualised the concept of employer branding by focusing on four dimensions namely the interest value, social value, development value and application value and further two dimensions on employer branding namely management value and work life balance value were elaborated by Dabirian, Kietzmann, & Hoda (2017).

The theoretical perspective of employer branding has been largely guided by the human capital theory and the resource-based view (RBV) of the firm. According to the theoretical view point, employer branding concept is described as the 'sum of a company's efforts to communicate to existing and prospective staff that the organisation is a desirable place to work' (Ewing, Leyland, Nigel, & Pierre, 2002). Employers who have high employer brand value are perceived by potential employees as more attractive than those with lower employer brand value (Berthon & Ewing, 2005). According to the Conference Board report on employer branding (Collins, 2006), organisations have found that effective employer branding leads to competitive advantage, helps employees internalise company values and assists in employee retention.

Davies (2008) explored the role of the employer brand in influencing employee's perceived differentiation, affinity, satisfaction and loyalty. According to Dell & Ainspan, (2001), organisations have found that effective employer branding leads to competitive advantage helps employees internalise company values and assists in employee retention. Organisations with a strong brand image can acquire employees at comparatively low cost, improve employee relations, increase employee retention and offer lower pay scales as compared to its rivals (Riston, 2002). Managers can use employer branding as a shade under which they can channel different employee recruitment and retention activities into a coordinated human resource strategy. Accordingly, employers can control brand power to engage their employees in emotional ways to achieve change, outstanding results or increase attraction and retention.

Study methodology

The design employed for this study is cross sectional descriptive survey design, as it can collect the data on phenomena that cannot be directly observed. A descriptive survey is a systematic, non-experimental method for gathering information from a sample for the purpose of describing the attributes of the larger chosen population. In addition, the design best fits in the ascertaining and describing characteristics of variables in the study and allows for use of questionnaires.

The target population of the study is the five star hotels in Nepal, which have been in operation for at least 10 years. The official data of the Hotel Association of Nepal (HAN) have put the total number of 5-star hotels in Nepal at 8 (HAN, 2018) which three are international chain hotels in Kathmandu and rest are non-chain hotels. The study has used a stratified random sampling method to select the three chain and three non-chain five star hotels stationed in the capital valley of Kathmandu; they

represent 75 per cent from the defined population. The list of sample hotels is exhibited in Appendix A.

Further, the employees of the sample hotels in front line departments; namely, front office, housekeeping, service and food production are considered to be the population of the study. Prior to determining the employee sample size, the numbers of human resources were obtained from the human resource department of the sample hotels. As the study has covered top level managers, mid-level managers and entry level employees from four front-line departments of the sample hotels, the random sampling method has been adopted to determine the required sample size of 278 respondents from the sample hotels of 976 population respondents at 95 percent confidence level at $\pm 5\%$ margin of error (Encyclopedia of Survey Research Methods, 2008). The top level managers are the departmental heads, mid-level managers are the assistant departmental heads and sectional heads within the departments; and low level employees are non-supervisory employees (other than top managers, assistant managers and mid-level managers) in the frontline departments of the hotels. The detail of the sample respondents is exhibited in Appendix B.

A structured questionnaire was used to collect data using a non-disguised approach and validated with content validity by scrutinising it with the help of HRM experts. Finally, after required corrections, the questionnaire was distributed among the intended sample using a self-administered process in two hotels and with the help of assistants in rest four sample hotels. The questionnaires were distributed through drop and pick method, as this technique is an effective means to reduce potential non-response bias through increased response rate. There was a follow-up to ensure that questionnaires were collected on time and assistance to the respondents having difficulty in completing the questionnaires was offered and also instructed to offer. The questionnaires were administered within a period of 37 days from 20th July 2018 to 26th August 2018 on 343 respondents from six sample hotels out of which 300 filled questionnaires were collected, and 292 usable.

The set of data has then been described using frequencies, percentage, mean, standard deviation. Furthermore, a study has also used the non-parametric tests after fulfilling all the assumptions to test the hypotheses under study. The study has used Spearman rank correlation, Jonckheere-Terpstra test, Mann-Whitney U test, and measure of association (effect size) of the moderating variables on the variables to infer about for the population of the study using significant value approach at 95 per cent confidence level. The effect size for Jonckheere-Terpstra test and for post hoc and Mann-Whitney U test analysis has been calculated using the following formulae as suggested by (Cohen, 2008) and (Fritz, Morris , & Richler, 2012).

$$r (\text{Jonckhree} - \text{Terpstra test}) = \frac{\text{Standardized } J-T \text{ test statistic}}{\sqrt{N}}$$

$$r (\text{Post hoc and Mann Whitney U test}) = \frac{\text{Standardized test statistic } (z)}{\sqrt{N}}$$

Where,

R= measure of association or effect size

N= number of cases

All the calculated r values are then compared with Cohen's d value which has r equivalent to d* as exhibited in Table 1. Rosenthal & Rosnow (1984) noted that the thresholds for small, medium and large effects are not consistent for r and d; it is

evident in Table 1. Although a small $d = .20$ is equivalent to a small $r = .10$, the r equivalent of a medium-sized $d = 0.5$ can be rated as a small effect (.24, not .30) in the correlational metric. Thus, Cohen requires larger effects when measuring the strength of association.

Table 1

Comparison of measure of association d vs r

<i>Effect</i>	<i>d</i>	<i>r</i>	<i>r equivalent to d^*</i>
Small	0.2	0.1	0.1
Medium	0.5	0.3	0.24
Large	0.8	0.5	0.37

Note: Based on Rosenthal & Rosnow (1984)

Limitations

The limitations of the present study could confine the generalisation of the findings. It has considered only an employee perspective, and ignored the employer perspective which might limit the interpretations from being widely acceptable. The present study has covered only four dimensions of retention strategies, viz., compensation, career growth, balanced work life and employer branding. The study is conducted only in selected five star hotels and ignores a large portion of other hotels (4-star and below, and non-star) which also have huge contribution to the Nepalese economy. The findings are based on the truthfulness of the opinions provided by the respondents and as it is conducted on current scenario, the opinions of the respondents may differ with time and with other industry sectors.

Results and discussion

The questionnaires were distributed to 343 respondents at six sample hotels, of which 300 were collected and 282 were found to be usable: it posted valid response rate of 85.13 per cent.

Table 2

Spearman rank correlation analysis for the variables under study

Variables	Compensation	Career growth	Balanced work life	Employer branding	Management Hierarchy (Level)	Age Group
Compensation	1					
Career growth	-.287** (0.001)	1				
Balanced work life	-.332** (0.001)	-.480** (0.001)	1			
Employer branding	-.430** (0.001)	-.247** (0.001)	-.179** (0.002)	1		
Management Hierarchy (Level)	-.210** (0.001)	-0.054 (0.358)	0.066 (0.259)	.263** (0.001)	1	
Age Group	0.031 (0.592)	-.285** (0.001)	.156** (0.008)	.143* (0.015)	.511** (0.001)	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Note: Calculations based on Authors' Survey, 2018

Appendix A exhibits the sample characteristics under three strata. The first strata were level of the respondents which had top, middle and entry level jobs of the respondents constituting 15.8, 25.3 and 58.9 per cent respectively. Similarly, the second strata were age group with three categories namely 40 and above (12.7 per cent), 30-40 (38.0 per cent) and below 30 (49.3 per cent). Finally, gender strata had 63.7 and 36.3 per cent of male and female respondents, respectively.

The Table 2 exhibits the Spearman rank correlation generated on practices of employee retention strategies with management hierarchies (levels) and age groups of employees. The result suggests that the management hierarchy (level) of the respondents has negative and significant relationship with compensation (-0.210) and positive and significant relationship with employer branding (0.263) which implies lower level employees recognise compensation as the important determinant for their retention and top level employees prefer it be of less importance at the hotels jobs, whereas the top level employees perceive employer branding as the most important factor for their retention and it is of less importance for lower level employees in hotel jobs. Similarly, the relationship of age group with career growth, balanced work life and employer branding were also found to be statistically significant with the coefficients of -0.285, 0.156 and 0.143, respectively. This implies there is inverse relationship between age groups and career-growth opportunities; that is, lower level employees are more career-conscious, and it acts as the important retention strategy for them. The result also reveals a direct relationship existing between age group and balanced work-life plus employer branding.

Table 3

Jonckheere-Terpstra test

Available on SSRN-Elsevier

Panel A: Median difference test on mean rank basis across level

Statistic/Variables	Compensation	Career growth	Balanced work life	Employer branding
Observed J-T Statistic	9542	11408	12812	15212
Mean J-T Statistic	12022	12022	12022	12022
Std. Deviation of J-T Statistic	702.860	709.096	689.308	703.499
Std. J-T Statistic	-3.528	-0.866	1.146	4.534
Asymp. Sig. (2-tailed)	0.001	0.387	0.252	0.001
Measure of association	-0.206	-0.051	0.067	0.265

Panel B: Median difference test on mean rank basis across age group

Statistic/Variables	Compensation	Career growth	Balanced work life	Employer branding
Observed J-T Statistic	13138.5	9222.5	14548.5	14510.5
Mean J-T Statistic	12709.5	12709.5	12709.5	12709.5
Std. Deviation of J-T Statistic	724.138	730.563	710.176	724.796
Std. J-T Statistic	0.592	-4.773	2.589	2.485
Asymp. Sig. (2-tailed)	0.554	0.001	0.010	0.013
Measure of association	0.035	-0.279	0.152	0.145

Note: Based on authors' survey, 2018

The study has performed a Jonckheere-Terpstra test on retention measures or practices across the three levels of management hierarchies and age groups of the sample to clarify if the population across these groups differ. The Table 3 shows that there is a statistically significant difference in compensation and employer branding between the different levels with observed J-T statistic of 9542 and 15212, $p = 0.001$ and 0.001 with a measure of association of 0.206 and 0.265 , respectively. Similarly, the table shows that there is a statistically significant difference in ranking of career growth, balanced work life balance and employer branding between the different age groups, with observed J-T statistic of 9222.5, 14548.5 and 14510.5, $p = 0.001$, 0.010 and 0.013 with an effect size of 0.279 , 0.152 and 0.145 , respectively. These are found to be in compliance with the results of Spearman rank correlation coefficients and significance. The post hoc analysis (pair-wise comparison) for the variables, which are significantly different for different management hierarchies (levels) and age groups of the respondents in Jonckheere-Terpstra test are shown in Table 4 and Table 5, and the sample average rank in Appendix C.

Table 4

Post hoc analysis across management hierarchies (levels)

Panel A: Pair-wise comparison of median differences across management hierarchies (levels) for compensation

Sample1-sample 2	Test statistic	Std. error	Std. test statistic	Sig.	Adj. sig	N	Measure of association
Entry level - Top level	3354	358.23	-1.680	0.046	0.139	218	-0.001
Entry level - Middle level	4068	489.438	-4.691	0.001	0.001	246	-0.001
Top level - Middle level	2120	178.777	2.338	0.990	1.000	120	0.001

Panel B: Pair-wise comparison of median differences across level for employer branding

Sample1-sample 2	Test statistic	Std. error	Std. test statistic	Sig.	Adj. sig	N	Measure of association
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Middle level - Top level	1656	175.887	-0.262	0.603	1.000	120	-0
Middle level - Entry level	8496	489.475	4.356	0.001	0.001	246	0
Top level - Entry level	5060	364.045	3.033	0.001	0.004	218	0

Note: Calculations based on Authors' Survey, 2018

The average mean rank for compensation for top level, middle level and entry level employees are 150.50, 183.18 and 129.65 respectively which is of evidence that entry level employees are more guided by compensation strategy of retention (See in Appendix C). Table 4 shows the presence of significant median differences across entry and top level (0.001) with medium effect size (0.299) indicating that the organisation management should differently treat the middle and entry level employees in order to retain them in the organisation. Similarly, the Table 4 also evinces the presence of significant difference in the mean rank of employer branding across middle and entry level (0.001) and top and entry level (0.004) with moderate effect size of 0.278 and small effect size of 0.205, respectively. The middle level and top level employees have valued employer branding as the most important retention strategies with mean rank values of 117.07 and 123.50 respectively whereas it was only 165.31 for the entry level employees.

Table 5

Post hoc analysis across age groups

Panel A: Pair-wise comparison of median differences across age group for career growth

<i>Sample1-sample 2</i>	<i>Test statistic</i>	<i>Std. error</i>	<i>Std. test statistic</i>	<i>Sig.</i>	<i>Adj. sig</i>	<i>N</i>	<i>Measure of association</i>
Below 30 - 30-40	6654	562.75	-2.378	0.009	0.026	255	-0.149
Below 30 - Above 40	1178	272.05	-5.462	0.001	0.001	181	-0.406
30-40 - Above 40	1390	216.62	-3.061	0.001	0.003	148	-0.252

Panel B: Pair-wise comparison of median differences across age group for balanced work life

<i>Sample1-sample 2</i>	<i>Test statistic</i>	<i>Std. error</i>	<i>Std. test statistic</i>	<i>Sig.</i>	<i>Adj. sig</i>	<i>N</i>	<i>Measure of association</i>
30-40 - Above 40	1676.5	216.74	-1.739	0.09	1.000	148	-0.143
30-40 - Below 30	9917	546.95	3.520	0.001	0.001	255	0.220
Above 40 - Below 30	2955	259.84	1.120	0.131	0.394	181	0.083

Panel C: Pair-wise comparison of median differences across age group for employer branding

<i>Sample1-sample 2</i>	<i>Test statistic</i>	<i>Std. error</i>	<i>Std. test statistic</i>	<i>Sig.</i>	<i>Adj. sig</i>	<i>N</i>	<i>Measure of association</i>
Above 40 - 30-40	2654.5	215.34	2.791	0.003	0.008	148	0.229

Above 40 - Below 30	3481	273.29	2.989	0.001	0.004	181	0.222
30-40 - Below 30	8375	557.43	0.687	0.246	0.738	255	0.043

Note: Calculations based on Authors' Survey, 2018

There is no median difference across various age groups in case of compensation taken as a motivating factor amongst the retention strategies. It is found to be consistent with the correlation coefficients.

Similarly, the career growth was discovered as the most motivating factor for the retention of the employees aged below 30 and 30-40 with mean rank value of 126.89 and 152.58, respectively: it was 204.58 for the age group of above 40. Table 5 depicts that there exists the difference in career growth as motivating factor of retention between the age groups: below 30 and 30-40, below 30 and above 40 and 30-40 and above 40 years. The large effect size of age group on career growth as motivating factor was found for the age groups between below 30 and above 40 years (0.406), moderate for the group of 30-40 and above 40 (0.252) and small effect size for the group of below 30 and 30-40 (0.149). Similarly, panel B depicts that there exists difference between age group of 30-40 and below 30 years in case of balanced work life as a motivating factor, with small effect size of 0.222. The balanced work life is the most motivating retention strategy for the age group of 30-40 years and then for the age group of above 40 years with mean rank of 125.76 and 148.82 respectively. Finally, elderly employees in Nepali 5-star hotels are found to have valued employer branding for what retains them in the organisation, as the average ranks of employer branding were 108.18, 148.46 and 154.83 for age groups of above 40, 30-40 and below 30 years. Panel D shows the difference in employer branding as effective retention strategy existing between the age group of above 40 and 30-40 and above 40 and below 30 years, with the small effect size of 0.229 and 0.222, respectively.

Table 6

Mann-Whitney U test

Variables	Compensation	Career growth	Balanced work life	Employer branding
Mean rank male	136.74	124.81	164.62	160.49
Mean rank female	163.63	184.56	114.71	121.95
Mann-Whitney U	8042	5824	6488	7256
Wilcoxon W	25433	23215	12159	12927
Z	-2.732	-6.015	-5.169	-3.911
Asymp. Sig. (2-tailed)	0.006	0.001	0.001	0.001
Measure of association	-0.160	-0.352	-0.302	-0.229

Note: Calculations based on researchers' survey, 2018

Table 6 reports significant median differences across gender of the respondents in compensation, career growth, balanced work life and employer branding as the effective strategies for HR retention. Male employees perceive compensation and career growth as the strong motivator for retention, as mean rank values of male respondents are observed to be lower 136.74 and 124.81 compared to 163.63 and 184.56 for female counterparts. Likewise, female respondents perceive balanced

work life and employer branding as an important motivator for retention as mean rank values are 114.71 and 121.95 against those of 164.62 and 160.49 for male employees. The effect size of gender on perceiving career growth and balanced work life as the important motivator for retention are found to be medium; i.e. 0.352 and 0.302, respectively.

Similarly, the measure of association values of 0.160 and 0.229 indicate there is a small effect of gender on compensation and employer branding as the best strategy of retention in Nepalese five star hotels in Nepal.

Conclusion

The study concludes compensation as the important and employer branding as the least important strategy to retain entry level employees in five star hotels in Nepal, whereas the importance of these factors is just reversed for middle level managers. The finding has matched with that of Moncraz, Zhao and Kay (2009) which was specific about the workforce categories noting that reward would affect most and compensation would reduce turnover and increase commitment among managers.

Further, the present study concludes that a negative and significant relationship exists between career growth and age group. It infers that the five star hotels in Nepal can promote the strategy of enhancing balanced work life and employer branding, rather than offering career growth opportunities to retain their elderly hotel employees. A weak brand image and reputation of the employer can lead to poorer candidates, disengaged and resentful high level employees, higher turnover and ultimately reduced organisational performance. The results are in line with the findings of Prince (2005) and Deery (2008) who had posited that some employees first focus on the professional career and subsequently devote more time to other areas of their lives that is known as the phenomenon of downshifting, and whereas some other employees emphasised on the significance of a healthy balance between personal and professional life to improve retention. Finally, the study concludes that there exist the significant differences across gender groups in terms of importance of retention practices: career growth as the most important and balanced work life least important for male; and the phenomena just reversed for female.

Implications

An organisation's retention measures are complex and challenging to implement. In order for the retention measures to be effective, the managers or supervisors need to be actively involved in the development and implementation of the workable retention practices. Management should have a clear understanding of the needs, goals, priorities and preferences of the different workforces and equip them with the necessary skills, provide better work life balance, compensate fairly and measure, analyse and position their employer brand to the job market where they can attract the right people with the right skills in the shortest period of time in order to retain them and improve the overall performance of the organisation. The cost of replacing employees is high and therefore the pursuits of HR practices by the hotels will enable employees understand their career path and plan for the future together and it will result in building of a bond that can help retain the human resources and talents in the organisation.

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Appendix A

Sample hotels

<i>SN</i>	<i>Name of the sample hotels</i>	<i>Address</i>
1	Soaltee Crowne Plaza	Tahachal
2	Radisson Hotel	Lazimpat
3	The Malla Hotel	Lekhnath Marg
4	Shangrila Hotel & Resort	Lazimpat
5	Hyatt Regency	Taragaon, Boudha
6	Hotel Annapurna	Durbar Marg

Appendix B

Respondents' characteristics

Panel A: Level of the sample

<i>Level</i>	<i>Frequency</i>	<i>Percent</i>	<i>Cumulative percent</i>
Top level	46	15.80	15.80
Middle level	74	25.30	41.10
Entry level	172	58.90	100
Total	292	100	

Panel B: Age group of the sample

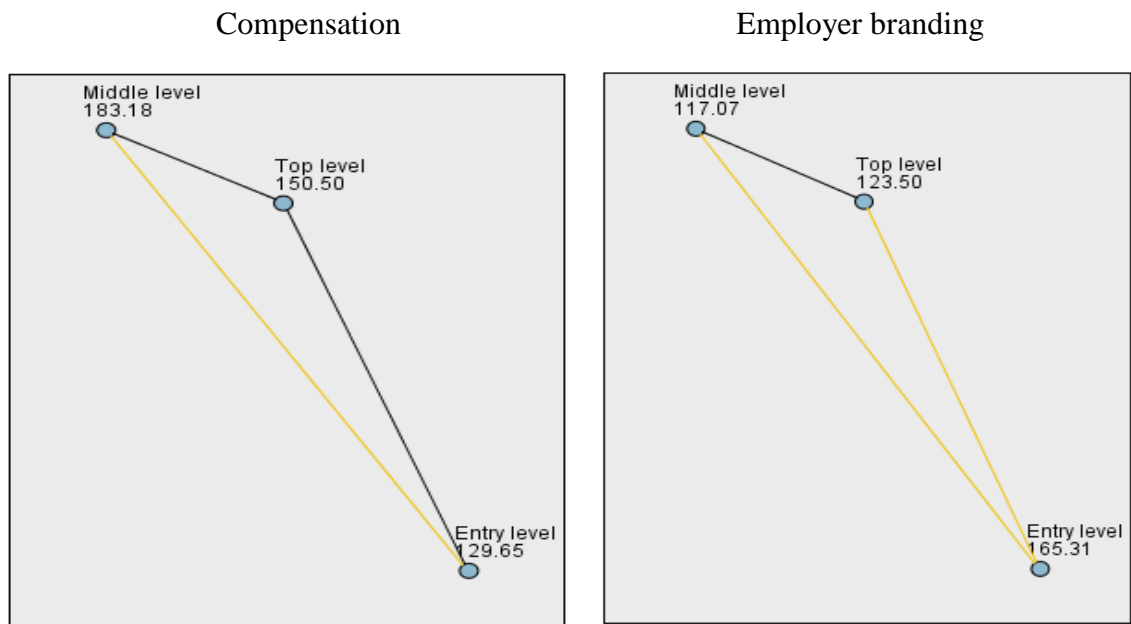
<i>Age Group</i>	<i>Frequency</i>	<i>Percent</i>	<i>Cumulative percent</i>
40 & Above	37	12.70	12.70
30-45	111	38.00	50.70
Below 30	144	49.30	100
Total	292	100	

Panel C: Gender of the sample

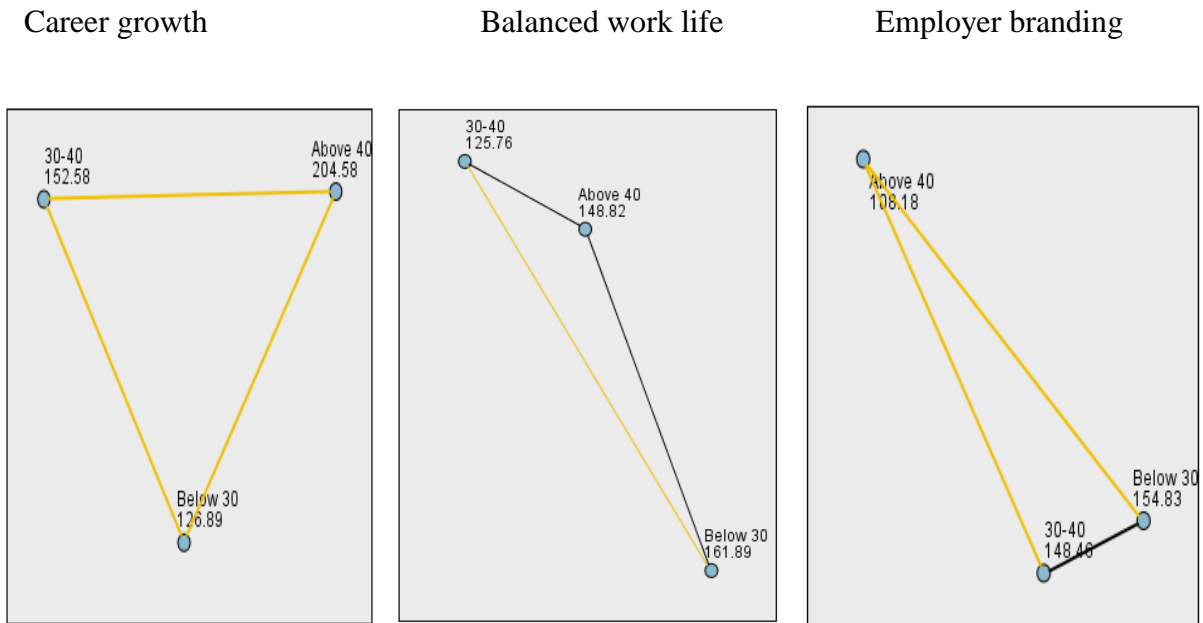
<i>Gender</i>	<i>Frequency</i>	<i>Percent</i>	<i>Cumulative percent</i>
Male	186	63.70	63.70
Female	106	36.30	100
Total	292	100	

Appendix C

Sample average rank for each management hierarchy (level)



Sample average rank for each age group



Role of Transformational Leadership in Enhancing Employee Engagement: Evolving Issues and Direction for Future Research through Literature Review

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ABSTRACT

In today's aggressive business world, employee engagement has become an indispensable element for organizational success and excellence. Leadership is considered to be the most inevitable and critical aspect for organization's advancement. Transformational leaders create a greater involvement in the work of subordinates resulting in higher efficiency and satisfaction, thus elevating overall employee engagement level in organization. Both leadership and employee engagement are one of the most researched subject in human resource management, however linking transformational leadership to employee engagement has not been extensively explored. This paper aims to relate transformational leadership and employee engagement. Main objective is to evaluate the role of transformational leadership by examining all the related factors that have an impact on employee engagement. Research methodology is established on the foundation of existing literature review, diverse empirical and conceptual studies and the relevant findings, which is then analysed to anticipate the transformational leadership–employee engagement relationship for future research.

Introduction

Leadership is the potential to influence behavior of others. It is the capacity to influence a group towards the realization of a goal. Everyday endless articles, journals, blogs are being written on leadership and much is being talked about it, but the exact meaning of this skill cannot be easily defined. While this term in general is enigmatic, charismatic and inexplicable; the demand for it in the corporate world continues to grow.

In business world, the interests of the organization and its employees need to be aligned and in true sense it is a task of the leaders to align them. It is essential to understand that leadership is an essential part of effective management. As a crucial component of

management, remarkable leadership behavior stresses upon building an environment in which each and every employee develops and excels.

All leaders do not possess same attitude or same perspective and they do not get the things done in the same manner. Their style varies. Transformational leadership is one of the many kinds of leadership that is usually on display in the real world. Transformational leadership goes beyond normal leadership and as the name implies, it results in a complete revival of the organization in the corporate world.

Employee Engagement is the extent to which employee's commitment, both emotional and intellectual, exists relative to accomplishing the work, mission, and vision of the organization. Engagement can be seen as a heightened level of ownership where each employee wants to do whatever they can for the benefit of their internal and external customers, and for the success of the organization as a whole. Engaged employee are considered to be the nerve of sound and positive working atmosphere.

Literature Review

Transformational Leadership: Review of Literature

In 1978, *James MacGregor Burns* defined the concept of a "transformational leader." His work has been continued and expanded upon by other researchers, including industrial psychologist Dr. Bernard Bass.

Bass (1985) described transformational leadership as a process by which leaders and subordinates help each other to advance to a higher level of motivation and morality. Bass (1985) has shown that transformational leaders can appear in times of development, change, and crisis. According to Bass (1985), transformational leaders are concerned about changing organizational culture and personal development of subordinates. Although early research demonstrated that transformational leadership was a particularly powerful source in military settings (*e.g., Bass, 1985; Boyd, 1988; Curphy, 1992; Longshore, 1988; O'Keefe, 1989; Yammarino & Bass, 1990a*), more recent research has accumulated that demonstrates that transformational leadership is important in every sector and in every setting (*Avolio & Yammarino, 2002*).

According to *Avolio and Bass*, transformational leaders can be more readily accepted in organizations that face dynamic markets and technology that is changing at a rapid pace. The transformational leader increases individual needs and desires to achieve more, to work at a more sustained pace, leading to the extra effort and performance of subordinates (*Howell and Avolio, 1993*). Transformational leadership has much in common with charismatic leadership, but charisma is only part of transformational leadership. Research has shown that transformational leadership involves satisfaction (*Hatter & Bass, 1995*) as well as commitment of employees to the organization (*Barling et al., 1996*). The Weberian notion of charismatic leadership was, in fact, fairly limited. More modern conceptions of charismatic leadership take a much broader perspective (*e.g., Conger & Kanungo, 1998; House & Shamir, 1993*), however, and have much in common with transformational leadership. Bass and Avolio (1993) argued that leadership and culture are so well interlinked that it is possible to describe an organizational culture through its transformational qualities.

The relationship between transformational leadership and personal results, such as satisfaction and commitment at work, is evident in *Bass and Avolio's research (1999)*. Other research has shown that this style of leadership has a direct influence on organizational behavior and performance (*MacKenzie et al., 2001*). *Zaccaro and Banks, (2001)* conducted several studies to show a positive relationship that exists between transformational leaders and organizational vision. Transformational leadership also has an impact on the commitment to organizational change (*Yu, Leithwood & Jantzi, 2002*), but also on organizational conditions (*Lam et al., 2002*). Trust represents an essential element in the relationship that exists between transformational leaders and their subordinates.

The degree of trust that exists in an organization can determine a large part of the organization's character and influences the organizational structure, work satisfaction, commitment, communication and organizational behavior (***Zeffane & Connell, 2003***). There is empirical evidence showing a relationship between transformational leadership on the one hand and the creativity and innovative ideas of subordinates on the other. *Jung, Chow and Wu (2003)* used data from 32 Taiwanese electronics and telecommunications companies and analyzed how transformational leadership influences creativity at organizational level. In another study, conducted in Korea, *Shin and Zhou (2003)* demonstrated that transformational leadership is positively correlated with the level of creativity of subordinates. Because of the impact that transformational leadership generates on personal and organizational outcomes, it is considered necessary in organizations from different domains (*Tucker & Russell, 2004*). The main purpose of these leaders is to change the organization's current structure and inspire employees to consider a new vision which has new opportunities (*Tucker & Russell, 2004*) for the individual, but also the organization as a whole.

Nguni et al. (2006) found that the transformational leader has an impact on organizational commitment, generating subordinates' commitment to the organization, organizational goals and values. Transformational leaders increase the intrinsic motivation of subordinates, which stimulates creativity, and intellectual stimulation encourages subordinates to think creatively (*Bass & Riggio, 2006*). It is very important that transformational leaders can inspire others to be more creative (*Bass & Riggio, 2006*). Authors such as *Nguni et al., (2006)*, *Emery and Barker (2007)* have shown that workplace satisfaction is positively correlated with transformational leadership. *Morrow* has suggested that the transformational leader will help promote employees' professional skills, organizational involvement, self-determination, delegation, and self-realization. *Eisenbeiss et al. (2008)* investigated the relationships between transformational leadership, team innovation, support for innovation and the climate to excel. The results showed that transformational leadership supports innovation. Innovation also interacts with the climate to excel, so support for innovation improves team innovation only when the climate to excel is best. Moreover, similarly, *Gong, Huang and Farh (2009)* found that learning orientation and transformational leadership were positively associated with employee creativity.

Wang and Rode (2010) analyzed relationships between transformational leadership, employee identification with the leader, innovative climate, and employee creativity. According to the results, transformational leadership was not associated with employee

creativity, innovative climate, or employee identification of the leader. However, employee identification with the leader and the innovative climate has been associated with employee creativity. *Lee & Kim (2011)* found that transformational leadership is positively related to the professional satisfaction of employees in government agencies, and that performance, professional satisfaction and transformational leadership are positively correlated. Numerous studies have demonstrated that transformational leadership is positively linked to personal results (*Dumdum et al., 2013*).

According to the results of *Yildız and Özcan (2014)*, there is a positive link between transformational leadership and subordinate creativity. In addition, transformational leadership and creativity are closely interrelated. The majority of the developed studies are oriented towards highlighting the impact of transformational leadership on subordinate performances (*Bo, 2013; Clifford et al, 2010; Hawkins & Dulewicz, 2009*) and organizational performance (*Jing & Avery, 2008, Vincent-Höper et al., 2012*). The culture of an organization is heavily influenced by leadership (*Girneata & Potcovaru, 2015*).

Employee Engagement: Review Of Literature

Employee engagement is defined as employees' willingness and ability to help their company succeed, largely by providing discretionary effort on sustainable basis (Perrin's Global work study, 2003). 'Employee engagement' is a relatively new term in HR literature and really started to come to prominence from 2000 onwards. Scarlett survey views it as measureable degree of an employee's emotional attachment to their job, colleagues and organization that profoundly influences their willingness to learn and perform at work. The employee engagement is an emergent working condition and a positive cognitive, emotional and behavioral state directed toward organizational outcomes (Shuck & Wollard, 2009). Gallup (which is known as authority on employee engagement) relates employee engagement to a positive employee's emotional attachment and employee's commitment (Demovsek D, 2008). Thus the employee engagement make employees emotionally bonded to their organization and tend them to become passionate about their work and hence results in improvement of employee retention. Melcrum Publishing (2005) found that from a global survey of over 1,000 communication and HR practitioners 74% began to formally focus on the issue between 2000 and 2004. According to Scarlett Surveys, "Employee Engagement is a measurable degree of an employee's positive or negative emotional attachment to their job, colleagues and organization which profoundly influences their willingness to learn and perform at work".

Employee engagement was described in the academic literature by Schmidt et al. (1993). A modernized version of job satisfaction, Schmidt et al.'s influential definition of engagement was "an employee's involvement with, commitment to, and satisfaction with work." This integrates the classic constructs of job satisfaction (Smith et al., 1969), and commitment (Meyer & Allen, 1991). In the service industry in particular, the level of employee engagement and satisfaction has been found to have positive effects on customer satisfaction as well as productivity (Harter, Schmidt & Hayes, 2002). Knowing value propositions (i.e. what to expect and what is expected) and having personal values

consistent with them can help organizations utilize employees as representatives of the corporate brand, since awareness of value propositions is the first step of building a brand (Sandberg, 2001). Organizations must look beyond commitment and strive to improve engagement, as it is engagement that defines employees' willingness to go above and beyond designated job responsibilities to promote the organization's success, Meere (2005).

Although there are many different definitions of employee engagement, the common theme among them is captured in the definition provided by Schaufeli and Bakker (2004), "Positive, fulfilling, work-related state of mind that is characterized by vigor (feeling energetic and resilience at work), dedication (being proud of and happy about one's work) and absorption (being totally immersed in one's work)." Having engaged workers benefits the organization in a number of ways. According to the Corporate Leadership Council (2004), engaged workers were more likely to exhibit discretionary efforts and improve individual performance. In addition, engaged workers are less likely to feel exhausted or to express cynicism toward the organization.

According to a 2006 ISR survey of 664,000 employees across countries, a higher level of employee engagement actually improved financial outcomes of organizations in terms of operating income, net income and earnings per share. Thus engagement is distinctively different from employee satisfaction, motivation and culture. Engaged employees can improve customer satisfaction in that they become the living brand of the organization (Bendapudi & Bendapudi, 2005). Currently, many companies develop their employees as a part of the corporate branding process (Hardaker & Fill, 2005). If employees are engaged in the organization and reflect values and missions, employees become active messengers who spread corporate brand to the world. EE has been reported to belong on the continuum of stress, as the antithesis of burnout (Halbesleben, 2003). It has also been reported to belong on the time continuum, as measured by the time spent on a job (Goddard, 1999). EE has also been used interchangeably with commitment (MacCashland, 1999). Authors use these different definitions and continuums often interchangeably, within the same articles and even in the same sentence. Mc Cashland (1999, p. 15) refers to engagement and commitment interchangeably. Yet commitment is a well-established construct, generally separated into either affective or continuous commitment (Mowday, Steer, & Porters, 1979).

Engagement is important for managers to cultivate given that disengagement or alienation is central to the problem of workers' lack of commitment and motivation (Aktouf). Meaningless work is often associated with apathy and detachment from one's works (Thomas and Velthouse). In such conditions, individuals are thought to be estranged from themselves (Seeman, 1972). Other Research using a different resource of engagement (involvement and enthusiasm) has linked it to such variables as employee turnover, customer satisfaction –loyalty, safety and to a lesser degree, productivity and profitability criteria (Harter, Schmidt & Hayes, 2002).

Need For Study

Leadership continues to be one of the most researched topics in the field of human resource management and employee engagement is the latest one. However, the

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relationship between leadership and employee engagement has not been extensively studied. All organizations whether big or small, utilizes significant resources and strategies in acquiring, developing, retaining and engaging employees. Leaders play a major role in delivering those strategies effectively and efficiently. Thus, it becomes crucial to study the relationship between leadership and engagement and the role of transformational leadership in particular in enhancing employee engagement.

Objective Of Research

This study was undertaken for the purpose of expanding the knowledge of transformational leadership and linking it with employee engagement. The primary goal of the study is to analyze and synthesize the role of transformational leadership research in enhancing employee engagement.

The paper is based on following objectives:

1. To gain by the means of extensive literature review, the perspectives of transformational leadership and employee engagement in terms of its definition, historical development and current status.
2. To link transformational leadership and employee engagement.
3. To finally evaluate the role of transformational leadership by examining all the related factors that have an impact on employee engagement.

The paper reports only on the context analysis.

The method employed was an integrative literature review. This procedure included an exhaustive literature search.

I. TRANSFORMATIONAL LEADERSHIP

Transformational leadership is a leadership style that can inspire positive changes in those who follow. Transformational leaders are generally energetic, enthusiastic, and passionate. Not only are these leaders concerned and involved in the process; they are also focused on helping every member of the group succeed as well. A transformational leader exhibits certain traits and behaviors to inspire and motivate a team or organization to rally around a common vision or goal. These behaviors and traits include charisma, intellectual stimulation, inspirational motivation and individual consideration for each team or group member. For many reasons, transformational leadership is an important factor at both the micro, or individual level, and macro, or organizational, societal level.

I.I Background

The concept of transformational leadership was initially introduced James MacGregor Burns. According to Burns, transformational leadership can be seen when "leaders and followers make each other to advance to a higher level of moral and motivation." Later, researcher Bernard M. Bass expanded upon Burns's original ideas to develop what is today referred to as Bass's Transformational Leadership Theory. According to Bass,

transformational leadership can be defined based on the impact that it has on followers. Transformational leaders, Bass suggested, garner trust, respect, and admiration from their followers.

I.II Different Components of Transformational Leadership

Bass also suggested that there were four different components of transformational leadership.

1. *Intellectual Stimulation* – Transformational leaders not only challenge the status quo; they also encourage creativity among followers. The leader encourages followers to explore new ways of doing things and new opportunities to learn.
2. *Individualized Consideration* – Transformational leadership also involves offering support and encouragement to individual followers. In order to foster supportive relationships, transformational leaders keep lines of communication open so that followers feel free to share ideas and so that leaders can offer direct recognition of the unique contributions of each follower.
3. *Inspirational Motivation* – Transformational leaders have a clear vision that they are able to articulate to followers. These leaders are also able to help followers experience the same passion and motivation to fulfill these goals.
4. *Idealized Influence* – The transformational leader serves as a role model for followers. Because followers trust and respect the leader, they emulate this individual and

I.III Importance of Transformational Leadership

Researchers have found that this style of leadership have a positive effect on the group. It also helps in individual growth and development and it increases performance of the subordinates. "Research evidence clearly shows that groups led by transformational leaders have higher levels of performance and satisfaction than groups led by other types of leaders," explained psychologist and leadership expert Ronald E. Riggio in an article for *Psychology Today*.

The transformational leaders believe that their followers can do their best, leading members of the group to feel inspired and empowered. Transformational leaders eliminate communication barriers existing in an organization and enable effective functioning of the organization. Transformational leaders make their followers understand the purpose of the change that is being introduced and make them adopt the same. They are high risk takers and do not hesitate to fight against injustice and unethical conduct present in an organization, if any. They have an in-built power to attract people towards them. They inspire their followers to a great extent in such a way that the followers support all their endeavors whole heartedly without any regret or hesitation. Another great advantage of having a transformational leader in an organization is improvement of its overall productivity.

As seen before, transformational leaders motivate their followers to a great extent to bring the best out of them. This in turn makes every employee working in an organization to put his or her fullest effort with personal commitment and a sense of

ownership, thereby improving the overall productivity, performance and profit of an organization.

I.IV Well-Being and Transformational Leadership

According to the results of one study, this style of leadership can also have a positive influence on employee well-being. The study published in the *Journal of Occupational and Environmental Medicine* involved surveying workers at several different German information and communication technology companies. Researchers asked participants to answer questions about their employer's leadership style. A score for transformational leadership was then determined based on qualities such as providing intellectual stimulation, giving positive feedback for good performance, leading by example, and helping employees feel like they were making a contribution toward the goals of the group.

The researchers discovered that employees who identified a higher level of transformational leadership in their employers also had higher reported levels of well-being. The effect stayed significant even after researchers controlled for factors that are linked to well-being such as job strain, education, and age. "The results of this study suggest that a transformational leadership style, which both conveys a sense of trust and meaningfulness and individually challenges and develops employees, also has a positive effect on employee well-being."

II. EMPLOYEE ENGAGEMENT

II.I Meaning of Employee Engagement

Much of the academic research on engagement has been inspired by the definition proposed by Kahn in 1990 (e.g. Rothbard, 2001). Kahn (1990) **defined engagement** in terms of a psychological state as 'the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances' (p. 694).

Three basic aspects of employee engagement according to the global studies are -

- The employees and their own unique psychological makeup and experience.
- The employers and their ability to create the conditions that promote employee engagement
- Interaction between employees at all levels.

Thus it is largely the organization's responsibility to create an environment and culture conducive to this partnership, and a win-win equation. As a concept that has developed over time, engagement has been defined in numerous, often inconsistent, ways in the literature.

II.II Types of Employee Engagement

According to the Gallup the Consulting organization there are there are different types of people -

Engaged--"Engaged" employees are builders. They want to know the desired expectations for their role so they can meet and exceed them. They're naturally curious about their company and their place in it. They perform at consistently high levels. They want to use their talents and strengths at work every day.

Not Engaged---Not-engaged employees tend to concentrate on tasks rather than the goals and outcomes they are expected to accomplish. They want to be told what to do just so they can do it and say they have finished. They focus on accomplishing tasks vs. achieving an outcome. Employees who are not-engaged tend to feel their contributions are being overlooked, and their potential is not being tapped.

Actively Disengaged--The "actively disengaged" employees are the "cave dwellers." They're "Consistently against Virtually Everything." They're not just unhappy at work; they're busy acting out their unhappiness. They sow seeds of negativity at every opportunity. Every day, actively disengaged workers undermine what their engaged coworkers accomplish.

II.III Employee Engagement Medium and Consequences

Medium of Employee Engagement

Studies have shown that there are various critical factors which lead to employee engagement. Some of them are:

- A two-way relationship between the employer and employee.
- The importance of the individual being able to align themselves to the products, services and values of the organization.
- The ability of the organization to communicate its vision, strategy, objectives and values to its staff so that they are clearly understood.
- Management should give staff sufficient 'elbow room' and autonomy to let them fulfill their potential.
- Empowering employees.

Consequences of Employee Engagement

Employee engagement is a positive phenomenon. Research suggests engaged employees are more likely to stay with the organization and performs 20 percent better than their colleagues.

The consequences of employee engagement can be summarized as:

1. Employee consequences

- Enable individuals to invest themselves fully in their work with increased self- efficacy.
- Result in positive health effects and well-being.
- Lead to mindfulness, intrinsic motivation, creativity, authenticity, non- defensive communication, playfulness, ethical behavior, increased effort and involvement and overall a more productive and happy employee (Kahn, 1990).

2. Organizational consequences

- *Customer loyalty* -Levinson (2007a) suggests that employees who are happy in their work are more likely to create loyal customers.
- *Employee retention* -Levinson (2007a) also suggests that employees who are happy in their work are more likely to stay in the organization.
- *Employee productivity* -Engagement affects employee performance (Kahn, 1990).
- *Advocacy of the organization*- ‘Engaged employees are more likely to advocate the organization as a place to work and actively promote its products and services’ (Scottish Executive Social Research, 2007 p.23).
- *Bottom-line profit* - ‘The appeal of employee engagement to management is its proven links to bottom line results’ (People Management, 2008).
- *Organizational Performance*- ‘The best (performers) tended to be those with the highest engagement scores’ (Robinson et al., 2007, p. 26).

Employee engagement is about how people behave at work. It refers to the extent to which people in an organization know what they have to do, and willingly give of their discretionary effort to do that. It is the difference between people coming to work and doing an adequate job, and people coming to work and really giving of their best, displaying creativity and using their initiative.

TRANSFORMATIONAL LEADERSHIP AND ENGAGEMENT

Employee engagement and transformational leadership are closely studied in the context of working environment and studies conducted on organizational settings. Transformational leadership theory has been expanded and extended by numerous authors and has been the focus of numerous research studies over the years. In Kahn’s seminal article on employee engagement (1990), he proposed that leadership has the greatest potential to influence follower feelings of psychological safety by providing a supportive environment in which one feels safe to fully engage in a task. However, Kahn did not consider that transformational leaders appear capable of promoting psychological meaningfulness and availability as well. Because of their ability to elicit a sense of challenge and meaning while boosting their followers’ belief that they can complete their work, transformational leaders are in an ideal position to promote psychological availability and meaningfulness.

Some authors have suggested that leadership is one of the most important factors contributing to employee engagement (Harter et al., 2002; May et al., 2004; Xu & Cooper Thomas, 2011), thus it is necessary to understand how an influential leadership style such as transformational leadership can affect the three psychological states that Kahn proposes lead to engagement on a task. Past research has shown that transformational leadership influences employee attitudes and behavioral outcomes, such as performance and organizational citizenship behaviors. Other research suggests a link between transformational leadership and employee engagement. Furthermore, many studies and research results had indicated that transformational leadership significantly predicted employee engagement and trust. Transformational theory proposed by Burns (1978) explains that transformational leadership style supports mutual understanding between employees and management while Burn’s (1985) theory

explained that interaction between employees and management is managed in ways that ultimately leads employees beyond their self-interest in support of organizational targets. Social Learning Theory (SLT; Bandura, 1977) may explain how followers of transformational leaders adopt meaningfulness and are therefore more engaged in their work.

Although SLT is generally thought of as explaining how individuals modify their behavior based on the observation of others (Manz & Sims, 1981), it has also been conceptualized as a mechanism in which leaders pass on abstract concepts such as values, attitudes, and beliefs (Lam, Krause, & Ahearn, 2010; Weiss 1977, 1978). Joubert and Roodt (2011:96) report that leadership has a direct relationship with employee engagement in organizations. With reference to organizational development, Clegg, Kornberger and Pitis (2008:140) are of the opinion that transformational leaders are the 'ideal people' to have during major organizational change, because they inspire employees to work towards achieving the organization's vision. Transformational leadership includes affective and charismatic elements of leadership that resonate with workers who experience a need to be inspired and empowered in uncertain and volatile times (Hughes 2010:139).

Organizations aspire to have engaged employees, and spend considerable resources to measure and improve employee engagement. Theoretically, transformational leadership is a key antecedent of engagement. The importance of transformational leadership in creating an enabling organization environment is undeniable. Booysen (in Robbins, Judge, Odendaal & Roodt 2009:289) quotes Brand Pretorius, one of South Africa's most prominent business leaders, as saying that leadership is like the electricity that powers an organization. An organization with transformational leadership has electricity, energy and commitment. There is a growing awareness of the importance of transformational leadership from the line manager in the shaping of human resource functions, including employee development (Boselie 2010:212). Stander and Rothman (2010:10) concur with Boselie by stating that transformational leaders develop followers' potential. The direct supervisor plays an essential role in the engagement of an employee with specific reference to knowledge, skills and abilities (Boselie

2012:216). Mokgolo *et al.* (2012:8) postulate that transformational leadership is "vital" for organizational success. Increasing employee engagement is a challenging and complex undertaking; however, the relationship quality an employee shares with immediate supervisors, known as LMX, plays a pivotal role in fostering engagement (Macey and Schneider, 2008). The principle of LMX theory is that leaders develop different types of exchange relationships with direct reports, a phenomenon labelled LMX differentiation (Liden *et al.*, 2006). The quality of these relationships influences the attitude and behaviors of important leaders and members (Bhal *et al.*, 2009 ;). The levels of a higher sense of engagement depend on the extent to which employees are prepared to offer discretionary effort (Medlin & Green 2009; Furness 2008; Lockwood 2007; Richman 2006; Lanphear 2004). Discretionary behavior has been found to be an important outcome that is caused by engagement which involves mental and emotional commitment that employees have in exchange for benefits (Kular *et al* 2008; Macey, Schneider, Barbera, & Young 2009; Macey & Schneider 2008). Transformational leaders who are rated highly in the transforming style of leadership establish a positive

connection with followers, thereby developing followers who are highly involved, committed and attached to their work. When followers believe in their organizations, they are likely to reflect that belief in their work outcomes. They will exert an extraordinary effort and go the extra mile in looking for creative solutions while taking intelligent risks (Wildermuth & Pauken 2008; Richman, 2006; Bass, 2008; Podsakoff, Mackenzie & Bommer, 1996; Shamir et al, 1993). Furthermore, leaders who articulate a shared vision and are stimulating create an optimal climate for work where followers can activate their lower order needs and also reach higher needs (self-actualization) (Bass 1985, 2008; Bass & Riggio 2006). In attempting to look at additional processes beyond those previously suggested, Ilies et al. (2006) have proposed a theoretical model that incorporates both an affective and cognitive mechanism through which transformational leadership affects follower motivation. The general idea is that transformational leaders affect motivation in two ways. First, transformational leaders induce positive emotional experiences in their followers. Second, transformational leaders communicate a clear vision and the effects of that vision on goal setting. These two mechanisms and the interplay between them are proposed to be the processes through which transformational leadership affects followers' motivational behaviors. Unfortunately, there does not seem to be any empirical research regarding this model. In searching through the organizational literature on employee motivation, employee engagement consistently comes up as the most "current" indicator of employee motivation. A strong contributor to this literature is a piece by Macey and Schneider (2008a). In this piece, Macey and Schneider (2008a) attempt to define and map out the construct in order to give aid to future research on employee engagement.

Findings

The main findings were that a transformational leadership style and employee engagement are related to one another and is considered holistically. Various studies tested the effect of transformational leadership on employee engagement and transformational leadership was found to be positively related to employee engagement. Through the review of literature it is found out that there is a positive association between the frequent demonstration of transformational leadership behaviors by managers and high levels of employee engagement amongst their organization's staff. Also in various studies and researches conducted in this area, it is further seen that the engaged subordinates with high work engagement have leaders who demonstrate transformational leadership behaviors more frequently than transactional leadership behaviors. In other researches and studies done it is seen that the charismatic transformational leaders who manage to create a work climate that enables subordinates to achieve their work goals, are expected to be highly successful in engaging employees. Studies done by Babcock-Roberson and Strickland (2010: 322); Khatri, Templer and Budhwar (2012: 58) and Sandberg and Moreman (2011: 239) found a common trend that indicated a link between the charismatic dimension of transformational leadership and engagement.

Direction For Future Research

The study focused on the effects of transformational leadership on employee engagement through literature review. There is however still need for future researchers to focus on specific areas of employee engagement influenced by transformational leadership and their relevance to employee engagement and success of organization. Also further research can be done has what strategies can the senior leadership or top level management implement in the middle level to bring out effective transformational leadership so that their subordinates can be highly engaged.

Transformational leadership behavior has the potential to influence engagement significantly. (Aryee, Walumbwa, Zhou, & Hartnell, 2012; Breevaart, Bakker, Hetland, Demerouti, Olsen, & Espevik, 2014; Christian, Garza, & Slaughter, 2011; Serrano & Reichard (2011) showed that engagement correlated positively with organization performance, thus improved engagement should benefit the organisation and its outputs. While employee engagement research is emerging and several models suggest transformational leadership as crucial in the development of employee engagement, there remains a gap in understanding what transformational leadership behaviors could influence engagement (Shuck & Herd, 2012). Ayree et al. (2012) and Ghadi, Fernando, and Caputi (2013) directed future research to identify other mediators to explain the link between transformational Leadership and employee engagement. So considering the above, future researchers can further establish how and which traits, characteristics and behaviors of transformational leaders in specific can enhance employee engagement.

Suggestions

The HR professionals should take in to consideration these transformational leadership behaviors while hiring the leaders and managers. Human resource managers should develop training programs in such a way that it helps in improving and enhancing the traits and behaviors of the leaders with respect to transformational leadership. The synergy between transformational leadership and employee engagement is also evident in the “growth” and “development” context. So it is essential that the leader actively work towards creating an organizational climate that is conducive to growth and development. Several barriers operate in the way of strategic orientation of transformational leadership in enhancing employee engagement which is always needed to be identified and taken care by HR managers and senior leadership.

Conclusion

While it is understood and accepted that employee engagement is not only necessary for improving productivity and diminishing turnover rates, but also closely connected with other bigger pieces of business such as enhancing corporate brand power. Through literature review it has been established that transformational leadership significantly predicted employee engagement and trust. Transformational leadership develops self-efficacy in employees to move further. It also supports the development of identity within subordinates. Both transformational leadership style and employee engagement practices develop sense of ownership in employees. They feel responsible for their

actions; develop confidence in their abilities, sense of self-identity and sense of belongingness to their work and organization. Transformational Leadership style encourages the culture and human resource practices that motivate employees to participate in organizational development. These practices engage employees into their tasks and decision making process. Transformational leadership leads to empowerment of employees that improves employee's engagement.

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IT Enabled HR Practices in Hospitality Industry in India

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ABSTRACT

Information and Communication Technology (ICT) is a revolutionary force which has changed the face of service industry globally. Human resource is very stimuli and dynamic and pro-active resource in any organisation. There are various Human Resource (HR) practices, methods and models used to enhance the quality and performance of human resource globally. Technology supports people at different levels of hierarchy in the organisation, to make smarter, faster in decision making and optimise the efficiency, energy, and time and value of money. It creates time, place, and energy utilities of a human being in the organisation. Tourism and hospitality is the fastest growing industry where the human resource has to engage and involve round the clock in various shifts. The work culture of this industry is very professional, and service centric. Since last two-three decades tourism and hospitality industry have gone various rapid technological transformation i.e. travel and hotel office automation through Computer reservation systems (CRSs), railways, air tickets and hotel room booking, Global distribution systems (GDSs) i.e. Amadeus, SABRE Galileo, and World span, Electronic data interchange (EDI) web application, high speed internet, development travel and hotel related software and hardware etc. All these transformations impact the efficiency of human resources in Hospitality Industry. The application of e-tourism model helps the employee to access real-time information, less monotony and mental and physical exertion, office automation, improve Human Resource Information System (HRIS), understanding job, achieve competitive advantages, proper co-ordination between external and internal environment. The main role of Information and Communication Technology in Tourism & Hospitality Industry is to generate value through the use of the advance technology available worldwide. This paper will highlight the recent IT enabled HR practices in Hospitality industry in India, major prospects and challenges of digitalisation in human resource in the tourism and Hospitality industry.

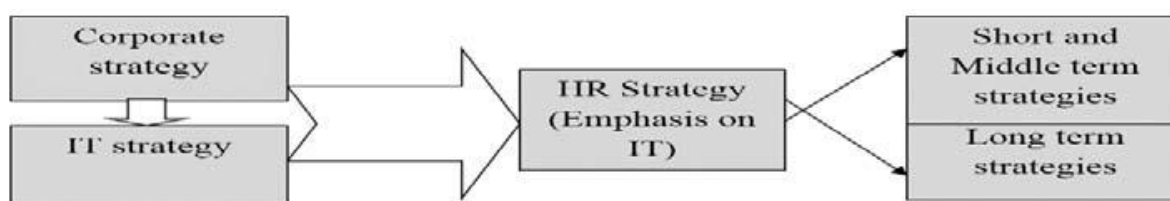
BACKGROUND OF THE STUDY

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Human Resource Practices should not be treated as a single function; in fact, it is a collection of highly specialized capabilities and functions. The Human Resource (HR) functions are having a never ending pressure to support the strategic goals and objectives to be achieved and to focus on value-adding activities. The Tourism and Hospitality Organizations are using Information Technology (IT) in their Human Resource (HR) functions in the form of e-HRM (Electronic Human Resource Management). The concept of e-HRM uses cutting-edge information technology which ranges from Internet-enabled Human Resources Information Systems to corporate intranets.

Information and communication technology has now become one of the most important links between producers and consumers of tourism and hospitality industry. The driving forces are intensifying competition; need to manage the workforce on a global level, to improve HR service delivery and to bring cost savings. Applicant Tracking System is one of the emerging areas of application of Information Technology in HRM. ICT has enhanced the speed, accuracy, and integration of various tourism activities and have a considerable impact on the tourism industry. The system of information and communication technologies affects the various components of tourism and hotel industry such as the delivery of tourism services, management of tourism, marketing of tourism products, and producer and consumer relationship.

Tourism industry, as a matter of fact, requires a large amount of information on various areas. The role of information in tourism is vital for everyone, for example, a tourist guide requires historical and cultural information of the place; a tour operator requires information on transportation, reservation, accommodation, and marketing, a tourist requires information about the destination and so on. When we deal with management, the emphasis is on Human resource development (HRD), finance or marketing. However, with the technological revolution, the management and application of technology have a direct bearing on the success of any enterprise. The management of Human Resources and its needs are becoming the centre of the attention of each individual employer in every organization. Information and Communication Technologies (ICT) - a term for techniques associated with mobile communication, internet, new media and PCs - allow companies to improve their internal processes, core competencies, organizational structures as well as relevant markets on a global scale. ICT is spreading throughout every sector of the economy and has implications for almost every enterprise (Helfen and Krüger, 2002). Human resource processes should be focused on the strategic objectives. These strategies are led to prepare an IT strategic plan that in turn translates into an appropriate human resource strategic plan in the field of IT as the Figure depicts (Sameni and Khoshalhan, 2006).



Source: Sameni and Khoshalhan (2006).

SURVEY OF LITERATURE

According to the World Tourism Organisation(WTO) evaluations, the tourism industry stands first in the terms of work force employment globally. The success of the travel and tourism industry in the global environment will ultimately depend on the professionalism of its workforce (Edgell et al., 2008). According to (Lozato-Giotart, Balfet, 2007), "as the travelling population ages and becomes more sophisticated in its needs, desires and expectations, tourism suppliers must deal with more refined market demands". Recognition of travel and tourism career patterns, training and higher education policies and programmes necessary to support them, has taken a longer time to evolve. Industry-wide improvements are being made in the areas of quality service and customer satisfaction. Much more progress needs to be made in fostering policies to improve tourism education and training, but the prediction now is better than ever (Hawkins, 1994). Tourism is an industry with an intensive labour market, which is based on people. When tourists visit a destination-attraction, they "buy" not only the charm and the attractions, but also the ability and the services of the employees in tourism. This is why the development of human resources should be a main preoccupation of the professional people from tourism. In the last years, the countries responded to the growth in the industry of tourism, focusing on the development of the product and marketing. Next, at the strategic level, e-Tourism revolutionises all business processes and the entire value chain as well as the strategic relationships of tourism organisations with all their stakeholders (Buhalis, 2003). In addition, ICTs can improve the managerial processes in order to reorganize control and decision-making procedures, and to support enterprises to react efficiently to environmental changes and consumer behaviour trends (Beech and Chadwich, 2006).

Information and Communication Technology is beginning to enable organizations to deliver state-of-the-art Human Resource services, and reduced costs have enabled companies, regardless of the firm size-to purchase rather opt for HR technologies (Ball, 2001). The wide reach of the Internet and other ITs can help tourism and hospitality industry to overcome their size disadvantage (Oviatt & McDougall, 1995). Tourism and Hotel Industry are less inclined towards adopting modern methods of hiring, which is why candidates have less information about the available job opportunities across the board (Kishore 2012).

Human Resource Information Systems (HRIS) refers to the systems and processes at the intersection between human resource management (HRM) and information technology (Kovach & Cathcart, 1999). In its most elementary form HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information about an organization's human resources. Lengnick-Hall and Moritz propose, along with others (Walker, 2001), that HRIS will create informational efficiencies and cost savings in such a manner that HR departments can turn their attention to providing better analysis of current data. Recruiting and attracting talent is a challenge particularly in this era of globally competitive market. The biggest challenge is to apply & utilize this technological advancement to its fullest potential

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for the procurement of human resource. IT and internet based recruitment functions like virtual interview, CV searching, online psychological test and online job announcements have changed and fastened the recruitment process. These applications also removed the potential obstacles to reach larger candidate pool

(Hendrickson, 2003, Gardner et al. 2003). Online recruitment is effective in terms of speedy information collection of applicant, giving detailed and uniform data to the applicants and time saving. This finding is further supported by Hopkins & Markham (2003) study which argues that to speed up the recruitment process, online recruitment is considered as the best practice. Online recruitment is also effective in terms of performing talent management process (Burbach & Royle, 2010). Over the last decade there has been a considerable increase in the number of organizations gathering, storing and analyzing information regarding their human resources through the use of Human Resource Information Systems (HRIS) software or other types of software which include HRIS functionality (Ball, 2001; Barron, Chhabra, Hanscome, & Henson, 2004; Hussain, Wallace, & Cornelius, 2007; Ngai & Wat, 2006).

According to Leon C. Megginson (1985) Human Resources Planning is “an integrated approach to performing the planning aspects of the personnel function in order to have a sufficient supply of adequately developed and motivated people to perform the duties and tasks required to meet organizational objectives and satisfy the individual needs and goals of organizational members.” According to Strohmeier (2007) “e-HRM is the planning, implementation and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities”. E-recruitment is defined as the uses of internet to attract potential employees to an organization that can include the use of an organization own corporate website as well as the use of commercial job boards (Parry, 2006). Chapman and Webster, (2003) shows that E-recruitment manages job descriptions and job vacancies, search for candidates and the interview process. It is also referred to as an applicant-tracking system; a web-based application that enables the electronic handling of organizational employment needs. These activities include posting job advertisement on web sites to stimulate and attract candidates, known as job boards. Job boards allow candidates to apply online and the candidates’ data are stored on a database that allows searching, screening and filtering of applications. The application tracking system shortlists the candidates and arranges for interview and recruitment-related activities (Sharma, 2012).

Human Resource Information System (HRIS): The Human Resource Information Systems (HRIS) provide overall management, reporting and analysis of all employee information. It is an integrated system acquiring and storing data used to make analysis, make decisions in the field of HR (Hendrickson, 2003 & Luck, 2010). The Human Resource Information System (HRIS) is a software or online solution for the data entry, data tracking, and data information needs of the Human Resources, payroll, management and accounting functions within a business. Normally packaged as a data base, every HRIS has different capabilities. Companies are to choose HRIS carefully based on their capabilities and need. It manages Company-related documents such as employee hand book, emergency evacuation procedures and safety guidelines. HRIS benefits the administration including enrolment, status

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changes and personal information updating. It provides complete integration with payroll and other company financial software and accounting Systems. One of the main features of this software is the application tracking and resume management (Sharma, 2012).

RESEARCH QUESTIONS

RQ1. How the Information Technology enables the Human resource practices in Hospitality Industry?

RQ2. What are the major prospects and challenges of digitalisation in Human Resource Department in Hospitality Industry?

OBJECTIVES OF THE STUDY

The objectives of the study are:

- i) To study the role of Information Technology in Human Resource Practices in Hospitality Industry.
- ii) To determine the major prospects and challenges of digitalisation in Human Resource in Hospitality Industry.

RESEARCH METHODOLOGY

This study is based on qualitative research techniques where an exploratory research approach has been applied. In this regard, personal visits and survey of selected Travel Agencies and Hotels has been done and conducted interview of Human Resource Managers, Training Managers to observe the role of Information and Communication Technology in Human Resource Practices. Secondary data has been collected from reputed journals of tourism research, research papers, websites, books and travel magazines. This study focus on evaluating the practices of electronic human resources management system as technology driven integrated system in the leading hotel chains of India.

ROLE OF ICT IN CHANGING THE HRM PRACTICES

Technology has changed the business many folds over the span of time throughout the whole world. In the Information Age, the advent of computers and the Internet has increased that impact significantly. The role of Information and Communication Technology can be seen in nearly all areas of business, including human resources, where technology continues to have a significant impact on Human Resource practices. Many businesses cannot even function without the use of computer technology as it is required in day to day activities. ICT enables the HR department to operate 24/7 throughout the 365 days through technology based Management Information System (MIS). ICT helps in developing website and application based software to be used by the departments.

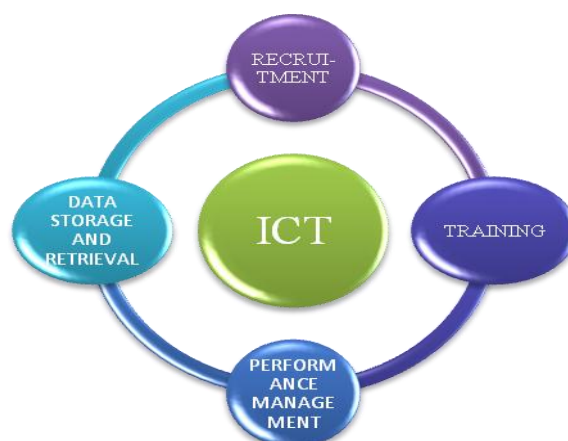


Figure -1: Role of ICT in Human Resource Practices.

Source: Compiled by the Authors.

Table-1 Effectiveness of ICT based HR Practices

S. No	Variables	Attributes
1.	Communication	ICT enhances the communication among the employees
2.	Co-ordination	Better inter-departmental co-ordination
3.	Control	Better control over employees in order to increase effectiveness
4.	Cost Effective	ICT based practices are cost effective in long run
5.	Career Enhancement	It focuses on career enhancement of employees
6.	Channelization	Better channelization of units through ICT
7.	Connectivity	Connectivity through LAN,WAN,MAN
8.	Customer Relations	ICT aids in improving customer relationship
9.	Care	Care to the grievances of employees
10.	Community	Better community participation in the environment we operate
11.	Code of Conduct	It sets out how to behave in and out of the organisation.
12.	Client Handling	Better client satisfaction using ICT applications
13.	Conflict of Interest	ICT enabled practices helps act in the interest of the company.
14.	Core values and Principles	Integrity, Responsibility, Excellence, Unity & Pioneering
15.	Corporate Governance	Good governance from corporate till the bottom level of management
16.	Competitive Advantage	ICT applications allows the HR to have an advantage over competitors

Source: Compiled by the authors.

Recruitment

Recruitment is the process of identifying and attracting potential candidate from within and outside an organization to begin evaluating them for future employment. When the candidate is identified, an organization begins the selection process. The

process of Recruitment includes collecting, measuring, evaluating information about the candidates' qualifications for specified positions.

Different Forms of Recruitment

Traditional Method- Recruitment through employee referral, consultancy, advertisement, transfer, promotion etc.

*Modern Methods-*Online recruitment, e- recruitment, or web-based recruitment (the use of online technology or the internet to attract candidates)

Recruitment through Job Posting: Finding the right job to suit jobseekers' needs, talents, and abilities can be a very intense and extensive process. Job hunters must often pass through many employment hurdles before they can get employed. Finding the right person to fill a job opening can be equally difficult for an employer. One of the methods used to bring both together is a job posting (<http://www.ehow.com>).

Job Posting

Traditional Method- Job postings may be posted in a wide variety of places in the trade journals, alumni magazines and even on bulletin boards on schools and in libraries.

Modern Methods- Online Job Postings

The job posting may include information about where and when to contact the employer and may also include the employer's phone number or website.

A comparative study of Traditional and E- Recruitment will give better understanding of the Process under study:

Table-2 Traditional versus contemporary approaches to Recruitment

S. No.	Recruitment Process	Traditional	E-Recruitment Process
1.	Attracting Candidates	Using sources that are not technology supported, like advertisement, flyers, spokespersons, to draw as many applicants as possible to contact the organization.	Using the organization's reputation product image, online technology and other methods to draw as many as possible to the organization's websites. Online application.
2.	Sorting Applicants	Using paper-based test for applicants to create a manageable applicants pool	Employing sophisticated, standardized online tests to screen candidates and to winnow the applicant pool to a manageable number
3.	Making Contact	Contacting the sorted applicants by phones and having face to face conversations	Using automated hiring management system to contact the most desirable candidate very quickly, before they are snapped by another company
4.	Closing the Deal	Making the phone call, setting up the meeting and shaking hands	Making the phone call, setting up the meeting and shaking hands

Source: Kapse et al, (2012)

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One way in which human resources has been significantly impacted by technology is in the area of recruiting the right candidate for the right job. Earlier days, HR recruiters had to rely on print publications such as newspapers, to post jobs and get prospects for open positions. Networking and other methods were also used, but HR recruiters did not have the ability to post a job in one or more locations for wider circulations. Technology has made recruiting more efficient and, in the hands of the right recruiter, more effective as well.

Training & Development

Information technology makes it possible for human resources professionals to train new staff members in a more efficient manner. IT enabled virtual classrooms allows the HR department to train more employees in less time period through e-learning, e-modules, online examination, and assessment etc.

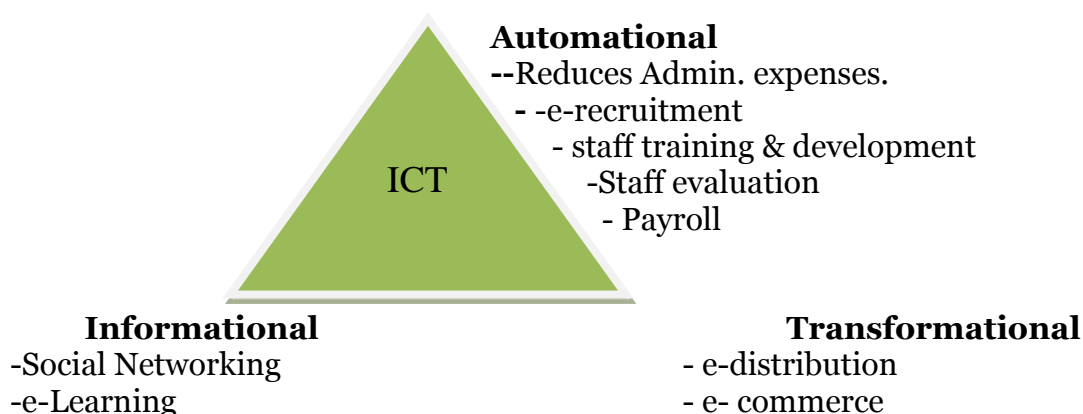
Data Storage and Retrieval

The Information and Communication technology allows the Human resources professionals to process a considerable amount of paperwork and also to record much of that paperwork on file for a considerable time period. The use of electronic imaging has made it possible for companies to store and retrieve files in an electronic format. Printing on demand eliminates the need to mine through an endless number of files in the file cabinet to find what is needed. ICT helps in generating employees ID smart card, Biometric attendance system, payroll, reward and incentives etc.

Performance Management

An important function of Information & computer technology is to assess employee performance and also to get employee feedback to be used for the betterment of the organization. An assortment of software programs makes it possible for human resources professionals to examine employee performance using matrices to ensure that employees are meeting performance standards of the organisation. In case employees who don't measure up can be subjected to additional training or let go in favour a replacement of a new employee. ICT helps to receive 360-degree feedback which helps the employees in career advancement.

Triangular Impact of ICT in E-Hospitality:



- e- sharing
- e- modules
- e- exposure
- e-customer service

Figure-2: Triangulation Impact of ICT

Source: Zuboff, 1998; Sigala, 2002; Sigala et al.,2004

PROSPECTS AND CHALLENGES OF IT ENABLED HR PRACTICES

The use of Information Technology(IT) in tourism and hospitality businesses digitises all processes and value chains in the tourism, travel, hospitality and catering industries. Technological solutions are normally incorporated to increase efficiency and reduce the cost and time required for undertaking particular activities and processes. All business functions such as sales and marketing, accounting and finance, human resource management, purchase, research and development, production, as well as strategy and planning for all sectors of the tourism industry, including tourism, travel, transport, leisure, hospitality, principals, intermediaries and public sector organisations - are influenced by the emerging capabilities of Information Technologies. A wide range of information technologies applications is used in tourism and hospitality industries, as illustrated in Table-3.

Table -3 IT and its Application in Tourism and Hospitality Industry

S. No.	IT and its Application in Tourism and Hospitality Industry
1.	Internet/intranets/extranets
2.	Office automation, reservation, accounting, payroll and procurement management applications
3.	Internal management tools such as management support systems, decision support systems and management information systems(MIS)
4.	Tailor-made internal management applications
5.	Databases and knowledge management systems
6.	Networks with partners for regular transactions (EDI or extranets)
7.	Networking and open distribution of products through the internet
8.	Computer reservation systems (CRSs)
9.	Global distribution systems (GDSs) (e.g. Galileo, SABRE, Amadeus, World span)
10.	Switch applications for hospitality organisations (e.g. THISCO and WIZCOM)
11.	Destination management systems (DMSs)
12.	Internet-based travel intermediaries (e.g. Expedia.com, Travelocity.com, Preview Travel, Priceline.com, etc.)
13.	Wireless/mobile/WAP based reservation systems
14.	Traditional distribution technologies supporting automated systems (e.g. Videotext)
15.	Interactive digital television (IDTV)
16.	Kiosks and touch screen terminals(POS)

Source: Buhalis (2003); O'Connor (1999)

Challenges in adopting IT enabled HR practices

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- The technological changes may shrink job opportunities so that a large number of employees become unemployed.
- Due to lack of ample knowledge about modern technology the employees can't enter into the job which job he/she is desired.
- In underdeveloped and developing countries organizations sometimes can't Recruit the required number of technical knowledge oriented employees to perform their organizational activities.
- Safety, security, hacking, maintenance, antivirus, upgrading as per technology, acquaintance among employees.

CONCLUSION

Industry and education must work in partnership, in order to promote the accessibility of tourism as an activity. The expansion of education and training in tourism & Hospitality has reached to the point of exerting an intense pressure on the budgets of the public sector. For the future, a vision and mission is needed with a commitment and mutual respect both from the industry and the academia. If education and training in hospitality supports a profitable industry, where the key position of the development of human resources is recognized, then a stronger partnership will be able to be realized. From the above discussion, it is clear that technology has had a positive effect on the internal operations of organizations. But it has also changed the way of human resource manager's work. By networking the computers, telephones, fax machines, copiers, printers, necessary data & information can be disseminated quickly. With the help of this information, human resource plans can be better facilitated, decisions can be made faster, jobs may be more clearly defined, and communications with both the external community and employees can be enhanced. For instance, human resource managers must ensure that employees could be able to handle these technologies with more effectively and efficiently. Human resource department must carefully undertake recruiting and selecting of employees and train themselves in order to operate these sophisticated technologies and to meet their goals. Simultaneously employees should enhance their technical knowledge in order to get the job in the highly sophisticated technology dependent world.

The Significance of the Study

The present study highlights the various technological tools applied by HR professionals hence; it may be of great significance to the business organizations operating in the Tourism and Hospitality Industry.

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Measuring Human Capital as A Predictor of Financial Performance: An Evidence from Indian Private Sector Banks

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ABSTRACT

The study examines the relationship between cost of human capital and financial performance in the private sector banks of India. The study involved 10 selected private sector banks of India on their capital structure size. The cause and effect relationship was checked by regression model using E-Views 9. Since, the time series data was employed, stationarity of the data was checked in order to avoid spurious regression. The Augmented Dickey – Fuller test was used for unit root testing to check the stationarity. The result of the study revealed that cost of human capital has a significant impact on financial performance of the private sector banks of India.

Introduction

Human capital is the most vital part of any organization; it is the melting engine between financial and all other physical capital toward the achievement of organizational objectives and goals. The impact of the wrong classification on the organization profit annually is unimaginable, as analyst and investor who rely on the report tend to under value the organization, managers may be judged as non performance, the report generated using the conventional accounting will show a distorted net income. Human capital as expenses in statement of comprehensive income is traceable to the inability of organization to separate the expense element (salaries, wages, commission, bonus, maintenance, allowances) from the capital expenditure element (acquisition, recruitment, training, development and retraining). The concept of human capital was first developed but research into human capital accounting (Petty and Likert, 1960).

The American Accounting Association Committee on Human Capital Accounting (1973) defined Human Capital Accounting as “the process of identifying and measuring data about human capital and communicating this information to interested parties”. Human capital accounting denotes just this process of quantification, measuring and reporting of human capital in organization, its objective is to facilitate the effective and efficient management of human capitals, (Porwal, 1993).

Any organization is investing and spending money on human capital in following areas;

Recruitment

Recruitment is the process of attracting the potential employees to the company. The aim of recruitment policy should be attract good quality applicants and to undertake reliable and cost effective selection decision.

Training & Development

Training is not a time bound process or is not limited to certain kind of employees, after all knowledge is always expanding and the essence of human life the constant up gradation of skills. Any expenditure incurred in connection with the operation and administration of daily activities of the business is called revenue expenditure. Revenue expenditure is incurred for maintaining earning capacity and working efficiency of the fixed assets. Revenue expenditure is incurred for acquiring merchandise for resale either in its original or improved form. Its benefit expires within a year. Revenue expenditure is shown on debit side of the trading and profit and loss accounts. Development is part of a larger process of development and learning which a significant area of human development.

Retention

Employee retention refers to the various policies and practices which let the employees stick to an organization for a longer period of time.

Salaries and wages

Wages and salaries include compensations in money of all employees of the enterprise for work done during the month. Wages and salaries comprise all income taxes and social security contributions collected from employees as well as diverse additional work (overtime work, night work) bonuses and holiday bonuses. Wages and salaries exclude incentive stock options, expenditure arising from the performing of the work and employer's social security contributions.

Commission

A commission is a fee paid to a salesperson in exchange for services in facilitating or completing a sale transaction. The commission may be structured as a flat fee, or as a percentage of the revenue, gross margin, or profit generated by the sale. Commissions may also be charged by brokers to assist in the sale of securities, properties, and so forth.

Bonus

Something good that is more than what was expected or required an extra amount of money that is given to an employee.

Allowances

An amount of money that is given to someone regularly or for a specific purpose a small amount of money that is regularly given to children by their parents an amount of something (such as time) that is allowed or available.

Short term motivation

Short-term motivation can be gained from another person who projects ideas, wisdom, and agreeable content on behalf of the listener. When a mutually advantageous conjunction of distinct elements, also known as synergy, is conveyed upon them, this can produce short-term motivation in that person.

Literature Review and Conceptual Framework

The regulate impacts of human capital administration polishes on authoritative execution in the inn industry. The fundamental objective about this study might have been on create those applied model will measure those regulate impacts of the six domains from claiming HRM hone on the three measures about authoritative execution, Cho (2004). Obeng, Mensah & Ahumatah (2008) discussed the human capital as the understanding of the interesting nature for serving to Organization recognizing those importance for human capital elements What's more wander assets on the execution for ventures. HRM frameworks influence organizational execution in the business for banking companies. Human capital are always been an essential asset for not only for industries but service sectors also. Management of every futuristic organization is managing their human capital as any asset they are taken care, Chand & Chand (2007). Human asset need two components, those liability and the venture. Accepted accounting treat both concerning illustration income expenditure, this total apples and oranges methodology need a negative impact on the benefit. This contemplate inspected the association between the total apples and oranges take care of mankind's asset What's more authoritative benefits, Meshacks, Odesa and Ifurueze (2014). On the development part of human capital the organizations must comprehend the thing that prompts people, the thing that impacts them, Furthermore the reason they endure specific activities. This ponder also means will assess inspiration about workers in the association. In effective motivational program of workers are produced not just in this specific association as well as on whatever viable organization, Thus Organizations are spending a lot of money for the same as human resource cost, Uzonna (2013). Most of the firms are using their funds on the human capitals of their organization from the hiring process to the post retirement time of the employees. Most of the part of their spending covers; occupation security, specific hiring, self-managed groups, recompense policy, broad training and Furthermore. Outcomes provide general backing to the greater part hr polishes but about work security. Eventually, selecting, training, also compensating workers and in addition providing for them those energies choose for the profit from claiming their firm, help fundamentally to firm development, Vlachos, (2009). Human assets cost significantly affects the corporate profit. Human capital has been identifier similarly as a standout amongst those fundamental wellsprings about focused focal points. Human assets cosset also can altogether impact corporate gainfulness. Conclusively, human assets cosset approach to corporate execution estimation which has picked up significant consideration and use done later a long time gives further chances for use of human resource asset accounting measures, Bassey & Tapang, (2012). Organizations ought to further bolstering utilize vocation administration projects on support their representatives done vocation arranging. HR polishes also organizational duty on the working execution and profitability from

claiming benefits of the business units. Furthermore hr hones are essentially identified with operational measures for performance, and additionally working overheads Furthermore pre-tax benefit, Wright, Gardner and Moynihan, (2003). Onyam and Usang (2015), Explained crux of the investigation might have been should inspect the effect for human asset accounting on the profitability about Right Bank of Nigeria, Discoveries uncovered that there will be An certain association between the indicators of human asset cosset (training cost, improvement expense and number from claiming staff) and the benefit of the Bank. He added that; it might have been additionally uncovered that a critical association between preparing cost, improvement cosset and the benefit of the bank. Six human asset polishes - recruitment furthermore selection, preparing and development, execution appraisal, worker support furthermore choice making, compensation, Also disappointments and outrage on his/her staff welfare administration.

HRM hones Furthermore firm execution - profitability, business sector share, deals growth, representative morale, client satisfaction, Furthermore nature from claiming item and administration. The contemplate discovered critical certain associations between the HRM hones and little firm execution to both sorts about organizations influenced or not influenced toward the performance, Fening (2011). The purpose of the present study is to examine the extent of relationship between the cost of human capital and organizational profitability in the Banking companies. The study uses yearly data for recent 10 years from 2009 to 2018 to investigate the relationship between the cost of human capitals (i.e. capital expenditure and revenue expenditure) and financial performance (i.e. profit before tax). It is believed that the finding of this study would extend the existing literature by providing some meaningful insight to the banking companies and the future researchers as far as the developing country like India is concerned. The factors were employed in the study include; salary, commission, allowances, bonus, training, development, retention, acquisition to define capital expenditure and revenue expenditure.

Objective of the study

- To analyze the impact of cost of human capital on financial performance.

The Study

The study was causal in nature. It was aimed to find out the Impact of cost of human capital on financial performance. The study was carried out to analyze the relationship in Indian context. The data were taken for the last ten years (2009-2018). Individual indicators were evaluated for analyzing the Impact of cost of human capital. The time series data on capital expenditure, revenue expenditure and profit before tax was collected for this study mainly from the Money Control websites. For uniformity in analysis, all the data on capital expenditure, revenue expenditure and profit before tax were taken in Indian Rupee and converted in log values. All the banking companies were considered as population for the study and 10 selected private sector banks were taken as sampling frame. Capital expenditure,

revenue expenditure were taken to define the cost of human capital incurred by the banks as an explanatory variable and profit before tax was used like indicator of financial performance as sampling element in the study. Non probability judgmental sampling technique was used to collect the data. To perform the empirical part of the study

- ADF test was applied to check the stationary of data.
- Correlogram test was applied to check the autocorrelation in residuals.
- Residual analysis was applied to test the assumptions of regression model through
- ARCH LM test for checking the ARCH effect.
- The cause and effect relationship was checked by using least square regression model.

Results & discussions:

Unit Root Test

Since time series data was employed, it is important to test for the stationarity of the variables in order to avoid spurious regression. The Augmented Dickey – Fuller test was used for unit root testing. The results of the unit root test for the variables are presented below:

Ho: PBIT, CEX and REX have a unit root.

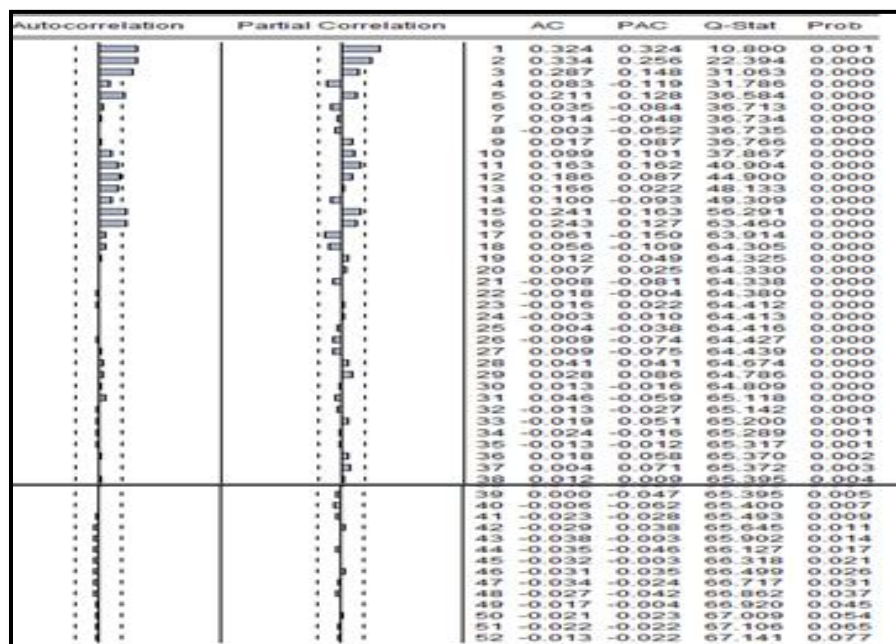
Table 1: Unit Root Test results

Variable	ADF-statistic	Critical value	Probability value	Level of significance	Order of integration
Profit Before Tax	-2.888089	-2.582514	0.0503	10%	Level
Capital Expenditure	-4.277508	-3.499910	0.0008	1%	Level
Revenue Expenditure	-3.495051	-2.892200	0.0102	5%	Level

The Unit Root tests showed that all variables stationary at level Order of integration. Augmented Dickey- Fuller unit root test ADF statistics is greater than the critical value. Thus, PBIT, CEX and REX have no unit root

Correlogram Residual test of Stationarity:

Chart 1: Correlogram Test



Correlogram residual test was applied on the variables Capital Expenditure and Revenue Expenditure (independent) & PBT (dependent) of the research. The assumption of this test is that all the spikes must be restricted within the fitted (regression / estimated or predicted) line and actual line. Thus, there is no autocorrelation in the data. Statistically, autocorrelation is checked by measuring the last P value of the Q-Statistics. the assumption of this test is, the corresponding p value of Q- Statistics must be greater than the standard value (0.05). Here, in the above table, last P value of the Q-Statistics (0.077) is more than the standard value (0.05), hence results recommend that there is no autocorrelation.

Regression Analysis:

Ho – there is no significant effect of cost of human capital on financial performance.

Table 2

Regression Analysis

VARIABLE	COEFFICIENT	STD.ERROR	T STATISTIC	PROB.
C	134.4697	182.1390	0.738281	0.4621
CEX	-0.825788	0.159382	-5.181186	0.0000
REX	0.659367	0.035952	18.34022	0.0000

Dependent Variable: PBT

The outcome of regression model has shown that the Prob. value of t-statistic of independent variables; CEX (0.0000) and REX (0.0000) are less than 0.05 so, there is a significant effect of Capital Expenditure and Revenue Expenditure on Profitability.

$$y = a + b_1x_1 + b_2x_2 + e$$

$$PBT = 134.4697 - 0.825788 (CEX) + 0.659367 (REX) + e$$

Table 3
Model Summary

R-squared	Adjusted R-squared	Durbin-Watson statistic	F-statistic	Prob.(F-statistic)
0.776713	0.772109	0.901349	168.7096	0.00000

The above Table-3 defines the results of regression analysis. The coefficient of determination 0.772109 means that 77.21 % of the variation in PBT is being explained by the independent variables CEX and REX. Value of F-statistic 182.8088 is significant at 0.000% which is less than 5% reveals, model is good fit.

Regression Assumption Tests:

ARCH LM Test

Ho – there is no ARCH effect in the series.

F-statistic	0.490625	Probability	0.485039
Obs*R-squared	0.496928	Probability	0.480853

From the above table it is resulted that P-value (0.480853) of Observed R-square is more than standard value (0.05) so, null hypotheses is not rejected. It means there is no ARCH effect in the series.

Breusch-Godfrey Serial Correlation LM Test:

H₀ - residuals are not serially correlated.

F-statistic	1.129408	Probability	0.3062
Obs*R-squared	39.63969	Probability	0.2707

From the above table it is resulted that P-value (0.2707) of Observed R-square is more than standard value (0.05) so, null hypotheses is not rejected. It means the residuals are not serially correlated.

Findings and Conclusion

The result of this study has provided relatively strong support for the existence of a significant relationship between cost of human resource and the financial performance with a strong variability of the coefficient of determinations for cause and effect relationship. The findings of this study revealed the cost of human resource is an important determinant for the financial performance in banking companies. Study further disclosed that capital expenditures and revenue expenditures both have

significant effect on the profit making efficiencies of the private sector banks in India. Furthermore, study supports the qualitative aspect that human resource of any organization is not only simple workforce rather they are as an asset for the organizations and play a significant role in the financial growth of the organizations.

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Digital Marketing Strategies for Startups in India

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ABSTRACT

Internet has become a primary resource for the global audience who seek variety of information before buying any product or services online or from a local store. This particular research is part of a larger study which evaluated the use of digital marketing by startups/small size businesses in India and buying behavioral change of the customers from big brand to new ventures on the basis of reviews and online reputation. The focus of this particular project was to assess the digital marketing practices by new companies and how they are giving competition to the global market. It will also discuss how India's economy and employment improving using digital marketing practices.

Introduction

Marketing has changed at a rapid pace in India. Some even believe that marketing has changed more in the past two years than in the previous 50 years. This change is called digital marketing. Most Indian startups have adopted digital marketing with minimum capital investment and boosting growth of the economy. Entrepreneurs in India are cool and have new and innovative ideas and hitting the bulls' eye with digital marketing strategies. This study guides a stepwise walkthrough on how startups have redefined India's economic growth using digital marketing & how they are giving close competition to global market.

The main objective of this paper is to identify the success of Indian Startups by practicing digital marketing. The supportive objectives are the following:

- To show various strategies of digital marketing
- To discuss how startups are conquering the market with use of digital methods
- To display the cutting edge advantage of digital marketing

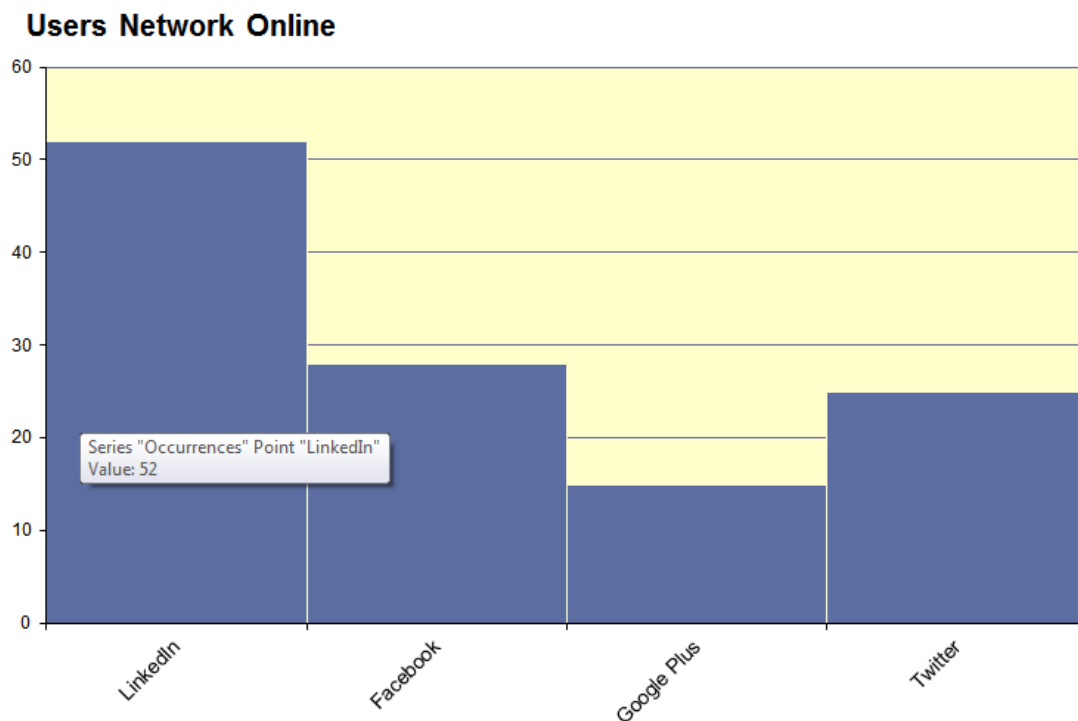
Research Methodology

The methodology of this paper is based on descriptive research design. A questionnaire has been created, to understand how Indian startups are practicing digital marketing services. The first segment of the questionnaire contains information regarding different startups and usage pattern of digital marketing of the respondent. Second segment has several indirect questions on how digital strategy helping them to gain success in competitive market. The survey was conducted online through networking sites and responses of 120 Indian startups were collected. The survey form was put over Google docs and the link was shared with the users to fill the required information. The users

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were requested to post the link of their company profile. The study includes visual representation of finding and results.

Table 1 Profile of the Participants		
Variable	Classification	Total N (%)
Entrepreneurs	Male	68
	Female	32
Startups 2012-2018	Male	79
	Female	41



Research Elaborations

The most exhilarating experience is starting your own venture. Some of the big questions that follow are how to reach masses, how to make your business resonate, how to drive your business results, how to be successful, and how to fulfill your dreams with a shoestring budget?

The answer is digital marketing & so many Indian startups have boosted their business with the help of following digital marketing strategies:

Email Marketing

Despite being not so popular method in today's digital world; still email marketing technique delivers impressive ROI rate in comparison to any other digital marketing channel and it is still a key player. Some of the campaigns in India will leave you

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inspired and we can learn from them how to capture market share and increase the consumer base through one marketing channel that is EMAIL.

250 Billion Emails are sent daily, therefore it is highly effective with great ROI% and some of the brands in India have excelled at it. This strategy brings best results and that too at very low cost.

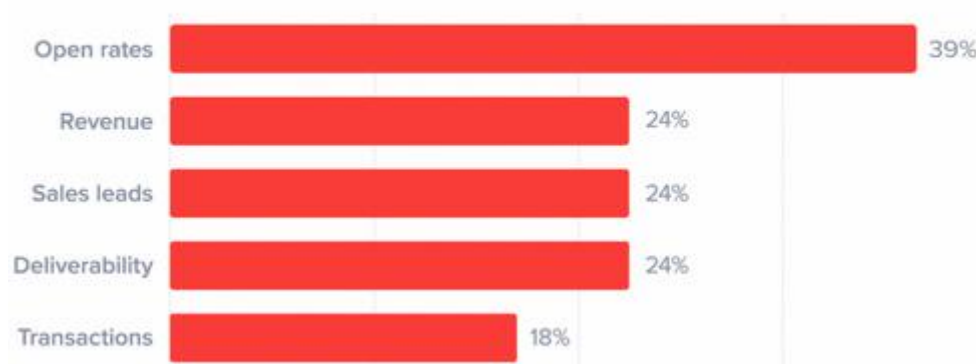
Top Indian startups such as Myra, Zomato, Ola Cabs, Wow Momo and many more are leveraging their email marketing strategy for strong online presence and have received tremendous growth rate and in return created large number of employments in India.

One such case is Ola Auto. After the success of Ola Cabs; they started this auto service. They aggressively start a campaign in 2017 “Auto Means Ola Auto” and used the digital channel email to connect with the daily professional commuters who are using public transport. The campaign received overwhelming response and today Ola Auto is operational in 73 cities with more than 2 lakhs of autos on road.

They used email marketing for the following reasons:

1. Personalizing their business message and connecting directly face to face with their audiences.
2. They segmented their customers on the basis of who all using public transport on a regular basis such as students, professionals, businesses and thus shooting customized message on the basis of their needs and requirements. The below chart depicts how successful was their email campaign and how much growth they incurred.
3. They ensured responsive emails are being sent and the Ola Auto app download is one click away. The crisp, non-messy style of emailing doubled their number of app downloads and now they have over 10 million app users across the country.

Results from email list segmentation



Ola Auto is now practicing new trends of email marketing and the difference in the result is beyond comparison. The click through rate has not only doubled but increased to four times.



Ola Company is now leading the growth of startup era and boosting the growth of the Indian economy by 2-4%. Global Brands such as Uber are now learning from fast growing startups in India how to expand and create large customer base with minimal investment.

Social Media Marketing

The influence of social media platforms for startups is beyond imagination. We all know from centuries how startups faced tough decisions for branding their companies. Brand awareness, establishing the product quality & features in the eyes of the customer and creating their own clientele was always challenging.

But thanks to technological advancements; we are witnessing more entrepreneurs in India who have overcome from these challenges and designing their own unique successful stories with the help of social media marketing.

It is imperative to understand that social media marketing not only enable users to communicate beyond local or social boundaries, but also providing possibilities to share user-generated content like photos and videos and features such as reviews, feedback and rating. We all have the following data and new businesses are taking full advantage to capture the larger audience in minimum budget and quick time.

Social Networking site	Category	No of Users
Facebook	General: photos, videos, blogs, apps.	2.2 Billion
Twitter	General. Micro-blogging, RSS, updates	275 Million
LinkedIn	Business and professional networking	500 Million
Tumblr	Microblogging platform and social networking website.	50 Million
Pinterest	Online pinboard for organizing and sharing things you love	150 Million
Instagram	A photo and video sharing site.	1 Billion
Flickr	Photo sharing, commenting, photography related networking, worldwide	87 Million

OYO Rooms is one of the most popular startup in India who became one of the largest hospitality companies in India with help of social media marketing. OYO Rooms has one objective to offer standardized stay experiences at an unmatched price. Oyo delivers standardized hotel rooms with features such as an air-conditioner, TV, complimentary breakfast and Wi-Fi with 24×7 customer service support.

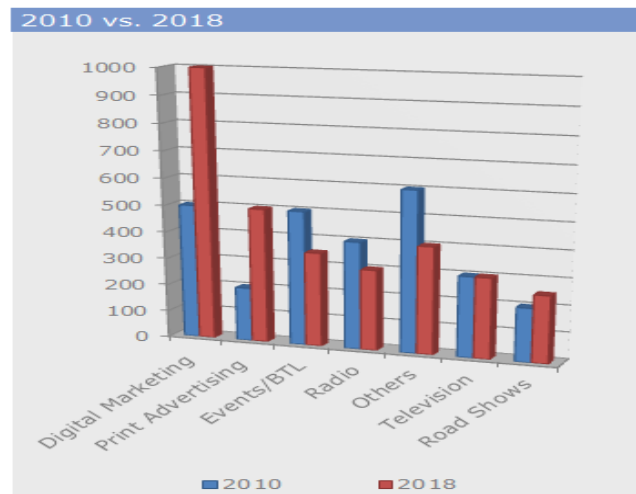
To capture market share and perform way above the competitors OYO is focusing on social media marketing section aggressively for lead generation and customer acquisition. It is strategizing to use all means of social platforms by targeting prospective customers based on their interest, behavior and other parameters which are readily available via digital marketing.

- The company has a powerful social media presence on Facebook with over 5.8 lakh fans and a Twitter following of over 9,000 followers. The OYO confirmed to have over a million app downloads with a good number of active users. They have conducted several campaigns on social media platforms such as:
- Dubsmash Contest
- #AurKyaChahiye videos on Youtube.
- Father's Day Celebration campaign, and IPL Final Verbal Combat.
- Jai Hind was the most successful one that featured Bollywood actor Manoj Bajpai and Raveena Tandon.
- The video fetched over 1 million views to the brand. Some of their recent endeavors are A Salute to the heroes of 1965 war and Oyo Explorer – Pune.

Henceforth; Social media presence has become compulsory to gain maximum exposure for any startup. From large sized business firms to mid-level companies again brand new startups make good sense in leveraging in social media which will allow businesses to gain power in attracting more clients and customers resulting to good growth of the startup firm.

Findings

- 68% of Indian Start Up brands leverage digital marketing to promote their products and services
- 42% of Entrepreneurs continue to use social media marketing as their leading form of digital marketing
- 28% of young founders of India allot over 47% of their marketing budget for digital
- 52% of Indian startups have confirmed that they adopt digital marketing strategy to acquire relevant leads.



As we can analyze from above data Digital Marketing continues to dominate with a 100% growth rate; where Indian startups affirmed that they are using digital platform in branding their products and services and is the most effective strategy in acquiring relevant leads and revenue.

Conclusion

Digital approach to market your product and services has become an integral part of entrepreneurs in India. New ventures can use any devices such as smartphones, tablets, laptops, game consoles, digital billboards, and media such as social media, SEO (search engine optimization), videos, content, e-mail and lot more to gain market share and giving tough competition to global brands. The most imperative advantage is that it does not require any huge investments and this marketing channel “DIGITAL” encourages every young Indian to live up to its dream and become a successful entrepreneur.

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Rationale of Push and Pull Theory Through IT in Tourist Motivations and Destination Attributes: A Case Study of Mcleodganj (HP) as Tourist Destination

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ABSTRACT

Tourism is one of the most attractive as well as growing businesses of the 21st Century. It has ample employment opportunities for an individual as well as revenue generation for the host destination. Push and Pull factors are comprised of the attributes of both tourists as well as the destination. The travel motivation of the tourists basically gives the Push factor for the tourism whereas the special attribute or attraction at destination act as Pull factor for the tourist to visit that place. There could be so many motivations for the tourists to travel a particular destination but the present research paper focuses on travelling for the sake of religious purpose how IT is playing its important role. In this, Mcleodganj being a peaceful place, tourists wish to visit this enchanting tourist spot for both Buddhism as well as Hinduism. With the help of this paper the tourist motivations and the destination attributes with the help of IT that motivate the tourists to visit Mcleodganj with respect to Religious tourism have been identified. This paper also attempts to throw light upon the stakeholder approach with respect to religious tourism in Mcleodganj. For that purpose, 2 questionnaires have been used, one for study the tourism motivation and other to identify the religious destination attributes. The result showed that Mcleodganj is a religious tourism destination having wide range of religious places for both Buddhists as well as Hindus. The paper puts a model depicting the factors contributing to Religious tourism decision making process.

Introduction

Tourism Industry is the new child of modern times. But it is not true when we talk about travel itself. Because travel is as old as the human being is, in this mortal world. Only the motive of the travel has been changing from time to time. In primitive world man travelled from one place to another for food, shelter or to escape from danger. Then slowly, he started travel to discover or explore the world for his own. When most of the land had been utilizing by human being, they started commuting from one place to another for business purposes. Slowly and gradually the needs, desires and tastes of human being turned this simple word 'travel' to one of the vague phenomena to define 'Tourism'. There are two factors which act as main components of the tourism industry. One of the them is "Tourist" and other is "Destination". For the person to act as "Tourist", he or she has to have some motivation for the travel and on the other hand the second factor is "Destination" to which the tourist is going to visit should have some attributes natural or man-made. The motivation of the tourist to visit the destination act as push factor for the

tourism and attributes of the destination act as the pull factor of the tourism. In the present paper Mcleodganj (Dharamshala) has been taken as the destination which has certain attributes which attract tourists to visit. Some of the natural and man – made attributes responsible for “Pull” factors of the Mcleodganj (Dharamshala) as destination are like Buddhist Monastery which is the abode of His Holiness, the Dalai Lama, Bhagsu Nag temple, The Dal Lake, International Cricket Stadium situated in the lap of Dhauladhar range of Himalayas. Because of the presence of His Holiness and International Cricket Stadium in Mcleodganj and Dharamshala, this destination has come on the international map of the tourism. The abode of His Holiness is not shifted here recently, it remained here since the time he came here to take refuge in India. But the advent of internet and its promotion in more and more websites makes it more attractive as “Pull” factor for the tourist. The attributes of the destination and motivation of travel because of these attributes act as the “Push” factor for the tourist to travel. This paper reviews certain “Push” and “Pull” factors related to the visit by the tourist at Mcleodganj (Dharamshala).

Literature Review

As a concept, Tourism involves a number of factors like social, psychological and economic forces that are major determinants of travel. Hudson (1999) suggested that need is a force which influences the behaviour and is a force influencing motivation into behaviour. One of the earliest theories related to human needs as listed by Maslow (1943) highlights the ladder of needs like physiological, safety, love, esteem and needs for self-actualisation. Thus, attaining each step of the need ladder force fulfils a higher level of need. As critics of Maslow’s theory, Wills (1992) strongly criticised that the theory is irrelevant due to non-consideration of needs like dominance, abasement, play and aggression. These needs have much stimulation to undertake travel. On the other hand, Mill and Morrisson (1985) linked the Maslow’s hierarchy of needs with travel and tourism motivation. Similarly, Dann (1977) agreed to the argument bringing in two factors push and pull as the major contributors for travel decisions. Crompton (1979) agreed with Dann (1977) with regard to push and pull factors as the internal and external travel motivational forces. While the latter identifies seven push and pull categories of motives and former emphasizes on the nine factors. However, Crompton (1979) mentioned that push motive comprises of escape from mundane environment, self-evaluation, realization, exploration, prestige, family relations and social interaction while pull factors included novelty and education as the factors to allure the visitors to places of tourism interest.

Mannel and Iso-Ahola (1987) explained about the push and pull factors as two types of personal and interpersonal needs fulfilled through travel. They were intended to define that travelling for the motivation of escaping from the personal and interpersonal problems of usual environment could gain personal and interpersonal rewards in different environments. Further, personal rewards consist of self-determination, sense of competence, challenge, learning, exploration, and relaxation whereas interpersonal rewards are achieved through social interaction. Simultaneously, Krippendorf (1987) explored the eight travel motivations that comprise of recuperation and regeneration, compensation and social integration, escape, communication, freedom and self-determination, self-realization, happiness, and travel broadening the mind. On the other hand, Horner and Swarbrooke (2007) added the demographic criteria, cultural differences and liking for the type of tourism products like theme parks, museum, art gallery, leisure shopping complex

and golf course as motivators for tourism. Similarly, Wang (2004) revealed that motivations differ according to socio- demographic sub- groups.

In pull factors, destination attributes are considered the lead factors that go hand in hand with the tourist motivations to help tourists to choose destination of visit. These destination attributes are referred as the pull factors or external factors or extrinsic factors. While the tourist motivations are the endogenous factors motivating travel from the tourist side. It is also referred to as demand that is created on the basis of destination attributes. The exogenous factors represent the supply side of destination. Klonsky (2002) refers to the pull factors as exogenous factors by including the feature and attractions of a particular destination. Out of many pull factors, the image of the destination forms to be an important attribute. Further, Shih (1986) focussed that perceptions and image of a place determine the choice of destination. Similarly, Uman Crompton (1990) found that the attitudes of the tourists are very important in deciding a choice of destination. Schmoll (1977) gave an idea that travel publications, travel needs and desires, travel agencies, destination image, previous experience, cost and time constraints, destination characteristics and the services act as stimulus to the destination choice.

Witt and Mountinho (1989) suggested that the destination attractiveness is based on three factors: static, dynamic and current decision factors. Static factors comprise of climate, distance to travel facilities, historic/cultural features and natural and cultural landscape. Dynamic factors comprise of accommodation and catering units, personal attention, entertainment/sports, political atmosphere and trends in tourism, and current decision factors comprise of marketing strategies and prices in both the destination region and the tourist's area of origin. Fakeye and Crompton (1991) derived six pull factors from 32 destination attributes in a winter resort in Texas. They were social opportunities and attractions, natural and cultural amenities, accommodations and transportation, infrastructure, foods and friendly people, physical amenities and recreation activities, and bars and evening entertainment. In number of researches, it is found that there are quite a number of destination attributes that act as pull factors irrespective of tourist motivation. Christie and Crompton (2001) found that price of tourism packages plays a vital role in selecting the destination of visit. The less the cost, the more travel was undertaken by the tourist in a particular destination. Apart from this Culture has been found one of the most important attribute as pull factor at the destination. Miller (1997) explains culture as the attribute for mass travel. Moreover, Richards (2004) mentioned that there are increasing competitions among destination countries in developing cultural tourism products to attract heavy tourist flow. Entertainment is an integral part of the destination attribute and it has become a focal attraction of the new-age tourists. Formica (2000) explained that entertainment is an important attribute of the destination. Aalst (2002) argued that many destinations portray themselves as entertainment destination to attract tourists. Besides, this Natural beauty and scenery at the destination also act as the contributor for one of the attributes at the destination. Martin (2005) suggested that climate positively influences the tourist's motivation to visit a destination. Safety and security in another attribute which tourist looks for at the destination. Dwyer and Kim (2003) found that the terrorist attack on twin tower lowered the tourist visits across the world. Similarly, Christie and Crompton (2001) argued that based on the crimes committed on the tourists, the destination loses its tourist flow.

The attitude of the Host community towards the tourist forms to be an important attribute of a destination. Dwyer and Kim (2003) highlighted that the behaviour of the local people towards the tourists brings about the level of satisfaction in the minds of the tourists. They argued that the support of local people is very important for converting a one-time visitor to repeat visitor. Another attribute at the destination is services offered there which act as pull factor for the tourist visit. Haber and Lerner (1998) identified that the quality of services is an important attribute to decide on the place visit.

As far as background to the study is concerned, tourist motivations and destination attributes which can be appraised by IT are the two major parameters that decide on the conduct of travel or tourism to a particular destination. The former comprises of aspects like social, psychological needs, high disposable income, and excessive leisure time. The later comprises factors like natural, man-made, events, facilities as well as external motivations to evoke the tourists to visit the Mcleodganj (Dharamshala). So the review of literature reveals that studies have been conducted in the areas of travel motivation and destination attributes. Most studies have been undertaken from the Western perspectives and those studies highlighted on the development of destination attributes without laying emphasis on the tourist motivations for health tourism. So in this paper the researcher has studied this particular research work to help the policy makers to formulate appropriate policy for the growth of the tourism in the region.

Objective of the Study

- The main objective of this paper is to explore various dimensions of tourist motivation.
- Secondly, to identify the relationships between tourist motivations and destination attributes for visiting the destination.

Scope of the Study

The study is confined to the concepts of tourist motivations and destination attributes at Mcleodganj (Dharamshala) in Himachal Pradesh. The paper is exploratory, descriptive and inferential in nature, it will explore the various motivations and the destination qualities of Mcleodganj (Dharamshala).

Research Methodology

The two approaches of research namely qualitative and quantitative were used. For qualitative and quantitative approach unstructured questionnaire was developed. Convenience sampling in the non-probability classification was used for sampling with the sample size of 355 respondents. The first part of the questionnaire dealt with variables like motivation, stay, expenditures of the tourists while the second part deals with the demographic data of the respondents. The primary data were collected from tourists visited Tibetan Temple, Bhagsu Nag Temple, Dal Lake Naddi at Mcleodganj (Dharamshala).

Hypothesis

- Null Hypothesis: There is no significant association between the frequency of visit and duration of stay with travel motivations, source of information, selection of accommodation, and type of tour.

Data analysis

- The techniques like Univariate and Bivariate analysis were conducted by using across tabulations to analyse and interpret the relationships between variables applied on the nominal, ordinal and interval scale questions. Chi- square test has been applied to test the association between two variables for nominal scale questions. Mean and standard deviation are used to work out the average of the responses.

Limitations

The Primary data were collected from the field visits conducted on the tourists who came to the Mcleodganj. Some respondents were not in position to respond as they were in hurry. This made the possibility of random constraints in the responses. Thereby, the data collected may not be entirely reliable.

- The information of demographic profiles like age, income, education qualification etc. was not reliable as many tourists were hesitant to respond for these questions.
- The tools that were used for the study have their own limitations worth mentioning here.
- The size of the sample is another limitation. The research findings may not be able to contribute to the overall findings and therefore generalization may be limited. The size of the sample may not be used for giving the final findings.
- The use of convenient sample raises doubts on the integrity of the sample. Therefore, the reliability of the responses through questionnaire survey method always leave doubts.

Analysis and Interpretation of Data

Several Push and Pull factors like needs, wants, demands, affordability and vacation availability are responsible for the visit of tourists at Mcleodganj (Dharamshala). Among the pull factors at the destination Facilities, amenities and services act as importantly. It is a complex two-way process involving factors that tourist motivations and destination attributes are determined significantly. The study is intended to focus on the behaviour of tourists in general with regard to the travel motivation with the help of information technology. The study further analysis the key variables like main motivation, duration of stay, frequency of visit, sources of information, types of accommodation for the purpose of finding out the distribution in cross tabulation format. The primary data collected from tourists through the structured questionnaire are analysed to explain the objectives determined for the study. The analysis is done through cross tabulation, mean, standard deviation, rank analysis and hypothesis testing.

Travel motivations differ from person to person based on the destination attractiveness. Demographic variable influences the travel motivations. The dependent and independent variables like nationality, travel motivation, age, frequency of visit, marital status, travel behaviour and destination resources are presented as the determinant of travel motivation for tourist to visit Mcleodganj (Dharamshala).

Frequency of Demographic Profiles

Table - 1 depicts the demographic distributions of tourist respondents with respect to their nationality, marital status, gender, age, annual income and education qualification. Of the total 355 respondents, nearly 47.9% of the respondents are domestic tourists and 52.1% are foreign tourists. The frequency of gender distribution indicates that there are 53.5 % of males and 46.5% are females. As far as marital status, there are 46.5 % are married while 53.8% are unmarried. The distribution of age among the respondents show that majority respondents 54.9% belonged to the age from between 20 and 40, almost one third respondents 31.3% between 41 and 60 and 13.8% of respondents are 61 and above. The distribution of demographic profiles of the respondents seems to show the normal distribution across the demographic indicators.

One of the other parameters are Annual Income which ascertain the capacity of expenditure and frequency of visit of the tourists. The frequency of the income distribution across the demographic indicators as it is given in the table - 1. It shows that 19.2% of tourist respondents' annual income varies between Rs 1,00,000 and less, followed by a little more than one fifth, 27.3% earned income annually between Rs 100000 and Rs 300000. Similarly, a little more 21.7% of tourist respondents got the annual income ranging between Rs 300000 and Rs 500000 whereas the annual income of 23.7% tourist respondents who were students during the visit to Mcleodganj did not have Income. It is inferred that nearly 50 per cent of the tourist respondents' annual income fell between Rs 100000 and Rs 500000. However nearly one fourth of the respondents had the annual income between Res 500000 and above.

For qualification 50.7% are graduation and post-graduation degrees, 38.3 % acquired professional qualifications along with 11% of them got under graduation qualification. It is quite obvious that significant chunk of respondents could understand their specific motivation and destination attributes i.e. facilities, amenities and services.

Table 1: Demographic Profile of Tourists			
S.No.	Demographic Profiles	Demographic Variables	Percentage
1.	Nationality	Domestic	47.9
		International	52.1
2.	Gender	Male	53.5
		Female	46.5
3.	Marital Status	Married	46.2
		Unmarried	53.8
4.	Age	20 – 40	54.9
		41 – 60	31.3
		61 and above	13.8
5.	Annual Income	Rs 60000 – 100000	19.2
		Rs 1 Lakh – Rs 3 Lakh	27.3
		Rs 3 Lakh – Rs 5 Lakh	21.7
		Rs 5 Lakh and Above	23.7
		Students	8.2
6.	Educational Qualification	Below Graduation	11.0
		Graduation and PG	50.7
		Professional	38.3

Channels responsible for promoting Mcleodganj as tourist destination

Tourism is the business which will become successful if it performs consistently. Tourists which come to visit Mcleodganj (Dharamshala) basically motivated through effective promotional channels. Table – 2 illustrated the factors like tie-ups with Travel companies, newspapers, word of mouth, advertisements, travel agencies, and websites are found to be important in order of their preference for domestic as well as foreign tourists. The Friedman's test results evident that the websites counts to be the strong promotional channel with highest mean rank of 4.84, followed by advertisements and word of mouth in second place and third place with a mean ranks of 3.86 and 3.57 respectively. Tie – ups with Travel companies occupies the fourth rank with mean rank of 3.04. Newspapers and travel agencies are in fifth and sixth place with the mean rank of 2.96 and 2.73 respectively. In the nutshell Websites with the highest rank contribute significantly to the promotion of Mcleodganj (Dharamshala). Thus the advertisements in all forms are effective to position Mcleodganj as a vibrant destination. To test whether significant differences exist among the factors, the Freidman's Chi – square test was conducted. It reveals that there is significant difference among the channels responsible for promoting Mcleodganj, since each factor is independent in influencing towards showcasing the destination image. Further it is analysed that different demographic segments of promotion having access to different channels of sources of information about availability of attractions. Though all the channels contribute to promotion of Mcleodganj, websites is apt to approach the tourists since it is the channel contributing to global village concept.

Table 2: Friedman's Rank Test		
Channels Promoting Mcleodganj	Mean Rank	Chi – Square Value and P Value
Tie – Ups with Travel Companies	3.04	
Newspapers	2.96	
Word of Mouth	3.57	Chi – Square 43.480
Advertisements	3.86	Df – 5
Travel Agencies	2.73	P Value- .000(S)
Websites	4.84	

The test of hypothesis with the help of chi-square is a non-parametric statistical tool to predict the association between the variables. The test is run on the nominal data to find the presumption of the variable or phenomenon on the study. It presents whether the association is significant or not.

Frequency of Visit and Duration of stay across Travel Motivations

The Chi – Square test is conducted in cross tabulation by comparing the association of two variables to measure the significant association between frequency of visit and duration of stay with travel motivations. The distribution of respondents on the basis of frequency of visit across travel motivation presented in table – 3. It shows 189 out of 355 respondents visited Mcleodganj first time, followed by 85 visited second time and 81 visited repeatedly. From the table it is observed that 68 were motivated for spiritual, 67 for wellness, 28 for sports, and 53 for health motivation. The combination of wellness, spiritual, sports and leisure were found to be spiritual and leisure oriented tourists accounting for 221. To test association of travel motivation

with the frequency of visit, the chi – square test was used to analyse whether these two variables are statistically significant or not. The results of the test as it is indicated in table – 3 shows the significant level of .000. It is inferred that the null hypothesis “there is no significant association between frequency of visit and main motivation of travel to Mcleodganj” is rejected. To test the association of travel motivation with the duration of stay, the chi – square test shows that the significance level of .000. So it is evident null hypothesis “there is no significant association between duration of stay and main motivation of travel to Mcleodganj” is rejected.

Table 3: Travel Motivation by Frequency of Visit and Duration of Stay									
Determinants	Travel Motivations							Total	Chi – Square and P Value
	Wellness	Spiritual	Cultural	Sports	Education	Business	Leisure		
(Frequency of Visit)	25	29	65	21	7	1	41	189	Chi – Square
1st	-13.20%	-15.30%	-34.40%	-11.10%	(3.7)	(0.5%)	(21.7%)	(100%)	75.005
2nd	14 (16.5%)	22 (25.9%)	29 (34.1%)	5 (5.9%)	7 (8.2%)	2 (2.4%)	6 (7.1%)	85 (100%)	Df – 12
Repeat Visit	28 (34.6%)	17 (21.0%)	9 (11.1%)	2 (2.5%)	9 (11.1%)	10 (12.3%)	6 (7.4%)	81 (100%)	P
Total	67 (18.9%)	68 (19.2%)	103 (29.0%)	28 (7.9%)	23 (6.5%)	13 (3.7%)	53 (14.9%)	355 (100%)	Value - .000 (S)
(Duration of Stay)	9 (8.3%)	16 (14.8%)	33 (30.6%)	19 (17.6%)	2 (1.9%)	0 (0%)	29 (26.9%)	108 (100%)	Chi – Square – 81.813
Less than 3 Days									Df – 12
4 – 5 Days	22 (20.0%)	17 (15.5%)	47 (42.7%)	3 (2.7%)	7 (6.4%)	2 (1.8%)	12 (10.9%)	110 (100%)	P
1 Week and More	36 (26.3%)	35 (25.5%)	23 (16.8%)	6 (4.4%)	14 (10.2%)	11 (8.0%)	12 (8.8%)	137 (100%)	Value –
Total	67 (18.9%)	68 (19.2%)	103 (29.0%)	28 (7.9%)	23 (6.5%)	13 (3.7%)	53 (14.9%)	355 (100%)	.000 (S)

Source of Information by Frequency of visit and duration of stay

Table 4 describes the distribution of respondents on the basis of frequency of visit across sources of information. It depicts that more than half i.e. 189 of the respondents were first time visitors, followed by each nearly one fourth 85 and 81

were the second time visitors and repeat visitors respectively. On the contrary, 153 came to know about the Mcleodganj through friends and relatives, 69 through travel literature, 48 through media and publicity, 44 through internet and only 41 through travel agencies and tour operators. It shows that recommendation of friends and relatives on the selection of Mcleodganj for the destination to travel is a critical factor. To test the association of sources of information with the frequency of visit, the chi – square test was used to analyse whether these two variables are statistically significant or not. The results of the test as it is indicated in the table shows the significance level of .000. it is inferred that the null hypothesis “there is no significant association between duration of stay and source of information about Mcleodganj” is rejected. It further establishes that the test of the results that association between the variables to influence the decision making process of paying since many visit to Mcleodganj for leisure related reasons is significant. The rejection of hypothesis appears to have reflected that frequency of visit and source of information are significant in association. It is also interpreted that the interdependence between the two variables can change the perceptions of tourists towards destination attributes.

Table 4: Source of Information by frequency of visit and duration of stay							
Determinants	Sources of Information					Total	Chi – Square value and P Value
	Media and Publicity	Internet	Friends and Relatives	Travel Agencies and TO	Travel Literature		
(Frequency of Visit)	29	22	76	18	44	189	Chi – Square value – 28.813
1st	15.30%	11.60%	40.20%	9.50%	23.30%	100 %	Df – 8
2nd	11	14	33	20	7	85	P Value
	12.90%	16.50%	38.80%	23.50%	8.20%	100 %	.000 (S)
Repeat Visit	8	8	44	3	18	81	
	9.90%	9.90%	54.30%	3.70%	22.20%	100 %	
Total	48	44	153	41	69	355	
	13.50%	12.40%	43.10%	11.50%	19.40%	100 %	
(Duration of Stay)	15	16	43	11	23	108	Chi – Square value – 15.15
Less than 3 Days	13.90%	14.80%	39.80%	10.20%	21.30%	100 %	Df – 8
4 – 5 Days	21	15	40	18	16	110	P Value
	19.10%	13.60%	36.40%	16.40%	14.50%	100 %	.046(S)
1 Week and	12	13	70	12	30	137	

More	8.80%	9.50%	51.10%	8.80%	21.90%	100 %	
Total	48	44	153	41	69	355	
	13.50%	12.40%	43.10%	11.50%	19.40%	100 %	

Mode of Accommodation by Frequency of visit and duration of stay

Accommodation is one of the important elements of the expenditure and it is a vital component of independent or group package tour. Conventionally it is stated hotel as “Home away from Home”. Tourists as customers and Travel intermediaries as suppliers do underpin the selection of the mode of accommodation given the amount of cost and quality of services. The association between the mode of accommodation and frequency of visit and duration of stay is logically represented in Table – 5, in which distribution of respondents across type of accommodation on the basis of frequency of visit and duration of stay is highlighted. Table shows that 189 first time visitors followed 85 second timer and 81 repeat visitors, as far as duration of stay 137 visited Mcleodganj for one week and more, followed by 110 between one to five days and 108 between one to three days. More than one third 138 respondents stayed in the guesthouses, followed by 106 in hotels, 33 preferred lodges and 22 resorts. 51 stayed in the other accommodations like houses of friends, relatives and home stays. The Chi – Square analysis discusses about two combinations of degree of association between the variables. The first combination shows the association between the frequency of visit and type of accommodation and the second combination of association is found out between duration of stay and the type of accommodation used for the stay. It is observed that the significance level of .000 has been achieved between the first combination of variables as well as the second combination of variables leading to the conclusion that there is significant association between the variables frequency of visit and duration of stay across type of accommodation. So the null hypothesis “there is significant association between frequency of visit and type of accommodation used & duration of stay and type of accommodation” is rejected.

Table 5: Type of Accommodation by frequency of visit and duration of stay								
Determinants	Type of Accommodation						Total	Chi – Square value and P Value
	Hotels	Resorts	Guest Houses	Lodges	Govt. Bungalows	Others		
(Frequency of Visit)	58	10	88	18	1	14	189	Chi – Square value – 50.221
1st	30.70 %	5.30%	46.60%	9.50%	0.50%	7.40%	100 %	Df – 10
2nd	28	10	29	8	2	8	85	P Value
	32.90 %	11.80%	34.10%	9.40%	2.40%	9.40%	100 %	.000 (S)
Repeat Visit	20	2	21	7	2	29	81	
	24.70	2.50%	25.90%	8.60%	2.50%	35.80	100	

	%					%	%	
Total	106	22	138	33	5	51	355	
	29.90%	6.20%	38.90%	9.30%	1.40%	14.40%	100%	
(Duration of Stay)	48	5	43	10	0	2	108	Chi – Square value – 62.845
Less than 3 Days	44.40%	4.60%	39.80%	9.30%	0%	1.90%	100%	Df – 10
4 – 5 Days	37	9	47	7	2	8	110	P Value
	33.60%	8.20%	42.70%	6.40%	1.80%	7.30%	100%	.000 (S)
1 Week and More	21	8	48	16	3	41	137	
	15.30%	5.80%	35.00%	11.70%	2.20%	29.90%	100%	
Total	106	22	138	33	5	51	355	
	29.20%	6.20%	38.90%	9.30%	1.40%	14.40%	100%	

Type of Tour by Frequency of Visit and Duration of Stay

Table – 6 represents the type of tour that the respondents have got engaged into emotionally as it enriches experiences and ensures value for money. Tourists travel as free individual travellers as well as group inclusive travellers as per their own convenience and budget. It is seen that 153 respondents were accompanied by their friends and 86 accompanied by their family members who came to visit Mcleodganj as group travellers where as 116 were individual travellers. With respect to duration of stay 75 of the group travellers stayed between one to three days while 90 stayed for more than one week. Similarly, 47 of the individual travellers stayed for one week and more while 36 stayed between one to five days. The chi – square test analyses the variables of duration of stay and frequency of visit across type of tour. It has resulted in heterogenous results showing that the association between frequency of visit and type of tour at significance level of .000. it is inferred that the null hypothesis “there is no significant association between frequency of visit and type of tour to Mcleodganj” is rejected. It further adds that there are associations between the variables to have much effects on process of deciding the visit to Mcleodganj for leisure visit and travel motivation is closely associate and interdependence between the two variables can change the perceptions of tourists towards destination attributes. The association between the duration of stay and type of tour shows a result of P value equal to .578 inferring that there is no significant association between duration of stay and type of tour leading to acceptance of the hypothesis with respect to the travel to Mcleodganj. It is also inferred that type of tour and duration of stay are not closely associated and that do not contribute to the decision making process to stay in Mcleodganj. It may be interpreted from the prediction of hypothesis that duration of stay and the interest in joining in the tour is no way associated due to the reason that regardless of the extent of stay and the decision to select the type tour is independent.

Table 6: Type of Tour by Frequency of Visit and Duration of Stay

Rationale of Push and Pull Theory Through IT in Tourist Motivations and Destination Attributes: A Case Study of Mcleodganj (HP) as Tourist Destination

Determinants	Type of Tour			Total	Chi – Square value and P Value
	On Your Own	With Family Members	With Friends		
(Frequency of Visit)	59	36	94	189	Chi – Square value – 21.862
1st	31.20%	19%	49.70%	100%	Df – 4
2nd	20	24	41	85	P Value
	17.20%	28.20%	48.20%	100%	.000 (S)
Repeat Visit	37	26	18	81	
	45.70%	32.10%	22.20%	100%	
Total	116	86	153	355	
	32.70%	24.20%	43.10%	100%	
(Duration of Stay)	33	22	53	108	Chi – Square value – 2.882
Less than 3 Days	30.60%	20.40%	49.10%	100%	Df – 4
4 – 5 Days	36	27	47	110	P Value
	32.70%	24.50%	42.70%	100%	.578 (S)
1 Week and More	47	37	53	137	
	34.30%	27%	38.70%	100%	
Total	116	86	153	355	
	32.70%	24.20%	43.10%	100%	

Findings

- For the sake of recreation, leisure and entertainment tourism is the only industry which makes individuals to travel from one place to another. The motivation level of individual person differs from another one and the attributes of one place also differ from another but whatever differences are there in individuals as well as at destinations travel industry keeps doing well in all times and places. Some of the findings from the paper are as follow:
- For the residents and host community of Mcleodganj (Dharamshala) tourism plays an important role as contributor to their economy.
- Types of travel motivation, source of information, type accommodation, frequency of visit and duration of stay are the primary mediators between the travel motivations and destination attributes.
- It is found that there exists association between types of travel motivation, source of information, type of accommodation, frequency of visit and duration of stay showing significant association of Mcleodganj with leisure tourism activities.
- This shows that these travel motivations, source of information and type of accommodation strongly influence the decision to travel to Mcleodganj.

- There is significant association between type of tour and frequency of visit and there is no association between types of tour with that of duration of stay. This means type of tour does not influence on the decision to extend the duration of stay in Mcleodganj.
- Branding of Mcleodganj on websites and through other printed material acts as one of the strongest pull factor for Mcleodganj as the destination.
- The tourists who visited Mcleodganj that the cost for different amenities at Mcleodganj is affordable for middle class or budget tourist as compared to metro cities or other hill station of the state. This also act as the strong pull factor to visit the Mcleodganj.

Suggestions

- Mcleodganj (Dharamshala) should be marketed as a Leisure destination, thereby increasing the tourist flow motivating the tourists to spend and increase of the contribution of tourism to the economy of the state as well as region.
- The demographic segments visiting Mcleodganj should be analysed with an objective to prove tourism product according to their needs and wants.
- Already existing attributes of Mcleodganj both natural and man – made like Buddhist Monastery (Abode of His Holiness, The Dalai Lama), Water fall, Bhagsu Nag Temple, Dal Lake at Naddi etc. should be taken care off better with the principles of sustainability.
- The tourists who visit Mcleodganj for the first time should depart with a decision of paying repeat visits to Mcleodganj. For the sake of this task there should be proper collaboration between all stake holders viz. local administration, private sectors and host community.
- Government's role is paramount as far as the destination attributes of Mcleodganj is concerned. The requirement and maintenance of good roads for Mcleodganj is basic requirement of tourist with the parking and traffic control management.

Conclusion

Mcleodganj has emerged as one of the most attractive tourist destinations not only of Himachal Pradesh but of country as well. It has become favourite destination for international tourists as well because of abode of His Holiness and newly built International Cricket Stadium in the lap of Dhauladhar ranges of Himalayas. Although Mcleodganj is one of the preferred destination of all types of tourists visiting Himachal Pradesh, however the challenge is the facilities, amenities and services as the core destination attributed studied in the paper. The paper has identified a gap in the theory that tourism motivations and destination attributes contribute towards taking a rational decision of visiting a destination. It also infers that destination attributes do not match with the tourist needs and motivations thereby reducing repeat visits to Mcleodganj. The study will encourage the government, planners, NGOs, private health operators and other stakeholders to make an attempt to position the Mcleodganj as a competitive leisure tourism destination.

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Impact of Technology on Government Higher Secondary School Administration

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ABSTRACT

Technology plays a decisive role in enhancing the effective operation of a school as an organisation which requires an efficient and effective administration. With the advent of 21st century the whole world has become a 'Global Village'. The modern technology has transcended the manual work in the organisations to make life expeditious. The efficient and effective administration governs the objectives of a school to accomplish. Technology may be considered as a substitute for the modernization of all the organisations for administrative transactions including school administration. Contemporarily, the application of new technologies in the government higher secondary schools in India has been promptly snowballing. This adoption of new technology reinforces the administrative as well as teaching process in the school. The technological resources can be unified with the administration transversely. Technology has been used for the enrichment of students' e-learning; instructional and professional purposes for both teachers as well as administrators in the development process of the school. Lack of technological sustenance impedes the administrative functions towards the development process in the school. Effective administration leads to quality work in the organization and quality teaching in the school. The study nexus the progress of administrative technical support with institution effectiveness.

Introduction

Technology is the application of scientific knowledge, tools and skills to enhance the human competences and to improve administrative work enormously in the institutions. Technology have the potential to lead significant changes in the institutions for teaching, learning and administration in the government higher secondary schools. An extensive amount of investment has been given for the introduction of information and communication technology (ICT) in the overall development of school administration. It is evident to the world that technology has revolutionized the administrative system of the schools efficiently and effectively.

ICTs has emerged as major instruments in facilitating and enables the changes in the school administration. ICTs enable the restructuring of hierarchical institutions, re-engineering of work processes and effective and participative decision-making. ICTs are helping government higher secondary schools to perform new roles of serving, coordinating, reinventing and realignment. The tools and applications of ICT are the new modes of enabling multi-stakeholders' participation in policy making for the institutions. Technology have also given new meaning and concept to school administration. School administration has now become digital, efficient, effective, accountable, responsive, transparent, participative, paperless and flexible.

The use of ICT in educational institutions has become indispensable for the development not only for teaching and learning but also for school administrative activities. ICT applications have been used in school administration to support sustainable development process. The use of ICT has rapidly increased due to its efficiency and effectiveness.

Management information systems (MIS) are also being used by schools to support a range of administrative activities including attendance monitoring, assessment records, reporting, financial management, and resource and staff allocation. MIS provide managers with the information required to manage organizations efficiently and effectively. These systems are distinct from other information systems in that they are designed to be used to analyse and facilitate strategic and operational activities in the organization.

MIS plays a vital role in the area of decision making as it can monitor by itself disturbances in a system, determine a course of action and take action to get the system in control. It is also relevant in non-programmed decisions as it provides support by supplying information for the search, the analysis, the evaluation and the choice and implementation process of decision making. These systems have the ability to provide its users the processed information, analytical models, real-time updates and hypothetical scenarios to assist their decision making process.

Impact of technology on government higher secondary school administration

Technology in government higher secondary school administration is guiding the administrative system to become efficient and effective. Technology in the administration of schools has various benefits. These may include improvement of the school standards in terms of academics, accounting and co-curricular activities. Technology is used for school administrative purposes to support and improve school administration, ICT can be considered as a sub field of educational technology. ICT application remains a fundamental component in administration of any organization. Schools require this technology to benefit the school management in various areas that school administration can apply ICT. These include instructional leadership, management of school facilities, teaching and learning resources and financial management. ICT should ensure that the architecture components are extensible and scalable to adapt to the changing environments.

ICT enables administration to be efficient and effective by facilitating the three core areas of its functioning. It helps administration perform its public functions by simplifying the work processes and internal functioning via internal computerisation and automation, thus fostering transparency and accountability. Further, ICT facilitates policy formulation through multi-stakeholders participation enabling administration to incorporate the ideas and suggestions of professionals, academicians, private sector, civil society organisations, media, community and individuals in policy making. In addition, it helps in school administration by making the administrative service delivery much more convenient. ICT has brought about an electronic transformation in the traditional functioning of administration and has made it accountable, transparent, decentralised and citizen-centric. ICT applications in administration as follow:

- It tends to reduce the inordinate delays in file processing and movement caused by multiple levels in the departments/organisations. From the lowest

level of receipt of application to the highest level of action taking is the involvement of online file movement. Once the concerned official does noting, it is sent online to the next official. Hence time is not wasted in unnecessary physical movements. Computerised database is available for ready reference and it becomes possible for the officials to reduce the number of file movements.

- ICT promotes centralised storage of files and data. This enhance maintenance, reduces unnecessary effort, minimises storage place and lessens security risks. As the files and data are maintained in the electronic form, location and retrieval becomes easy and time saving of the school administration.
- ICT establishes efficient communication system between employees of departments thereby reducing wastage of time. Technology promotes connectivity and closer collaboration between departments and helps them to work in an integrated manner increasing overall productivity and reducing time overheads. This will not only benefit the employees of the organisation but also the citizens who would experience a much shorter turnaround time and a greater degree of transparency.
- ICT replaces the manual system of using standard process sheets and similar documents for processing leave applications, transfer orders or general provident fund of the employees. These process sheets can be maintained in the electronic form in a computerised environment.
- ICT shapes the environment in which the department is operating and enhances the knowledge and skills required by administrators and staff. It facilitates organisational learning and adaptation to the changing global environment by way of partnership, participation, information sharing and delegation.

There is a shift from the traditional administration to a modern electronic administration. Management Information System (MIS) is the study of the design, implementation, management and use of information technology applications in organisations. Peter Keen defines MIS as ‘the effective design, delivery and use of information systems in organisations.’ It focuses on providing managers with structured periodic reports. Much of the information is from accounting and transaction systems. Apparently, MIS are not concerned with day to day operations, but rather with the management of activities that do support operations.

MIS can provide administrators and teachers with the information required for informed planning, policy-making, and evaluation. MIS have changed school management in the areas of leadership, decision making, workload, human resource management, communication, responsibility, and planning. These systems can assist the school manager in determining the aims of the school, formulating strategic plans, distributing resources, and evaluating staff performance as well as organizational success. The growing interest in MIS's and the trend toward thoughtful, long-range planning for MIS implementation stem from the belief within the school community that such systems allow for better site and district management, empower staff at all levels, and increase a school or district's accountability to the community it serves. Efficient and quick decisions could be made possible when school managers get accurate and up-to-date information.

As an administration head, school principals should have basic skills of using ICT in school administrative and management job. Principals function as a role model when computer technology is applied to administrative and managerial task. As an

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instructional leader, principals facilitate teacher's integration of computers in teaching and learning, as a transformational leaders they encourage creativity, open-mindedness and facilitate conditions and events that create a positive environment for technology adoption.

While administrators usually apply power point presentation to give an instruction and training in a more interesting way, teachers have a more favourable attitude towards the instruction in this way. Administration use ICT applications to prepare school reports, notices, letters for meeting with parents, student registration, and teachers and staff employment. Besides ICT applications also used effectively by administrator in decision making process, store information as well as online applications.

Instructional leaders directly and indirectly determine the success or failure of teacher competencies in instructional technology. These leaders are also instrumental in integrating technology into the classroom curriculum through the teachers that are employed. Administrators play major role in providing successful learning environments and they should make it possible for their teachers to adopt technology to make difference.

Research Methodology

Research data is collected from both primary and secondary sources in order to make an objective and systematic study of the problem. Primary source include data collected by undertaking field visits by interacting with general public, students, teachers, and administrative officials of government higher secondary schools. Secondary sources comprised of data collected from research papers, journals, periodicals, newspapers, magazines, gazettes, internet, and reference books. The data collected has been systematically analysed and a structured report has been written.

Conclusion

Technology in administration has led to progressive developments and technological enabled administration have made better working methodologies, decision-making, implementation, monitoring and evaluation, increase in efficiency and effectiveness, consistency, wider accessibility, accountable, responsible, and restructuring of government departments and decentralised administration.

Technology have penetrated all the areas of school administration and have made management equipped with knowledge, skill oriented, efficient, effective, and virtually real time. It has made administration more dynamic and functional in the educational organisations. ICT application have impelled effective decision-making, policy analysis and problem solving by the administration and its proper use can have a substantial impact and improvement on management qualitatively. School administration and management should consider the fact that application of ICT in education sector can contribute the nation and the world at large.

Technology has a great potential in improving school administration system in India but the success of this concept will depend on the coordination and support from the governing bodies and the educational organisations of the nation.

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Corporate Social Responsibility from Employees' Perceptive: A Study of IT/ITeS Industry of Bangalore City

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ABSTRACT

The CSR practices are not only obligations to the society in terms of social and environmental aspects but also to the employees of organization. This is qualitative type of study and aims to examine employee perception on CSR initiatives taken by select IT/ITeS companies of Bangalore city. The survey is conducted for ten companies by considering factors as; CSR policy, internal CSR communication, CSR awareness, CSR incentives, financial benefits and CSR measures by email and in person (n=401). The pre-data analysis tests, descriptive statistics, Pearson correlation, factor analysis and simple regression analysis are conducted by using IBMSPSS.22 to evaluate relationship between CSR and the other factors. The results indicate that CSR policy and the rest of the factors are positively associated with each other. Further research can be conducted by extended population size (N) and geographical area.

Introduction

The terms Corporate Social Responsibility (CSR) has become a part of business lingua amongst commercial sector across the world. Business activities in developing country like India reshaped after globalization. CSR is defined and redefined time to time. Profitable companies make important contribution to the society. Such companies create jobs and play important role in economy. The ethical aspects of CSR have become more apparent as a result of globalization. The role of profit making companies is changed in globalized era towards society. Companies go for global but remain as local with their CSR activities. As for example; google, Microsoft, Reynolds, The Little Market, Ben & Jerry, etc. The Reputation Institute (RI), a Boston- based reputation management consultant firm tracks Lego Group as top amongst 1, 70,000 reputed companies for the year of 2017 concern to CSR activities. (Global CSR Rep Trak, 2017).

CSR in India can be divided into four eras. One is before independence period. The concept of CSR in India before 1947, it was manifested itself through charity that was carried out by business men and philanthropists with strong religious sentiments. Gandhian philosophy of trusteeship was very popular after 1947 in India. It is advocated that the role of Public Sector Units as important elements fulfilling the development agenda. The post globalization period during 1992 to 2000, entry of global business houses entered in India and created competitive market in India. The global standards of CSR motivated the local players to responds to the needs and enhanced brand value and meet consumer satisfaction. The global information sharing allowed Indian government to incorporate the best practices that made India the first country to mandate the CSR. The undertone has been focused on

partnership and the triple bottom line of engagement and not just on monetary alliance.

The landmark legislation on CSR is change in The Companies Act, 2013 as concern to CSR in the country. This legislation change that made India the first country to mandate and quantify CSR expenditure. The inclusion of CSR is an attempt to engage the businesses with the national development agenda. Section 135 of the Companies Act, 2013 gives detail information about CSR expenditure. The act came into force from April 1, 2014. The act also indicates that CSR activities by business houses of India should not consider as a normal course business and must be with respect to any of the activities mentioned in the schedule. The Indian companies in the last two years have invested majorly in education & skill development, health care & sanitation, rural development projects and environment after being mandated to allocate a portion of their profits towards community development.

The total CSR spending by the top 500 companies in India since the applicability mandatory CSR in 2014 is likely to cross Rs 50,000 crore by March, 2019. The CSR compliance is also likely to improve and tall in the range of 97-98% by FY 2019-20 (The Economic Times, 2018). The role of IT/ITeS companies towards contribution of CSR in India is the most remarkable. The total CSR expenditure during the current year by companies of Indian origin is INR7019.7 cr. and that of non-Indian origin companies is INR196.2 cr. Against the prescribed CSR expenditure, Indian origin companies have spent 96 per cent while non-Indian origin companies have spent 145 per cent. (CSR Report, KPMG:2017) The report also provides information on CSR project implementation by the states. During FY 2016-2017, Maharashtra, Uttar Pradesh, Tamil Nadu, Karnataka and Odisha have the highest number of CSR projects to the tune of 32% . Manipur, Tripura, Chandigarh, Daman and Diu, Dadra and Nagar Haveli continue to receive least attention with less than 10 projects. It is even more interesting to note that the average project cost is highest in Haryana (INR8.4 cr.) followed by Andhra Pradesh (INR6 crores) including Gujarat (INR3.6 cr.). The IT/ITeS companies spent CSR expenditure during 2016-2017 registered as 1100 cr. INR which stands third rank after banking and financial services.(1407 cr INR). The highest amount of expenditure spent by energy and power sector.

Bangalore city, the capital of Karnataka state is also known as Silicon Valley of India in terms of IT/ITeS industrial development. The IT sector has changed the face of Bangalore city which was known as paradise for retirees before 30 years. India's IT/ITeS industry grew up to US \$ 167 billion in 2017-18. Exports from IT industry increased to US \$ 126 billion in FY 2018, while domestic revenues (including hardware) advanced to US\$ 41 billion in Spending on IT in India is expected to grow over 9 % to reach US\$ 87.1 billion in 2018. India's personal computer shipment advanced 11.4% year on year to 9.56 million units in 2017 on the back of rise in the quantum of large projects. Revenue from digital segment is expected to comprise 38% of the forecasted US Revenue from digital segment is expected to comprise 38 per cent of the forecasted US\$ 350 billion industry revenue by 2025. (IBEF Report, 2018) Indian ITs core competences and strengths have attracted significant investments form major companies. The computer hardware and software sector attracted cumulative FDI inflows \$ 32.23 billion between April 2000 to June 2018,(DIPP,2018) Indian IT companies like; Infosys, Wipro, TCS and Tech Mahindra are diversifying their offerings and showcasing leading ideas in block chain artificial intelligence to clients using innovations hubs, research and development centres ,in order to create differentiated offerings(IBEF Report,2018) India is topmost off

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shoring destination for IT companies across the world. Having proven its capabilities in delivering on shoring and off shoring services to global clients, emerging technologies offer an entire new gamut of opportunities for top IT companies in India.

GDP contribution of IT/ITeS companies is registered as 7.7% of overall during 2009-2017. (IBEF,2018) and expected to be increased by 2% within next three years. IT/ITeS sector has focused on CSR contribution towards education in India. A survey conducted by NAASCOM foundation concluded that 76% of multinational companies spent their CSR funds in education, followed by 18% on gender equality and 12% towards poverty (Times of India, 2017)

Background of the Study

Employee perception on organizational CSR usually a mixture of personal experience of internal CSR and actions that affects to external stakeholders. The previous studies conducted by researchers, professionals and academicians also focused on employee role towards CSR activities of a firm. Some studies also put employees in the centre of CSR analysis to find out impacts of CSR on employee performance. CSR has significant impact on organizational outcomes such as organizational commitment, organizational citizenship behavior and turn over intentions. (Brammer, et.al, 2007)

The present study focuses on employees' perception towards CSR activities in context to IT/ITeS companies of Bangalore city. The factors identified for the purpose of employee perception analysis on the basis of previous relevant literature. The factors are; CSR policy, internal CSR communication, CSR awareness, CSR integration, CSR incentives, financial benefits and CSR measures.

Significance of the study

The present study is concentrated on employee perception on CSR activities in context to selected ten IT/ITeS companies of Bangalore city. The study focuses on how employee reacts on CSR policy framed by the government and the other factors like; internal CSR communication, CSR awareness, CSR integration, CSR incentives, financial benefits and CSR measures. It is also to be determined that how CSR policy is associated with other factors consisted for this study. The study also focuses on why emerging need on making aware the employees of organizational CSR activities. The study also focuses on how organization can be benefitted by involving employees in CSR activities in terms of organizational relationship, increase creativity, employee engagement and employee identification.

Review of Literature

The following previous related literature is reviewed for the purpose of identifying the research gaps on the present theme of the study.

CSR Policy

Seunghye Im et.al.(2017) conducted a survey on employee's perception towards CSR and organizational outcomes by covering sampling unit as numerous organizations of South Korea However, employee CSR participation can be diverse ranging from detachment to full engagement. It has also been illustrated that the fulfillment of employees' heterogeneous needs in CSR is related to employee outcomes. It is also concluded that employees also believe that CSR activities help to build brand image of organization. In this study, the researchers also argue that employees also playing key role to assess brand image of organization as a part of CSR activities

Žana Prutina and Dževad Šehić (2016) conducted a survey by using a mixed method approach that combined questionnaire, interview and content analysis. The study focused on the perceptions of employees in a company recognized for socially responsible behavior in Bosnia and Herzegovina. They concluded that employees perceived their company as socially responsible, but also that there were variations in perceptions depending on the stakeholder group and point out the importance of the national business system and culture in CSR evaluation.

Zorigt Amarsaikhan (2014) conducted a survey on relationship between employee perception on employee organizational commitment and socially responsible behavior as employee by covering 100 working employees in industries of Ireland. He concluded in his theses that employees favor to work for and identified with the organization if the organization is socially responsible towards natural environment, society and future generations, customers, and employees.

Eun Mi Lee et.al (2013) explained through empirical findings on employees' perceptions towards CSR activities that employees are secondary stakeholders of a company and concerns with financial performance of a company. The study also suggests that direct and indirect effects of employee perception of CSR activities on corporate performance shed new light on the importance ascribed to CSR in marketing activities.

B.Anil Prasad & Prof. R.D.Sampath Kumar (2011) conducted a survey on monitoring and evaluation of CSR activities in GMR industries. They concluded from employee perspectives that more than half of the employees (54.0%) stated that the management was transparent in its decisions with regard to the implementation of CSR projects. The rest (30.0%) stated that the management was not transparent.

Internal CSR communication

Brunton, Eweje and Taskin (2017) found that face-to-face communication is positively associated with employee's CSR initiatives.

Men (2014) is aligned with the positive effects of internal face-to-face communication, and say that it is often considered the ideal channel for communicating complex information. By using face-to-face communication, it allows for instant feedback and multiple cues. He also found that also found social media has become an increasingly popular platform among managers, although only few are using it to communicate with the organization's employees.

Mishra, Boynton & Mishra, (2014). examined that Internal communication is a key concept in order to embody transparency between management and employees, which in turn can increase the employee engagement towards the organization's priorities. They also added that internal communication should build trust between

managers and employees, and thus increase the employee engagement with the company. Research show that by communicating CSR internally, organizations can motivate and positively impact the loyalty of the employees.

Hoeven and Verhoeven (2013) engaging employees in CSR activities allows them to feel better about themselves and the organization, but more analysis is needed on how they are involved into the communication process. In the present study, internal communication between employees and employer is can also be considered as one of the key components for CSR activities in context to IT/ITeS companies in Bangalore city.

Ananthkrishnan (2011) studied the impact of corporate communication on internal publics with reference to Hindustan Aeronautics Limited, Bangalore, India and found that internal communication system was sound and created better interaction between the management and employees. The scholar suggested that internal communication system should be promoted in a systematic way as an important branch of corporate communication in order to motivate the employees to build image and manage reputation consciously and competently.

CSR Awareness

Yun Hyeok Choi, Jae Kyu Myung et.al (2018) examined that anomie has not been tackled in a broad spectrum of diverse theories, and there is insufficient research about variables affecting anomie. In the present study, it is also intended to examine the level of anomie in context to IT/ITeS companies of Bangalore city.

Dr. Naval Lawande(2016) examined that ITeS industry has always been at two ends of the continuum. The study was initiated with an objective of identifying similarities/dissimilarities between two sectors on various aspects of CSR. The goal was to identify the role of sector difference (if any) on CSR from the employee viewpoint. They identified that higher mean scores as well as higher mean rank in terms of importance to CSR initiatives.CSR is mandatory with amendments in the Companies Act 2013. ITeS firms would be major contributors to the CSR corpus fund. In the present study, it is also intended to measure employee sensitivity towards CSR in context to IT/TIeS companies of Bangalore city.

Lena Hülsmann (2015) conducted the study on internal CSR awareness in context to German –based Japanese ICT subsidiary and examined that CSR performance category, community investment and development, as employees are least aware of this CSR topic and as it represents an essential aspect of the philanthropic responsibilities of a firm. It is also concluded that least awareness on CSR activities of employees affects organizational performance and organizational brand image. This observations of the study can also be generalized in the present study.

The Economic Times (.2013) news highlighted about the company Dell"s strategy of motivating its employees in initializing CSR. Company with its employees has engaged in social responsibility activities in the areas of education, environment and employees` welfare. Beside Dell Company, the news also discussed about other companies like Maruti and Gogrej that these companies also provide induction training to its employees for preparing them for community services. Maruti Company run a program named e- parivartan for a group of employees to make them aware about community problem and their solution.

CSR Incentives

Michele Fabrizi(2012) studied that CEO's decisions on CSR are not driven only by monetary incentives but also by personal non-monetary incentives that relate to the role of the executive within the firm (incoming, powerful and entrenched CEOs) and career concerns. In the present study, it is also intended to evaluate relationship between monetary benefits and CSR activities in context to IT/ITeS companies of Bangalore city.

Honey Tyagi & Vikalp Tyagi (2015) examined that there is significantly positive relationship between CSR activities and higher employer attractiveness. They also studied that the relationship between corporate reputation and CSR cannot be ignored. They are also associated with each other in a positive way. In present study, the results of the cited paper are intended to generalize in IT/ITeS companies of Bangalore city.

Financial Benefits

Cheng et al., (2014), investigate whether companies can have better access to finance, if their performance on CSR is superior. They found that firms with better CSR performance face significantly lower capital constraints. The data was collected with Environmental, Social and Governance (ESG) performance score, which was obtained from Thomson Reuters Asset4, a company that conducts surveys. This empirical study found that transparency of CSR performance and engaging stake holders reduce capital constraints.

Prabhakar and Mishra (2013) conducted study and assessed that investors are changing the way they assess companies' performance, and are making decisions based on criteria that include ethical concerns. The Social Investment Forum reports that in the US in 1999, more than \$2 trillion worth of assets invested in portfolios that used screens linked to the environment and social responsibility.

Shrivastava et al., (2012) attempted to clarify the benefits of CSR while conducting study of TATA group. They found as business is an integral part of the social system, it has to care for varied needs of the society. Business which is resourceful has a special responsibility to the society. Social involvement of business would enhance a harmonious and healthy relationship between the society and business seeking mutual benefit for both. Social involvement may create a better public image and goodwill for the company, which further becomes instrumental in attracting customers, efficient personnel and investors.

CSR Measures

Alzahawi (2016) studied that perceived CSR is associated with employee job satisfaction and work life balance. It is also concluded through the study that employees of socially responsible organizations are more satisfied with their job, happier and high performing than the organizations have low level of social responsibility.

Glavas & Godwin, (2013) studied that CSR perceptions might not correspond with the firm's actual, objective CSR activities, they may influence employees' attitudes

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and behaviors more directly and strongly than actual firm behavior of which the employee is unaware. In the present study, it is argued that employees' role towards CSR measurement should be kept in centre as one of the stakeholders of organization.

Tewari and Dave (2012) made a study of 25 companies in steel, cement, oil, banking and IT sectors. To ensure that the comparison of CSR involvement was as complete and holistic as possible, the four key parameters taken up were health care, education, environment, community welfare and infrastructure. It was found out that IT sector distinctly emerged as a champion in not only adopting CSR but also in managing it. It stands out and ranks first in all the four parameters selected for judging the CSR performance of the various sectors. This clearly shows that CSR is well integrated as a part of the business strategy of the IT sector because of which it enjoys the reputation of being a CSR champion. The study conducted with a view to measure CSR activities by the companies.

Agarwal (2010) has used evaluation metrics such as focus on people, treatment of consumers, suppliers and employees, Triple Bottom-line to evaluate CSR initiatives of few enterprises in India that have helped low income people to better their lives and livelihoods.

The following research gaps are identified by reviewing the related literature assisted by various search engines, government reports, journals, periodicals and newspapers.

RG1: The previous studies examined on CSR policy enacted by government of India. The gap found between employee perception and CSR enactment in context to IT/ITeS companies of Bangalore city.

RG2: The previous studies examined on Internal CSR Communication in organizations in terms of IT/ITeS industry of Bangalore city. The gap between Internal CSR Communication and employee perception is identified.

RG3: The previous studies examined on CSR awareness in organizations in terms of IT/ITeS industry of Bangalore city. The gap between CSR awareness and employee perception is identified.

RG4: The previous studies examined on CSR incentives in organizations in terms of IT/ITeS industry of Bangalore city. The gap between CSR incentives and employee perception is identified.

RG5: The previous studies examined on financial benefits in organizations in terms of IT/ITeS industry of Bangalore city. The gap between financial benefits and employee perception is identified.

RG6: The previous studies examined on CSR measures in organizations in terms of IT/ITeS industry of Bangalore city. The gap between CSR measures and employee perception is identified.

Study Objectives

RO1: To examine employee perceptions on Internal CSR Communication in context to IT/ITeS industry of Bangalore city.

RO2: To examine employee perceptions on CSR Awareness in context to IT/ITeS industry of Bangalore city.

RO3: To study employee perceptions on CSR incentives in context to IT/ITeS industry of Bangalore city.

RO4: To examine employee perception on financial benefits in context to IT/ITeS industry of Bangalore city.

RO5: To study employee perceptions on CSR measures in context to IT/ITeS industry of Bangalore city.

Research Questions

RQ1: Are CSR policy and Internal CSR Communication correlated with each other in context to employees' perception of IT/ITeS industry, Bangalore city?

RQ2: Are CSR policy and CSR awareness correlated with each other in context to employees' perception of IT/ITeS industry, Bangalore city?

RQ3: Are CSR policy and CSR incentives correlated with each other in context to employees' perception of IT/ITeS industry, Bangalore city?

RQ4: Are CSR policy and financial benefits correlated with each other in context to employees' perception of IT/ITeS industry, Bangalore city?

RQ5: Are CSR policy and CSR measures correlated with each other in context to employees' perception of IT/ITeS industry, Bangalore city?

Hypotheses

H01: CSR policy and Internal CSR communication have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H02: CSR policy and CSR awareness have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H03: CSR policy and CSR incentives have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H04: CSR policy and financial benefits have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H05: CSR policy and CSR measures have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

Conceptual Framework

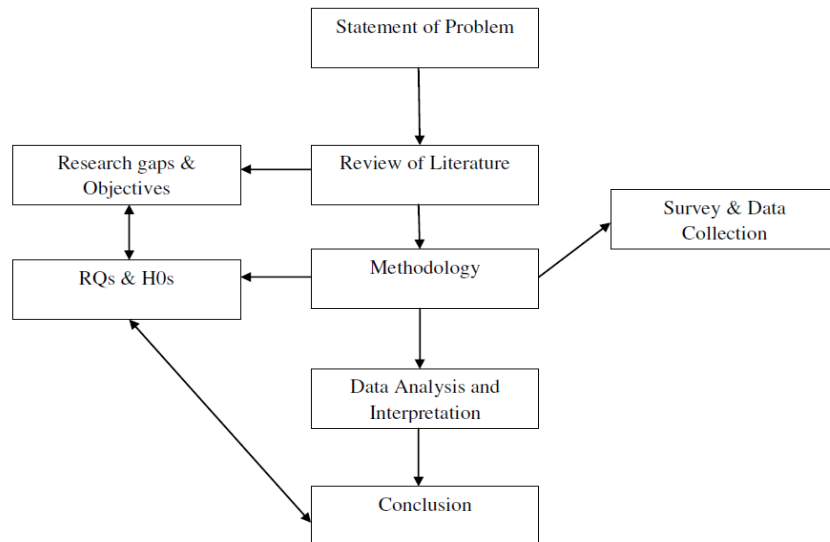


Figure-1

Research Methodology

This is qualitative type of study and aims to examine employee perception on CSR initiatives taken by select IT/ITeS companies of Bangalore city. In which employees' perception on CSR policy implementation Population or universe of the present study is IT/ITeS professionals. Target population of the study is working professionals engage with ten IT/ITeS companies of Bangalore city. (N=35000) and valid sample size (n=401). The survey questionnaire consists of six key factors namely; CSR policy, internal CSR communication, CSR awareness, CSR incentives, financial benefits and CSR measures. Total items in questionnaire are 59. Each factor has 10 items except CSR measures. Data are collected through structured questionnaire to the five ITeS and five IT companies in person and through email. The pre-data analysis tests, descriptive statistics, Pearson correlation, factor analysis and simple regression analysis are conducted by using IBMSPSS.22 to evaluate relationship between CSR and the other factors. The analyzed data are interpreted including hypotheses testing to meet the objectives of this study. The following table gives an overview of research methodology.

Table-1 Research methodology	
Type of Study	Qualitative
Universe/population	IT/ITeS
	Professionals
Target Population	IT/ITeS
	Professionals, Bangalore(78000)
Sampling Size	Valid :401
Sampling Technique	Convenience sampling (confidence interval, confidence level & targeted population)

Data Source	Primary Data
Factors	6 (CSR policy, internal CSR communication, CSR awareness, CSR integration, CSR incentives, financial benefits ,CSR measures)
Questionnaire Items	5x10=50 +9=59
Statistical tests	Descriptive statistics, Pearson correlation, factor analysis and simple regression analysis
Statistical Tools	Excel and IBMSPPSS.22

Results and Discussion

The collected data are coded in excel sheet received from the respondents. The total structured questionnaires administered to the respondents are 425 to five IT companies and Five ITeS companies of Bangalore city through email and in person. Total 401 respondents are finalized as valid and 24 are not considered due to incomplete information and received beyond the deadline determined by the researchers. So that response rate (RR) this study is registered as 94.4% which is considerable in social science for the purpose of moving ahead.(Cook.et.al,2000) The convenience sampling technique is used for the purpose of data collection process because the investigation has certain limitations like; time constraints and academic research.

After coding and decoding process of data into excel sheet, the data are imported in IBMSPPSS.22 for further analysis process. Then data are analyzed for pre-statistical tests before moving to the main statistical tests in the following manner.

The data are analyzed for frequency distribution of general details of the respondents. The results indicate that company profile and personal details are avoided to fill. Firm status column of questionnaire indicate that all the respondents belong to private sector. Number of employees in IT/ITeS companies registered within the range of 500-30,000.

Data are analyzed for Z-score with a view to standardize them. The Z-score ($z = (X - \mu) / \sigma$) registered within better range. Then data are analyzed for the purpose of descriptive statistics which are exhibited in annexure.

Table-1 of annexure indicates the results on descriptive statistics on CSR policy, n=401.Minimum is 1 and maximum is 5. The range is registered as 3 and 4. Mean is registered within the range of 1.46 to 2.78. Standard deviation is registered within the range of 0.97 to 1.6.

Table-2 of annexure indicates the results on descriptive statistics on Internal CSR communication. policy, n=401.Minimum is 1 and maximum is 5. The range is registered as 1 and 4. Mean is registered within the range of 1.1 to 2.1. Standard deviation is registered within the range of 0.96 to 1.4

Table-3 of annexure indicates the results on descriptive statistics on CSR awareness, n=401.Minimum is 1 and maximum is 5. The range is registered as 1 and 4. Mean is

registered within the range of 1.3 to 2.1. Standard deviation is registered within the range of 0.93 to 1.54

Table-4 of annexure indicates the results on descriptive statistics on CSR incentives, n=401. Minimum is 1 and maximum is 5. The range is registered as 1 and 4. Mean is registered within the range of 1.17 to 2.66. Standard deviation is registered within the range of 0.75 to 1.59.

Table-5 of annexure indicates the results on descriptive statistics on financial benefits, n=401. Minimum is 1 and maximum is 5. The range is registered as 1 and 4. Mean is registered within the range of 1.43 to 2.99. Standard deviation is registered within the range of 0.89 to 1.60.

Table-6 of annexure indicates the results on descriptive statistics on financial benefits, n=401. Minimum is 1 and maximum is 5. The range is registered as 3 and 4. Mean is registered within the range of 1.38 to 2.97. Standard deviation is registered within the range of 0.90 to 1.60.

Table-7 of annexure indicates the results on scale reliability of factors considered for survey questionnaire. The scaling technique is tested by Cronbach alpha (α) in this study. Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. Cronbach alpha normally ranges between 0 to 1. Based upon the formula $\alpha = rk / [1 + (k - 1) r]$ where k is the number of items considered and r is the mean of the inter-item correlations the size of alpha is determined by both the number of items in the scale and the mean inter-item correlations. George and Mallery (2003) provide the following rules of thumb: " $\alpha > .9$ – Excellent, $\alpha > .8$ – Good, $\alpha > .7$ – Acceptable, $\alpha > .6$ – Questionable, $\alpha > .5$ – Poor, and $\alpha < .5$ – Unacceptable"

In the present study, Cronbach alpha is registered within the range of 0.717(71.7%) to 0.922(i.e.92.2%) It means factors are internally consistent within the range of 71.7% to 92.2%. The results are considerable and allows the researchers for further investigation.

Normality test of the factors is not conducted because it is learnt as a rule of thumb that data are assumed as normally distributed when valid respondents are 300 or more.

Table-8 of annexure indicates the results on Pearson correlation test of the study. Pearson correlations focuses on association amongst the factors considered for the investigation. It also gives directions to the correlations. It is observed that Pearson correlation coefficient is registered within the range of 0.646(61.4%) to 0.824(82.4%) at significant level is 0.00($p < 0.05$). It means all the factors are significantly correlated with each other.

Table-9 of annexure indicates the results on KMO after data reduction process. The results registered within the range between 0.706 to 0.867. Normally, $0 < KMO < 1$. If KMO is > 0.6 the sample is adequate. (Kaizer, 1974). In this study, sample is adequate and can move for further analysis.

Bartlett's Test of Sphericity indicates that p- value ($\text{sig} < 0.05$) seem for all the factors 0.000 and conclude that all the variables are perfectly correlated with themselves (one) and have some level of correlation with the other items. Communalities indicate the amount of variance in each variable that is accounted for by the factors. The range of the same in our study is 0.619(CSRA2 i.e." The main reason my

organization is involved in different social initiatives is because it cares about the well-being of society). to 0.841 (ISCSRC8 i.e. "Employee Engagement and CSR are two sides of one coin. "). The other values are as follows:

The value for CSRP5 is 0.830 (i.e. CSR teaches lessons of ethical values to our company) The value for ICSRC8 is 0.841 (i.e. Employee Engagement and CSR are two sides of one coin) .The value for CSRA2 is 0.619 (i.e. "The main reason my organization is involved in different social initiatives is because it cares about the well-being of society").The value for CSRINC2: is 0.624 (i.e. "I am happy on getting Government funded CSR incentives to my company").The value for FB5: is registered as 0.645 (i.e. "My company's CSR initiative makes it easier to access finance").The value for CSRMSR5 is registered as 0.651 (i.e. "Employees can provide the most accurate information on CSR activities of a company").

Tabl-10 indicates the results on simple regression analysis in the present study. CSR Policy (DV: CSRP1-10) is determined as dependent variable and rest of the other factors are considered as independent variables.(i.e.ICSRC1-10,CSRA1-10,CSRINC1-10 ,FB1-10,CSRMSR1-10). The hypotheses from H01 to H05 are tested in the following manner.

H01: CSR policy and Internal CSR communication have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H11: CSR policy and Internal CSR communication have significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

CSRP1: "We are satisfied with the legal bindings related to CSR". *ICSRC2:* "My company CEO and other senior executives are heavily involved in communicating CSR activities to me". The results on CSRP1 and ICSRC1-10 indicates that value of R, R² and adjusted R. R is a measure of the correlation between the observed value and the predicted value of the dependent variable. (R=0.908, R²=0.824, adjusted R²=0.821 for CSRP1 and ICSRC1-10) R Square (R²) is the square of this measure of correlation and indicates the proportion of the variance in the criterion variable which is accounted for this study. Adjusted R Square value is calculated which takes into account the number of variables in this study and the number of observations (participants). This Adjusted R Square value gives the most useful measure. In this case, adjusted R² is 0.821 which interpret that 82.1 % of the variance is observed between CSRP1 and ICSRC1-10. ANOVA part of table-10 reports on assessment of overall significance of H01. Significance value (p) is 0.000 and can be said sig.0.000, where $p < 0.05$. The standardized beta coefficient gives a measure of the contribution of each variable. A large value indicates that a unit change in this independent variable has a large effect on dependent variable values give a rough indication of the impact of each independent variable. Sig (p) value is observed as 0.00 which is less than 0.05 for CSRP1 and ICSRC2. The t (33.387) and sig (p) values give a rough indication of the impact of each independent variable. Sig (p) value is observed as 0.00 which is less than 0.05 for CSRP13 and ICSRC21-6. That means H01 is not acceptable and as a result, H11 is accepted and H01 is rejected. In this case, highest value of adjusted R² is taken into consideration in table-10. The positively correlated items were CSRP1*ICSRC3, CSRP1*ICSRC6, CSRP1*ICSRC3 and CSRP1*ICSRC8 which were within the range between 0.619 to 0.633 To conclude, 40% of the pairs registered as positively correlated with each other. So that, it can be determined that H01 is rejected and H11.

H02: CSR policy and CSR awareness have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H12: CSR policy and CSR awareness have significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

CSRP2*CSRA6 is observed as significantly associated with each other. In this case the total four item pairs (CSRP2*CSRA, CSRP2*CSRA4, CSRP2*CSRA8, CSRP2*CSRA9,) which have the value of R within the range of 0.582 to 0.802. R² value registered within the range of 0.611 to 0.644. Adjusted R² value is registered within the range of 0.592 to 0.638. Table-10 indicates the highest value for CSRP2*CSRA6 (R=0.802, R²=0.644 and adjusted R²=0.638). It means 40% item pairs of CSRP(DV) and CSRA(IDV) are observed as positively correlated with each other. The highest value of adjusted R² for CSRP2*CSRA6 shows that CSRP2 and CSRA6 (i.e. "We always respect moral values associated with CSR duties of our company" and "I am more likely to feel good about my organization if I know that it supports different social causes") correlated significantly at 63.8%. The rest of the three pairs as mentioned above are also found positively correlated. So that we have rejected H02 and H12 is accepted.

H03: CSR policy and CSR incentives have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H13: CSR policy and CSR incentives have significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

CSRP4*CSRINC2 is observed as significantly associated with each other. In this case the total three item pairs (CSRP4*CSRINC2, CSRP4*CSRINC1, CSRP9*CSRINC10,) which have the value of R within the range of 0.622 to 0.922. R² value registered within the range of 0.603 to 0.850. Adjusted R² value is registered within the range of 0.599 to 0.848. Table-10 indicates the highest value for CSRP4*CSRINC2 (R=0.922, R²=0.850 and adjusted R²=0.848). It means 30% item pairs of CSRP(DV) and CSRINC(IDV) are observed as positively correlated with each other. The highest value of adjusted R² for CSRP4*CSRINC2 shows that CSRP4 and CSRINC2 (i.e. "Socially responsible behavior affects level of commitment of a company" and "I am happy on getting Government funded CSR incentives to my company.") correlated significantly at 84.8%. The rest of the three pairs as mentioned above are also found positively correlated. The t-value and unstandardized beta values are also focuses on their association. So that we have rejected H03 and H13 is accepted.

H04: CSR policy and financial benefits have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H14: CSR policy and financial benefits have significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

CSRP6*FB2 is observed as significantly associated with each other. In this case, the total four item pairs (CSRP6*FB2, CSRP6*CSRFB7, CSRP6*FB8, CSRP6*FB9,) which have the value of R within the range of 0.629 to 0.929. R² value registered within the range of 0.633 to 0.907. Adjusted R² value is registered within the range of 0.671 to 0.891. Table-10 indicates the highest value for CSRP6*CSRFB2 (R=0.929, R²=0.907 and adjusted R²=0.891). It means 40 % item pairs of CSRP(DV) and CSRFB(IDV) are observed as positively correlated with each other. The highest value of adjusted

R² for CSRP6*CSRFB2 shows that CSRP6 and CSRFB2 (i.e. "CSR teaches lessons of paying respect to the people" and "Organizations have a social responsibility beyond making profit.") correlated significantly at 89.1%. The rest of the three pairs as mentioned above are also found positively correlated. The t-value and unstandardized beta values are also focuses on their association. So that we have rejected H₀₄ and H₁₄ is accepted.

H₀₅: CSR policy and CSR measures have not significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

H₁₅: CSR policy and CSR measures have significant positive association in context to employees' perception of IT/ITeS industry, Bangalore city

CSRP7*CSRMSR 1 is observed as significantly associated with each other. In this case, the total three item pairs:

(CSRP7*CSRMSR2, CSRP7*CSRMSR7, CSRP7*CSRMSR 8, CSRP7*CSRMSR9),

which have the value of R within the range of 0.699 to 0.931 R² value registered within the range of 0.701 to 0.920. Adjusted R² value is registered within the range of 0.679 to 0.911 Table-10 indicates the highest value for CSRP7*CSRMSR1(R=0.931,R²=0.920 and adjusted R²=0.911) .It means 30 % item pairs of CSRP(DV) and CSRMSR(IDV) are observed as positively correlated with each other. The highest value of adjusted R² for CSRP7*CSRMSR1 shows that CSRP7 and CSRMSR1(i.e. "CSR helps to build corporate image of a company" and "My company adopted mobility management to reduce environmental impact and reduce cost...") correlated significantly at 91.1%. The rest of the three pairs as mentioned above are also found positively correlated. The t-value and unstandardized beta values are also focuses on their association. So that we have rejected H₀₅ and H₁₅ is accepted.

Thus, H₀₁ to H₀₅ hypotheses are rejected and H₁₁ TO H₁₅ hypotheses are accepted during the data interpretation process.

Conclusion

The employees engage with IT/ITeS industry of Bangalore city responded for CSR policy enacted by government of India and related factors framed by the investigators for primary data collection. The results on primary data collections are concluded in the following manner with respect to hypotheses.

(1) The results of H₀₁ are interpreted and conclude that there is significant association between CSR policy and internal CSR communication.40% responses are found correlated in positive manner as interpreted during testing of H₀₁.It means objective-1 is satisfied. It is also concluded that legal bindings enacted by the government for the firms and involvement of senior executives of organization in CSR activities are significantly associated with each other. (CSRP1*ICSRC2). So that it can be concluded that firms are very active on following the guidelines on CSR in/IT/ITeS industry of Bangalore city.

(2) The results of H₀₂ are interpreted and conclude that there is significant association between CSR policy and CSR awareness.40% responses are found correlated in positive manner as interpreted during testing of H₀₂It means objective-2 is satisfied. It is also concluded that moral values and initiatives towards

well-being of society through CSR (CSRP2*CSRA6) are also priority in IT/ITeS industry of Bangalore city.

(3) The results of Ho3 are interpreted and conclude that there is significant association between CSR policy and CSR initiatives. 30% responses are found correlated in positive manner as interpreted during testing of Ho3. It means objective-3 is satisfied. It is also concluded that socially responsible behavior and government funded incentives to IT/ITeS firms on CSR initiatives play important role in the firms.

(4) The results of Ho4 are interpreted and conclude that there is significant association between CSR policy and CSR initiatives. 40% responses are found correlated in positive manner as interpreted during testing of Ho4. It means objective-4 is satisfied. It is also concluded that respect to the society through CSR activities are accepted by the firms.

(5) The results of Ho5 are interpreted and conclude that there is significant association between CSR policy and CSR measures. 40% responses are found correlated in positive manner as interpreted during testing of Ho4. It means objective-5 is satisfied. It is also concluded that mobility management to reduce environmental impact helps in building corporate image.

Recommendations

(1) The IT/ITeS companies in India can use employee power by involving in CSR activities for better organizational performance.

(2) Internal CSR communication affects employees' organizational identification. As a result, the role of employee with internal CSR communication should be made more effective in IT/ITeS industry.

(3) Result oriented CSR awareness programs like; workshops, seminars and group discussion can be conducted .by keeping the employees in centre in IT/ITeS industry.

(4) Government funded CSR incentives to the organizations related with CSR initiatives taken by the firms. The employees also can make well aware with such kind of incentives in IT/ITeS industry.

(5) Financial benefits to the organization should consider as by-product of CSR activities in IT/ITeS industry. Such mind set may pay better social services through CSR activities.

Limitations and Scope for Further Research

This study has certain limitations like; time constraints, area of research, sample size determination and items considered for questionnaire to collect primary data. In this study, the findings can be assessed with two limitations (1). The study has made an extensive use of self-reported measures of key variables, which are often seen as less desirable than objective measures. (2) the present study examined only a selected number of control and moderating variables. It means that our theoretical formulation of the process by which job analysis influences organizational performance is far from being exhaustive (3) The present study has time constraint, also. Thus, the findings of the study may be seen as preliminary in nature, and are

intended to stimulate further research interest in CSR initiatives taken by IT/ITeS companies.

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Annexure

Table-1 Descriptive Statistics CSR Policy)						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
CSRP1	401	2.00	1.00	3.00	1.4638	.60358
CSRP2	401	4.00	1.00	5.00	2.7805	1.36078
CSRP3	401	4.00	1.00	5.00	2.1721	1.24813
CSRP4	401	4.00	1.00	5.00	1.6359	1.26377
CSRP5	401	4.00	1.00	5.00	2.5037	1.65850
CSRP6	401	4.00	1.00	5.00	1.8204	1.40096
CSRP7	401	4.00	1.00	5.00	1.9352	.97252
CSRP8	401	4.00	1.00	5.00	2.0998	.88036
CSRP9	401	4.00	1.00	5.00	2.1721	1.40279
CSRP10	401	4.00	1.00	5.00	2.1721	1.40279
Valid N (listwise)	401					

Table-2 Descriptive Statistics(Internal CSR communication)						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
ICSRC1	401	1.00	1.00	2.00	1.1920	.99438
ICSRC2	401	4.00	1.00	5.00	2.0524	1.45594
ICSRC3	401	4.00	1.00	5.00	1.7431	1.21093
ICSRC4	401	4.00	1.00	5.00	1.4015	1.01779
ICSRC5	401	4.00	1.00	5.00	2.1646	1.58362
ICSRC6	401	4.00	1.00	5.00	1.5910	1.21956
ICSRC7	401	4.00	1.00	5.00	1.5661	.97532
ICSRC8	401	4.00	1.00	5.00	1.6559	.96502
ICSRC9	401	4.00	1.00	5.00	1.8354	1.30301
ICSRC10	401	4.00	1.00	5.00	1.8354	1.30301
Valid N (list wise)	401					

Table-3 Descriptive Statistics(CSR Awareness)						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
CSRA1	401	3.00	1.00	4.00	1.4090	.93429
CSRA2	401	4.00	1.00	5.00	1.5312	1.05340
CSRA3	401	4.00	1.00	5.00	2.0648	1.46485
CSRA4	401	4.00	1.00	5.00	1.3990	1.09791
CSRA5	401	4.00	1.00	5.00	2.1247	1.54577
CSRA6	401	4.00	1.00	5.00	1.6409	1.23318
CSRA7	401	4.00	1.00	5.00	1.6808	1.21567
CSRA8	401	4.00	1.00	5.00	1.7032	1.19967
CSRA9	401	4.00	1.00	5.00	1.5511	1.09225

CSRA10	401	4.00	1.00	5.00	1.8279	1.04299
Valid N (listwise)	401					

Table-4 Descriptive Statistics(CSR Incentives)						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
CSRINC1	401	1.00	1.00	2.00	1.1721	.97791
CSRINC2	401	4.00	1.00	5.00	2.9177	1.57978
CSRINC3	401	4.00	1.00	5.00	2.1621	1.40398
CSRINC4	401	4.00	1.00	5.00	1.7581	1.28602
CSRINC5	401	4.00	1.00	5.00	2.6658	1.59156
CSRINC6	401	4.00	1.00	5.00	1.8878	1.27667
CSRINC7	401	4.00	1.00	5.00	1.8055	.83491
CSRINC8	401	4.00	1.00	5.00	1.9751	.75457
CSRINC9	401	4.00	1.00	5.00	2.3117	1.27675
CSRINC10	401	4.00	1.00	5.00	2.3092	1.27638
Valid N (listwise)	401					

Table-5 Descriptive Statistics(Financial Benefits)						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
FB1	401	1.00	1.00	2.00	1.4389	.89687
FB2	401	4.00	1.00	5.00	1.9900	1.30572
FB3	401	4.00	1.00	5.00	2.0998	1.14019
FB4	401	4.00	1.00	5.00	1.2993	.78436
FB5	401	4.00	1.00	5.00	2.9925	1.60700
FB6	401	4.00	1.00	5.00	1.7207	1.27546
FB7	401	4.00	1.00	5.00	1.9726	1.17972
FB8	401	4.00	1.00	5.00	1.9825	1.17567
FB9	401	4.00	1.00	5.00	2.0224	1.40961
FB10	401	4.00	1.00	5.00	2.0224	1.40961
Valid N (listwise)	401					

Table-6 Descriptive Statistics(CSR Measures)						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
CSRMSR1	401	4.00	1.00	5.00	2.0224	1.40961

CSRMSR2	401	4.00	1.00	5.00	2.9726	1.60678
CSRMSR3	401	4.00	1.00	5.00	1.9651	1.39240
CSRMSR4	401	4.00	1.00	5.00	1.9975	1.08972
CSRMSR5	401	4.00	1.00	5.00	2.1047	1.01193
CSRMSR6	401	4.00	1.00	5.00	2.3616	1.36800
CSRMSR7	401	4.00	1.00	5.00	2.3616	1.36800
CSRMSR8	401	3.00	1.00	4.00	1.3890	.90327
CSRMSR9	401	4.00	1.00	5.00	2.4239	1.45252
Valid N (listwise)	401					

Table-7 Scale Reliability Test

Factor	Total Respondents	Excluded *	Valid	No of items	Measured Cronbach Alpha	Standard Internal Consistency	Decision
CSRP	401	0	401	10	0.887	$0.8 \leq \alpha < 0.9$	good
ICSRC	401	0	401	10	0.922	$0.9 \leq \alpha < 0.95$	excellent
CSRA	401	0	401	10	0.899	$0.8 \leq \alpha < 0.9$	good
CSRINC	401	0	401	10	0.892	$0.8 \leq \alpha < 0.9$	good
FB	401	0	401	10	0.921	$0.9 \leq \alpha < 0.95$	excellent
CSRMSR	401	0	401	9	0.717	$0.7 \leq \alpha < 0.8$	acceptable

Table-8 Correlations							
		CSRP	ICSRC	CSRA	CSRINC	FB	CSRMSR
CSRP	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	401					
ICSRC	Pearson Correlation	.777**	1				
	Sig. (2-tailed)	.000					
	N	401	401				
CSRA	Pearson Correlation	.666**	.646**	1			
	Sig. (2-tailed)	.000	.000				
	N	401	401	401			
CSRINC	Pearson Correlation	.787**	.711**	.731**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	401	401	401	401		
FB	Pearson Correlation	.723**	.712**	.701	.706**	1	
	Sig. (2-tailed)	.017	.000	.000	.000		
	N	401	401	401	401	401	
CSRMSR	Pearson Correlation	.824**	.813**	.806**	.801**	.800**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	401	401	401	401	401	401

**. Correlation is significant at the 0.05 level (2-tailed).

Table-9 Factor Analysis

Factor	KMO	Approx. Chi-Square	Bartlett's Test of Sphericity		Communalities		Extraction Sums Squared Loadings			Component Matrix(PCA)			Rotated Component Matrix		
			df	Sig(p < .05)	Initial	Extraction	Total	% of Variance	Cumulative %	Item	Comp 1	Comp 2	Item	Comp 1	Comp 2
CSRP	0.706	552.333	15	0.000	1	CSRP5: 0.830	2.569	42.656	42.656	CSRP6	0.744	0.002	CSRP5	0.908	0.074
ICSRC	0.779	559.660	28	0.000	1	ICSRC8: 841	2.741	45.684	45.684	ICSRC2	0.773	0.003	ICSRC2	0.912	0.079
CSRA	0.814	705.274	15	0.000	1	CSRA2: 0.619	3.025	50.422	50.422	CSRA2	0.787	0.003	CSRA2	0.932	0.081
CSRINC	0.836	784.071	15	0.000	1	CSRINC2: 0.624	3.174	52.902	52.902	CSRINC5	0.785		One component extracted/is rotated		
FB	0.865	858.728	15	0.000	1	FB5: 0.645	3.340	55.659	55.659	FB5	0.803		One component extracted/is rotated		
CSRMSR	0.867	880.610	15	0.000	1	CSRMSR5: 0.651	3.372	56.206	56.206	CSRMSR5	0.807		One component extracted/is rotated		

CSRP5: CSR teaches lessons of ethical values to our company. ICSRC8: Employee Engagement and CSR are two sides of one coin. CSRA2: The main reason my organization is involved in different social initiatives is because it cares about the well-being of society. CSRINC2: I am happy on getting Government funded CSR incentives to my company. FB5: My company's CSR initiative makes it easier to access finance. CSRMSR5: Employees can provide the most accurate information on CSR activities of a company.

Table-10 Simple Regression Analysis

Factor	Variables Entered	Model	R	R square	Adjusted R square	ANOVA					coefficients			
						Sum of squares	df	Mean square	F	Sig	Unstd coefficient		Std Beta	Sig
											Beta	Std error	Beta	

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Internal CSR communication(ICSRC) DV:CSR1 IDV:ICSRC1-10	10	1	0.908	0.824	0.821	842.309	6	140.385	319.056	0.000	ICSRC2 0.885	0.095	0.085	33.387	0.000
CSR Awareness (CSRA) DV:CSR2 IDV:CSRA1-10	10	1	.0802	0.644	0.638	739.235	6	0.999	123.381	0.000	CSRA6 0.785	0.039	0.085	22.839	0.000
CSR Incentives (CSRINC) DV:CSR4 IDV:CSRINC1010	10	1	0.922	0.850	0.848	851.696	6	141.949	387.940	0.000	CSRINC2 0.912	0.026	0.095	37.037	0.000
Financial Benefits (FB) DV:CSR6 IDV:FB1-10	10	1	0.929	0.907	0.891	991.783	8	165.297	682.239	0.000	FB2 0.912	0.007	0.099	149.325	0.000
CSR measures (CSRMSR) DV:CSR7 IDV:CSRMSR1-10	10	1	0.931	0.920	0.911	970.473	8	161.745	126.951	0.000	CSRMSR1 0.934	0.014	0.097	69.521	0.000

CSR1: We are satisfied with the legal bindings related to CSR. ICSRC2: My company CEO and other senior executives are heavily involved in communicating CSR activities to me. CSR2: We always respect moral values associated with CSR duties of our company. CSRA6: I am more likely to feel good about my organization if I know that it supports different social causes. CSR4: I am happy on getting Government funded CSR incentives to my company. CSR6: Organizations have a social responsibility beyond making profit. CSR7: My company adopted mobility management to reduce environmental impact and reduce cost.

Artificial Intelligence & Human Resource Management in Indian It Sector

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ABSTRACT

This paper presents use of artificial intelligence in human resources due to changes of technology in IT landscape. Almost all companies are using artificial intelligence to increase efficiency of human resources in IT Sector. The initiative begins with automated process in recruitment till performance appraisal of employees. Organizational leaders and human resource executives have faith that merging artificial intelligence (AI) into HR functions like on-boarding and administration of benefits can and will improve the overall employee experience. We will be discussing both the viewpoints in this article, as people take artificial intelligence as a boon and a threat to their jobs. We have analyzed some of the top companies as reference which are into artificial intelligence for our study. We have focused on the challenges and limitations of artificial intelligence in the present industry scenario. The study will also give a brief understanding of the future aspiration of artificial intelligence.

Introduction

Artificial intelligence is a computer term which is used for software, machines and computers. In the year 1920 during a science fiction play named Rossumovi Univerzální Roboti which means- Rossum's Universal Robots, also better known as R.U.R. by Czech writer Karel Capek the term ROBOT was firstly used. The term artificial intelligence was first introduced by John McCarthy in 1956 in his first academic conference on the subject. But this journey of knowing this area in more depth had started much before than that.

How HR can include AI in their business strategy? By exploiting machine learning, the company will see an acceleration in its processes. A long-term approach will involve regarding AI and human labour as a collaboration. By applying a factual approach, the first service to be affected by AI is IT.

Firstly, we can tell about the change roles, customer-based services, such as help desks, chatbots, customer care and help centre, will be increasingly more automated. The link between the professional and the end user is being reconfigured, so as to maximise availability and minimising time-consuming tasks. If we think about sourcing or buying roles, AI will be able to compile efficiently all smart data and deliver more efficient dashboards. From now on, employees will have to include the machine's assistance and way working in to their daily work. Whilst AI may replace them in certain tasks. Managing the technology will be the responsibility of skilled

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employees. Another development will be seen in cases AI will replace human in labour tasks, giving them space to generate value and become specialist. With machine costing less and performing better than certain human resources. This will allow companies to change and diversify their investment.

69% employers' attributes insufficient talent intelligence too bad hiring. Department of labour USA says that the average tenure of employees is 1.5 yrs. attrition cost amounts \$ 2 1.5 BNN corresponding rehire cost is thrice no fit. The reasons can be attributed to lack of insights on candidate profile, alignment to company culture and subjective evaluation of hard and soft skills. Artificial intelligence and machine learning can solve your problem, make your HR smart and efficient, make HR digital. AI engine gather structured and unstructured data from candidate resume and relevant job description performs benchmark with your existing employees base with similar profile validates the profile against job opening by analysing interview transcripts and provides an intelligent analysis of the candidate profile using AI natural language processing and machine learning. AI engineers is to lie agnostic. It seamlessly connects to your existing human capital management systems through open API's, retrieve relevant data to perform the analysis and provide user friendly information to the desired aggrieved accuracy you want.

Review of Literature

Merlin & Jayam, "Artificial Intelligence in Human Resource Management" - International Journal of Pure and Applied Mathematics (2018) This paper tries to address the possibilities of how Artificial intelligence is transforming and supporting the Human Resource functions like recruitment, training, talent management & retention through real time examples, gives insights on intersection of Artificial intelligence & Human resource management cases and finally it addresses the future impact on the HR workforce. They have used secondary research to addresses the possibilities of how Artificial intelligence is transforming and supporting the Human Resource functions like recruitment, training, talent management & retention through real time examples, gives insights on intersection of Artificial intelligence & Human resource management cases and finally it addresses the future impact on the HR workforce.

Geetha R & Bhanu Sree Reddy D, "Recruitment through artificial intelligence: A conceptual study" (2018) The major objective of this paper is to study how Artificial Intelligence influences the recruitment strategy. The study also throws light on the techniques used by companies in AI while recruiting. This study is entirely done based upon secondary sources of information like conceptual papers, various peer reviewed journal articles, books and websites are used to further explore the concept. Secondary sources such as Websites, Journals, Reports, Publication of professionals and books are referred for drafting the entire paper. In conclusion the role of AI – it's the combination of humans and AI that leads to data maintenance, save the cost and time to the organizations with more accuracy and access in total recruitment process.

Ian Bailie Head of HR - "An Examination of Artificial Intelligence and its Impact on Human Resources" (2018) This report tells about big firms that adopt AI and examine the basics of AI and explore how AI is being applied in HR. It has been developed for those that would like to learn more about the potential application of AI in HR. It examines both industry and academic sources to develop a

representation of AI and its application in business with a specific focus on HR. The report also uses primary research found in CognitionX's directory of AI-powered HR products, survey results, and interviews with vendors and experts. It focused on the few questions around the budget to implement new tools for AI, technology advanced enough from ROI prospective, HR having the right technical expertise to work with AI and considering ethical implications when implementing AI technology.

Malathi Sriram and L. Gandhi, Shri Dharmasthala Manjunatheshwara "Exploring the dynamic Virtus of Machine Learning (ML) in Human Resource Management - A Critical Analysis of IT industry" (2017) This paper focuses on the use of machine learning that has replaced certain functions related to Human Resources Management, specifically in the IT industry. The objective is to understand the use of AI and ML in HR functions in the IT industry. - To attempt a model based on the findings. A few companies' cases have been selected in this paper to show how they transformed their HR processes through the use of Machine Learning. Sample cases are taken to highlight how the companies succeeded in implementing Machine Learning in HR. In conclusion there can be many innovative ways of applying Machine Learning and Artificial intelligence in HR functions.

Shweta Jain-The Engine Driving the Next Wave of Transformation in Business (2017), in this paper author discuss about how artificial intelligence bring out total digital transformation when the organization well coordinate with the different units like HR, marketing, Finance, Manufacturing or process. In the report author concluded that HR professionals can make use of different AI technology and tools for all the functions of HR be it recruitment, selection, training, development, performance management, compensation and reward management

Robert Charlier and Sander Kloppenburg, PwC, Artificial Intelligence in HR: A No-brainer (2017) - To find right talent against low costs and in less time, this is a huge argument in today's organisation. As per this paper which was based on research after the various aspects of artificial intelligence by the global network of PwC, the input of business partners, interviews with experts in the field, and the valuable remarks of the participants of our Round Table session in October 2017, and which was organised in cooperation with Seed link. This study helps us to understand how do we embrace AI successfully with a case study on Loreal Business.

Buzko et al. (2016) found that the main factor for influencing the amount of training in the company is the net income of the company for the previous year and the transition from discrete paradigm of information processing to continuous paradigm allow faster and more accurate adapting to environment requirements. The authors have concluded that in the modern business conditions, it becomes more relevant to use artificial intelligence technologies for decision making.

Dianna L. et. al (2015) review the current effects of technology on HR processes and discuss the advantages and potential limitations of using information systems. The authors suggested that the movement towards her is expected to grow in the future but many of the traditional HR research findings also apply to HR.

Objectives

1. To understand the role of AI in today's Human Resource Management.
2. To understand the reasons of adopting Artificial intelligence.
3. To identify few of the business outputs of Artificial intelligence.

4. To study the kind of skill set required so that man machine collaboration & HRM function can work hand in hand.

Research Design

Research Method is quantitative for this study. Scale was designed as per the objective of our study and the data is secondary which is being analysed by multiple researches done by many IT companies.

Sources of Data

Secondary data is collected through research papers, journals and articles published.

Sampling Method

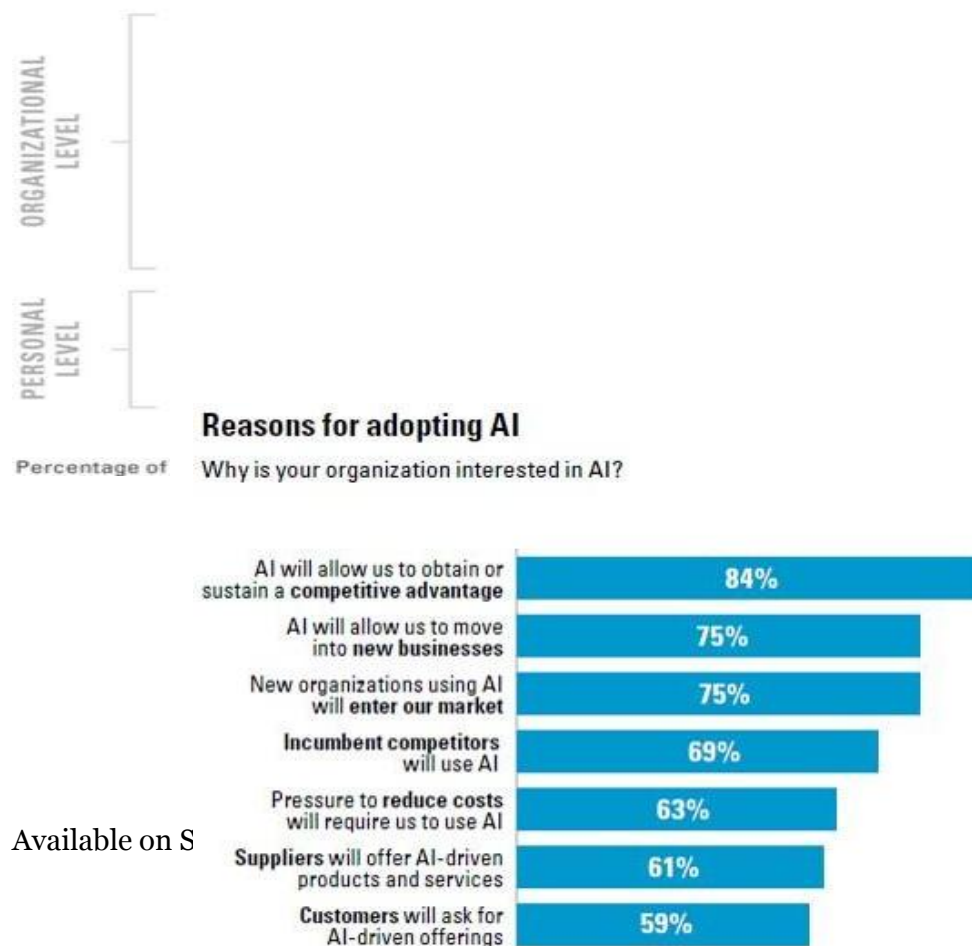
The proposed study consist sample from the Indian companies and multinational companies which are established in India. Convenient and judgement sampling technique has been used to collect the primary data. Sample selection of the companies in IT sector based on the turnover as well as employee strength of the company.

Data Analysis

Here are some of the attributes and parameters which have been used for the study as reference.

AI's effect

How do you

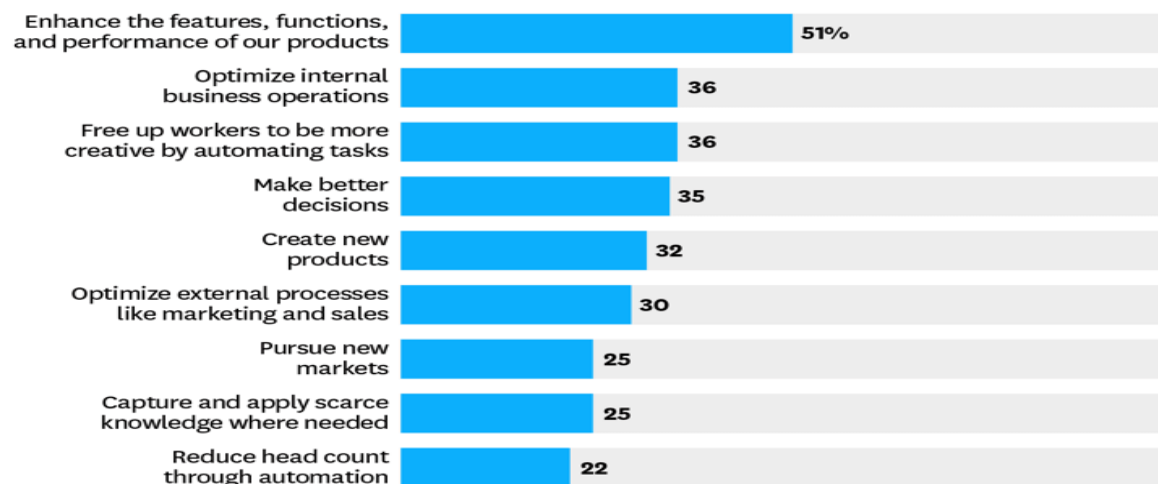


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The Business Benefits of AI

We surveyed 250 executives who were familiar with their companies' use of cognitive technologies to learn about their goals for AI initiatives. More than half said their primary goal was to make existing products better. Reducing head count was mentioned by only 22%.

PERCENTAGE OF EXECUTIVES WHO CITE THE FOLLOWING AS BENEFITS OF AI



SOURCE: DELOITTE 2017
FROM "ARTIFICIAL INTELLIGENCE FOR THE REAL WORLD,"
BY THOMAS H. DAVENPORT AND RAJEEV RONANKI, JANUARY-FEBRUARY 2018

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Conclusion

From the above analysis, AI has its presence in recruitment and predictive analysis. AI is observed replacing routine tasks in recruitment with least interference by humans. AI is seen facilitating in recruitment process by conducting CV screening, sending automated messages and helping reference checks. Above all, Machines were observed to perform better than HR team by reducing the attrition rate and improving talent retention. AI is seen successfully carrying out simple activities of HR but how far it can take up complex issues of HR is yet to see.

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Digital Financial Services: Initiatives and Progress with reference to Banking Industry: Evidence from India

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ABSTRACT

This paper is exploratory in nature aimed at evaluating the initiatives taken by the selected Indian Banks with regard to the delivery of ICT based financial services. The Government of India and Central bank have initiated and implemented various policy measures including information technology enabled services. The basic objective is to deliver these services at reasonably low cost to all sections of the society in general and to poor and weaker sections in particular. The data for the purpose has been sourced from the published reports of RBI and other banks. This paper makes an assessment of the trends in banking sector with regard to IT enabled services in India.

Introduction

Digital Financial Services refer to very broad spectrum of financial services accessed and delivered through digital channels, including payments, credit, savings, remittances, insurance and financial information. The term “digital channels” refers to the internet, mobile phones (both smart phones and digital feature phones), ATMs, POS terminals, NFC-enabled devices, chips, electronically enabled cards, biometric devices, tablets and any other digital system (AFI, 2016). DFS have significant potential to expand the delivery of basic financial services via affordable, convenient and secure environment to the public at large (particularly the poor) through innovative technologies like mobile-phone-enabled solutions, electronic money models, and digital payment platforms. Financial Institutions (Banks, Micro-finance institutions) and non-Financial firms (mobile network operators) and third party providers (agent network managers, payment aggregators, and others) are leveraging digital channels to offer basic financial services at greater convenience, scale and lower cost than traditional banking allow. The digital revolution adds new layers to the material cultures of financial inclusion, offering the state new ways of expanding the inclusion of the ‘legible’ and global finance new forms of profiling poor households into generators of financial assets (Gabor and Brooks, 2016). Digital

finance has some benefits. For instance, digital finance can lead to greater financial inclusion, expansion of financial services to non-financial sectors, and the expansion of basic services to individuals since nearly 50% of people in the developing world already own a mobile phone (World Bank, 2014). Digital financial inclusion has some benefits. Digital financial inclusion promises to help banks lower costs by reducing queuing lines in banking halls, reduce manual paperwork and documentation and to maintain fewer bank branches (IFC, 2017; Manyika et al, 2016). With digital financial inclusion, large number of depositors can easily switch banks within minutes; forcing banks to provide quality services or risk losing depositors to rival banks. For financial and monetary system regulators, digital financial inclusion also helps to reduce the amount of physical cash in circulation and is instrumental in reducing high inflation levels in developing and poor countries (GPFI, 2016). Digital financial inclusion can improve the welfare of individuals and businesses that have a reliable digital platform with which to access funds in their bank accounts to carry out financial transactions (CGAP, 2015). The expected benefits of digital financial inclusion can be fully realised if the cost of obtaining a digital transactional platform by poor individuals is negligible or low, where a digital transactional platform refers to mobile phones, personal computers and related devices (Peterson Kitakogelu Ozili).

Literature Review

Unyathanakorn et al. (2014) uncovered that e-banks must fixate on service quality to increment customer contentment and trust and to obtain customer staunchness. Implicative insinuations are discussed in cognation to e-bank management. The Cyber World has become a vital part of people's daily lives. It has transmuted consumer deportment in many ways, including financial transactions formerly requiring a visit to a bank branch. Commercial banks have been in the forefront in utilizing this to meet customer demand for on-demand financial services. N. Jamaluddin (2013) concluded that Information technology has played a vital role in the advancement of banking system. The reach of Indian banking to every individual is possible because of the computerization process adopted by banking sector. Information technology has not only simplified the operation but it has also given a great comfort an individual who does not have a good knowledge of IT but need to access banking in an optimum manner. Roshan Lal (2012) analysed that development of e- banking in banking sector is due to advent of IT. Banks today operate in a highly globalized, liberalized, privatized and a competitive environment. In order to survive in this environment banks, have to use IT. Indian banking industry has witnessed a tremendous development due to sweeping changes that are taking place in the information technology. In the study conducted by Mohammed and Shariq (2011) examined the adoption of e-banking channels, particularly ATM, in the city of Lucknow, U.P. He found that ATM was the most adopted technology by banks. Shukla and Shukla (2011) stated that E-banking offers a higher level of convenience for managing one's finances even from one's bedroom. However, it continues to present challenges to the financial security and personal privacy. Customers are advised not to share sensitive personal information like PIN numbers, passwords, and OTP (Onetime password) etc. with anyone, including employees of the bank; change ATM PIN and online login and transaction passwords on a regular basis; ensure that the logged in session is properly signed out. Mishra (2011) provided useful tips to ensure safety of internet based transactions (IBT). IBT users

are advised not to reply to any mail, phone call or letter, asking for the IB information like login id or password, and not to click on any link provided in any mail, claiming to be the link for the bank's website are the important tips, among others. Electronic banking has emerged from such an innovative development. Sharma (2009) opined that the trend towards electronic delivery of banking products and services is occurring partly as a result of consumer demand, and partly because of the increasing competitive environment in the global context. Kumar and Sinha (2009) cited various instances of hacking and phishing attacks reported throughout India. They remarked that cyber-crimes prove that e-banking has several loopholes that can be easily exploited and users need to be extra cautious while making online transactions. Srinivas (2009) discussed various e-banking channels and suggested security tips for customers which include changing password frequently, abstaining from revealing PIN either via mails or phone, avoiding cyber cafes for net banking etc. Kamakodi et al. (2008) found that a wide gap exists in human service in Indian banking while technology based services are exceeding expectations. Raghavan (2006) opined that at present, over 85% of the finished payment transactions are electronic and traditional way of doing banking at the branch level has relatively little importance to electronic banking users. Many banks, including PSU banks, would have online ATMs, phone banking, virtual banking, e-banking, Internet banking, etc. by 2020. Mohan (2006) remarked that Indian banking is at the threshold of a paradigm shift and a significant development has been achieved by banks in offering a variety of new and innovative e-banking services to customers today, which was not thought of before. However, public sector banks have not been able to harness the benefits of computerization.

Objectives

1. To study the present status of Digital Financial Service offerings in India
2. To provide overview of Digital Financial Service adopted in the country
3. To highlight the initiatives taken by banks for promoting Digital Financial Service

Research Methodology

This paper is exploratory in nature aimed at evaluating the initiatives taken by the selected Indian Banks with regard to the delivery of ICT based financial services. The study is based on the secondary data sourced from journals, magazines, articles and reports available with RBI and Other Banks.

Banking Initiatives to Encourage Digital Financial Services

To achieve speedy and prompt movement into the cashless, digital payments across all sectors of Indian economy and to encourage rapid adoption of digital payment systems based on user-friendly interface. The following digital financial services are currently being promoted across the country through banks.

Bank card - A bank card is typically a plastic card issued by a bank to its clients that performs one or more of a number of services that relate to giving the client access to funds, either from the client's own bank account, or through a credit account. It can also be a smart card. Physically, a bank card will usually have the client's name, the issuer's name, and a unique card number printed on it. It will have a magnetic strip on the back enabling various machines to read and access information. Depending on the issuing bank and the preferences of the client, this

may allow the card to be used as an ATM card, enabling transactions at automatic teller machines; or as debit card, linked to the client's bank account and able to be used for making purchases at the point of sale; or as a credit card attached to a revolving credit line supplied by the bank.

- **Bharat QR-** Bharat QR is the world's first interoperable Quick Response (QR) code acceptance solution developed by the payments industry to expedite India's transition to a less - cash society. It has been developed by National Payments Corporation of India (NPCI), Master card and Visa. Bharat QR was devised based on the direction set by the Reserve Bank of India (RBI) in September 2016 and its Payments Vision 2018, which outlines innovation, interoperability, and security as the three pillars to facilitate India's transition to a less – cash society. The Bharat QR enables customers to transact money available in their bank accounts without having to worry about the physical availability of an active credit / debit card. Users will not need to scan different QR codes at the same merchant provided by the different payment networks.
- **RuPay-** RuPay is a brand of NPCI under which it operates the card scheme. The National Payments Corporation of India (NPCI) is a pioneer organization in the field of retail payments in India. It is a body promoted by RBI and has presently ten core promoter banks (State Bank of India, Punjab National Bank, Canara Bank, Bank of Baroda, Union Bank of India, Bank of India, ICICI Bank, HDFC Bank, Citibank and HSBC). The vision of NPCI being able to provide citizens of our country anytime, anywhere payment services which are simple, easy to use, safe, and secure, fast and also cost effective. NPCI aims to operate for the benefit of all the member banks and the common man at large.
- **Virtual Credit Card-** A virtual credit card (VCC) is an exclusive online payment solution with complete online security while shopping on Internet. It is like an add-on card issued on the user's primary credit card. Virtual credit card is a one-time usable card which comes with a preloaded amount that is valid only for a specified time period. VCCs do not have any plastic or physical existence and they are created to be used only online. Also the virtual card does not have any fee associated with it. The key details of the virtual credit cards like the card number, expiry date, CVV number etc. are used when using the card online, but the user's primary card details are never shared with the merchant online. So, while using the virtual credit card online, users need not worry about losing their card or carrying their card safely in their wallet. Many banks offer virtual cards instantly these days.

Unstructured Supplementary Service Data (USSD) channel

This service allows mobile banking transactions using basic feature mobile phone, there is no need to have mobile internet data facility for using USSD based mobile banking. It is envisioned to provide financial deepening and inclusion of under banked society in the mainstream banking services. *99# service has been launched to take the banking services to every common man across the country. Banking customers can avail this service by dialling *99#, a “Common number across all Telecom Service Providers (TSPs)” on their mobile phone and transact through an interactive menu displayed on the mobile screen. Key services offered under *99# service include, inter-bank account to account fund transfer, balance enquiry, mini statement besides host of other services. *99# service is currently offered by 51

leading banks & all GSM service providers and can be accessed in 12 different languages including Hindi & English as on 30.11.2016 (Source: NPCI). *99# service is a unique interoperable direct to consumer service that brings together the diverse ecosystem partners such as Banks & TSPs (Telecom Service Providers).

Aadhaar Enabled Payment System (AEPS)

Aadhaar Enabled Payment System provides basic financial services (cash deposit, balance enquiry, cash withdrawal and remittance) at low cost access devices (called Micro ATMs) maintained at Business correspondents in an inter-operable way.

The Aadhaar enabled basic types of banking transactions are:

- Cash Withdrawal
- Cash Deposit
- Aadhaar to Aadhaar Funds Transfer
- Balance Enquiry
- Gateway Authentication Service

Unified Payments Interface (UPI): Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPI App for Android, Windows and iOS mobile platform(s).

E-wallets -E-wallet is a type of electronic card which is used for transactions made online

through a computer or a smart phone. Its utility is same as a credit or debit card. An E-wallet needs to be linked with the individual's bank account to make payments. E-wallet is a type of pre-paid account in which a user can store his/her money for any future online transaction. An E-wallet is protected with a password. With the help of an E-wallet, one can make payments for groceries, online purchases, and flight tickets, among others. E-wallet has mainly two components, software and information. The software component stores personal information and provides security and encryption of the data. The information component is a database of details provided by the user which includes their name, shipping address, payment method, amount to be paid, credit or debit card details, etc. For setting up an E-wallet account, the user needs to install the software on his/her device, and enter the relevant information required. After shopping online, the E-wallet automatically fills in the user's information on the payment form. To activate the E-wallet, the user needs to enter his password. Once the online payment is made, the consumer is not required to fill the order form on any other website as the information gets stored in the database and is updated automatically.

The point of sale (POS) or point of purchase (POP) -The point of sale (POS) or point of purchase (POP) is the time and place where a retail transaction is completed. At the point of sale, the merchant calculates the amount owed by the customer, indicates that amount, may prepare an invoice for the customer (which may be a cash register printout), and indicates the options for the customer to make payment. It is also the point at which a customer makes a payment to the merchant in exchange for goods or after provision of a service. After receiving payment, the

merchant may issue a receipt for the transaction, which is usually printed but is increasingly being dispensed with or sent electronically.

Online Banking: Internet banking, also known as online banking, e-banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. Broadly, the electronic banking transactions can be divided into two categories: (1) Remote / online payment transactions (transactions that do not require physical payment instruments to be presented at the point of transactions e.g. internet banking, mobile banking, card not present (CNP) transactions), Pre-paid Payment Instruments (PPI) and (2) Face-to-face/ proximity payment transactions (transactions which require the physical payment instrument such as a card or mobile phone to be present at the point of transaction e.g. ATM, POS, etc.)

National Electronic Fund Transfer (NEFT)-National Electronic Funds Transfer (NEFT) is a nation-wide payment system facilitating one-to-one funds transfer. Under this Scheme, individuals, firms and corporates can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the Scheme. Individuals, firms or corporates maintaining accounts with a bank branch can transfer funds using NEFT. Even such individuals who do not have a bank account (walk-in customers) can also deposit cash at the NEFT-enabled branches with instructions to transfer funds using NEFT. However, such cash remittances will be restricted to a maximum of Rs. 50,000/- per transaction. NEFT, thus, facilitates originators or remitters to initiate funds transfer transactions even without having a bank account. Presently, NEFT operates in hourly batches - there are twelve settlements from 8 am to 7 pm on week days (Monday through Friday) and six settlements from 8 am to 1 pm on Saturdays.

Real Time Gross Settlement (RTGS)- RTGS is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). 'Real Time' means the processing of instructions at the time they are received rather than at some later time: 'Gross Settlement' means the settlement of funds transfer instructions occurs individually (on an instruction by instruction basis). Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable. The RTGS system is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is 2 lakhs. There is no upper ceiling for RTGS transactions. The RTGS service for customer's transactions is available to banks from 9.00 hours to 16.30 hours on week days and from 9.00 hours to 14:00 hours on Saturdays for settlement at the RBI end. However, the timings that the banks follow may vary depending on the customer timings of the bank branches.

Electronic Clearing System (ECS)- ECS is an alternative method for effecting payment transactions in respect of the utility-bill-payments such as telephone bills, electricity bills, insurance premium, card payments and loan repayments, etc., which would obviate the need for issuing and handling paper instruments and thereby facilitate improved customer service by banks / companies / corporation's / government departments, etc., collecting / receiving the payments.

Immediate Payment Service (IMPS)- IMPS is real-time remittance service available anytime, anywhere across India. Using IMPS customers can transfer money

real-time to any person or to a merchant, for any personal or commercial purpose. IMPS is available round-the-clock and operates even during bank holiday, weekends or festive holidays. IMPS can be used on any platform - Mobile, Internet and ATM across any bank in India.

Conclusion

The Banking Sector is very steadfastly working towards digitisation of financial Services in order to transform India into cash-less economy so as to pave way for financial inclusion and maximum customer benefits. This has particularly been possible with advancement in information technology and IT based services. Online banking is one of the largest opportunities for financial inclusion and the banking sector, through its policy efforts, is trying to make sure that consumers become adapted to using digital services without extra cost.

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Influence of Technology Entrepreneurship on Entrepreneurial Intentions: A Cross Country Analysis

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ABSTRACT

Technology entrepreneurship is an investment in a project that can help in the progress of individual, company and country. It needs the government support in the form of policies, entrepreneurial education & training, financing, infrastructure, research & development facilities and innovation. Entrepreneurial intentions can be defined as a position to owning a business or becoming self-employed. In our study we had tried to find out the influence of technological entrepreneurship on entrepreneurial intentions in Asian countries during 2012-2017. For this purpose, we had taken data from Global Entrepreneurship Monitor (GEM) and applied panel data analysis to check the hypothesis. In all the countries there is a strong positive correlation between technology entrepreneurship and entrepreneurial intentions. Further study concluded that out of seven factors, two factors entrepreneurial education and training and innovation affects entrepreneurial intentions.

Introduction

In the recent decades, technological entrepreneurship took the attention of policy makers in many countries as an economic growth contributor. Job creation or employment formation is always being a leading challenge for the developing countries. In this manner, entrepreneurship adds the vitality to the economies. Technological entrepreneurship takes place where entrepreneurship joins the hand with technological novelty. However, entrepreneurship or new start-ups always needs some kind of innovation and novelty to sustain in the national-international market but nowadays the support of latest technology is also required as a huge resource which may directly effect on intentions and orientation of technological entrepreneurship. Management and economics literature support the link between an individual's intentions to his or her decisiveness about initiating a new venture and at the same time technological environment plays a pivotal role. So many factors internal and external may affect the entrepreneurial intentions; internal factors like personality traits, self-enthusiasm, inspirational thoughts, social circle, family and educational background, and external factors like political and economic conditions, social, regulative and technical environment etc. Present study is a serious attempt to check the effect of technological entrepreneurship on entrepreneurial intentions.

Conceptual Framework

Psychological theories of entrepreneurship state that certain attitudinal and psychological attributes differentiate entrepreneurs from non-entrepreneurs. These theories consist of need for achievement and power by McClelland (1961), Locus of control by Rotter (1966), Psychodynamic model by Kets de Vries and Risk-taking propensity.

Need for Achievement Model states that people desire to achieve something for their inner feeling of accomplishment. According to McClelland the entrepreneur has two characteristics, first doing things in a novel and better way and second decision making under uncertainty.

Locus of Control theory states that there is a degree to which one believes that he/she is in control of one's destiny. This can be internal or external. It argues that internals are more successful in business than the externals.

Psychodynamic Model of Kets de Vries states that people tend to be self-employed and become successful because of "troubled childhood". In distressed childhood, children tend to be lacking, security or abused, low self-esteem, lack of confidence. Therefore, rising in such an environment some people do have self-conscious wishes towards those in control.

Risk Taking Propensity theory contends about one's willingness to accept risk. People who are more likely to accept risk and taking chances are more likely of being self-employed than those who do not take risk.

Sociological Theories of Entrepreneurship suggest that entrepreneurial behavior is a function of the individual's interaction with the society.

Hagen's Theory of social change propounded that how a traditional society becomes one in which continuing technical progress takes place. The creativity of a disadvantaged minority group is the primary source of entrepreneurship. He considers the withdrawal of status, of respect, as the trigger mechanism for changes in personality formation.

Social Development Model theory argued that it is the transactions with different context in one's life and career that shape one's propensity to be self-employed. These factors are level of education, entrepreneurship education and experience.

According to Max Weber, driving entrepreneurial energy is generated by the adoption of exogenously-supplied religious beliefs. He proposed that social change happens as a result of both ripe climate and charismatic leadership.

The ***Knight's Theory of Profit*** was proposed by Frank. H. Knight, who believed profit as a reward for uncertainty-bearing, not to risk bearing. Simply, profit is the residual return to the entrepreneur for bearing the uncertainty in business.

Schumpeter defines entrepreneurship as a creative activity. An innovator who brings new products or services into economy is given the status of an entrepreneur.

Peter Drucker was one of the first theorists of innovation who believed that innovation could be systematized in any organization. He wrote that purposeful innovation results from analysis, systemic review and hard work and can be taught, replicated and learned.

Definitions

Technology Entrepreneurship

According to Dorf & Byers, “Technology Entrepreneurship is a style of business leadership that involves identifying high-potential, technology-intense commercial opportunities, gathering resources such as talent and capital, and managing rapid growth and significant risks using principled decision-making skills.”

Technology Entrepreneurship is a purposeful and goal-oriented process in a complex and interwoven scientific/technical, cultural, social, economic, legal and political situation driven by a person (or group), the entrepreneur(s), and associated with a practice of starting a new technology-based organization or “renewing” an existing technology-based organization.

Entrepreneurial Intentions

According to Bird (1988), Entrepreneurial intent is the state of mind that directs and guides the actions of the entrepreneur toward the development and the implementation of new business concepts.

According to Krueger (1993), Entrepreneurial intention is a commitment to starting a new business. This intention indicates potentiality of an entrepreneur to start business in the future.

According to Doan Winkel (2011), Entrepreneurial intention is stated as an individual’s desire and determination to engage in new venture creation.

According to Peng (2012), Entrepreneurial intention of a person is a mental orientation such as desire, wish and hope influencing his/her choice of entrepreneurship.

Innovation

According to Drucker (1985), “Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is the act that endows resources with a new capacity to create wealth.”

According to Bacon & Butler (1998), “Innovation can be viewed as the systematic approach to creating an environment based on creative discovery, invention, and commercial exploitation of ideas that meet unmet needs.”

Literature Review

Ajagbe (2016) investigated Technology Based Entrepreneurship Financing: Lessons for Nigeria. The study concluded that investment and financial decisions play an increasing vital role in economic growth and entrepreneurial new venture creation. Hence, investment and financial policies are part of the main operational resolutions in emerging nations to support investment by domestic firms, particularly technology entrepreneurial firms.

Uddin & Bose (2012) explored Determinants of Entrepreneurial Intention of Business Students in Bangladesh and found that tendency of bearing risk, need for achievement, education and environment for starting business are some significant measures in determining the intention of students.

Dohse & Walter (2011) examined Knowledge Context and Entrepreneurial Intentions among Students and suggested that the nature of one's residential area persuades students' entrepreneurial intentions. If a person residing in an area where start-up intensity in knowledge-based industries and growth rate of R&D investment is high, it is more likely that a particular individual will choose the entrepreneurial career.

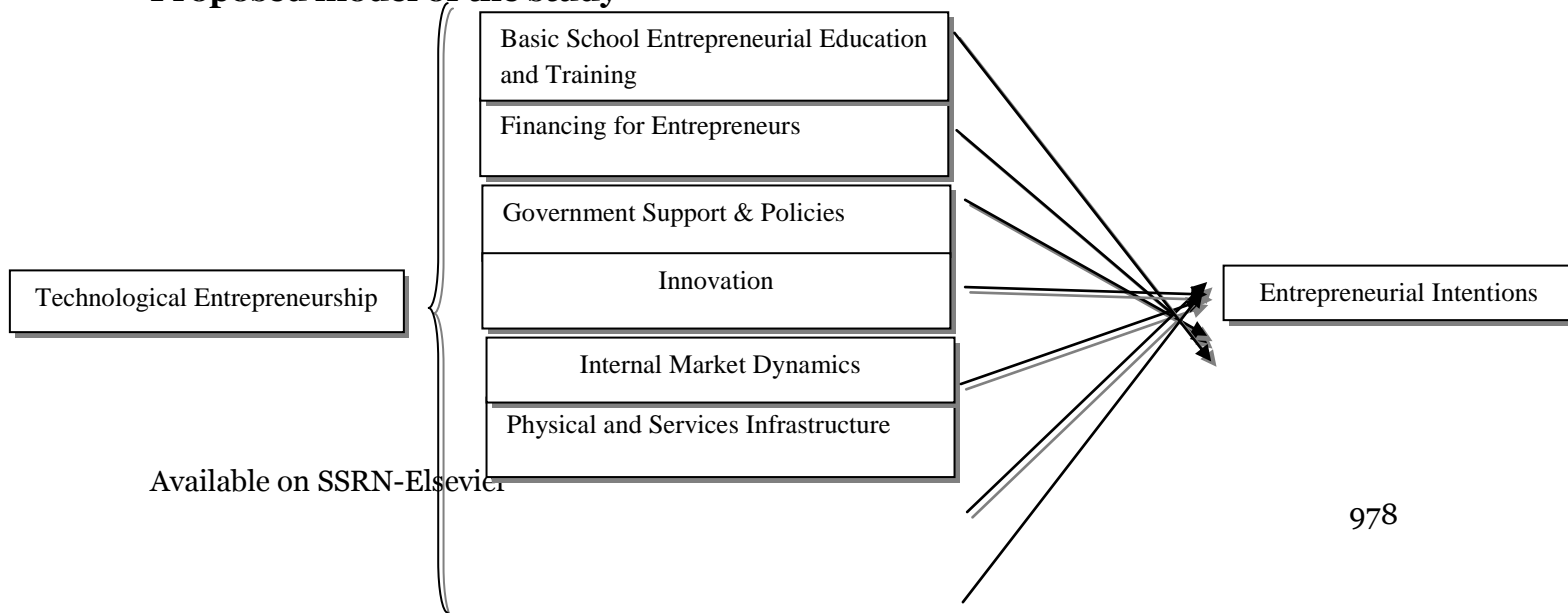
Nazarov (2017) studied Development of Technology Entrepreneurship in a Transition Economy: An Example of the Russian Region with High Scientific Potential. The results stated that the most important resources for technology companies of all generations are people and intellectual property in the form of knowledge and experience of these people. The government support usually plays an important role in the technology business development especially in the case of second-generation entrepreneurs.

Gardner, Verma & Payne (2006) analyzed Balancing Research Vision and Research Management to Achieve Success in the 21st Century. They found that Technology entrepreneurship education is essential as it converts traditional economy into knowledge-based economy and helps an organization to staying alive in the competitive scenario of 21st century. The knowledge-based economy is related with innovative skills, human resources and intellectual assets while traditional economy is concerned with land, manual, labour and capital.

Luthje & Franke (2003) examined the 'Making' of an Entrepreneur: Testing a Model of Entrepreneurial Intent among Engineering Students at MIT and stated that environmental support like infrastructural, political, and financial aid impact entrepreneurial intentions.

Zhao, Seibert, and Hills (2005) studied The Mediating Role of Self-efficacy in the Development of Entrepreneurial Intentions and show that psychological attributes like risk taking tendency and entrepreneurial self-efficacy collectively develop skills & capabilities and it affect entrepreneurial intentions.

Proposed model of the study



R&D Transfer

Objective of the Study

- To find out the factors affecting entrepreneurial intentions.

Research Methodology

The various variables were identified which were expected to influence the entrepreneurial intentions. The secondary data of 11 countries has been collected for the period between 2012 and 2017 from the website of Global Entrepreneurship Monitor (GEM). The data collected and compiled as per the requirement of the study.

Model Specification

Most of the studies have used logit and probit model for analysis. In our study the data is not in binary form so logit and probit model has not used. In our study the data comprises of both dimension different countries and time period and hence our data is cross sectional. The multiple panel regression was applied to check the affect of technology entrepreneurship on entrepreneurial intentions. Unit root test, Fixed Effect and Random Effect, Hausman test were analyzed on the panel data using statistical software called E-views.

The model for the study:

$$EINT_{it} = \beta_0 + \beta_1 ET_{it} + \beta_2 GSP_{it} + \beta_3 FIN_{it} + \beta_4 RDT_{it} + \beta_5 IMD_{it} + \beta_6 PSI_{it} + \beta_7 INNO_{it} + e_{it}$$

Where Y_{it} = EINT for countries in period t , ET_{it} is Entrepreneurial Education and Training, GSP_{it} is Government Support & Policies, FIN_{it} is Financing for Entrepreneurs, RDT_{it} is R&D Transfer, IMD_{it} is Internal Market Dynamics, PSI_{it} is Physical and Services Infrastructure, $INNO_{it}$ is Innovation. β_0 is a constant, β_s are the slope coefficients, e_{it} is the error term for country i in period.

Results & Discussion

Panel Unit Root Test

Variables	Levin, Lin & Chu		
	Statistics	Prob.	Obs.
EINT	-9.05039	0.0000	52

ET	-18.3343	0.0000	53
GSP	-7.44248	0.0000	52
FIN	-16.8612	0.0000	54
RDT	-10.0607	0.0000	51
IMD	-10.0040	0.0000	54
PSI	-9.67628	0.0000	53
INNO	-26.3719	0.0000	49

Null Hypothesis

Ho: Unit Root (ASSUMES common unit root process)

The Stationary of the series is tested using Levin, Lin & Chu technique. The results concluded that the series are stationary at integrated at order [1] as the P value is less than 0.05, the null hypothesis i.e. series assumes unit root is rejected. It means that the series do not have unit root.

Explanatory Variables	Fixed Effect Model			Random Effect Model		
	Coef.	t-stats	Prob.	Coef.	t-stats	Prob.
ET	9.535164	-2.772060	0.0081	-5.721886	-1.754493	0.0845
GSP	1.317092	0.442800	0.6600	-2.613904	-1.034657	0.305
FIN	-2.177823	-0.732837	0.4675	-2.370041	-0.910181	0.3664
PSI	-2.982036	-0.969059	0.3377	-6.01366	-1.94442	0.0565
INNO	0.317453	2.525173	0.0152	0.22087	1.81959	0.0738
	R-squared	0.84535		R-squared	0.21357	
	F-statistic	12.2985		F-statistic	3.259	
	Prob. (F-statistic)	0.000		Prob. (F-statistic)	0.01406	
Hausman Test	Chi-Sq. Stats	29.404	0.000	Prob.	0.000	

The Hausman Test is also known as test for model specification. When the data is collected over time and its panel in nature, the Hausman Test can help us in taking the decision between fixed and random effect model. In case of above mention table, the null hypothesis is-

Ho = Preferred Model is Random.

And the alternative hypothesis is-

H1 = The Model is Fixed Effect.

The outcome says that the value of Chi square is significant at 0.000 probabilities and hence the null hypothesis is rejected and our model is fixed effect. From the panel regression F value 12.2985 with P value 0.000 says that the model is fit. The R squared

value is .8453 implies that 84.53% variation in the dependent variable entrepreneurial intentions is explained by at least one independent variable.

Entrepreneurial Education and Training

There is positive relation between Entrepreneurial Education & Training and Entrepreneurial Intentions. The coefficient of Entrepreneurial Education and Training is 9.535164 and t-statistic is -2.772060 with p value 0.0081 indicates that null hypothesis that there is no impact of Entrepreneurial Education and Training on Entrepreneurial Intentions cannot be rejected at 1% level of significance, meaning that change in Entrepreneurial Intentions is affected by Entrepreneurial Education and Training imparted to budding entrepreneurs of a country.

Government Support & Policies

There is positive insignificant relationship between Government Support & Policies and Entrepreneurial Intentions. The coefficient of Government Support & Policies is 1.317092 and t-statistic is 0.442800 with p value 0.6600 indicates that null hypothesis that there is no impact of Government Support & Policies on Entrepreneurial Intentions is not rejected and hence alternative hypothesis is accepted, meaning that change in Entrepreneurial Intentions cannot be explained by Government Support & Policies of the country.

Financing for Entrepreneurs

Positive insignificant relationship is found between Financing for Entrepreneurs and Entrepreneurial Intentions. The coefficient of Financing for Entrepreneurs is -2.177823 and t-statistic -0.732837 with P value 0.4675. The null hypothesis that there is no impact of Financing for Entrepreneurs on Entrepreneurial Intentions is not rejected. It implies that Financing for Entrepreneurs is not significant and could not explain the change in Entrepreneurial Intentions however we assume that financing is an integral part of any entrepreneurship project but results or study prove that entrepreneurial intentions are not affected by availability of finance.

Physical and Services Infrastructure

There is negative relation between Physical and Services Infrastructure and Entrepreneurial Intentions. The coefficient of Physical and Services Infrastructure is -2.982036 and t-statistic is -0.969059 with p value 0.3377 indicates that null hypothesis that there is no impact of Physical and Services Infrastructure on Entrepreneurial Intentions cannot be rejected at 1% level of significance, meaning that change in Entrepreneurial Intentions cannot be affected by Physical and Services Infrastructure of a country.

Innovation

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There is positive relation between Innovation and Entrepreneurial Intentions. The coefficient of Innovation is 0.317453 and t-statistic is 2.525173 with p value 0.0152 indicates that null hypothesis that there is no impact of Innovation on Entrepreneurial Intentions is rejected at 1% level of significance and alternative hypothesis is accepted, it means that change in Entrepreneurial Intentions can be explained by Innovation.

The study also considered R&D Transfer and Internal Market Dynamics as the determinants for technological entrepreneurship but due to high correlation these two variables removed from analysis.

Conclusion

This study examined the determinants of technological entrepreneurship. The sample size of total 11 countries like China, India, Iran, Israel, Japan, Malaysia, South Korea, Taiwan, Thailand, Turkey and Vietnam were used for the study. The analysis was done on the data collected from the Global Entrepreneurship Monitor website. The study comprises of 6 years for the period between 2017 and 2012. The study concluded that entrepreneurial intentions are majorly affected by entrepreneurial education and training and innovation. The urgent need of the hour is that government should include entrepreneurial education and training as compulsory component of curriculum and initiate incubation centers to impart training on innovation.

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Transformation towards Cashless Economy – An Indian Perspective

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ABSTRACT

One of the offshoots of 2016 demonetization of Indian high denomination bank currency notes is that the country can progress towards becoming a cashless economy. Several countries around the world are trying cashless transactions in one form or the other for various reasons and with reasonable success. This paper examines the global practises and analyses end-user perception in the Indian context. Data collected from survey is analysed to understand the various problems faced by payment and transaction making consumers. What factors such as (age, gender, occupation, income levels and problems) impact customers to do a transaction in cashless mode? What are the major deterrents for making a cashless transaction? What can various stakeholders such as the public, banks and financial institutions, regulators, central banks and governments do to accelerate India to turn into a fully cashless economy? These are problems are examined and suggestions for the same are provided.

Introduction

The concept of cash has transformed from being limestone discs on Yap islands to easy-to-carry currency notes & coin forms. It later changed into cash alternatives such as checks and payment cards (debit and credit cards) and now into digital substitutes such as internet and mobile-based payments which are fast becoming the de facto mode of transacting with money. Even the control of money flow is fast changing - from central bank-managed monetary forms to decentralized and authority-less cryptocurrency forms. The interplay between finance and technology is leading to the emergence of fintech products that reduce dependence of cash and turning the world into a global digital village. We are heading towards a cashless economy where financial transactions happen by electronic means and without (much) use of cash and cheque.

While almost every country is going towards cashless economy, the reasons for their transformation are different. Some countries wanted stricter tax compliance and enforcement so that tax leakages are controlled. This is a step towards their financial system and thereby achieve economic progress and prosperity. Conservative estimates say that US Government alone is losing \$100 billion annually in foregone tax revenue because of cash transactions. Some countries want to reduce banking cost, particular in the areas of cash handling, management and transport. This is more important in African countries where theft during cash transit is still common. Despite advancements in cash alternatives, the cost of cash is still high. (Bhaskar & Benjamin, 2013). The cost of production and distribution of cash for the US it at \$1.2 billion in 2012. By switching to cashless, countries like India can bring down cost of

cash from 1.7% of real GDP in 2014-15 to 1.1% in five years' time (Visa, October, 2016). Some countries cite that the cashless economy efforts are taken up to put corruption under control. Some countries want to fight crime, some expect better financial inclusion levels while others are doing merely to be in-line with international practises and thereby better their position on world economy charts.

All stakeholders - consumers, financial institutions & corporates and governments - will economically benefit when a payment or transfer is done in cashless mode compared to using cash or check (Daniel, Robert, & Anne, 2006). This is because, cash usage results in money outside the formal economy and limits the effectiveness of monetary policy thereby making it difficult to control inflation. Governments across the world are preparing cashless policy to counter corruption and its associated ailments such as money laundering etc., but these alone are not sufficient and often have to be complemented by other type of reforms (Ayoola, 2013). Countries such as Nigeria have framed policies that discourage cash-based transactions and even impose a penalty for cash withdrawals beyond a certain limit. However, forceful implementation of the cashless plan will only act negative to the economy, delay the goals of financial inclusion and hurt the economy.

Government and policy makers' determination is very important for the success of move towards cashless economy as can be seen in USA, Germany and China. Bottlenecks in the implementation should be overcome with appropriate policy changes from time to time. Countries that joined recently include Hong Kong (1997), Nigeria (2012) and India (2016) have used different approaches towards this. Critics such as Paul Richard fear cashless economy will give greater (and often unwanted) control to Government to monitor purchases, spending habits and business patronages of individuals. This excess information would lead to invasion on citizen privacy and threaten their security. For example, implanting a biochip in the right hand of the individual (US) and capturing of biometric information (Aadhar, India) are examples of how additional information is being captured in the guise of cashless economy.

Objectives

The objectives of this paper are to:

1. To understand the concept of cashless society and its implementations.
2. To study perspectives of different stakeholders' in cashless economic transformation.
3. To study the factors impacting customers to transact in cashless mode.
4. To make suggestions for various stakeholders in the India context

Literature Study

Though moving towards cashless economy has become a recent phenomenon, the motivation for this came way back in 1966 when John T. Diebold said, "the 'cashless society' is no longer an option but a necessity" (Diebold, Nov - Dec, 1967). Though he was not specific about ATM and cards, he said, "some system must and will develop in which money (and credit) moves quickly and safely" around the world. His vision led to the foundation of a multinational financial and retail technology company - Diebold Nixdorf - which specializes in self-service transaction systems, point-of-sale terminals and security products for the financial and related markets.

The transformation from traditional cash and cash-equivalent mechanisms to cashless forms is a very slow process. Cash usage is undoubtedly declining in percentage terms year on year but at a very slow pace. Only 2% to 3% of cash transactions are getting reduced and getting switched to digital modes. On the other hand, the amount of cash in circulation is increasing. Cash usage still dominates in terms of number of transactions and is still the preferred form when making small-value transactions though digital payments are preferred for online or remote payments (Cash Product Office, Federal Reserve, 2016). Even checks are not getting disappeared! Though British banks envisioned in 2011 to stop check processing and clearance by 2018, they apparently failed to do so (BBC News, n.d.). However, some countries are active over others in technology absorption. Iceland, for example, has a mere 9 percent turnover of purchase values paid in cash. There are online videos showing how one can survive in China for few days with only digital payments and absolutely no cash.

Financial institutions and Governments are trying to make payments easier and more convenient so as to promote cashless transactions. Turkey's SIM-based identification solution allowed customers to securely connect to online banking and access government services without much further identification requirements. M-Pesa of Kenya is a great success story bridging gap between financial services and telecoms. Hong Kong travellers are using contactless card payment since 1997!

Digital transformations cannot happen overnight because the masses are illiterate on using electronic modes of fund transfer. Studies have pointed out that financial and technical literacy is the need of the hour to achieve cashless transactions, cordless governance and financial transparency (Satya Sekhar, G.V., July 2018). As can be seen in the 2012 Central Bank of Nigeria cashless experiment in Lagos state, financial illiteracy has a negative impact on the utilization of the cashless system and that massive enlightenment was felt necessary to encourage the utilization of the cashless system (Uzonwanne & Ezenekwe, 2017). When banks do not explain about important caveats, they would be harming their customers by exposing their customers to risks (Sajter, 2013). Further, adequate basic infrastructure (power, security etc.) and technological infrastructure (high-speed internet connectivity, adequate POS / ATM machines etc.) are necessary.

For cashless policy to be successful, financial service providers and policy makers have to consider two important customer facing aspects – build public confidence and reduce cost of e-payment transaction (Utomi, 2012). Banks have reported improved operational efficiencies and increased income levels because of cashless policy when they started responding better to customer demands (Taiwo, Ayo, & Eva, 2016).

Government and its agencies are the biggest spenders of money and hence the control of cash can begin from there. Contrary to the fear, moving to cashless economy will not put the central banks and Governments into a vulnerable position. This is because digital modes complement and not replace the existing instruments and payment channels. Hence, their monetary control opportunities are completely unaffected. Keeping all its existing lines open, they can slowly decrease the supply of currency in the economy (Maurer, 2008). Governments and Regulators fear that they do not get access to payment transaction data and thereby lose control. They are themselves insisting that all payment transaction data be shared or routed through a clearing house, such as the China Nets Union Clearing Corporation (Lu, 2018) and that the data is stored within the country and not in external jurisdiction outside the

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country (India). Laws related to payments business are often stringent and can only be in the reach of established companies who can comply making it impossible for smaller players to enter and survive. Clearly, the licensing and regulatory compliance costs is a huge barrier for payment start-ups and may stifle continued innovation if left unsettled (Kevin, 2013). Cryptocurrencies might not be a threat to fiat currencies but they pose serious warning and challenge Governments for their capability to serve, maintain and adapt itself in response to citizen demands, especially in regard to good governance and public financial management (Srirath, 2017).

Need for study

India's November 8, 2016 demonetization move created ample demand for alternative money delivery channels and has set the perfect stage for the country to jump into cashless economy state. However, two years down the line, cash continues to be the king. The total cash in circulation jumped up from Rs 17.97 crores (Nov 16) to Rs 19.57 crores (Oct 18). The number of transactions happening on ATMs jumped from 561 million (Nov 16) to 775 million (Mar 18). Digital transaction penetration is still very poor – only 16% in rural and 44% in urban areas. India has only 17 ATMs per 1,00,000 people compared to China (63), Brazil (81), Japan (108), Australia (132) and US (137) (Tata Communications Payment Solutions). Digital illiteracy is still common because of low literacy rates and fewer banks in villages, language barriers and lack of sufficient ATMs and swiping machines (which are expensive) (Anjali & Srivastava, 2018). Studies in the Indian context have shown that there are severe supply side constraints as well. These issues can be addressed by rationalizing Merchant Discount Rates (MDR) which add up to transaction cost as well as provide tax incentives for doing the cashless transaction (Mukhopadhyay, 2015).

Agrarian countries like India has a large illiterate farmer-base who still use basic feature mobile phones. The large illiterate and rural base do not understand English and require user interfaces of the delivery channels to be in local and regional languages (such as Hindi) (Gupta, 2017). Payment service providers like MasterCard are now building technology platforms so that agriculture marketplaces can be digitized and that payments and workflows is optimized. This helps farmers to easily and securely buy, sell and receive payments for agricultural products via their existing feature phones. This method is implemented in India (e-Rythu of Andhra Pradesh) and Kenya (Nairobi).

PWC feels that the evolving Indian payments ecosystem is expected to address crucial customer pain points, while systemic problems will need policy solutions. From the policy makers part, there are four areas where clarity is required: Clarity on 'on tap' banking license for differentiated banks, Goalposts for PPIs, Paperless banking and payments and Clear roadmap for moving towards market determined charges (PWC, IAMAI, PCI, 2015).

This study can help us understand problems faced by the customer when doing cashless transactions in the Indian context. This helps financial service providers and the Government to make necessary changes so as to improve the cashless absorption rates in India.

Hypotheses

This study focused on impact of various factors that influence a consumer to make cashless transaction. Based on these factors, the following hypotheses are derived:

H1: There is no significant difference on gender for doing a cashless transaction

H2: There is no significant difference in age for doing a cashless transaction

H3: There is no significant difference in terms of occupation for doing a cashless transaction

H4: There is no significant difference in terms of earnings for doing a cashless transaction

Research Method

Descriptive research design method was used for this study. Quantitative approach is used to investigate the hypotheses. Both primary and secondary data is used to gain some insights about this. Simple sampling method was used on a sample of 200 respondents from across Visakhapatnam district of Andhra Pradesh state in India are taken. A pilot survey is done and a structured questionnaire was administered to collect information. The response rate was 100%.

Sources of Data

Both primary and secondary data is used as a part of the study. Primary data is collected by using a structured questionnaire. Secondary data is from various books, magazines, journals, internet websites and research projects are collected to get an insight into the research area and to develop the hypothesis.

Target Population and Sample Size

The target population for the current research are consumers of Visakhapatnam district of Andhra Pradesh, India who are making a financial transaction (could be a purchase or a fund transfer). The sample size if 200 respondents diversified in terms of age, gender and occupation.

Sampling and Data Collection Procedure

Non-probability and convenience sampling method was utilized in this study.

Tools Used for Analysis

The collected data was computed and analysed by Statistical Package for Social Science (SPSS) version 20.0 to test research hypothesis and answer research questions.

Results

Hypothesis	Chi-square value	Degree of Freedom	Table value	Decision
H1	0.673	1	3.841	Accept H1
H2	25.520	1	3.841	Reject H2
H3	8.207	2	5.991	Reject H3
H4	13.748	2	5.991	Reject H4

Summary of Hypothesis Testing

H1: There is no significant difference on gender for doing a cashless transaction.

Result: Hypothesis is accepted.

H2: There is no significant difference in age for doing a cashless transaction

Result: Hypothesis is rejected. Hence alternative hypothesis is to be accepted.

Alternative Hypothesis: There is significant difference in age for doing a cashless transaction

H3: There is no significant difference in terms of occupation for doing a cashless transaction.

Result: Hypothesis is rejected. Hence alternative hypothesis is to be accepted.

Alternative Hypothesis: There is significant difference in terms of occupation for doing a cashless transaction.

H4: There is no significant difference in terms of earnings for doing a cashless transaction

Result: Hypothesis is rejected. Hence alternative hypothesis is to be accepted.

Alternative Hypothesis: There is significant difference in terms of earnings for doing a cashless transaction

Major Findings

Both male and female respondents are equally enthusiastic to do a cashless transaction and Gender is not a major factor. Age, however, is an important factor and the age group 25 to 50 are comfortable doing cashless payment over those of age 51 years and above. Similarly, occupation and earnings play an important role. Majority of respondents felt the need for security and convenience of doing the transaction as very important factors for them. Needless to say, lack of convenience and a perception of lack of security are the deterrents.

Limitations

This study is limited to specific city and specific sample size. Limited time and cost constraints can also be considered as limitations.

Scope for Further Research

1. Research study of this kind can be extended to other cities and states since India is a very diversified country. Further, the study can be extended to comparing between India and other similar and different countries (such as BRICS, ASEAN etc)
2. The study can be extended to make differentiation amongst various types of cashless transactions (such as payment by cards, mobile app-based etc.)
3. This study focused only from the perspective of the consumers who are making the payments. Further study can be done from the service provider and regulators perspective.

Conclusion

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It is important that all stakeholders work in the same direction so that the country can progress towards becoming a cashless economy. Mass digital literacy campaigns (particularly on usage and security aspects), improving convenience for making payments are considered very important factor to boost cashless payments in India. Banks and Financial institutions have to ensure that payment processing devices are easily available and that the number of points of acceptance (such as by installing more ATMs and POS) are increased. User interface designs of internet banking and payment apps should be simpler and should be available in local languages. Regulators and Government have to make digital payments mandatory for high value transactions and for essentials (such as at fuel refilling outlets). Government receipts or payments should be compulsorily be made in digital form. Finally, cashless transactions should be incentivised such by lowering tax rates failing which people would continue to prefer accepting cash mode. The Government has to promoting electronic and technology industries that make them.

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Digital Marketing: An Effective Tool of Fashion Marketing

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ABSTRACT

Fashion allows us to dream; it can transport us from mundane to the glossy world of models, catwalks and fantasies. It is hardly surprising that fashion is so seductive, when so much of the media focus centers on the more glamorous aspects of the industry. Today media players are covering very beautifully, every aspect of the fashion world in many ways and provide information to the customers. In fact, they use very effectively digital media to increase awareness and connections between brands, labels, and customers. Fashion is a complex cultural phenomenon, but it is also a global manufacturing and retail industries, the scope of which is immense. So, industry extends for those persons who are working in the world of styling, art direction, photography, advertising, media and digital marketing.

Fashion marketing is very important element of the fashion industry, because it operates at every level of the fashion system (Supply chain to product development through to retail). Fashion is relevant to business of couture, luxury label, designer level and mass market. In present era, we all are apprised to digital world. The role of digital marketing is very important in fashion marketing. Fashion is a global business with complex structure that operates on many different levels to reach everyone from fashioners to those who just purchase clothing as a necessity of everyday life. Digital mode brings the whole worlds to the customers' doorstep in one click. Digital marketing can be identified as form of direct marketing that connects the buyer with the seller electronically through interactive technologies such as email, website, social networks, online forum as well as news groups, television, mobile communications etc. The principal objective of marketing is to raise awareness information, persuade and encourage consumer engagement with the brand. The ultimate aim is of course to generate sales. So, this paper entitled "**Digital Marketing: An Effective Tool of Fashion Marketing**" is presents digital era and its impact on fashion marketing.

Introduction, objective and Methodology

Fashion allows us to dream; it can transport us from mundane to the glossy world of models, catwalks and fantasies. It is hardly surprising that fashion is so seductive, when so much of the media focus centres on the more glamorous aspects of the industry. Today media players are covering very beautifully, every aspect of the fashion world in many ways and provide information to the customers. In fact, they use very effectively digital media to increase awareness and connections between brands, labels, and customers. Fashion is a complex cultural phenomenon, but it is also a global manufacturing and retail industries, the scope of which is immense. So, industry extends for those persons who are working in the world of styling, art direction, photography, advertising, media and digital marketing.

Fashion marketing is very important element of the fashion industry, because it operates at every level of the fashion system (Supply chain to product development through to retail). Fashion is relevant to business of couture, luxury label, designer level and mass market. In present era, we all are apprised to digital world. The role of digital marketing is very important in fashion marketing. Fashion is a global business with complex structure that operates on many different levels to reach everyone from fashioners to those who just purchase clothing as a necessity of everyday life. Digital mode brings the whole worlds to the customers' doorstep in one click. The rising penetration nature of the internet and various faster digital communication channels, wider network and new devices and their connectivity with marketers made consumers more informative and knowledge regarding the value they expected to return to the cost they incurred. Digital marketing can be identified as form of direct marketing that connects the buyer with the seller electronically through interactive technologies such as email, website, social networks, online forum as well as news groups, television, mobile communications etc. Digital and social media have made advertising and promotion campaigns more interactive and participatory. The principal objectives of advertising are to raise awareness information, persuade and encourage consumer engagement with the brand. The ultimate aim is of course to generate sales.

Face book	Digital Marketing Tools	E-magazine
Twitter		Google plus
Instagram		TV channels
You tube		Pinterest
Electronic Display		Web sites links
Table no. 1		

Fashion is based on the psychology of consumers pursuing of change and new expression. In other words, we can say that, fashion industry totally depends on changing trends and maximum products are survived very short product life cycle. So in this situation, digital marketing may be worked, as an excellent medium for attention, interest, desire, awareness and action towards of particular product or brand. Studies

shows that, in 2015, in India recorded a growing number of 277.4 million internet users and this figure is expected to grow to 411.1 million internet users in the end of 2018. Fashion industry is a large and valuable industry of the world. Approx. 75% of internet users reach fashion retail websites and apps through their digital devices (Mobile, PC etc.). Even on search engine, every third searching is related to fashion products and fashion brands and this trend continuously increases. So in the reference of above discussion the main objective of this paper is: To know about digital marketing and its impact on consumer behaviour with special reference to fashion marketing – The study is based on secondary data like published books, magazine, articles, blogs, websites, journals etc.

Consumer Behaviour and Features of Digital Marketing

Today we can feel easily that, digital marketing tools provide information's frequently to the consumer. These information's bring changes in consumer's buying behaviour. Increasing internet accessibility, working schedule, status, and availability of internet are main reasons of go online. The behaviour of consumer in digital era has changed, they are easily access any information of the world just in time. Consumer's buying behaviour totally based on internal and external stimulus. Extensive availability of information, today's consumers became more knowledgeable and powerful as they are capable of evaluating information and purchase the best option. In general, consumers are use various digital tools for information and marketing purpose such as – Facebook, Instagram, twitter, blogs, links, YouTube etc.

Digital marketing is also very close to fashion industry, because it promotes the speed and convenience of clothing trades, buying patterns, payment pattern, updated information and feedback after sale etc. Digital marketing also finds out easily fashion audience, in all over world through advance technologies. Digital technology also provides variety of media presentations such as text, voice, images, videos, graphs, display etc. which are put on deep impression on the fashion consumers. Digital marketing also builds long term good relationship between marketers and consumers, in fact it also provides relevant communication between designers and consumers in 7/24 service mode. One another important point of digital marketing is that, it reduced various cost (labour, printing, transport, delivery, rent etc.) in the comparison of traditional business channels.

Features of Digital Marketing	
✓	Promote speed and convenience for trade patterns and payment pattern
✓	Easily find out consumers at global level
✓	Propaganda of the products
✓	Provide variety of presentation
✓	Build long term relations between seller and buyer
✓	Reduce costing – printing, labor, rent etc
✓	7/24 service
✓	Updated information
✓	Wide variety information regarding brand and product
✓	Access to global brands
Table no. 2	

Impact of Digital Marketing on Fashion Industry

The digital era has changed the social trends, which resultant a direct effect on the changing consumer behaviour. When it comes in the fashion industry, consumers are find out new experiences with purchasing product and services, what actually they want. In fashion industry, digital marketing culture identifying consumer's preference and gives importance. In current world, consumers are welcoming new experience of products and services with good quality features. Fashion lovers had always conscious about



Image no. 2



Image no. 1

always conscious about fashion propaganda from past time. The first fashion website – vogue.com introduced in 1990. After that WGSN, Net-a-Porter, show studio.com etc. are came in digital fashion world. In 2009 fashion players started twitter on internet with business of fashion in New York fashion week. Today, so many digital tools are giving platform to the fashion products and brands. Designer, Retailers and Marketers are used many digital modes and channels for marketing purpose at national and global level. India is a fast growing emerging Asian market. This shows optimistic projection for the e-commerce industry. It estimated that around 329.1 million people will prefer online shopping by 2020. This means about 70% of internet users in

India will have purchased online. BCG CCI Digital studied on preferred categories for online shopping in 2016, showing in image no. 1 - it shows that consumer's highest preference - that is fashion products. Fashion industry broadly classified into four major sections – Apparel, Footwear, Cosmetics and Accessories - where apparel section always in highest demand. Image no.2 - shows different online demand of apparel sections So, it is clearly showing that consumers first go online shopping for fashion products.

Digital marketing easily finds out fashion lovers in all over world through advance technologies. Because digital technology provides variety of media presentations such as text, voice, images, videos, graphs, display etc. which construct deep impression on the fashion consumers. So, in present scenario, designer, fashion companies, retailer and marketers are adopting many digital channels for build-up long relationship with consumers. The fast fashion leader Spanish company ZARA always worked on this approach “what they want and when they want” and according this they make marketing strategy. Flexible supply chain and technology-driven approach gives great business results. Fast fashion means fast fashion marketing and in this direction, ZARA has used

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so many social media tools like Facebook, Twitter, Instagram, YouTube, Pinterest and LinkedIn. Today, in Facebook, ZARA has approx. 26.4 million followers, twitter has 1.3 million followers, on Instagram, ZARA has 24.3 million followers. ZARA'S social media strategy is highly dependent on visual elements. Apart from this strategy, ZARA consistently uses social media to talk to their customers. Fast fashion brand H&M has also used digital media for effective marketing for its product and brands. Today, there are more than 32 million followers of H&M on Facebook. Facebook provides efficient communication between the brand and its customers effectively. H&M has also using Twitter account for effective marketing of its brands and products. Today it has more than 8.6 million followers on twitter account. H&M has also more than 650 videos on its YouTube account. It is not just focus on marketing of products or brands also create long term relationships with the customers through deeper engagement. On Instagram, H&M has 22.9 million followers. Instagram acts as an effective platform for customer and fan engagement. Pinterest is another great social media platform for the fashion brands. There are several accounts associated with H&M on Pinterest like H&M for men, H&M for kids, H&M home and H&M denim. H&M has more than six million followers on Google Plus.

Social media has successfully proved its power over several business domains. Even though leading fashion designers of India have realized how the different social media networks, especially Facebook, Twitter, Pinterest and YouTube can boost their brand image. Manish Malhotra, leading fashion designer of Indian Fashion Industry has 998,386 likes on his Facebook page, where he periodically updates pictures of different Bollywood celebrities in his latest creations.



Image no. 3

Sabyasachi Mukherjee has about 300,935 likes on his Facebook page, where he regularly shares pictures and albums of his latest collections. Anita Dongre has 17k followers on twitters and 172,106 likes on her Facebook page. She continually keeps her fans updated with her newest designed outfits and accessories through the social media platforms. Leading fashion designers Ritu kumar, introduced boutique culture in India with her brand name “label”, also more popular on Facebook. So we can see here, India’s leading designers used various digital technologies for marketing and consumer relationship.

Big Brands Flipkart and Amazon are also Using Digital Marketing Strategies. They always update new products, new offers, discount on Facebook, twitter, YouTube, Pinterest and google plus. Flipkart has also blog pages. Flipkart has also much joint marketing campaign like Myntra (online fashion portal). Amazon has also many followers on Twitter, Facebook, YouTube and Pinterest. Amazon always adopt innovative



Image no. 4

digital campaign, intelligent customer acquisition and engagement strategies.

Well known clothing brand KVIC (Khadi & Village Industries Commission) has also adopted many digital tools for branding. Apart from this, many top garment companies like Raymond, Fabindia, Madura garments, Grasim, Vardhman etc. are adopting digital marketing tools. Even though many fashion retailers such as – Westside, Pantaloons, Max, Fbb, reliance trends, ITC, also using digital marketing. Pantaloons use



Image no. 6

media like TV, print, online etc. as part of its marketing mix promotional strategy. Westside are using high intensity marketing strategy through social Media like Facebook.

Reliance trends manage social media marketing through email/mobile Marketing and digital campaigns. Thus we can understand through above discussion, digital media has become an important platform for fashion brands and products trying to get close to their target market.



Image no. 5

Finding and Conclusion

After above discussion, it can be concluded that, the growth of internet users and consumption ability of the users has giving a huge market space to be expanded. Digital market breaks traditional business obstacles and gives a big attraction and influences on consumer, enterprises and markets. Fashion industry, where product life cycle has survive for very short time, digital marketing gives more opportunities to the designers and retailers. In today's digital culture, identifying customer's needs and wants and then satisfying to customers is not easy with traditional methods, especially in fashion field. The behaviour of customer has changed. Now they can easily access any information of the world with in time. Active presence of digital tools creates an emotional attachment for the brand and products, which improve awareness, brand's image and sale.

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Stakeholders Perception of Tourism Entrepreneurship: A Case Study of The Valley of Kashmir

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Stakeholders perception, Tourism entrepreneurship, Valley of Kashmir, and destination development.

ABSTRACT

Tourism entrepreneurship has been known as the finest perspective to accredit the socio-economic progress of tourism destinations in various countries. Kashmir Valley is in its growth phase of tourism development and tourism entrepreneurship of different stakeholders is still under studied in the study area. By looking at diverse business activities that could be spawned by the development, their connection in business would contribute to a better economic return. The purpose of this paper is to investigate the perception of tourism entrepreneurship of different stakeholders in Valley of Kashmir. Based on self-administered questionnaire conducted on 312 prime stakeholders of tourism industry of Kashmir Valley in Jammu and Kashmir, the finding indicates that there is a significance difference between expectation and perception of different stakeholders regarding tourism entrepreneurship. Some of the stakeholders are previously involved in entrepreneurship activities; however their business survivability should be an apprehension as they countenance inadequate financial sources and support. The findings of the paper provide suitable conclusion on the needs to put into action various entrepreneurship related issues in Kashmir Valley. Valley of Kashmir possess exhilarative geographic and topographic features which espouse to magnetize all kinds of visitors in every season, such as pilgrimage, cultural, adventure, sport, educational and research, wonder lust and heritage tourism. Kashmir region is known for unique scenic attractions popularly known as "Paradise on Earth". Having declared as one of the most beautiful regions of the world, this paper reveals the groundwork result on the need for a deeper assessment on stakeholders' perception of tourism entrepreneurship in Valley of Kashmir.

Introduction

Tourism is a multi-product business with numerous tangential activities. The various Valley of Kashmir areas offer a variety of natural endowments and attractions, creating different levels of entry into tourism and hospitality business. Even though large travel trade companies dominating the sector, small, micro and medium businesses have an opportunity to position themselves and develop niche products and services for a select group of customers. As we all know tourist is the main customer, the business offers him the goods and services during his travel and tour. Only human touch can win the good-will of tourists, therefore those having dealings with the tourists must have certain professional attributes, such as, good nature, quick initiation, skill, self discipline, notable listening behavior, effectual conversation and a information of the customs, habits and tastes of the tourists. This needs the special training and education by all those who engaged in the tourism industry.

Methodology

This research paper is part of a larger study on linkages in tourism ecosystem in Kashmir valley. A survey questionnaire was designed to focus on stakeholder's perception of expectation and perception in tourism entrepreneurship. The particular part of questionnaire booklet consisted of total 8 questions, 4 questions on expectation and 4 questions on perception of different stakeholders regarding tourism entrepreneurship. The quantitative research method was used for this study using survey research method. In order to test the hypothesis, a questionnaire was used to collect the information about tourism entrepreneurship. In this research the primary components i.e. tourism entrepreneurship is divided into four items i.e. entrepreneurial opportunities, skill training, resource mobilization and business ideas. A five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used within 8 items. The total data collection was conducted in seven months (2016-2017) of the study. The four districts namely Anantnag, Srinagar, Baramullah, Ganderbal were considered for the study. The non-probability-sampling (convenience sampling and a judgment sampling) was used keeping the time, reach and cost in mind.

Objectives

1. To identify the tourism entrepreneurship profile of the Study area.
5. To evaluate the stakeholder's perception of tourism entrepreneurship in Kashmir Valley.
7. To provide appropriate implications for the tourism entrepreneurship in the study area.

Hypothesis

H01a: There is no significant difference between expectation and perception of stakeholders regarding tourism provides opportunities for small and micro entrepreneurs in Kashmir valley.

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Ho1b: There is no significant difference between expectation and perception of stakeholders regarding tourism provides a good platform for skill training in Kashmir valley.

Ho1c: There is no significant difference between expectation and perception of stakeholders regarding tourism expertise and resource mobilization in Kashmir valley.

Ho1d: There is no significant difference between expectation and perception of stakeholders regarding tourism entrepreneurial qualities and business ideas in Kashmir valley.

Results and Findings

A questionnaire was used to collect data from key tourism stakeholders of Valley of Kashmir. These stakeholders were restaurateurs and hoteliers, travel agents and tour operators, local entrepreneurs, tourist escorts and guides, tourism development authorities and event managers. The researcher visited and contacted these identified key tourism stakeholders. Then explained them the purpose of study, distributed the questionnaires and collected them on spot. In total, 312 questionnaires were received from the selected study area of Valley of Kashmir.

The below table 1.1 depicts the brief outline of the questions pertaining to tourism entrepreneurship and their responses that were framed to investigate relationship between the stakeholders' expectation and perception and the mean difference between their expectation and perception is obtained. The overall mean for expectation, perception and their difference is also obtained which comes out to be 4.57, 3.05 and 1.51 respectively.

Table 1.1: Descriptive Statistics of Tourism Entrepreneurship				
	Items	Mean value of Expectation	Mean value of Perception	Mean Difference
TOURISM ENTREPRENEURSHIP	Entrepreneurial Opportunities	4.53	3.63	0.90
	Skill Training	4.66	3.17	1.48
	Resource Mobilization	4.54	2.68	1.86
	Business Ideas	4.53	2.74	1.79
	Average Mean	4.57	3.05	1.51

From the above table it is quite clear that there is a huge difference between the expectation and observation values and their overall mean values which means that some changes should be incorporated within the tourism entrepreneurship with reference to the statements that are given above. The above table shows the highest

difference for the third statement which gives a clear message that the tourism industry fails to exploit the efficient use of resource mobilization in the study area. It also depicts that common masses are not provided with enough opportunities to explore their business ideas. Moreover, it can be visualized from the table that there is a lack of good platform for skill training among the tourism related companies and tourism authorities. Lastly the lack of tourism entrepreneurial opportunities can also be seen from the table.

The Paired Samples *t* Test is used for this study to compare two means that are from the same individual, object, or related units. According to paired samples *t* Test results, it was found that there is a significant difference between stakeholders' expectation and perception of various items regarding tourism entrepreneurship. Rejects all the null hypothesis and accepts alternative hypothesis. This is confirmed by *t* Test at 5% confidence level.

H01a: There is no significant difference between expectation and perception of stakeholders regarding tourism provides opportunities for small and micro entrepreneurs in Kashmir valley.

Table 1.2: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	TE-E. Entrepreneurial Opportunities	4.54	312	.518	.029
	TE-P. Entrepreneurial Opportunities	3.63	312	.791	.045

Table 1.3: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	TE-E. Entrepreneurial Opportunities TE-P. Entrepreneurial Opportunities	.907	.936	.053	.803	1.011	17.122	311	.000

It is clearly seen in the above-mentioned table 1.2, 1.3. A paired-samples *t*-test was conducted to compare relationship between the expected and perceived values of entrepreneurial opportunities statements. There was a significant difference in the expected value of entrepreneurial opportunities ($M = 4.54$, $SD = .51$) and perceived

value of entrepreneurial opportunities ($M = 3.63$, $SD = .79$) statements; $t(311) = 17.12$, $p = .000$. These results propose that entrepreneurial opportunities are deficient up to the expectation of stakeholders. Specifically, our results suggest that entrepreneurial opportunities for small and micro entrepreneurs are required to provide by different stakeholders in Kashmir valley.

H01b: There is no significant difference between expectation and perception of stakeholders regarding tourism provides a good platform for skill training in Kashmir valley.

Table 1.4: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	TE-E. Skill Training	4.66	312	.474	.027
	TE-P. Skill Training	3.17	312	1.080	.061

Table 1.5: Paired Samples Test

Table 1.5: Paired Samples Test									
		Paired Differences							
			Std.	Std. Error	95% Confidence Interval				
					Mean	Deviation			
		Mean	Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	TE-E. Skill Training	1.487	1.156	.065	1.358	1.616	22.714	311	.000
	TE-P. Skill Training								

It is clearly seen in the above-mentioned table 1.4, 1.5. A paired-samples t-test was conducted to compare relationship between the expected and perceived values of skill training statements. There was a significant difference in the expected value of skill training ($M = 4.66$, $SD = .47$) and perceived value of skill training ($M = 3.17$, $SD = 1.08$) statements; $t(311) = 22.71$, $p = .000$. These results propose that skill training is deficient up to the expectation of stakeholders. Specifically, our results suggest that good platform for skill training is required to provide by different stakeholders in Kashmir valley.

H01c: There is no significant difference between expectation and perception of stakeholders regarding tourism expertise and resource mobilization in Kashmir valley.

Table 1.6: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	TE-E. Resource Mobilization	4.55	312	.517	.029
	TE-P. Resource Mobilization	2.69	312	.951	.054

Table 1.7: Paired Samples Test									
		Paired Differences							
					95% Confidence Interval of the Difference				
					Mean	Std. Deviation			
Pair 1	TE-E. Resource Mobilization TE-P. Resource Mobilization	1.862	1.026	.058	1.748	1.976	32.074	311	.000

It is clearly seen in the above-mentioned table 1.6, 1.7. A paired-samples t-test was conducted to compare relationship between the expected and perceived values of resource mobilization statements. There was a significant difference in the expected value of resource mobilization ($M = 4.55$, $SD = .51$) and perceived value of resource mobilization ($M = 2.69$, $SD = .95$) statements; $t(311) = 32.07$, $p = .000$. These results propose that resource mobilization is deficient up to the expectation of stakeholders. Specifically, our results suggest that expertise and resource mobilization is required to develop by different stakeholders in Kashmir valley.

H_{01d}: There is no significant difference between expectation and perception of stakeholders regarding tourism entrepreneurial qualities and business ideas in Kashmir valley.

Table 1.8: Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	TE-E. Business Ideas	4.54	312	.500	.028
	TE-P. Business Ideas	2.74	312	1.051	.059

Table 1.9: Paired Samples Test									
		Paired Differences							
					95% Confidence Interval of the Difference				
					Mean	Std. Deviation			
Pair 1	TE-E. Business Ideas TE-P. Business Ideas	1.792	1.102	.062	1.669	1.914	28.726	311	.000

It is clearly seen in the above-mentioned table 1.8, 1.9. A paired-samples t-test was conducted to compare relationship between the expected and perceived values of

business ideas statements. There was a significant difference in the expected value of business ideas ($M = 4.54$, $SD = .50$) and perceived value of business ideas ($M = 2.74$, $SD = 1.05$) statements; $t(311) = 28.72$, $p = .000$. These results propose that business ideas are deficient up to the expectation of stakeholders. Specifically, our results suggest that entrepreneurial qualities is required to implement own business ideas by different stakeholders in Kashmir valley.

Summary of Hypothesis tested for study

Hypothesis No.	Reference	Statement	Result
H ₀ 1		There is no significant difference between expectation and perception of tourism entrepreneurship among different stakeholders in Kashmir valley.	
H ₀ 1a	Table 1.2, 1.3	There is no significant difference between expectation and perception of stakeholders regarding tourism provides opportunities for small and micro entrepreneurs in Kashmir valley.	Alternative hypothesis accepted (2-tailed sig: 0.000)
H ₀ 1b	Table 1.4, 1.5	There is no significant difference between expectation and perception of stakeholders regarding tourism provides a good platform for skill training in Kashmir valley.	Alternative hypothesis accepted (2-tailed sig: 0.000)
H ₀ 1c	Table 1.6, 1.7	There is no significant difference between expectation and perception of stakeholders regarding tourism expertise and resource mobilization in Kashmir valley.	Alternative hypothesis accepted (2-tailed sig: 0.000)
H ₀ 1d	Table 1.8, 1.9	There is no significant difference between expectation and perception of stakeholders regarding tourism entrepreneurial qualities and business ideas in Kashmir valley.	Alternative hypothesis accepted (2-tailed sig: 0.000)

Discussion

All the stakeholders acknowledged that tourism industry in Valley of Kashmir is attractive for entrepreneurs. Stakeholders recommend that the public sector can provide financial support for tourism development and claim that schemes recognized to provide net benefits have been mislaid to SMEs due to financial constraints. They censure the public sector for mislaid opportunities because of lack of support for SMEs with grants, loan guarantees or other support. Stakeholders also comment that the development of appropriate tourism products and services to suit the needs of the customers' needs training and education. Stakeholders from the private sector reveal that training and education in tourism, becomes the prime responsibility of state government because they play the dominant role in tourism industry. Although

stakeholders describe JKTDC to be responsible for training and education in tourism and hospitality, there is uncertainty and lack of clarity on what this specifically entails. Stakeholders comment that formal training in tourism and hospitality is not mandatory to start a business in the tourism and hospitality sector; however, on-the job training or specialized training has been mentioned as very useful in terms of building necessary knowledge. There are a very less number of such institutions in the Valley of Kashmir providing training and education as well as entrepreneurial and industry-specific services to individuals and organizations in the sector. But these are also available at district headquarters, city headquarter far away from prime tourist regions. Stakeholders suggest Valley of Kashmir where unemployment is high; this sector is perceived to be attractive both in terms of employment opportunities as well as in terms of entrepreneurial opportunities.

Recommendations

The tourism entrepreneurship is the best way to brawl the wickedness of unemployment. The quantity and skill of entrepreneurs influence the economic growth of the country. Finally, the findings of the study conclude with the observation that tourism entrepreneurship is not upto the expectation of different stakeholders and following are some of the suitable suggestions need to encourage and promote entrepreneurial activity.

1. Encourage government industry and business to work together to develop entrepreneurial talent and skills through innovative measures and mentoring programs.
2. The regulatory authority for stakeholders or service providers should be established and assigned the responsibility of providing training for human resource involved in the tourism industry.
3. Colleges and Universities are the ideal places to rear the budding entrepreneurs. The more appropriate would be to introduce vocational courses on entrepreneurship in all colleges of the Valley of Kashmir.
4. The sample confirms that this sector is perceived to be attractive both in terms of employment opportunities as well as in terms of entrepreneurial opportunities. This called for initiation well designed Entrepreneurship Development Programmes on continuous basis throughout the study area.
5. Valley of Kashmir where unemployment is high, especially within the cohort of majority of the respondents, tourism entrepreneurship is especially important with the growing emphasis on the role of small and tiny enterprises in view of their capacities to contribute to the socio-economic development of the of the study area.

Conclusion

The tourism sector in the Valley of Kashmir is attractive for entrepreneurs. The necessitate of the hour is that different tourism stakeholders understand their responsibilities and there should be need for the creation of prospective entrepreneur initiatives for tourism organizations for skill training and at the same time helps in

learning and exploring new ideas. This should be done through institutions providing entrepreneurship support services in the study area, till they ascertain their enterprises so that they feel secured and confidential in their process of business enterprise establishment.

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Impact of Foreign Direct Investment on Indian Economy

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ABSTRACT

FDI play a critical part in financial improvement of a country. A country's technology level and sectorial development depends upon the level of FDI inflows. The purpose of this study is to analyse the trend of FDI equity inflows in different sectors and regional offices. This paper also helps to know the share of top investing countries in FDI equity inflows in India. With a specific end goal to acquire the destinations of this investigation, auxiliary information for the period between 2000-2017 is used. The auxiliary information has been gathered from different diaries, books, RBI Reports etc. The outcomes additionally introduced that India have received greatest FDI inflows from the Mauritius and took after by the Singapore. The point by point exchange about the Foreign Direct Investment is a unique commitment of this paper.

Introduction

FDI play an essential part in monetary improvement of a country. A nation's innovation level and sectorial advancement is relying on the level of FDI inflows. Essentially, outside direct speculation (FDI) is that venture which is finished by an organization of another nation into various business of a nation either by purchasing and taking the controlling of an organization in the nation or by developing activities of a current business in that nation. With the assistance of FDI, the outside direct financial specialists can procure the voting force or right of a venture by making FDI there. Financial specialists contribute there to profit a great deal of advantages, for example, to exploit less expensive wages, benefits in tax collection and some others benefits offered by the host nation

Such speculations can happen for some, reasons, including to exploit less expensive wages, exceptional venture benefits (e.g. impose exclusions) offered by the host nation. Then again, FDI is likewise valuable to the host nation like FDI help in work age and decrease neediness, capital arrangement and increment in the level of standard exchange of new innovation, increment in assess incomes and so on. Mostly, have nations give benefit to FDI speculation into framework, data innovation, examine and improvement and different undertakings to help advancement.

The idea of remote speculation originates from the Foreign Exchange Management Act (FEMA) in 1991 driven by the back clergyman Manmohan Singh. Fundamentally Available on SSRN-Elsevier

FDI is classified into Inward FDI and outward FDI. Internal FDI implies those outside speculations which are put resources into nearby assets and outward FDI alluded to as immediate venture which is contributed abroad. Outside financial specialists will conceded the energy of administration and voting right if the level of possession is more noteworthy than or equivalent to 10% of common shares.

REVIEW OF LITERATURE

Lipsey (2002) discovered the effect of inward FDI on the economic growth of host country. If foreign firms at the expense of lower productivity in domestic firms achieve higher productivity, there might be no implications for aggregate output or growth. Alfro (2003) explored the effect of FDI in the primary, manufacturing, and services sectors. The study concluded that FDI flows into the different sectors of the economy (namely primary, manufacturing, and services) exert different effects on economic growth. FDI inflows into the primary sector tend to have a negative effect on growth, whereas FDI inflows in manufacturing sector have a positive one.

Hillman et.al. (2005) analyzed the impact of regulation of a country on its FDI inflows. In this study author has divided host countries in two parts i.e. developed countries and less developed countries. The finding of the study revealed that regulations played a significant and positive role to mobile FDI. It was also depicted that in less developed countries, FDI was affected by the opinion of MNC's about the governance and regional predisposition towards corrupt practices in less developed countries.

Jiang et.al. (2010) conducted a study to know the impact of FDI on Chinese culture. To give the results, data has been collected from the major Chinese cities and found that FDI has significant effects on the degree of future orientation, performance orientation and group collectivism. It was found that FDI from Japan, Singapore, USA and UK has significantly negative effects on the degree of performance orientation. The study has concluded that FDI from Japan and Singapore has a significantly positive effect on the degree of in-group collectivism.

Renuka, Ganesan and Durgamani (2013) have conducted a research on impact of FDI in Indian economy with reference to retail sector in India. Objectives of the study were to know the reasons to invest in India, analyze the impact of FDI in retail sector in India and to know the trends in different sectors in India. Data has been collected with the help of secondary data. Liberalization of trade policy and less barriers and restrictions to the foreign investment in the retail sector of India, have made the FDI in retail sector easy. It was found that most of the foreign countries liked to invest their amount in service sector, Construction Industry, Telecommunications and Computer software and Hardware, because these sectors earn more profit in compared to others. FDI in retail sector help to bring new technology in India, improve rural infrastructure, reduce wastages of agriculture produces etc.

Ramasamy and Yeung (2010) examined the relation between FDI, wages and productivity in china. Data had been collected from a panel of provinces for the period of 20 years (1988-2007). For analyzing the data, provinces had been divided in coastal and inland provinces. It was found that FDI inflow influenced the wage rates and has a positive effect on productivity.

Andraz and Rodrigues (2009) find out the causes of economic growth in Portugal export or inwards FDI. Three-stage procedure has been used to analyze the possible causal relationships between exports, inward foreign investment and economic growth in Portugal and identify their direction. In the long run there is a relation between FDI and exports but in short run there is bio direction casual relationship between FDI and growth and univariate relation between FDI to export.

Hausmann and Fernandez-Arias (2000) explored the limitation attach with FDI. The study recommended that the foreign companies will bring minimize new technology because of fear of acceptance and also do not want to leakage their technology.

Yuan et.al. (2010) observed the relation between size of government and FDI inflow of host country. To achieve this objective, data has been taken for the period 2002 to 2006 of 81 countries. It was found that there is a positive relationship between size of government and FDI inflows. This effect is much stronger in developing countries. The study suggested that government should increase their consumption, develop infrastructure for providing good environment and favorable legal environment to attract foreign investors.

Read (2007) studied the factors effect on foreign direct investment in small island developing states. The study revealed that middle income group and population size found negative but insignificant relationship with FDI inflows. Openness to trade and location found positive as well as significant relationship with FDI inflows.

RESEARCH METHODOLOGY

For achieving the purpose of the study, data has been collected from the secondary sources over a period of 2000-2017. The data is collected mainly from several websites, annual reports, World Bank reports, research reports, fact sheet on foreign direct investment, press notes of government of India, FDI database etc. Statistical tool percentage is used to analyze the data.

OBJECTIVES

We are presenting the objectives of this study which are here-in-under:

- To know the trend of FDI inflows in India.
- To Study the pattern of FDI inflows in different sectors of India.
- To study the equity inflows in various state of India.
- To study the share of top investing countries in FDI equity inflows.

ANALYSIS AND INTERPRETATION

To achieve the objectives of this study we make an analysis on the basis of collected data. The results on the basis of secondary data are following as under:

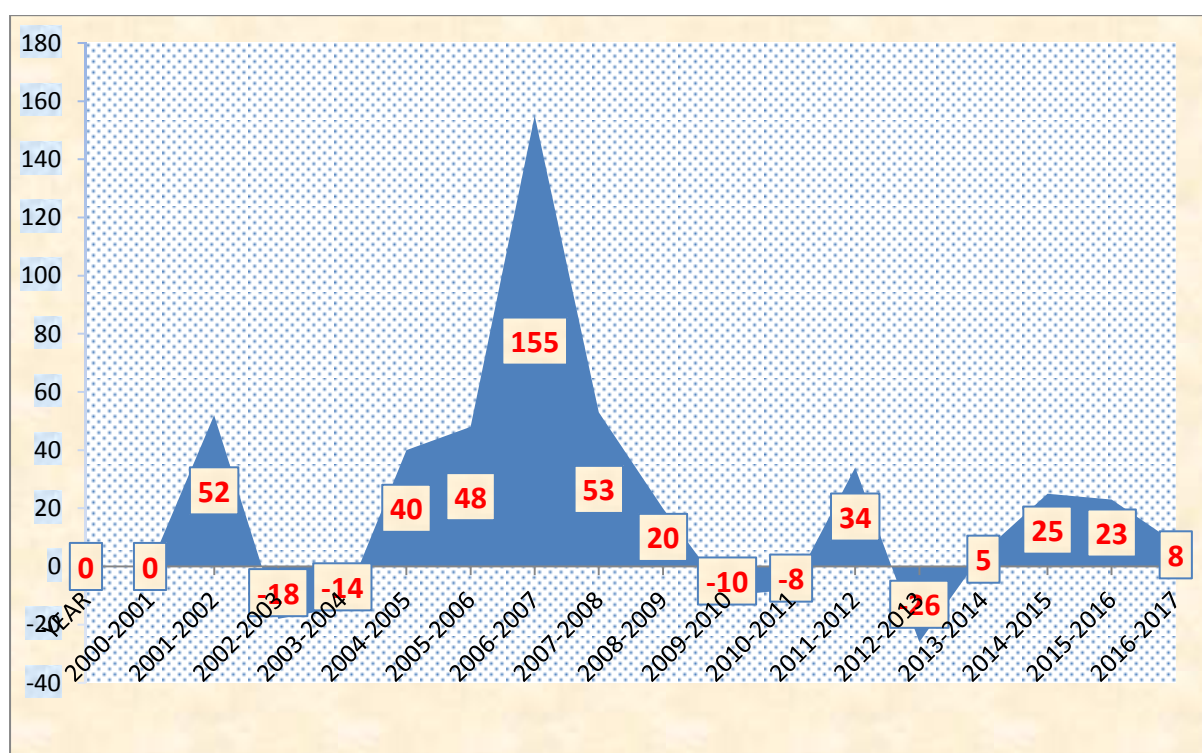
Table 1. *Total FDI Inflows in India from April 2000 to March 2017.*
(Amount US\$ in Millions)

FINANCIAL YEAR APRIL TO MARCH	TOTAL INVESTMENT INFLOWS FROM APRIL 2000 TO MARCH 2017	PERCENTAGE GROWTH IN SALES
2000-2001	4029	
2001-2002	6130	+52
2002-2003	5035	-18

Impact of Foreign Direct Investment on Indian Economy

2003-2004	4322	-14
2004-2005	6051	+40
2005-2006	8961	+48
2006-2007	22826	+155
2007-2008	34843	+53
2008-2009	41873	+20
2009-2010	37745	-10
2010-2011	34847	-08
2011-2012	46556	+34
2012-2013	34298	-26
2013-2014	36046	+5
2014-2015	45148	+25
2015-2016	55559	+23
2016-2017	60082	+8

Source: RBI Report-



INTERPRETATION

Table 1 indicates that the inflows of FDI for the period of april 2000 to march 2017. The results show that there is large fluctuation in the pattern of FDI inflows. In the year of 2001-2002, there is a positive increase in the value of FDI inflows due to various reasons such as heavy demand of Indian consumers, liberalized government policy, communications facilities but after this period the value of FDI is decreased. The value of FDI is increased from the period of 2004 to 2008 but after this value of FDI is decreased due to decline in the money value of rupees.

Table no. 2. Sectors Attracting Highest FDI Equity Inflows

(Amount US\$ in Millions)

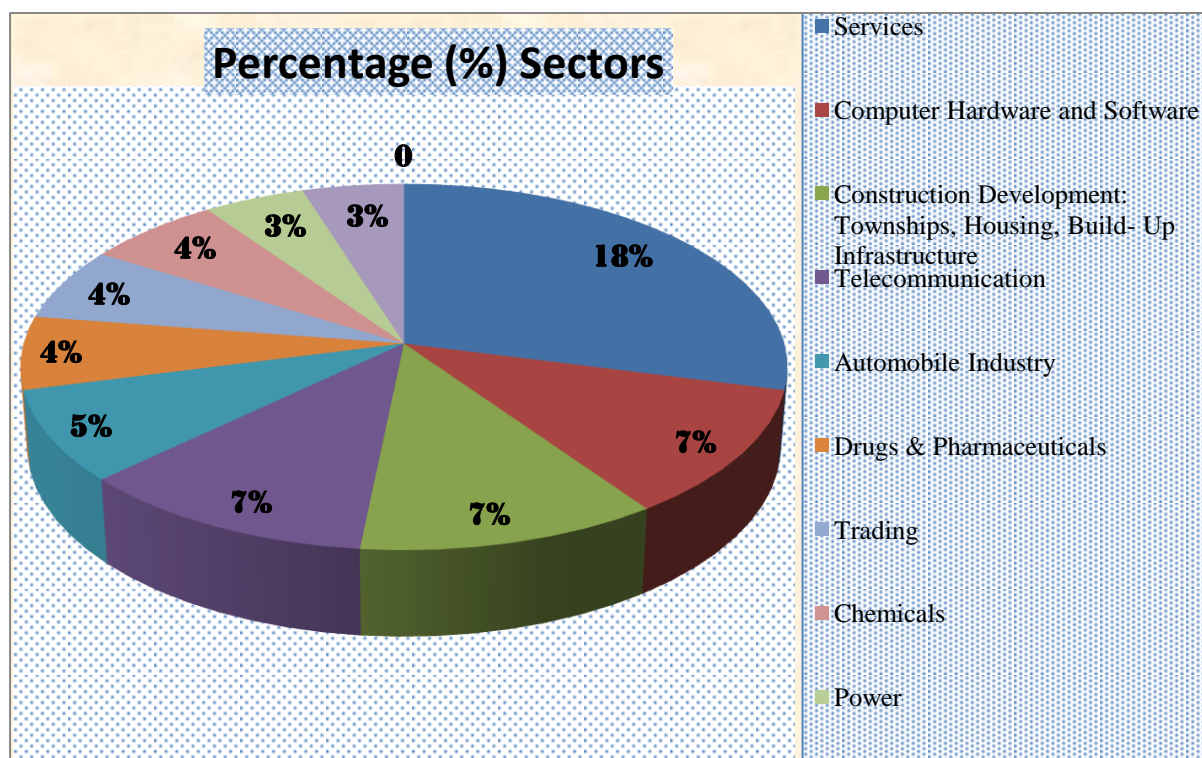
	Sectors	FDI Inflow	Percentage (%)
1	Services	316568	18%
2	Computer Hardware and Software	136789	7%
3	Construction Development: Townships, Housing,	114639	7%

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	Build- Up Infrastructure		
4	Telecommunication	130164	7%
5	Automobile Industry	92218	5%
6	Drugs & Pharmaceuticals	75820	4%
7	Trading	84557	4%
8	Chemicals	68952	4%
9	Power	60087	3%
10	Metallurgical Industries	53074	3%

Source: RBI Report



INTERPRETATION

Foreign Direct Investment Inflows in various Sectors in India

Table 2 shows the trend of FDI equity inflows in various sectors from the period of April 2000 to March 2017 in India. The results revealed that maximum contribution (18%) of FDI inflows in service sector. After this investors' prefer to invest in computer software and hardware (7%) construction industry (7 %), telecommunication (7 %), Automobile Industry(5%) and drugs & pharmaceuticals (4%),Trading (4%),and Chemicals (4%),Power(3%), and Metallurgical Industries(3%), because these sectors are more profitable as compared to others. Services sector includes financial, banking, insurance, non-financial, outsourcing, R&D, courier, tech. testing and analysis.

Table NO. 3. FDI Equity Inflows Received according to State Wise

(Amount Rupees in crores (US\$ in million))

	Amount of	Percentage
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RBI - Regional Offices		FDI Inflow	(%) of total FDI Inflow
1	MAHARASHTRA, DADRA & NAGAR HAVELI, DAMAN & DIU	547733	31%
2	DELHI, PART OF UP AND HARYANA	371794	20%
3	TAMIL NADU, PONDICHERY	133378	7%
4	KARNATAKA	123212	7%
5	GUJARAT	91074	5%
6	ANDHRA PRADESH	74322	4%
7	WEST BENGAL, SIKKIM, ANDAMAN & NICOBAR ISLANDS	21179	1%
8	KERALA, LAKSHADWEEP	9789	1%
9	RAJASTHAN	8237	0.4%
10	MADHYA PRADESH, CHATTISGARH	7129	0.4%
11	CHANDIGARH, PUNJAB, HARYANA, HIMACHAL PRADESH	6576	0.4
12	GOA	4539	0.3
13	UTTAR PRADESH, UTTARANCHAL	3018	0.2
14	ORISSA	2080	0.1
15	BIHAR, JHARKHAND	607	0.03
16	ASSAM, ARUNACHAL PRADESH, MANIPUR, MEGHALAYA, MIZORAM, NAGALAND, TRIPURA	432	0.03
17	JAMMU & KASHMIR	39	00

Source: RBI Report

INTERPRETATION

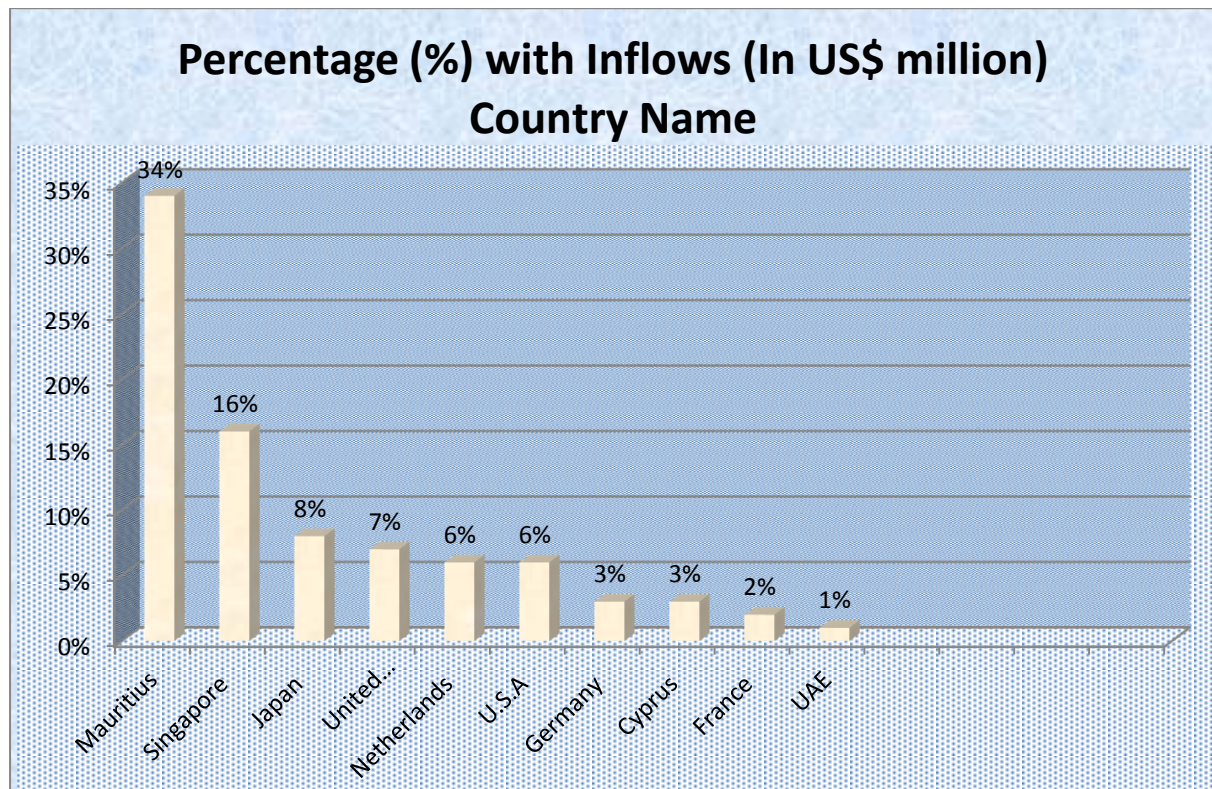
Table 3 depicts the region-wise FDI inflows for the period of April, 2000 to March 2017. The results reveal that Maharashtra, Dadra & Nagarhaveli, Daman & Diu got the highest inflows which are 31% of total FDI. Delhi, Part of up and Haryana got second position by taking 20% of total FDI followed by Tamilnadu and Karnataka by taking 7% of total FDI and so on.

Table NO.4. Share of Top Investing Countries in FDI Equity Inflows in India

(Amount Rupees in Crores)

Country Name		Amount of Foreign Direct Investment Inflows (In US\$ million)	Percentage (%) with Inflows
1	Mauritius	111,637.56	34%
2	Singapore	54,590.41	16%
3	Japan	25,675.42	8%
4	United Kingdom	24,591.12	7%
5	Netherlands	20,681.79	6%
6	U.S.A	20,322.66	6%
7	Germany	9,698.41	3%
8	Cyprus	9,156.40	3%
9	France	5,725.48	2%
10	UAE	4704.59	1%

Source: RBI Report



INTERPRETATION

Table 4 presents the FDI equity inflows from top ten countries like India received maximum FDI from Mauritius, followed by Singapore, U.K, Japan and U.S.A by securing rank first, second, third, fourth and fifth respectively. The main reason for higher levels of investment from Mauritius was that the fact India entered into a double taxation avoidance agreement (DDTA) with Mauritius were protected from taxations in India.

CONCLUSION

The main objective of this study is to analyze the trend of FDI equity inflows in different sectors and regional offices. It is concluded from the results that there are high variation in the inflows of FDI equity. The results also revealed that maximum contribution (18 percent) of FDI inflows in service sector and the Maharashtra, Dadra & Nagarhaveli, Daman & Diu got the highest inflows which are 31% of total FDI. This study will help the government to make vigilant planning to manage and boost the foreign direct investment.

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Exploring Medical Tourism Opportunities in India

(With Special Reference to Delhi/ NCRZ)

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ARTICLE INFO

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Medical, Tourism,
Health Policy

ABSTRACT

Medical Tourism is the fastest growing sector of healthcare throughout the world. We can say during the last decade medical tourism is continuously gaining popularity, patients are more educated than ever and are going online to research information and are travelling to where they can get the best quality care at an affordable price. India, has great number of advantages with regard to medical tourism such as many private and government hospitals, availability of internationally trained medical staff, availability of international airports at all major medical tourism destination and plethora of historical and touristic attractions but despite of all these facilities our medical tourism segment is not fully utilized and it has an insignificant market share and limited available services.

The Government of India has taken various initiatives like National Health Policy in 2002, Creating a department of Ayush for the complementary and alternative medicines and treatments, initiating the marketing development schemes for travel agents to promote medical tourism through proper marketing and also encouraging public – private partnership and medical visa (M-Visa) up to one year, which can be extended further up to one year.

In spite of all these steps taken by Indian government the Indian tourism market is concentrated to only some major cities such as MUMBAI, CHENNAI, KERALA AND BANGLORE. Since the growth potential of medical tourism seems to be promising more destinations are needed to be developed to meet the need of medical tourism markets. Delhi is being capital of India and having number of reputed government and private hospital of world class standard has great potential of becoming medical hub of world. The current study aims to project the strength and challenges of medical tourism scenario in India with Special Reference to Delhi and NCR. I choose this topic for research work with objectives to investigate the new trends in medical field, to find out the potential of Delhi-NCR as medical tourism destination, to investigate factors that are responsible for choosing Delhi as health care destination by tourist. My research work will help in identifying different challenges and opportunities in DELHI-NCR for medical treatment. I am optimistic that the findings of the research work will help in promoting DELHI-NCR as medical hub of not

only India but the world.

Introduction

The term medical tourism can be described as the rapidly growing practices of travelling across international borders for the purpose of medical treatment. Medical tourism is one of the fast-growing multibillion-dollar industry and patient take trips from one country to other country to get cost effective health care and treatment. Recognizing the potential of medical tourism and its economic benefits more than 130 countries promoting medical tourism to attract a greater number of medical tourists. Some of the popular medical tourism destination of the world are India, Brunei, Cuba, Columbia, Hong Kong, Hungary, Jordon, Malaysia, Singapore, South Africa, Thailand and USA etc.

Historical Background

Travel for the purpose of health started with the history. In the past, people visited spas and health centres for getting medical treatment. Neolithic and Bronze age people travelled to neighbouring countries for the health treatment purpose. Sumerians, Greeks, Romans, Japanese, Chinese and Indian cultures have also shown evidence of people travelled to Spas and Mineral spring for medical treatment. Health complexes along with mineral springs were built by Sumerians in 4000 BC. Bronze Age tools and Votive cups were evidences of medical travel during Sumerian age. During Greek age temple healing was passable. The emergence of medical tourism can be traced with the Greek trend of travelling to healing temples.

Medical tourism becoming popular phenomena among tourists seeking health treatment from outside of their country along with having opportunity to see touristic attraction of that country. Medical tourism as economic tool can play vital role in destination's economy. Therefore, investing in the medical industry is a way to increase the gross domestic product (GDP), upgrade services, generate foreign exchange and create a more favourable balance of trade situation, and boost tourism (Ramirez de Arellano 2007).

Although medical tourism is an important and expanding segment of global tourism market, only a few academic studies have focused on this sector. There is need of more research work in this field. Medical tourism destinations are facing complex and number of challenges in developing countries. As there is limited literature and empirical evidence on this topic, this study attempts to better understand not only challenges faced by medical tourism stakeholders but also impact of medical tourism in developing Delhi as a major and competitive health tourism market on the world map.

Based on the foregoing description, the following research questions will be addressed in this study.

Research Question 1: what are the new trends in medical tourism?

Research question 2: What are the challenges of medical tourism in DELHI-NCR?

Research question 3: Are there potentialities in DELHI-NCR of becoming medical hub destination of the world?

Research Question 4: Is government taking proper steps to support and promote medical tourism.

Geographical Area of the Study

The geographical area of study revolves around the National Territory of Delhi (NCT), is a city and a union territory of India. Delhi is bordered by Haryana on three sides and by Uttar Pradesh to the east. Medical industry has experienced remarkable growth of 12% per year during the last five years. Though, Chennai is known as health capital of India, Delhi is among top 5 popular destination of India. Delhi and NCR have plethora of world class hospitals. These hospitals are of world class standard and providing hi-tech specialized treatments, highest qualified teams of doctors and other medical staffs to at affordable cost. The present paper is an attempt to make in-depth study of the medical tourism market challenges and opportunities in Delhi and NCR and analysis of these factors that influenced the patients to select Delhi as a destination for medical treatment.

Objective of the Study

The present study is based on the medical tourism trends in India with Special Reference to DELHI-NCR. To draft the same, this research work focuses on the following objectives

- To investigate the new trends in medical tourism.
- To identify the main challenges of medical tourism in DELHI-NCR faced by stake holders.
- To identify the potential of DELHI-NCR of becoming major medical hub of the world.
- To investigate factors that influence tourists to choose DELHI-NCR as health care destination.

Literature Review

Preliminary review of literature

The literature review section will be divided on three sections:

- Historical aspects of medical tourism – inspection and evaluation
- The present scenario - Medical tourism in India.
- Major concerns of Indian medical tourism industry.

For this study, the main focus of the literature review is to find out the research outcome of the previous studies. The main objective here is to find out the central issues. As we know medical tourism is new and emerging area of study, central issues will become clear when the literature is reviewed in a chronological manner. So in this research work literature will be organized in chronological manner. Since medical tourism is new and emerging phenomena, the text books are not in large number, only a few text books are available, these books are referred to gather the information. Now a days most commonly used sources for literature searches are computers and electronic databases. The advantages of electronic database are we can quickly access to vast quantities of information in compare to manual search. The main database searched for gathering published materials are Emerald, Pubmed and Google, Oxford Journals, CHRIE, EUROMONITOR etc. Apart from data bases, important tourism journals and periodicals are also searched for published materials. Key word searches are medical tourism, health and tourism, medical tourism in Delhi. Sources used for surveillance was books, journals, periodical articles, analytical papers etc. There are very few article available on medical tourism, the year 2007 witnessed an increase in interest from the authors on medical tourism. The first article on medical tourism by Goodrich and Goodrich in 1987 entitled Health-Care Tourism: An Exploratory Study was published in Tourism Management. The recent trends shows in 2010, there is an increase in the number of publications on medical tourism that indicates that this field is attracting many researchers. Hence this study is based on reviewed literature chronologically and the main advantage of chronological presentation is that it is easy and useful to examine the emergence of a topic over a time.

Research Methodology

This research will be primarily based on secondary data collection

Secondary Data – Secondary data will be collected through the following sources

Written materials–Magazines and journals, books, publications, various websites, websites of homepages of key players, government publications etc.

Non-Written material – Media, Television etc.

Expected Outcome

My research work is based upon the study of medical industry and it does not depend upon case study of any particular hospital. Secondly, my aim to give guidelines and recommendation for broader aspects for improving and promoting DELHI-NCR as a prime medical tourism destination. Therefore, my aim is to collect data and analyse them in such a manner where generalizability can be achieved. The expected outcome of my research work will be:

- I shall be able to find out new trends in medical tourism.
- Main challenges faced by medical tourists will be identified and addressed.
- Potential of DELHI-NCR as medical destination will be identified.

- After this research work, I shall be able to find out the factors that influence tourist to choose DELHI-NCR as medical destination.

New trends in medical tourism

- *Growing contribution from private sector*
With the involvement of private sector and PPP (public private partnership) health cities are developing around the world such as Delhi, Chennai, Bangkok, Sao Paulo etc. These hospitals are providing world class facilities under one roof and attracting patients from western countries.
- *Growing number of participant countries*
Medical tourism industry is one of the fastest growing industry, foreign exchange earnings through medical tourism is increasing day by day. Hence more and more countries in Asia are investing in medical tourism. Current trends in medical tourism showing that countries such as Egypt and South Africa are also focusing on international medical tourism. Apart from these countries Costa Rica, Brazil, Chile and Ecuador are becoming popular location for international medical tourists as they are serving more affordable treatment.
- *Demographic shift in developed countries*
As we know healthcare cost in western countries are higher than developing countries and this is leaving people with no option rather than to go to developing countries like India, Thailand, Singapore or Costa Rica to seek treatment. Most medical tourists come from countries like Australia, New Zealand, Canada, the US or the UK. Countries adopting more diversified medical practices are generating excellent revenue. Travelers also save approximately half of their money even after travelling halfway around the world as medical treatment is that much more reasonably priced around rest of the world than it is in the western world.
- *Baby boomer trend*
The latest development in medical tourism is increasing movement of baby boomers. Baby boomers make up about 20% of the population but account for 80% spend in the travel industry. We can say this generation are on move. Baby boomers are the generation born after World War II and more specifically we can say between 1946 to 1964. That means they are in their mid-50 to 70.

Main Challenges Faced by Medical Tourists in Delhi/NCR

There are many challenges faced by medical tourists in Delhi/Ncr, some of the major challenges are lack of public transportation facilities for patients, power supply issues and lack of pure drinking water supply at public places, other challenge is long waiting list of patients and unavailability of proper guidelines. On the other hand, we can say that there is poor hygiene awareness among medical attendants, heterogeneity in pricing of different services. Medical visa policy should be more liberal and there should

be better language translator facility at every hospital so that communication gap can be eradicated.

Delhi as a medical tourism destination:

Major Hospital of Delhi/Ncr

NEW DELHI	GURUGRAM
All India institute of medical science	Artemis
Appolo hospital	Fortis healthcare
Fortis healthcare	Max healthcare
Max hospital	Medanta-medicity
Sir gangaram hospital	Paras hospital

Factors that influencing tourists to choose Delhi/NCR for medical treatment:

- Economical in cost: low cost of treatment when compared to western countries like US, UK.
- Qualified doctors: India has strong base of qualified and skilled doctors and top ranked doctors are placed in AIIMS(Delhi).
- Availability of international standard hospital: Delhi has hospitals which provides world class and standardized services with the help of latest technology.
- Availability of all kinds of medical treatment.
- Delhi is well connected with Rajasthan, Uttar Pradesh, Himachal Pradesh, so it provides medical tourists an opportunity to visit these places on medical tourist trip.
- Online appointment and follow up facilities.
- Favourable exchange rates and cheaper international air travel.

Conclusion

Medical value travel (MVT) has been identified as a major source of foreign exchange earnings by Niti Aayog. By 2020, India's medical tourism industry could be worth \$9 billion, and will account for 20% of the global market share. So, we can say medical tourism in India & Delhi is rapidly increasing. Various kinds of medical packages are available for the inbound tourists easily and affordably. However, there is still scope of improvement as south Asian countries are giving us tough competition, challenges faced by patients need to be addressed. Indian government has acknowledged the importance of medical tourism and trying to tap this segment of tourism market and various initiative has been taken by government of India, though a lot is still to be done. There is need of incorporating patient's feedback through patient satisfaction surveys in the quality improvement on continuous basis to meet the satisfaction level of tourists.

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An Empirical Study on Digital Transformation and Its impact on Employee Engagement

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Human Resource
Management,
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Operation efficiency,
Business Modeling etc.

ABSTRACT

Most of the organizations in the present complex business era have realized the dynamic nature of business and looking how information technologies are bringing digital transformation. To meet the challenges of digital transformation, organization needs highly motivated and engaged human resource at all the level of business operations. In the present exploratory study, an attempt is made to analyze the digital transformation and its impact on employee's engagement.

Data was collected from a survey of 186 employees from various IT organization located in NCR region. Researcher has chosen exploratory as well as descriptive research design. Several statistical tests like Mean, Standard Deviation, and regression analysis was carried out to assess the information trend and analyzing the impact of digital transformation on employee's engagement.

It was found that digital technologies are more in use of front office management as compared to supply chain as well as managing business operations. The finding also confirms that different aspects of digital transformation are the good predictor of employee's engagement.

The research provides valuable insights for managers to understand the relationship between digital transformation and employee's engagement and how much these components affect in strengthening employee's engagement. Some of the suggestions and recommendation are made to examine the generalizability of finding in other organization in broader applications.

Introduction

Human Resource Management has witnessed a phenomenal growth and become vital for the success of the organization in the fast-changing business world. The application of information technology into business field has opened many opportunities to the employees. At the same time it has increased the business complexity to a great extent. Information technology and its extensive application at several levels in the organization

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has brought many digital changes and helping management for achieving digital transformation. To achieve the goal of digital transformation, the human element is key factor in all the stage of transformation like collaboration, ecosystems, skills, culture, empowerment etc. in spite of extensive digital application, all the need of organization cannot be materialized digitally and hence human values cannot be overlooked. The combination of technology with human resource plays a strong role in empowering customer and giving them better services. As the technology will move further, organization will be more digitally transformed and require more engaged employee for achieving long term organizational goal. The journey of digital transformation needs a step wise approach with a comprehensive roadmap, involving all stakeholders, without internal as well as external limitations. Basically, digital transformation is the application of digital technologies for making the process more efficient and effective. The idea behind the digital transformation is to use technology with the intention of not only replicating the existing service in a digital form, but to transform that service in to better form and greater scope.

Digital Transformation

Digital transformation is the reflective process of transformation of business as well as organizational activities, different business processes, business competencies and innovative model for gaining leverage and helping in bringing change and gaining opportunities of digital technologies and their accelerating impact across society and stakeholders. In studying the scope of digital transformation, we generally look at the business dimension with new competencies that revolves around developing the organizational capacities that must be more agile, people-oriented, and innovative. It should be customer-centric, be efficient and should be able to gain opportunities. The high degree of commoditization of market pushes the management to opt for digital transformation to meet the present and future shifts and changes. In practice, digital transformation are initiated to gain end-to-end customer experience, optimization of service activities, gaining operational flexibility and managing innovation and launching innovative business model. At the same time digital transformation helps in developing new revenue source, more information powered ecosystems of greater value. In bringing the digital transformation, there are some challenges like level of legacy system and disconnect in the process. This needs to be resolved for gaining better outcome. Principally, digital transformation is a journey with multiple connected intermediary goals like that need to be bridged before its implementation.

Although technological revolution has brought phenomenal change in the organization process and system. It is brought significant change in employee behavior and improved employees skill and competencies. However full utilities can be encased, if the employees are motivated and engaged in the adaption of new system and process. And it is in this context, the study of employee engagement become more important. Generally engagement is more or less the simple job satisfaction with high retention rates. Loehr & Schwartz explain about the employee engagement and states that a fully engaged worker

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is one who is having strong physical energies and one who is emotionally connected to organization having full concentration toward his profession. A fully engaged employee is one who is aligned to the organizational goals and objectives. (Loehr & Schwartz, 2003). Most of the researcher and authors are of the opinion that an engaged employees have the strong bonding with the organization. (Buhler, 2006).

Review of Related Literature

Large number of studies has been carried to explore how information adaption and digital technologies bring several changes and several studies have been carried out to show how adaption of information and digital technologies bring various transformations into business world (Siemens 2014, Resnick 2002, Hanna 2016). Adaption of emerging technologies like social media, mobile technologies, internet of things, cloud technologies, big data analytics, etc. have brought phenomenal change and brought transformation in the way business operates in the market, helping in creating value and bringing new experiences to all stakeholders. (Resnick 2002, Fitzgerald et.al. 2013 Aral et.al. 2013, Oestreicher-Singer & Zalmanson 2013, Hanna 2016). A study by HBR Analytics (2014) indicated that among most of the organization, almost of half of the business and technology leaders (50%) are of the opinion that their organizations are losing new business opportunities in the absence of technology driven business transformation

In the current climate of digital transformation, the issue of employee engagement towards organization has become important. Several research finding indicates that digital transformation has promoted transactional relationship of the employees with organization and this transactional nature of the relationship between the company and the employee has metamorphosed into being more fulfilling and goal-oriented. (David Raj, 2018)

The present business has become very complex and most of the employers continue to focus on improving employee engagement, new platforms are developed to help and give support to employees. Technological advancement and their extensive use in business modeling are suggested by any researcher and authors. However human interaction will never be fully replaced by technology, the way in which companies listen and respond to their employees has been transformed and bringing better result them before (Michelle Kiss 2018)

Sharlyn Lauby (2018) worked on digital transformation and explored about employee engagement through digital transformation. She is of the opinion that advancement of digital age, introduction of artificial intelligence, business automation and application of Internet of things into business is redefining the workplace. It is helping the work who are placed in. author cautions that in virtual environment, Jobs are disappearing, employees traditional attitudes are shifting, times are changing very fast and pressure are mounting and hence future generation employees should transform themselves to meet the challenges of technology enabled business. As the digital transformation of the

organization is taking place, it is necessary to have an engaged work force due to its several advantages (Buhler, 2006).

Need for the Study

Growing technology and its extensive use in business operation has forced management to look towards highly motivated and engaged employees so that operational efficiency can be achieved. Most of the research literature focus on advantages and disadvantages of digital transformation but very little is research literature were available indicating relationship between digital transformation and employee engagement. Digital transformation of organization calls management to get prepares its employees and keeps them motivated. With this into consideration, effort must be directed to explore how digital transformation affects employee's engagement.

Objectives of the Study

The purpose of this study was to examine how digital transformation influence employee's engagement. Present study is taken up with the following objectives:

- To study about the digitalization of the various business functions as revealed by the employees associated with the organized retail stores located in NCR region.
- To assess the impact of digital transformation on employee's engagement towards organization.

Hypothesis

Ho: the digital transformation has no significant impact on employee engagement.

H1: the digital transformation has significant impact on employee engagement.

Methodology

In the present research work, researcher has chosen exploratory as well as descriptive research design. Both the primary as well as secondary data were used to achieve the research objectives. Primary data was collected by using survey method. A well-structured questionnaire covering various dimension of digital transformation and employees engagement on the basis of review of the literature and research by the different authors and employees were asked to rate on the scale of 1 to 5. 1 was strongly disagree and 5 was considered as strongly agree. The researcher has collected data personally by visiting several organizations in NCR region. Initially 250 questionnaires were circulated to the employees working in the different various small and medium size

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organized retail store located at NCR region. Almost 195 responses were received after editing 186 questionnaires were found suitable and considered for the proposed study. Pilot test was carried out on a sample of 25 respondents and Reliability statistics was carried out using SPSS. Value of reliability (alpha) statistics was found to be .671. The value about .6 indicates that data is reliable one. Some suggestions as received during pilot study were incorporated into questionnaire and then full scale survey was carried out. Further reliability check (.671) indicates that data is reliable one. Several statistical tests like Mean, Standard Deviation, and regression analysis was carried out to assess the information trend and analyzing the impact of digital transformation on employee's engagement. First outcome of the study is demographic profile of the respondents which is presented in the table 1.

Table 1 Demographic characteristic of Respondents			
	<i>Categories</i>	<i>Count</i>	<i>Percentage</i>
		157	100
	Below 25 Years of age	35	18.8
	25-35 Years of age	70	37.6
Age	35-45 Years of age	50	26.9
	45 to 55 Years of age	21	11.3
	55 to 65 Years of age	10	5.4
Gender	Male	119	64
	Female	67	36
Marital Status	Married	117	62.9
	Unmarried	69	37.1
	Upto Matric	13	7
Education	Under graduate	9	4.8
Level	Graduate	22	11.8
	Post Graduate	54	29
	Professional Qualification	88	47.3

For any social research, it is necessary to collect demographic profile of the employees as these are the indicator for measuring their adaption of digital transformation as well as their level of engagement in different demographic segment. The demographic profile as

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presented in the above table reveals that sample is dominated by middle aged respondents as almost 64% employees fall in the age ranging from 25-45 years. For a research related to digital transformation and its impact on employee's engagement, it is important to know the gender categories of respondents as gender of the respondents influence digital transformation and employee's engagement. Data presented in the table 1 indicates that sample is dominated by male categories respondents (64%). 62.9% respondents in the sample are married categories respondents. It is found in the survey that sample is the combination of highly educated respondents as more than three fourth (87%) respondents are graduate, post graduate or having professional degree to their credit.

Table 2 Extent of Digitalization at Various Level of Business Operation: Descriptive Statistics					
	N	Minimu m	Maximu m	Mean	Std. Deviation
Front office	186	1	5	3.8495	0.96922
Production process	186	2	5	3.5645	1.00734
Supply chain	186	1	5	3.0215	1.20341
Entire HR Finance and Material Division	186	1	5	3.2957	0.77368
Entire Business Operation	186	2	5	3.1935	0.78166
Valid N (list wise)	186				

The organization intending to achieve excellence in their business operation will have to focus on getting its information technology (IT) set up aligned to its business goals. This need digitalization of all business operation starting from front office to entire business operation. The mean rating of digitalization as presented in the table 2 indicates that in most of the organization front office is highly digitalized as employees rated highest to this (m=3.8495, SD=.96922) production process has got mean of 3.5645 and Standard deviation(SD) of 1.00734. Supply chain was rated low as it is got rating about mean of 3.02 and SD of 1.20341. This indicates that most of the front's offices are digitalized but supply chain division are less digitalized.

Table 3 Digital transformation and employees Engagement: A Descriptive Statistics				
	N	Reliability	Mean	Std. Deviation
Customer Experience		0.737	3.4288	0.85145
Information and communication technologies like analytics as well as social media are used to understand our customer in a better way.	186		3.3763	1.14763
Digital channel like online, social media are used to understand market movement as	186		3.6452	1.23591

well as marketing of products.				
Organization uses digital channels to sell their products & services	186		3.1452	1.06309
Digital channel are extensively used to extend better customer service	186		3.5484	1.10053
Operational Efficiency		0.71	3.5941	0.85969
Digital technology is extensively used for having customer interface with operational processes	186		3.7581	1.11528
All our core process are digitally automized	186		3.6129	1.06067
Extensive digital technologies are applied in our organization for integration of customer information with production and operation.	186		3.457	1.15818
My organization use analytics for taking better operational decisions	186		3.3871	1.06575
Business Modeling		0.627	3.0941	0.98118
For improving performance and value of our product, company use digital technologies extensively.	186		3.1774	1.10318
we focus on digital technologies for launching new business models	186		3.0108	1.19453
Employee Engagement		0.671	3.77453	0.36767
Digital transformation has help us in bringing Transparency and openness	186		3.4409	0.75641
Digital transformation has help us in aligning myself with the company's' vision and values	186		3.629	0.74762
Digital transformation has helped in Creating a supportive work environment through effective leadership	186		3.5484	0.58847
Digital transformation has help in bringing organizational justice and getting Reward for deserving employees	186		3.9731	0.76003
Digital transformation has help us in Empowering and working from distance	186		4.4355	0.58691
Employees have become highly involved in routine decision making at my organization after Digital transformation	186		4.4409	0.76352
Digital transformation has help in strategic decision making in my job	186		3.3871	0.85148
Digital transformation has help us in working in a group	186		3.6935	0.73349
My performance output is always high even when I work independently after	186		3.8656	0.75566

digitalization				
I feel embracing when r my performance falls below standard	186		3.7097	1.2088
I feel motivated when I get training opportunities	186		4.5591	0.56878
I can share my opinion feely at all level in the organization.	186		3.6452	1.23591
I feel motivated and work harder by involving in team work	186		3.1452	1.06309
I am highly motivated and always put extra effort toward meeting organizational goal.	186		3.5484	1.10053
All my colleagues are fully committed for better work	186		3.7581	1.11528
I do not distract from my work	186		3.6129	1.06067
Valid N (list wise)	186			

Today, almost all organizations, either reactively or proactively, have become serious on their productivity. Most of the organized service organizations are emphasizing on providing its services to customer round the clock. Application of digital technology into monitoring customer experience, managing operational excellence and launching new business model keeps the employees happy, motivated and engaged with the organization. For measuring the factors of customer experience, the variable under different construct related to customer experience were identified on the basis of review of previous literature. Further respondents were asked to rate all the variable under investigation on a likert scale ranging from one to five. Here one(1) indicates strongly disagree and 5 denotes strongly agree. Descriptive statistics was carried out to analyze the comparative importance of the construct related to customer experience. The most recognized types of descriptive statistics are the mean and standard Deviation that are generally used at almost all levels of mathematics and statistics applicable in sociology or psychology. The results presented in Table 3, provide further insight about the dimension of customer experience, operational efficiency, business modeling, and employees engagement. Looking at the descriptive statistics, it is evident that digital technology has bought higher transformation in operations as compared to business modeling and customer experience. Further, for assessing the impact of digital transformation on employee's engagement, researcher has used regression analysis.

Data Analysis

Regression analysis has been carried out to check the hypothesis whether there is any relationship between digital transformation and employee engagement assuming null hypothesis as there is no significant relationship between digital transformation and employee engagement. Basically, regression analysis is a statistical process for estimating the relationships between independent as well as dependent variables. The

first outcome of the regression analysis as presented in the table 4 indicates that value of value of R, R square, Adjusted R square and Std. Error of the Estimate.

Table 4. Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760 ^a	0.578	0.571	0.24083
a. Predictors: (Constant), Business modeling, customer experience, Operational Efficiency				

Inference: The information presented in the above table 4 reveals the calculated value of model summary. From the table 4 we see the value of R which indicates the correlation among the observed value and predicted value. This should be between -1 to +1. Small values of R projects that the model does not fit the data well. In this case, R = 0.760. We find that the adjusted R² of our model is 0.571 with the R² = .578. This indicates the overall measure of the strength of association. In this case it can be inferred that model (regression analysis) explains 61.9% of the variance in the data.

Next outcome of predicted model (regression analysis) is the Analysis of Variance (ANOVA) table which tries to explain model fit i.e. it denotes how well the regression fit the data under investigation.

Table 5 ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.453	3	4.818	83.065	.000 ^b
	Residual	10.556	182	0.058		
	Total	25.009	185			
a. Dependent Variable: Employee Engagement						
b. Predictors: (Constant), Business modeling, customer experience, Operational Efficiency						

Inference: the information presented in the table 5 shows value of F test. It is called e F-test statistic which is generally known as e regression mean square (RMS) divided by the residual mean square. The information presented in the above table 5 indicates that values of F = 83.065 at 5percent of level of significance and 182 degrees of freedom (DF). On the basis of this data, it can be concluded that the test is highly significant, we can say that there is a linear relationship among the variable in our model.

Next table is the Coefficients for regression between various components of digital transformation and its impact on employee engagement

Table 6. Coefficients^a
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Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.495	0.083		29.939	0
	customer experience	0.147	0.027	0.34	5.419	0
	Operational Efficiency	0.191	0.03	0.447	6.325	0
	Business modeling	0.029	0.022	0.077	1.286	0.2
a. Dependent Variable: Employee Engagement						

Inference: The regression equation can be written as:

Employee Engagement = .2.495+ (.0.147*Customer experience+0.191*operational efficiency +.029*business modeling)

On the basis of regression analysis, null hypothesis is rejected and it is concluded that there is significant relationship between digital transformation and employee engagement.

Discussion & Conclusion

The present research and literature demonstrate how digital transformation influence employee engagement. In this study researcher has tried to examine the employee's perception toward digital transformation and how it influence their level of engagement towards organization. The study indicates the high level of employee's engagement with mean 3.7745 and SD .36767. on the basis of information available in the study, one can consider the possibility that employee may be more engaged in an digitalized environment as compared to manual working environment. Result indicates that most of the front offices are digitalized but supply chain division are less digitalized. Study provides further insight about the dimension of work life customer experience, operational efficiency, business modeling, and employee's engagement. Looking at the descriptive statistics, it is evident that digital technology has bought higher transformation in operations as compared to business modeling and customer experience. Further regression equation conforms that out of digital transformation related to customer experience, operational efficiency and business modeling, digital transformation for improving operational efficiency has significant effect on employee's engagement towards organization.

Limitations and Future Implication

In the present study, researcher and analyzed employee's engagement through digital transformation in a very limited scope with large number of limitations. With the growing technological complexity, the concept of employee's engagement has emerged as the vital component for the long-term success and survival of the organization. The

technological implication is bound to be extensively used in future. Hence, in the interest of organization as well as employees, digital transformation and its influence on employee's engagement are required to be it needs to be strictly examined in the social context. It is forming the interest of organization to achieve digital transformation with minimum resistance from employees as an engaged employee contribute a lot in gaining positive outcomes. All the strategies and policies related to digital transformation should be focused on gaining long term objectives related to employee's engagement towards organization and society at large.

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Relationship between Economic Factors and Economic Growth

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ABSTRACT

The aim of this study was to examine the effect of some of the key macroeconomic variables on Economic growth of India. Money Supply, Inflation and Exchange rate was taken as the independent variables whereas GDP was taken as the measure of economic growth. Simple & Multiple Regression test was applied to check the relationship between the independent and dependent variables over the period 2007-08 to 2017-18. The results from multiple regression test revealed that Money Supply possessed a positive impact on economic growth and Exchange rate had negative effect on GDP but Inflation had insignificant negative relationship with GDP.

Introduction

Growth with stability is essential condition for attaining sustainable economic development. Achieving sustainable rapid economic growth is the objective of most countries. It has been a problem to achieve such objective due to many factors that affects economic growth. Economic growth of any country is affected by so many macroeconomic factors such as inflation, Money supply, Exchange rate, Index of industrial production, Foreign Direct Investment, Interest rate etc. GDP is the main indicator of the economic growth in India. In this study our main focus is to investigate the impact of macroeconomic variable on the GDP of India. There are various macroeconomic variables which affect the GDP but we only took Inflation, Exchange Rates & Money supply as the independent variables and GDP as the dependent variable.

Money Supply- The total stock of currency and other liquid instruments of a particular period of time in a country's economy is known as Money Supply. The balances which incurred in checking & savings account are included in it. The components of money supply are M1, M2, M3 & M4 these components are according to the dimension and kind of account in which instrument is held. In this study M3 was considered.

Inflation- Constant increase in the common stage of prices for goods and services is known as Inflation. For measuring the inflation, weighted average of prices of goods and services are considered. The Wholesale price index is the measure of Inflation. The relationship between inflation rate and economic growth remains an issue of research because literature suggested that there are three possible results of study that are none, positive or negative relationship.

Exchange Rates- The value of nation's exchange in terms of other nation's exchange. It includes two components, the domestic currency & the foreign currency. It can also be estimated directly or indirectly. In direct estimation, the price of

foreign currency is conveyed in terms of domestic exchange & In indirect estimation, the price of domestic exchange is conveyed in foreign exchange.

GDP- It is the monetary value of all finished goods & services produced in a country within a particular period of time. It is the most commonly used measure of economic growth of any country. The calculation of GDP likely used to determine the economic performance or growth of a whole country or region, yet it can also weigh the comparative contribution of an industry sector. It includes all private and public consumption, government outlays & investments.

Literature Review

Syed (2013) studied the Effects of Macroeconomic Variables on Gross Domestic Product (GDP) in Pakistan” analyzed that there are three major factors which affects the GDP of Pakistan. The first factor is associated with industrial and business activities in country while second factor is only lead by agricultural & livestock sector and third one is related with fishing & mining sector.

Agalega & Antwi (2013) found the Impact of Inflation rate and Interest rates on GDP of Ghana. The results indicated that there was a positive relationship between GDP & Inflation rate it indicates that if inflation rate goes high GDP also goes high and vice versa. In the case of Interest rate there is negative relationship between Interest rate and GDP of Ghana.

Sireesha (2013) examined the Effect of Selected Macro Economic Variables on Stock Returns in India and found that there is an inverse relationship of Inflation, IIP & Money Supply with returns from stocks, gold & silver. There is a direct relationship of GDP with stock return and an inverse relation with gold and silver returns.

Salian, Gopakumar (2011) investigated the relationship of Inflation and Economic Growth of India and found the negative relationship between these variables. The study also revealed the negative relationship between Inflation and GDP in Long run. Low or moderate inflation rate leads to High Economic Growth in long run whereas High Inflation rate affects economic growth negatively.

Checherita et al (2010) studied the Impact of High and Growing Government Debt on Economic Growth- An Empirical Investigation on The Euro Area and found evidence for a non-linear impact on GDP per capita growth rate across twelve euro countries over a long period of time.

Mbulawa, (2015) studied the effect of Macroeconomic Variables on Economic Growth in Botswana and found that FDI & Inflation rate had a positive and significant effect while gross fixed capital formation had also a positive but insignificant effect on economic growth of country.

Antwi et al, (2013) investigated the Impact of macroeconomic factors on economic growth in Ghana: A cointegration analysis shows a long run economic growth of Ghana is largely explained by physical capital, foreign direct investment foreign-aid, inflation & government expenditure. It is also shows that a short term changes in labour force do not effect on the economic growth.

Ristanovic Vladimir (2010) found the negative relationship between fundamental economic variables and GDP. Budget Consumption, Private expenditures, Export and Imports are considered as the basic macroeconomic variables which affects the economic growth of any country.

Objectives of the Study

- To analyze the cause and effect relationship between Inflation and GDP
- To analyse the cause and effect relationship between exchange rate & GDP
- To analyse the cause and effect relationship between Money Supply & GDP
- To analyse the effect of Inflation, Exchange rate and Money Supply on GDP

Research Methodology

The study was causal in nature since the secondary data was used for the study purpose. In the study GDP is the indicator of economic growth which is taken as independent variable and Inflation, exchange rate and money supply are the independent variables. The data has been taken in the quarterly frequency and the period of study has been considered from 2007-08 to 2017-18 financial years. Non-probability sampling technique was used to select the sample. The data used in this study was fetched from the official website of RBI.

Tools for Data Analysis

Simple & Multiple Regression test using PASW 18 was applied to find out the relation between macro-economic variables and Economic Growth. Kolmogorov–Smirnov test was used to check the normality of the residuals.

Results & Discussion

Simple Regression								
Independent Variables	R	R square	Adjusted R square	F stats.	Sign.	Beta	t	Sign.
Inflation	0.96	0.926	0.924	477.8	0	0.96	21.86	0
Exchange rate	0.71	0.499	0.486	37.918	0	0.71	6.158	0
M3	0.97	0.946	0.945	667.2	0	0.97	25.83	0
Dependent Variable: GDP								

Simple linear regression test was applied and results of model summary include the R, R-squared and adjusted R-squared for the model. R is the correlation coefficients. It can be clearly seen from R-square value which is a measure of how much of the variation in the dependent variable is accounted for by the independent variable, that inflation R² in the model .926 explains 92.6% of variance in GDP, exchange rate and M3 is also influence to GDP by 49.9% and 94.6% respectively. F-statistics values in all cases are significant at 5% level of significance i.e. 0.000. It indicates the model is good fit for the study. And the beta value of Inflation, exchange rate and Money supply tested through t-test is also positively significant at 5% level of significance it indicated that each variable affects the GDP in a positive manner. If one variable will increase GDP also will increase. Hence, null hypothesis is not accepted that there is no significant relation between each economic variable with GDP.

Ho: There is no relationship between Inflation, EXR, M3 and GDP

Multiple Regression					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson

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dimensiono	1	.982 ^a	0.965	0.962	468.89646	1.745

Multiple regression test was applied to check the impact of inflation, exchange rate and money supply on GDP. In model summary table, R value is .982 which indicates the very high degree of relationship between the independent and dependent variable. The Value of adjusted R² (96.2%) shows the percentage explained variation in dependent variable caused by the independent variable. Durbin Watson value is 1.745 near to 2 also shows no auto correlation between the variables.

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.18E+08	3	7.25E+07	329.746	.000 ^a
	Residual	7915099.957	36	219863.888		
	Total	2.25E+08	39			
a. Predictors: (Constant), M3, EXR, Inflation b. Dependent Variable: GDP						

From ANOVA table f statistics value is 329.746 significant at 0.000 level of significance shows the model is good fit.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13248.8	2423.393		5.467	0
	Inflation	-57.917	30.046	-0.63	-1.928	0.062
	EXR	-82.855	21.05	-0.206	-3.936	0
	M3	0.184	0.034	1.765	5.356	0
a. Dependent Variable: GDP						

The coefficient table indicated that exchange rate and money supply having a significant cause and effect relationship with GDP. Exchange rate having the negative impact on GDP, it is indicated by beta value -.206. tested through "T" test having a value of -3.936 significant at .000 level of significance but in case of money supply the influence is positive indicated by beta value 1.765 tested through t-test 5.356 positively significant at 5% level of significance whereas inflation is not significantly contributing to GDP. In the model summary table indicated that macro-economic variables having 96.2 % effect on GDP. Therefore, the null hypothesis is not accepted because "P" value is less than 0.05 level of significance.

Tests of Normality						
				Kolmogorov-Smirnov ^a		
				Statistic	df	Sig.
Standardized Residual				0.108	40	.200 [*]
a. Lilliefors Significance Correction						

*. This is a lower bound of the true significance.

Here in above table the standardized residuals test is applied through Shapiro-Wilk test of Normality to check whether the residuals are normally distributed or not. P value (.959) is more than standard value (.05), Thus null hypothesis $H_0(1)$ is not rejected, which is desirable. “The residuals are normally distributed “.

Conclusion

The empirical study was done to establish the relationship between Inflation, exchange rate, Money Supply and GDP. On the basis of the results it can be concluded that Inflation, exchange rate & Money Supply individually contributed to Economic Growth of India. The positive relationship was found between Independent and dependent variable. but when we see the combined effect of these variables on GDP the results indicated that there is negative but significant relationship between exchange rate and GDP. As Exchange rate varies from country to country and fluctuate in short term so it gives the negative impact on growth of country. Money supply shows the positive significant relationship with GDP whereas Inflation not contributed to GDP.

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Culinary study and Cultural Heritage of Delhi: Tourist's perspective

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ABSTRACT

Culinary analysis of the literature shows that food and beverage products of a nation can be among its most important cultural expressions (Handszuh, 2000; Bernard & Zaragoza, 1999; Hjalager & Corigliano, 2000). Food cannot be neglected when travelling as it plays a major role in enhancing adventure. On a practical level a nation's identity is reflected and strengthened by the food experiences that it offers. Travellers across the globe spend thirty to forty percent of their budget on food and beverage (Boyne, Williams, & Hall, 2002). Travellers look forward for new taste, new food and customs related with food directly or indirectly. Regional cuisine is valuable for destination promotion and improves competitiveness among catering establishment. It plays an important role in developing brand image at regional, national and international level. Based on these perspectives it can be argued that local and regional food is a feature that can add value to a destination (Telfer & Wall, 1996; Handszuh, 2000), and furthermore may contribute to the sustainable competitiveness of a destination (Crouch & Ritchie, 1999).

Introduction

Food plays a major role in improving the economy at destinations (Hjalager, A & Richards, G. (2002). India's geography and cultural heritage is vast and has something to offer to everyone. The rich natural resources, cultural diversities and hospitable people of India contribute in thriving the tourism activity (Singh, 2002). The Himalayan range in north provides an opportunity for mountain tourism, Indian Ocean in the southern part of the country, Arabian Sea in the west and Bay of Bengal in east provides tremendous opportunity for beach tourism which attracts domestic and foreign tourist to use good and services. Thar Desert with Aravalis mountain ranges is best suited for desert and cultural heritage tourism. The cuisine has regional influences because of its geographical locations, invasions and foreign settlers. The food and style of cooking are seasonal due to change in weather. The Delhi food cuisine has a rich historical background with its traditional inception to make Delhi a food driven city with its food lovers across the world.

The modern travelers look forward for restaurants and wineries rather than pirated-infested trade routes. "Culture can be defined as traditions and way of life which is reflected from food habits, dance, rituals, sculptures, building designs and many more

practices (UNESCO, 2001)". Consumption of tourism goods and services are an integral aspect of tourist travelling in various destinations and food is a significant means to penetrate into another's culture (Long, 1998, P. 195). Local food at destinations is a fundamental component which adds a range of attractions to overall tourist satisfaction.

"The globalization in food industry, Television food channels and advertisement through various medial has motivated people to dine outside for satisfying the hunger or experience the local specialties or fusion foods. The local community involved in food tourism has changed their plans according to need and demands of the travelers. The factors motivated the rural people to emphasize the conservation and maintenance of natural and cultural heritage, including the rights of indigenous people (Liz Sharples, Hall, Mitchell, 2003)".

Food is not only the basic necessity but a core element of regional culture which also adds value to image of local destination. "Local Cuisine - a core manifestation of destination's intangible heritage, and its consumption, with which tourist can gain a truly authentic cultural experience (Okemos, Okumus & McKercher, 2007; Renkoet al., 2010)".

Past studies about Cultural Heritage

S.No	Resource Persons and Year of Publication	Views Regarding Cultural Heritage
1.	Kessings and Kessings, (1971)	"Cultural heritage can be concluded as psychological prospective, culture is seen as organized system of knowledge and belief in which people are structure their experiences and perceptions, formulates act and makes choice between different alternatives".
2.	Allport, (1954); Cook,(1962);Bochner, (1982)	"The main positive influence refers to the increased knowledge and understanding of host society and cultures, which refers to positive interactions".
3.	Williams, (1998)	"Cultural Heritage act as arrivals of tourist in local community inevitably provoke positive and negative influences".
4.	Collins, (1990)	"Cultural heritage is accumulation of daily details and large Traditions, social, racial, and religious built from time and memory"
5.	Crockett and Wood, (1999)	"Cultural heritage influences Regional destination branding has become important because regional brands can be developed as a competitive advantage for a state, and state brands reflect a part of a country brand".
6.	Smith and Krannich,(1998); Verbole, (2000); Andriotis (2001); Keller, (2002)	"Cultural heritage can be seen as contributor to the local community by improving the standard of living, providing employment opportunity, providing investment for development of infracture and as a mean of financial and social development
7.	McKercher,(2002)	"It can be experience that people are more highly motivated to participate in cultural tourism than other".
8.	Grazuleviciute, (2006)	"Essential efforts to be made as for the potential of cultural heritage, especially the possibilities embodied in abandoned historic building and territories".

9.	Singh, Pandey, Mishra (2012)	"Cultural heritage can be experience as skill of art, dance, music, drama etc. which is handed down by our previous generations".
10.	Haque and Anwar, 2012	"Cultural heritage includes folk, fine arts, traditions and language"
11.	(Gautam and Upadhyay, 2012)	"The quality of cultural heritage and its presentation is key factor of tourism:
12.	Mishra and Gautam, 2012	"Cultural heritage is travelling to experience the places and activity that authentically represents the people of past and present"

A brief introduction to Delhi

Delhi is the traditional and present day capital of India. Delhi stands in a triangle formed by the river Yamuna in the east and spurs from the Aravali range in the west and south. Delhi is bounded by four states namely Haryana, Rajasthan, Uttar Pradesh and Punjab. Delhi is a cosmopolitan city where people are open to embracing new ideas and life style. The cuisine has regional influences because of its geographical locations, invasions and foreign settlers. Delhi has no specific food culture. Food culture in Delhi is a mixture of North Indian, Mughlai Cuisines, Punjabi food and mouth watering street food. It also includes a variety of cuisines from different parts of India. Delhi is a hot spot for Continental, Thai, Mexican and Chinese food as well. Although Delhi is not characteristic of any typical food culture the most popular cuisine that is mostly enjoyed by the locals and tourists is Mughlai cuisine. Since the Mughal dynasty ruled over the capital for centuries the food in New Delhi is very Mughlai. The influence of the Mughal rule can be felt in the food and food habits of the locals of the region.

Table: 01 Domestic and Foreign Tourist Visits in Delhi, 2014-2015							
2014		2015		Growth Rate %		Rank 2015	
Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
22626859	2319046	29496938	2379169	11.63	2.59	15	4

Source: State/UT Tourism Departments

Table : 02 Domestic and Foreign Tourist Visits in Delhi, 2015-16							
2015		2016		Growth Rate		Rank 2016	
Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
29496938	2379169	29496938	2520083	12.68	5.92	15	4

Source: State/UT Tourism Departments

Delhi and its cuisine

Delhi the capital of India is known for its rich food diversity and heritage cuisine. Greatest attraction for tourists to Delhi from all over the world is its food. Delhi's food culture is a fusion of different traditions and cultures from the past. As people from different places came and settled in, the city acquired identity of all the types of people. Available on SSRN-Elsevier

living in it. Rulers and emperors have left long lasting impressions of the taste of their food. Mughlai cuisines is the most recited & famous cuisine from the Mughal era. Mughlai cuisines were preferred by the royal Mughal Emperors. The Mughalai cuisines are cooked in all parts of the country but the best cuisines are prepared in Delhi. The Kebabs, one of the most famous Mughlai cuisines is famous among travellers. Originally, an Iranian dish, the kebabs found place in Middle East, South Asian and Turkish kitchens. Interestingly, according to Arabic traditions the medieval Persian soldiers invented the kebabs by grilling meat over open field fires, using their swords. Famous traveler, Marco Polo recalls that kebabs were served during the Delhi Sultanate and was enjoyed by the royalty and commoners alike. Some of the famous Kebabs are Boti Kebab, Shami Kebab, Kathi etc. Another Mughlai cuisine, Nihari, a royal preparation from kitchens of the Mughals for breakfast is now a popular dish among the people of all the classes.

Biryani, a meat based dish was a favorite of the Mughal emperors and is still has a big shares among tourists. Ghanewala in Chandni Chowk was founded in 1790 and have served many of the Mughal Emperors. It is run by its fifth generation today and is famous for its sohan halwa and Karachi halwa. Other than the Mughlai cuisines, there are other finger licking foods which make the food lovers fall in love with the city again and again.

Butter Chicken is one of the most delightful dishes of the country. It originated in the 1950s in Moti Mahal Restaurant in Delhi. The restaurant was originally known for its tandoori chicken. The cooks there accidentally tossed the sauce consisting of butter, tomato and chicken juices with tandoori chicken pieces which led to the creation of this amazing dish.

Paranthas, an important part of the traditional Indian breakfast varies from plain paranthas to stuffed paranthas with potatoes, cauliflower, eggs, radish etc. The paranthewali gali in Chandni Chowk is lined up with shops which sells the best paranthas of the city.

Chaat is the term used to describe the street foods. Delhi serves us with a variety of street foods and Chandni Chowk is known as the Street Food Capital of Delhi. The narrow streets of Old Delhi is very famous for its chaats. The shops in these areas have been there since ages. Nothing can beat the kind of chaat they serves us. Natraj Dahi Bhalla, started in 1940 serves mouth watering dahi bhalla which are deep fried vadas.

Old Famous Jalebi Wala has been around since 1884. The jalebis served here is different and special. Delhi's food culture is a mixture of its past, different cultures and traditions. Also, Delhi today has come to embrace the best of the international cuisines. So there is no trouble in finding Italian, Chinese, Thai and American restaurants.

Objective of study

- To find special features of Regional Cuisines of Delhi.
- To analyze the association of demographic factors and popularity of Regional Food among tourist arrival.
- To study the association of acceptance of Regional Food among tourists arrival.

Hypothesis of the Study

Literature indicates that demographic features of tourist have relationship with acceptance of Cuisines of Delhi, therefore would like to test the relationship.

HoA: Gender has no significant relationship with acceptance of the Regional Food of Delhi.

H1A: Gender has significant relationship with acceptance of the Regional Food of Delhi.

HoB: Age has no significant relationship with acceptance of the Regional Food of Delhi.

H1B: Age has significant relationship with acceptance of the Regional Food of Delhi.

HoC: Education has no significant relationship with acceptance of the Regional Food of Delhi.

H1C: Education has significant relationship with acceptance of the Regional Food of Delhi.

HoD: Income has no significant relationship with acceptance of the Regional Food of Delhi

H1D: Income has significant relationship with acceptance of the Regional Food of Delhi

Regional Cuisine of Delhi have tremendous features in terms of its availability, use of traditional ingredients, nutrition, spiciness, public health practices, reasonable price and its popularity. The association between tourist level of acceptance and special features of cuisine need to be testified.

HoB1: Travelers have no significant relationship with varieties of dishes available in Regional Food of Delhi.

H1B1: Travelers have significant relationship with varieties of dishes available in Regional Food of Delhi.

HoB2: Travelers have no significant relationship with use of traditional ingredients in Regional Food of Delhi

H1B2: Travelers have significant relationship with use of traditional ingredients in Regional Food of Delhi

HoB3: Travelers have no significant relationships with dishes are nutritive and menu balance in Regional Food of Delhi

H1B3: Travelers have significant relationships with dishes are nutritive and menu balance in Regional Food of Delhi

HoB4: Travelers have no significant relationship with acceptance of public health practices in Regional Food of Delhi

H1B4: Travelers have significant relationship with acceptance of public health practices in Regional Food of Delhi

HoB5: Travelers have no significant relationships with dishes are reasonable price in Regional Food of Delhi

H1B5: Travelers have significant relationships with dishes are reasonable price in Regional Food of Delhi

HoB6: Travelers have no significant relationship with dishes are Flavorful and tasty in Regional Food of Delhi

H1B6: Travelers have significant relationship with dishes are Flavorful and tasty in Regional Food of Delhi

HoB7: Travelers have no significant relationship with efforts in familiarizing food knowledge of Regional Food of Delhi

H1B7: Travelers have significant relationship with efforts in familiarizing food knowledge of Regional Food of Delhi

Research Methodology

To understand the acceptability of Regional Cuisine of Delhi by tourist visiting to various destinations of Delhi, a structured questionnaire has been used. The variables were used from past studies. The questionnaire uses nominal as well as five point Likert scale. The state has 13 districts. Approximately 20 samples were planned by random sampling from each district's travelling destination making prospective sampling 250. The data were collected in month of January to April, 2018. The total received questionnaires were 144. The validity of data through Cronbach's Alfa was 0.83 which indicates good reliability if data. The primary data has been analyzed with the help of statistical techniques; Chi-Square & Mean.

Data Analysis, Interpretation and Discussion

The primary data collected from 144 respondents has been used to derive inferences. The data was analyzed in SPSS 16. The detailed related information is given in Table A, B, C and D.

Table 03: Demographic Profile of Respondent (N=144)					
AGE [Mean= 1.43]			GENDER [Mean= 1.29]		
M	N	%		N	%
less than 50 (1)	81	56.25	Male (1)	101	70.14
more than 50 (2)	63	43.75	Female (2)	43	29.86
Total	144	100	Total	144	100
QUALIFICATION [Mean= 1.45]			INCOME [Mean= 1.38]		
	N	%		N	%
UG and Below (1)	79	54.86	Less Than 3 Lacs (1)	88	61.11
PG and Above (2)	65	45.14	More Than 3 Lacs (2)	76	52.78
Total	144	100	Total	144	100

According to Table 03, Age Mean indicates that around 56 % tourists visiting at different

Table 04: Chi-Square Test (Age, Gender and Qualification Vs popularity of cuisine at destination)				
	AGE	GENDER	QUALIFICATION	INCOME
Chi-Square	2.250 ^a	23.361 ^a	1.361 ^a	7.111 ^a
Df	1	1	1	1
Asymp. Sig.	.134	.000	.243	.008
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 72.0.				

destination are above 50 Years while male ratio is higher in terms of Gender. 54.86 % have qualification as either graduate or below. 61.11 % tourist having income more than 3 lacs. These demographic features is of great importance as tourist with above 50 years usually avoids to travel in alone and food demand changes accordingly, tourist with higher income will try to spend more money on consuming regional cuisines dishes. The research also indicates that tourist travelling in regions of Delhi were accompanied my males.

Table:05 Chi Square Test: Tourist arrivals Vs Popularity of Regional Cuisine of Delhi										
	There are variety of dishes available in Cuisine	Food is reasonably priced	Food is spicy and hot	Satisfactory Public health practices in food outlets	Food are Flavourful and tasty	Use of traditional food is higher	The meal is nutritious and well balance	The government is promoting local food at various local sites	Various catering establishment are promoting cuisine	Tourist has been provided with Regional food knowledge
Mean	1.52778	1.82639	4.15278	1.70833	3.56944	2.79861	3.3125	2.45139	3.05556	2.43056
Chi-Square	58.292 ^a	49.292 ^a	37.042 ^a	22.875 ^a	30.028 ^b	116.486 ^b	48.500 ^b	44.056 ^c	62.111 ^b	61.000 ^b
Df	2	2	2	2	4	4	4	3	4	4
Asymp. Sig.	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 48.0.										

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.8.
C. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 36.0.

Findings

- According to Table 04 Chi- Square analysis for demographic factors, for age the calculated value of X^2 (2.250) at degree of freedom 1 is less than table value of X^2 (3.841), hence the study suggests that no relationship between acceptability of cuisine and age of tourist arrival in Delhi.
- For Gender calculated value of X^2 (23.361) at degree of freedom 1 is greater than table value of X^2 (3.841) and suggest the evidence of relationship between cuisine acceptability and Gender of tourist.
- For the Qualification calculated value of X^2 (1.361) at degree of freedom 1 is lower than table value of X^2 (3.841) hence the current study suggests no evidence relationship between acceptability of cuisine and Qualification of tourist.
- For the income calculated value of X^2 (7.111) at degree of freedom 1 is more than table value of X^2 (3.841) and study suggest that evidence of relationship between acceptability of cuisine and income of tourist.
- According to Table No 05 Chi- Square analysis of factors for acceptance of cuisine among tourist arrivals in Delhi for availability of variety of dishes available in Local Cuisine of Delhi calculated value of X^2 (58.291) at degree of freedom 2 is higher than table value of X^2 (5.991), the study suggests that the evidence of relationship between acceptability of cuisine and Variety of dishes available for tourist arrival in Delhi.
- According to Table No 05. Chi- Square analysis of factors for acceptance of cuisine among tourist arrivals in Delhi for nutritious and balance menu calculated value of X^2 (48.500) at degree of freedom 4 is higher than table value of X^2 (9.488) the study suggests that the existence of relationship between acceptability of cuisine and balance menu.
- According to Table No 05. Chi- Square analysis of factors for acceptance of cuisine among tourist arrivals in Delhi for use of traditional ingredients calculated value of X^2 (116.484) at degree of freedom 4 is higher than table value of X^2 (9.488), the study suggests the evidence of relationship between acceptability of cuisine and use of traditional ingredients
- According to Table No 05 Chi- Square analysis of factors for acceptance of cuisine among tourist arrivals in Delhi for Local Cuisine of Delhi are Flavorful and tasty calculated value of X^2 (30.028) at degree of freedom 4 is higher than table value of X^2 (9.488), the study suggests that there is evidence of relationship between acceptability of cuisine and Local Cuisine of Delhi are Flavourful and tasty.
- According to Table No 05 Chi- Square analysis of factors for acceptance of cuisine among tourist arrivals in Delhi for public health practices in catering outlets calculated value of X^2 (22.875) at degree of freedom 2 is higher than table value of X^2 (5.991) and study indicates the evidence of relationship between acceptability of cuisine and public health practices in catering outlets.

- According to Table No 05 Chi- Square analysis of factors for acceptance of cuisine among tourist arrivals in Delhi for tourist has been provided good food knowledge calculated value of X^2 (61.000) at degree of freedom 4 is higher than table value of X^2 (9.488), and study suggest the evidence of relationship between acceptability of cuisine and food knowledge.

Table 06 : Relationship under investigation Vs Acceptance of Regional Food of Delhi with $p < 0.05$	Hypothesis Results
Gender has no significant relationship with acceptance of the Regional Food of Delhi	H_{0A} Accepted
Age has significant relationship with acceptance of the Regional Food of Delhi	H_{1B} Accepted
Education has no significant relationship with acceptance of the Regional Food of Delhi	H_{0C} Accepted
Income has significant relationship with acceptance of the Regional Food of Delhi	H_{1D} Accepted
Travelers have significant relationship with varieties of dishes available in Regional Food of Delhi	H_{1B1} Accepted
Travelers have significant relationship with use of traditional ingredients in Regional Food of Delhi	H_{1B2} Accepted
Travelers have significant relationships with dishes are nutritive and menu balance in Regional Food of Delhi	H_{1B3} Accepted
Travelers have significant relationship with acceptance of public health practices in Regional Food of Delhi	H_{1B4} Accepted
Travelers have significant relationships with dishes are reasonable price in Regional Food of Delhi	H_{1B5} Accepted
Travelers have significant relationship with dishes are Flavorful and tasty in Regional Food of Delhi	H_{1B6} Accepted
Travelers have significant relationship with efforts in familiarizing food knowledge of Regional Food of Delhi	H_{1B7} Accepted

Recommendation

- The dishes are tasty, flavorful and higher in demand can be included in menu of catering establishments.
- Tourists visiting various destinations in Delhi have good association with public health and familiarization, as government should include these factors in policy for destination development.
- Tourist arrivals appreciating the traditional food & its rich cultural history & background.
- Infrastructure development avenues required for selling local dishes having travelers recognition & acceptability.

Conclusion

“This paper focusing an attempt to showcase how regional food of Delhi food is cultural heritage can be a key factor in developing the economy of Delhi as tourist spends huge percentage of their travel budget on consuming food and beverage. The cuisine is an eternal part of tourism. The food cannot be neglected as who so ever travelling will be consuming the same. It provides an opportunity to promote our hidden culinary treasure as cultural heritage of Delhi. Regional foods have tremendous health benefits and tourists are looking forward to try new food, it gives a scope for developing Culinary Tourism in Delhi, will definitely lead to economic development”.

The study indicates that majority of respondents are accepting the local cuisine as it has higher culinary acceptance and matching to their taste buds. There is very strong evidence relationship between pricing, nutritious, balance meal, traditional ingredients, promotional activities by government and various catering establishment, food knowledge to tourist. It concludes that there is prominent role of cuisine as cultural heritage in Delhi. During the duration of the stay the tourists find that the availability of local food in local food joints was limited. The government is promoting culinary delights at various destinations of Delhi. A concrete plan is missing and at the same time local community need to be involved in such process. The public health practices are major concern at destination. Mandatory structured training program need to be implemented so that hesitation for tasting due to lack of personal hygiene among food service operators can be minimized.

The study also reveals that majority of the tourist visiting to Delhi have a liking for the regional cuisine & visit the place with a passion towards food. People spend around 30 percent of their time in consuming food and beverage at local destination. During their spare time tourist wish to participate in culinary workshop and festivals to experience the cooking heritage of local community which has been transferred from generation to generation.

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Establishing the Relationship Between Service Quality and Student Satisfaction

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ABSTRACT

The Study purposes to establish the relationship between various factors of service quality on student satisfaction.

The study was causal in nature, using survey method for data Collection. The sample size used for the study was 300. Respondents included both male and female students exclusively in Gwalior region from Private institutions. Non-probability purposive sampling technique with Standardized questionnaire with five-point Likert scale was used. Test like Reliability, Regression Analysis and Correlation were applied to achieve the purpose of the study. The study resulted in to the strong effect of all the elements of service quality i.e. tangibility, reliability, responsiveness, empathy except assurance on student satisfaction was identified. Further the study also identified a strong correlation between all the variables used in the study.

Introduction

India has a major say in global education index. As it is one of the biggest networks of higher education institutions in the world. But, still there is a huge scope of development in the education system.

The government has visionaries to raise education industries/institution current gross enrolment ratio to 30 percent by 2020 which would fasten up the growth of distance education in India. The education sector in India will see the major growth in the years to come. As we are equipped with the worlds' largest Tertiary-age population and second largest graduate talent pipeline globally by the end of 2020, which makes an estimate of around US\$ 91.7 billion in FY18 and is expected to reach US\$ 101.1 billion in FY19 for the education sector in the country.

The colleges and universities in India are numbered approximately 39,050, with 36.64 million students enrolled in higher education in 2017-18. Gross Enrolment Ratio in higher education gained up to 25.8 percent in 2017-18. Following US, the country has become the second biggest market for e-learning,

Recent Growth

According to Department of Industrial Policy and Promotion (DIPP), The Foreign Direct Investments (FDI) inflow into the education sector in India is about US\$ 1.75 billion from April 2000 to June 2018. There have been 18 merger and acquisition deals of US\$ 49 million in 2017, in education sector in India.

Government of India has also planned to raise around Rs 1 lakh crore from private sectors and high net worth individuals to finance improvement of education

infrastructure in India. The country has also signed a loan agreement with World Bank under 'Skills Acquisition and Knowledge Awareness for Livelihood Promotion' (SANKALP). The steps for skill development have also been taken as, Assam is going to get its first skill development centre in which will give the vocational training to the people of Assam and the initiative is funded by Singapore.

Recent Initiatives by Government of India:

- Innovation Cell and Atal Ranking of Institutions on Innovation Achievements (ARIIA) has been launched in 2018 to assess innovation efforts and to ensure a healthy competitive environment among higher educational institutions in the country, To increase educational accessibility to villages Government of India launched the second phase of 'Unnat Bharat Abhiyan' with the aims to link higher educational institutions in the country with at least five villages.
- To focus and facilitate existing schemes and quality improvement, it is expected to grow up the allotment for school education under the Union Budget 2018-19 by 14%
- Two new schemes: Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) and Skill Strengthening for Industrial Value Enhancement (STRIVE), has been approved by the Cabinet Committee on Economic Affairs (CCEA), Government of India, with an outlay of Rs 6,655 crore (US\$ 1.02 billion), to empower the Skill India Mission and would be supported by the World Bank.
- The Mentor India Campaign, is to be launched which will bring leaders and students together at more than 900 Atal Tinkering Labs in India, as part of the Atal Innovation Mission. As by June 2018, 5,441 schools have been selected across India for establishing Atal Tinkering Labs (ATL) under the Atal Innovation Mission (AIM).
- To boost engagement between states, union territories, central ministries, educational institutions, and the general public, Ek Bharat Shreshtha Bharat (EBSB) campaign is being launched by the Ministry of Human Resource Development.
- 'Kaushal Bharat, Kushal Bharat' the Skill India initiative, is launched by the current Prime Minister Mr. Narendra Modi. Under which, the government has targeted of training 400 million citizens by 2022 that would enable them to find jobs. The various programmes launched under the initiative include: Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Policy for Skill Development and Entrepreneurship 2015, Skill Loan scheme, and the National Skill Development Mission.

Conceptual and Literature Framework

Zeithaml (1988) defined "satisfaction is the resultant outcome of an institution's administrative as well as educational system's coherent performance". As per their study, it is environment that enhances satisfaction which includes infrastructure that is required to gain education and probably for overall development. Elliot & Shin (2002) defined student satisfaction as "students' disposition by subjective evaluation of educational outcomes and experience." The five-dimensional service quality model (SERVQUAL) is the most widely used measure of students' satisfaction around the world. The model in a form of questionnaire that has been designed, developed and

tested in business environment, by Parasuman, Zeithaml, Berry (1985) to measure service quality and customer satisfaction of a business taking five dimensions of service quality into consideration.

Relationship between Student Satisfaction and different dimensions of Service quality

Martins and Dastane (2014), Khan and Ahmed and Nawaz (2011), Hasan, AzleenIlias, Rahman and Razak (2008), Yousapronpaiboon (2014), Asaduzzaman, Hossain and Rahman (2003), Truong, Pham & Vo (2016), Mwiya, Bwalya, Beenzu, Siachinji, Sikombe, Chanda and Chawala (2017), Nadiri, Kandampully and Hussain (2009) , Malik , Danish and Usman (2010) took tangibles, reliability, responsiveness, assurance and empathy as variables in their study, but the findings in study differ according to the country of the study. As per study by Martins and Dastane(2014) it was found that significant element exist in the African students' perception of service quality in Higher education, The presence of significance difference mean score of service quality was recorded, between Nigerian and Ghana. Living Nigerian undergraduate students with a higher score compared to Ghana undergraduate students. When comparing the all the three places the absence of any significance difference in mean score of service quality was recorded between Nigerian and Ghana, and Ghana and South Africa.

Similarly, a study in Pakistan wherein Ahmed Nawaz (2011), Hasan, AzleenIlias, Rahman and Razak (2008) Khan and Ahmed and Nawaz (2011) found that that there is significant relationship between dimensions of service quality i.e. Reliability, Assurance Responsiveness and Empathy with satisfaction while Tangible was having an insignificant relation with student satisfaction using regression analysis with 495 students. It must be noted that the efforts that a student put in is directly associated with their satisfaction level.

A similar result was found in the study done by Asaduzzaman, Hossain and Rahman (2003), wherein they found that there is a significant correlation among all the constructs with student satisfaction and also among each other. Factors like environment and facilities of the university, labelled as 'tangibles, plays a significant role.'

Truong, Pham & Vo (2016) also had the similar findings that service quality variables have significant relationships with the overall satisfaction of the students who were studying at the private colleges. The service quality variables and student satisfaction have a moderately positive correlation that means there is still room for continuous improvement whereas Mwiya, Bwalya, Beenzu, Siachinji, Sikombe, Chanda and Chawala (2017), who did their study in Zambia found that that the higher the level of perceived good service performance in tangibles, reliability, assurance, empathy and responsiveness to customer's needs, the higher the level of customer satisfaction. Nadiri, Kandampully and Hussain (2009) divided the five dimensions into two broader categories: tangibles and intangibles and found that that the SERVPERF scale successfully maintains its reliability. Malik, Danish and Usman (2010) who did their study in Pakistan found that the tangibility, assurance, reliability and empathy have a strong and significant impact on the students' satisfaction from an institution. The results also showed that the cooperation, kindness of administrative staff and the responsiveness of the educational system play a vital role in retaining the students' interest. Therefore, it must be provided by the administration for inducing progressive learning environment. Other factors associated with the administrative

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staff are empathy, nobleness and kindness for which a student really look forward. A different finding was noticed when the study was done in Thailand by Yousapronpaiboon (2014). He states that that to ensure that they communicate correct and accurate information, and in a timely fashion; also, they need to clearly communicate when its services will be performed.

In some studies Tsinidou, Gerogiannis and Fitsilis (2010) using AHP (analytical hierarchical process) and Quinn, Lemay, Larsen and Johnson (2009) conducted study in Greece and USA respectively took academic, administrative, and auxiliary functions, carrier prospect, curriculum structure, location and infrastructure as the factors under study and found that, positive research findings on the application of quality techniques for these areas were discovered and could be taken into consideration by management keeping in mind the students' preferences. The relative weights of the factors that contribute to the quality of educational services as it is perceived by students was measured, however when student satisfaction and service quality were only the variable to study, it was found that students' satisfaction with their university is based on a relatively stable person-environment relationship. The satisfaction of students seems to reflect quite well perceived quality differences of offered services and of the wider environment. The school placements and the atmosphere are also factors that are considers among students. Students were mostly dissatisfied with the university buildings and the quality of the lecture theatre (Gruber, Fuß, Voss and Zikuda, 2010). It was also seen that service quality in relation to student satisfaction, clearly establishes significant correlation of service quality and satisfaction. In this context, the university should consider seriously the effect of service quality to procure more students from different countries and geographical locations by Hanaysha, Kumar and Hilman, (2012). Whereas when HEDPERF, SERVPERF and Servqual model was the studied, the finding were similar to five dimensional model of service quality i.e. service quality in higher education has a significant influence on student satisfaction by Onditi and Wechuli (2017), Abdullah (2006). Onditi and Wechuli (2017), clearly mentioned that service quality in higher education has a significant influence on student satisfaction and therefore higher education institutions should put in place mechanisms to collect student feedback to enable them to determine the service quality dimensions of interest to their students so that they can make the necessary improvements on the relevant service quality dimensions.

When study was done in Iran, Khodayari and Khodayari(2011) proposed that perceived service quality reflects the difference between consumer expectations and perceptions which depends on the size and direction of the four gaps related to the delivery of service quality on the providers' side where the variables under study were student participation, role clarity, and motivation to participate in the service encounter. However, the study when done in Uganda Kaggawa, Sekiwu and Naluwemba (2017) found that Support supervision and administrative support are the most important determinants of quality postgraduate support. As recommendation support supervision and administrative support must be targeted as drivers of quality student support at this level. The Utilitarian Theory, if well integrated provides moral bound in which quality support systems could be optimally scaled up. Pereda, Airey, and Bennett (2007) did their study in UK and found in their research three important issues come out of this work in relation to the things that students' value in their university experience i.e. classroom experience to library and computing provision, from social and sporting activities to international recognition followed by overall experience and reputation. But in countries like

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Africa, Anim, and Mensah (2015) explored, using 240 students, implications for entrepreneurs in the education industry, who need to comprehend that the institutions are built on assurance, appearance empathy responsibility and reliability services that integrate the resource and derive values out of them. The present focus on infrastructure needs to shift to other components of service quality in the Private institutions something that disturb the stakeholders and lack of reliability and empathy on the part of public institutions. Preference must shift from economic gain to student's satisfaction in their services. The transition from the traditional mind-set towards education, to a market-led approach to delivering educational needs a second-generation approach; otherwise the upcoming globalization of quality education can become challenging for these institutes in the Sub Saharan Africa. Therefore, along with physical infrastructure, system that delivers better education for higher learning needs to be in place. Similarly a study done in Kansas, US, by ĎaĎo, Tábořecká Petrovičová, Riznić, And Rajić (2013) wherein behavioural intentions of students were studied by taking Service quality, Behavioural intention and Satisfaction as the variables into consideration for study it was found that both higher education service quality and satisfaction are important determinants of students' behavioural intentions. Chandra, Martha, Chandra, and Priyono (2018), did their study in Riau Indonesia, and found that serious attention to service quality provided by universities and colleges in Riau Province is needed because the better the service qualities are provided, the higher the student satisfaction will be. The study when done in Malaysia, by Kadirova, Li-Chen, Chan-Yin -Fah and Poh-Kiong (2015) taking Physical Quality, Interactive Quality, Corporative Quality, Total Service Quality, and Satisfaction as the variables under study, the findings indicate that the higher level of service quality of the university the higher level of satisfaction of postgraduate students. Saif (2002) did their study in Jordon, taking Teaching Staff Service Quality, Knowledge Acquisition Quality, Skills Acquisition Quality, Administrative and Personnel Quality, Interaction and Community Service Quality, and Infrastructure Quality as a variable of study and found that the health administration services colleges in Jordan are applying service quality standards at medium levels from the perspective of students. Study indicated that upgrading and developing educational processes and the satisfaction of students require more attention and better implementation of service quality standards. The study results and highlight the importance of communication with students as a strategy to ensure quality in the health administration colleges. Staff consciousness is of utmost importance. Therefore, health colleges must implement ongoing comparable programs for all relevant staff regarding the benefits of implementing quality standards.

Service Quality and Student Satisfaction in Indian Context

Palli and Mamilla (2012), Chopra, Chawla and Sharma (2014), Soni and Patel (2014) did their study in India and found that an institution can attract a lot of students only by reliable excellent and the high quality of service that it provides. Palli and Mamilla (2012), also found that if students were taken as the primary customer, findings say that increased access to institutions of higher learning combined with a larger number of such institutions has given students more options which results in them evaluating these institutions The service marketing mix and service quality components will help higher education institutions to shape their service offerings according to the needs of their students. Chopra, Chawla and Sharma (2014), mentioned in a study with two groups of customers of higher educational institutions

i.e. students and employees, and found that if colleges and universities focus on satisfying students as their primary customers, they may negatively affect other customer group employers because the two customer groups have significantly different ways of defining and measuring expectations, also supported by Soni and Patel (2014).

Objectives of Study

The goal of this study is to determine the relationship between service quality and student satisfaction in higher education institutions. Other objectives were to re-standardize the questionnaires to measure all the variable of the study i.e. Tangibility, Assurance, Reliability, Responsiveness, Empathy and Student Satisfaction. The study was also undertaken to find out the correlation between various factors under study.

Research Methodology

Study-The study was causal in nature. Survey method was used as a tool for data collection. **The Sampling Design**-The population for the study included the individuals in the Gwalior region. Both male and female respondents were included. Sample size for the study was 300 respondents. A non-probability Purposive sampling technique was used to select sample.

Tools used for data collection-The Standardized questionnaire developed by Hasan and Ilias (2009) was taken. However, the same tool was altered as per Indian context based on Likert type scale from 1 to 5 where 1 shows the minimum agreement and 5 indicates maximum agreement was used.

Tool used for data analysis-Reliability test was applied to check the reliability of the questionnaire with the help of Cronbach Alpha. Regression was applied to find out the impact of Tangibility Reliability, Responsiveness, Assurance, and Empathy on Student Satisfaction. Test for Outliers (Stem and Leaf) was used to check the outliers in the study and to remove them from the being the part of analysis in the study. Correlation analysis was used to find the correlation between different variables under study.

Hypotheses

HO1: There is no effect of Tangibility on Student Satisfaction

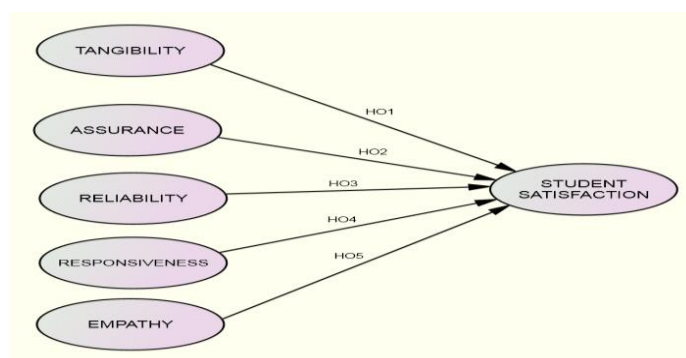
HO2: There is no effect of Assurance on Student Satisfaction

HO3: There is no effect of Reliability on Student Satisfaction

HO4: There is no effect of Responsiveness on Student Satisfaction

HO5: There is no effect of Empathy on Student Satisfaction

Model to Be Tested



Data Analysis Procedure

The data collected through the questionnaire for this study was analysed using SPSS version 18.0. The data collected went through the data filtration process by removing outliers present using stem and leaf analysis (described in heading below).

Reliability Statistics

Reliability was checked by Cronbach alpha method using SPSS software and the values for Tangibility, Assurance, Reliability, Responsiveness, Empathy and student satisfaction was found to be above the standard value of .7. It is considered that the reliability value more than 0.7 is good and can be upto 0.6 (Malhotra and Peterson, 2005). It can be seen that for Cronbach's alpha reliability (Table 1) methods was applied and found reliability value is higher than 7. It was .907, 0.827, 0.846, 0.83, 0.807, and 0.775 for Tangibility, Assurance, reliability, Responsiveness, Empathy and Student Satisfaction respectively. Therefore, the questionnaire in the current study for measuring the variable can be treated as highly reliable along with high face validity. The Reliability result is also supported by Kajenthiran K. & Karunanithy, M. (2015) for the same tool.

Table 1: Reliability and Validity

Variable	Cronbach's Alpha Value	Comparable Value	Explanation	Items
Tangibility	0.907	0.7	Reliable	17
Assurance	0.827	0.7	Reliable	9
Reliability	0.846	0.7	Reliable	7
Responsiveness	0.83	0.7	Reliable	7
Empathy	0.807	0.7	Reliable	7
Student Satisfaction	0.775	0.7	Reliable	6

KMO and Bartlett's Analysis

KMO test for sample adequacy for Tangibility, reliability, responsiveness, empathy and student satisfaction was found to be above the threshold value. The significant Bartlett's value represents the non-formation of identity matrix (Table 2). The Kaiser-Mayer-Olkin measure of the sample adequacy was 0.925, 0.845, 0.883, 0.867, 0.890, 0.868 for tangibility, reliability, responsiveness, empathy and student satisfaction respectively. This indicates sufficient inter-correlation while the Bartlett's Test of Sphericity was significant, $p < 0.00$ for Tangibility, reliability, responsiveness, empathy and student satisfaction). Both results indicating that the constructs are valid.

Table 2: KMO and Bartlett's Test:

	KMO Measure of Sampling Adequacy	Bartlett's Test of Sphericity		Sphericity Hypothesis: Correlation Matrix formed is an Identity Matrix
		Approx. Chi-Square	Sig.	
Tangibility	.925	1911.525	.000	Rejected
Empathy	.845	538.716	.000	Rejected
Reliability	.883	691.658	.000	Rejected
Responsiveness	.867	629.425	.000	Rejected
Assurance	.890	672.694	.000	Rejected
Student Satisfaction	.868	650.605	.000	Rejected

Regression Analysis

In case of impact of Tangibility, Assurance, reliability, Responsiveness, Empathy on Student Satisfaction, the value of Adjusted R square is 0.515 (Table 3) that indicates that the of Tangibility, Assurance, reliability, Responsiveness, Empathy explains .515 variance in Student Satisfaction. The model used for the regression had a good fit indicated by F Value 59 (Table 4) which was found to be significant. Further the relation between Tangibility, Assurance, and reliability, Responsiveness, Empathy and Student Satisfaction is indicated by Standardized coefficient beta values. Wherein except Assurance all the variables i.e. Tangibility, reliability, Responsiveness, Empathy had a significant effect on Student satisfaction (Table 5). Beta values were .27, .141, .125, .351 for Tangibility, reliability, Responsiveness, Empathy respectively which were found to be significant at level of 5%. The Correlation analysis reflects the high correlation between Tangibility, Assurance, reliability, Responsiveness, Empathy explains and Student Satisfaction (Table 6).

Stem and Leaf Analysis

It must be noted that the outliers were removed using Stem and leaf analysis and then the data was processed for all analysis. A stem and leaf display of the data from that variable in order to explore the shape of the data — centre, spread, skew, gaps, unusually high or low values, etc. Out of 300 sample size 24 respondents were found to be on the extreme range. Therefore these 24 respondents were removed from the analysis and finally a sample size of 276 respondents was used for the study further.

Table 3: Model Summary

Model		R	R Sqr	Adjust ed R Sqr	Std. Error of the Estima te	R Squar e Chang e		F Change	df 1	df 2	Sig. F Chan ge	Durbi n Wats on
dimensio no	1	.724 ^a	0.524	0.515	3.2141	0.524		59.133	5	269	0	1.937

a. Predictors: (Constant), Tangibility, Assurance, Reliability, Responsiveness, Empathy

b. Dependent Variable: Student Satisfaction

Table 4: ANOVA b

Model		Sum of Squares	Df	Mean Squar e	F	Sig.
1	Regression	3054.431	8	610.886	59.133	.000 ^a
	Residual	2778.965	269	10.331		
	Total	5833.396	274			

a. Predictors: (Constant), Tangibility, Assurance, Reliability, Responsiveness, Empathy

b. Dependent Variable: Student Satisfaction

Table 5: Coefficients

Model		Unstandardized Coefficients	Standardized Coefficients	T	Sig.
		B	Beta		
1	Tangibility	0.122	0.27	4.09	***
	Assurance	-0.058	-0.064	-0.89	0.37
	Reliability	0.146	0.141	2.12	***
	Responsiveness	0.142	0.125	1.95	***
	Empathy	0.382	0.359	5.71	***

a. Dependent Variable: Student Satisfaction

Table 5: Correlation

	Tangibility	Assurance	Reliability	Responsiveness	Empathy	Student Satisfaction
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Tangibility	-	0.000	0.000	0.000	0.000	0.000
Assurance	0.000	-	0.000	0.000	0.000	0.000
Reliability	0.000	0.000	-	0.000	0.000	0.000
Responsiveness	0.000	0.000	0.000	-	0.000	0.000
Empathy	0.000	0.000	0.000	0.000	-	0.000
Student Satisfaction	0.000	0.000	0.000	0.000	0.000	-

Hypotheses Testing

Table 6: Hypotheses Testing

Hypotheses	Values Scored (Beta/ T/ P)	Result	Tool	Supported by	Not Supported by
HO1: There is no effect of Tangibility on Student Satisfaction	.27/4.09/.000 (P < .05)	Rejected	Regression	Pohyae, Romle, Darus, Saleh, saleh, and Mahmood (2016), Truong, Pham & Vo (2016)	Kajenthiran K. & Karunanithy, M. (2015), Hasan and Ilias (2009)
HO2: There is no effect of Assurance on Student Satisfaction	0.194/3.516/.55 (P > .05)	Not Rejected	Regression	Truong, Pham & Vo (2016), Reddy and Karim (2014)	Hasan and Ilias (2009), Kajenthiran K. & Karunanithy, M. (2015), Pohyae, Romle, Darus, Saleh, saleh, and Mahmood (2016)
HO3: There is no effect of Reliability on Student Satisfaction	.141/2.12/.04 (P < .05)	Rejected	Regression	Truong, Pham & Vo (2016)	Kajenthiran K. & Karunanithy, M. (2015), Pohyae, Romle, Darus, Saleh, saleh, and Mahmood (2016), Hasan and Ilias (2009)
HO4: There is no effect of Responsiveness on Student Satisfaction	0.125/1.95/.05 (P < .05)	Rejected	Regression	Kajenthiran K. & Karunanithy, M. (2015), Truong, Pham & Vo (2016)	Pohyae, Romle, Darus, Saleh, saleh, and Mahmood (2016), Hasan and Ilias (2009)
HO5: There is	.359/5.71/.000	Rejected	Regression	Pohyae,	Kajenthiran K.

no effect of Empathy on Student Satisfaction	(P< .05)			Romle, Darus, Saleh, saleh, and Mahmood (2016), Truong, Pham & Vo (2016), Hasan and Ilias (2009)	& Karunanithy, M. (2015)
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Implications

Institutional Implications

From the results of regression analysis, it can be said that Tangibility, reliability, Responsiveness, Empathy had a significant impact on Student satisfaction, whereas Assurance does not show any significant impact on Student Satisfaction. However, Correlation analysis reflects the high correlation between Tangibility, Assurance, reliability, Responsiveness, Empathy and explains Student Satisfaction. It is understood from the findings that the Assurance did not show any effect on the Student satisfaction therefore it is suggested that to enhance the factor of assurance the more attention is needed towards staff recruited by the institute. More courteous staff and lecturers is the need of the hour. Academic credentials of teaching staff along with communication skills are what that is required again to generate the assurance dimension among students. Another matter of apprehension among student is innovativeness in the regular teaching pedagogy must be incorporated by the teaching fraternity. It's not only teaching staff but also non-teaching staff needs to be well versed with the norms and procedures.

Research Implications

The current study is done on the service quality dimension and its relationship with Student satisfaction. A streamlined review on the title is presented which can act as a base for research student for conducting the research in the similar area. The reference section proves to be a good data source. Therefore, the paper cited can be used for detail study purpose too. The current study has used a standardise tool to measure the impact of service quality dimension on Student satisfaction. although the same tool has been re-standardised. Therefore, this tool can be of great help to the researchers doing their study in the similar directions. Finally, Researchers can use the results of this study for supporting the results of their studies in the similar areas.

Recommendations

The study was conducted only in Gwalior region. Therefore, similar study can be conducted in other regions of the country. A cross country comparative analysis can also be conducted using the same tool. Although in this research a small sample size is used keeping in mind the cost and the time constraint. An increased sample size spread over a long-time duration is expected to change the results. Satisfaction is not limited to education industry; therefore, even other industry can be studied. Further there are numerous antecedents to satisfaction other than service quality

dimensions. It is suggested to review other antecedents and conduct the analysis based on the review.

Conclusion

From the results, it is clear that service quality has significant positive relationship with student satisfaction. Thus, it confirms that by improving service quality, it may potentially improve the students' satisfaction. It is important to verify here that the regression analysis resulted into positive impact of tangibility, reliability, responsiveness and empathy on student satisfaction.

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Comparison of Two Online Platform Based Local Business: Evidence from Indian Context

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ABSTRACT

Web turned out to be all the more great and fundamental instrument for each individual's need and the manner in which individuals work. By coordinating on the web data management instruments utilizing Internet, different creative organizations have set up frameworks for taking client orders, encourage making of instalments, client benefit, gathering of promoting information, and online input individually. These activities have all things considered known as e-trade or Internet business. Web based shopping made so natural for everybody with their item varieties and straightforward approach to purchase things. An endeavour has been made to fundamentally inspect different corporate and business level procedures of two major companies and those are Infibeam and Yepme. Correlation have been finished thinking about e-trade challenges, their plan of action, subsidizing, income age, development, survival systems, Shoppers' web based shopping experience, esteem included separation, and item offerings. Both these enormous players made their own particular stamp in India, however who will be extreme champ or be the best one will be. A relative investigation of Infibeam.com with one of the nearby contender Yepme.com conveys the data about the different methodologies to prevail in e-business advertise and diverse operation opportunities accessible in India.

Introduction

The study of Internet technologies in business environment is crucial to understand the strategy adopted by any business house. Along with understanding the operational and financial background of the company one needs to understand the nature of the company and its domain of product range. A deep understanding of the systems and organizational structure is necessary for the same as well.

Evolving from the conventional brick and mortar models in the modern times the biggest challenge for the existing business models was upgrading their system to incorporate the tools of IT and make its users comfortable with their online portals.

In our study we have taken up the comparative approach towards the companies and analysed their business model in the IT sector as per the guidelines of our syllabus. We have incorporated the basic parameters of comparison upon which the major categorization are done in the academic arena.

Profile of company

YEPME

Yepme is a web-based shopping organization headquartered in Gurgaon, Haryana, India. It was built up in April 2011. The organization has some expertise in the web-based retailing of people's pieces of clothing and frill. In August 2011, the organization situated itself as a completely fledged private name mold brand.

Yepme.com, was propelled in April 2011 by Vivek Gaur, Sandeep Sharma and Anand Jadhav. Gaur (CEO) has encounter building fruitful online organizations like Bagittoday.com and has additionally held senior positions in advertising and deals with HT Media Ltd, Living Media and Hindustan Unilever Ltd. Sharma, the author/COO and CTO, is a web based business, innovation and activities pro having held senior positions with Accenture, Sapient, SBI Capital Markets and HCL Technologies. Jadhav (president) is a promoting and inventory network master and has worked with driving attire retailers including Shoppers' Stop, Globus, Pantaloon and Reliance Trends.

As indicated by a meeting with Gaur on Bloomberg UTV, in 2010 the originators saw gigantic development potential in India's web-based shopping market, which was then overwhelmed by the online travel sector. Having begun its activities as an online attire retailer, in August 2011 Yepme.com chose to center around private name mold wear rather than marked apparel. Seeing bigger brands giving over end-of-lifecycle items to online retailers (purportedly to keep away from difference amongst shop and online costs) the organizers chose to advance the Yepme mark as private name clothing brand.

Yepme.com raised Series A speculation from Helion Ventures Partners, an India-concentrated, ahead of schedule to mid-organize wander fund. In August 2012, Business Today revealed that Yepme has brought 9 million up in complete from Helion Venture Partners and a California-based investor. In September 2015, Yepme raised \$75 million from speculators driven by Malaysian state finance Khazanah Nasional Berhad.

INFIBEAM

Infibeam is an Indian web and web-based business aggregate engaged with web-based retailing, online business programming and web administrations. The organization is headquartered in Ahmedabad, India. It is an online retailer for books, gadgets, and vehicles in India. Infibeam is recorded on the National Stock Exchange of India. Begun in 2007, the organization has workplaces in Ahmedabad, Delhi, Mumbai and Bangalore, and has a sum of 1300 employees. Infibeam propelled a digital book pursuer, Infibeam Pi, its successor Pi2, and a media gadget, Infibeam Phi. Infibeam turned into India's first E-business organization to document an IPO, in July 2015. Infibeam was established in 2007 by Vishal Mehta, a Cornell and MIT Sloan graduate. Subsequent to working for Dell and Amazon.com in the US for a long time, Mehta came back to India in 2007 and began Infibeam alongside a gathering of Amazon employees. He subsidized the organization by offering his own benefits as opposed to deciding on outer value funding. The organization was begun with an underlying capital of ₹ 100-150 million. Infibeam.com began as a car gateway in 2007, yet later transformed into an online retailer. In 2010, Infibeam propelled 'Pi', India's first digital book reader.

In 2008, Infibeam gained Picsquare.com, a customized photograph printing site. In 2014, it obtained Odigma, a computerized advertising organization, for US\$5 million. In 2017, it marked as a Memorandum of Understanding (MOU) to secure DRC Systems, a supplier of big business ERP arrangements and modified programming for internet business applications.

In 2017, Infibeam has converged with CCAvenue, India's biggest installment portal by exchanges, in an arrangement that esteemed the installment door at \$289 million. Also, in 2018 Infibeam obtained Snapdeal's entirely claimed auxiliary Unicommerce - a Cloud-Based E-Commerce Order Management Software for \$120 Crore. Recently, in May 2018 Infibeam Inc. has obtained 100% shareholding of Vavian International Ltd. The arrangement was esteemed \$1.17 million, this made Vavian International an immediate backup of Infibeam Global EMEA FZ-LLC, an auxiliary of Infibeam Incorporation Ltd.

Alignment Balance Scorecard

The main perspective of alignment balance scorecard is strategy. Then, the strategy is connected with five elements which are organization structure, external environment and customers, dominant system, information and growth and lastly internal processes. These five perspectives are also connected with each other as well. The strategy is defined as the plan of action designed to achieve the particular goal of a company. The strategy can be setup using external and internal environment. Based on the strategy an organization can be categorised as prospector, innovator and defenders. Prospectors are the one who have huge amount of financial capability as they can bear any change in policies of an organization. Innovators are the one who do market analysis and customer research. After research they decide which strategy they need to choose. There is no fund crisis or internal crisis in case of innovators. Defenders are the one who focuses more on their internal processes. These organizations go through financial limitations and they basically tend to focus on quality of the product. Considering first perspective of scorecard which is organizational structure. An Organizational structure defines the activities such as task allocation, coordination and supervision which are focused on achieving the goals of an organization. Organization should be efficient, flexible and innovative to achieve the competitive advantage. There are again five components of organizational structure which are formalization, specialization, standardization, work flow complexity and centralization. The second perspective external environment and customers. The parameters of external environment that affects business are socio-political changes, labour force, technological changes and heterogeneity of competitors and hostility. The socio-political changes are the one which affects market as a whole. Example-implementation of GST which affected business model of an organization. The labour force can be affected by the currency difference or manpower changes. The technological change includes the changes at machinery level or changes in material. The heterogeneity of competitors and hostility means the imposition of variety of products in the market and price competition when the same kind of products is there in the market. The third perspective of strategy is dominant system in any organization the various roles pertaining to various tasks are assigned to individual departments. Every company has the following sectors for accomplishing the goals of business. This system adds value to the strategic objectives of the company. This system specifies the range of activities that are taken up by the segments like- IT system that

deals with the technical assets, accounting system that deals with the finances, HR system that deals with the employees, production system that deals with the operations and supply area, customer relation management system for feedback mechanisms, safety system for maintenance department, etc. The fourth perspective of strategy is information and growth. Here, information refers to the facts and figures related to all the competitors in the market and growth refers to from which strategy the company is opting for like form defenders to prospectors etc. The growth of an organization is also taken into account considering sales of a products produced by the company. The fifth perspective of strategy is internal processes. These are restricted to one organization with that of another. these may or may not be universal and thus can lead to difference in the operational behaviour of the firm. These include- formal procedures for internal decision making, execution guidelines for changes and implementations, HR policies for the employee welfare, outsourcing partners' information along with investors information.

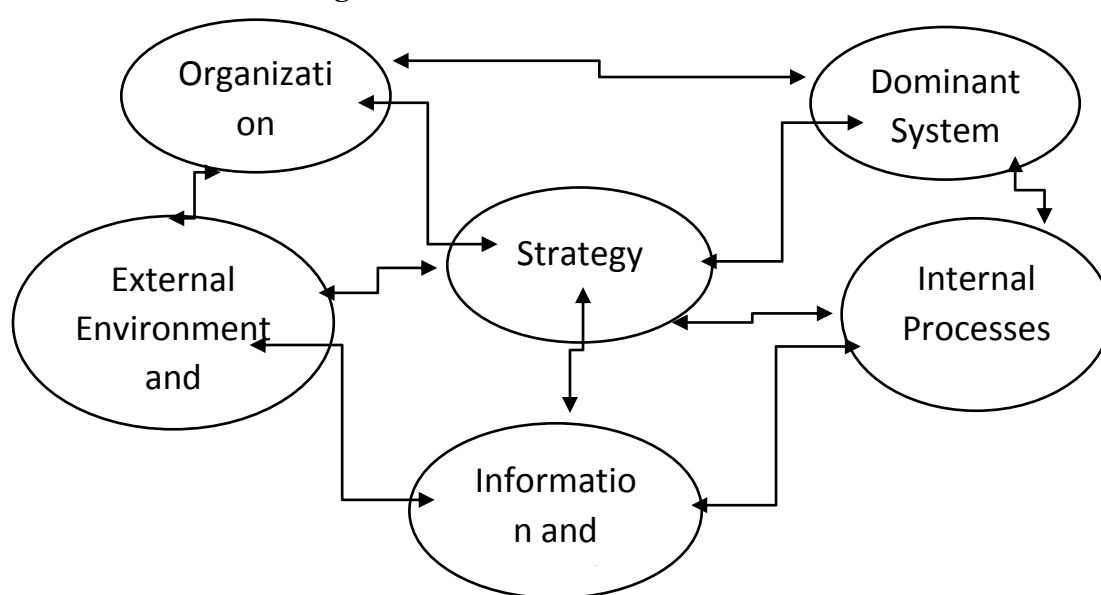


Figure1- Alignment Balance Scorecard

Analysis of online platform which are Infibeam and Yepme

The companies Infibeam and Yepme are compared on the basis of clothes. The table 1 talks about the strategies which are used to compare these two companies. The two companies which are Infibeam[1] and Yepme[2] are compared with clothes price which turnout to be high on Infibeam and low on Yepme. The second strategy which is efficient distribution network is turnout to be low in Infibeam as Infibeam is limited to only Gujarat whereas Yepme is having high distribution network[4]. The Infibeam own and operate on builabazaar.com, which is a cloud-based enterprise platform that provides small, medium and large merchants a ready-to-use e-commerce platform at a cost effective monthly subscription [3]. Now comparing these two companies on the basis of product and service quality. By comparing customer reviews related to both the companies it was found that Infibeam is having low quality of product and services[5] while Yepme is having moderate reviews[6]. The next specification is product and service diversification which is low in both the

companies [7][1]. Infibeam offers huge amount of diversification as the portal includes mobiles, laptops, clothes etc. but in case of Yepme it is limited to clothes only. Last specification is product advancement which is analysed to be high in Yepme and low in Infibeam [1][2]. Yepme manufactures its own product same as amazon but Infibeam is known for its manufacturing products.

Table1			
S.No.	Strategy	Infibeam	Yepme
1	Price	High	Low
2	Efficient Distribution network	Low	High
3	Product and service quality	Low	Moderate
4	Product and service diversification	Low	Low
5	Product advancement	Low	High

The table 2 talks about how external environment and customers influence any business. The first specification in external environment and customers is price competition which is same for both the companies. Both the companies have competitors like flipkart, amazon, myntra, jabong, shopclues etc. the next specification is product variety which is high considering Infibeam and low when Yepme is considered[1][8]. A product line refers to a group of related products under a single brand sold by a company. Product line can vary in size, colour, quality and price. Infibeam is having high product line as compared to Yepme[3]. The product line for Infibeam is 42[3] whereas for Yepme it is 20[9]. The next is tie-ups with logistics which is high for Infibeam [3] and low for Yepme [9].

Table 2			
S.No.	External Environment and customers	Infibeam	Yepme
1	Price Competition	Same	Same
2	Product Variety	High	Low
3	Product Line	High	Low
4	Technological Usage in the company	High	Low
5	Sensing technological advancement which strengthens company		
6	Tie-up with logistics	High	Low
7	Government Regulations	High	Low
8	Payment Partner		

Table 3 talks about information and growth for Infibeam and Yepme. The first specification is customer feedback which is low for both the companies[5][6]. The next is inventory data which basically tells about how many products are purchased by an company and how many of the products are sold to a customer. The inventory data is high in case of Infibeam[3] and low when Yepme is considered[4]. For

transaction information Infibeam and Yepme both have high rating as they are trusted and verified by the customers and even they have in their policy that customer transaction details will not get leaked through any means[9][10]. The next specification is details of the new arrivals. As going through companies website it is observed that Infibeam is having high rating for new arrivals as the new arrival products are flashed on the website itself whereas in Yepme no such advertisement are there for new arrival of products. It is observed that mass of people are relying on amazon and flipkart for their online purchases but very less amount of people rely on these two companies. So, it can be concluded that Infibeam and Yepme are having very less amount of knowledge regarding their competitors in the market otherwise people who are relying on their websites for online shopping should have also considered these two websites for their shopping.

Table 3			
S.No.	Information and Growth	Infibeam	Yepme
1	Customer's feedback	Low	Low
2	Inventory Data	High	Low
3	Transaction Information	High	High
4	Details of new arrivals	High	Low
5	Competitors Information	Low	Low
6	Sales Data	High	Low
7	Marketing Data	Low	Low

Conclusion

With the advancement in internet technology the integration of business with it created a disruptive innovation in the market. The existing market structure saw a huge upsurge in the production volume as well as sales volume. The integration brought with itself innumerable opportunities in the small and medium sector for rescaling the business. in our research paper, we have incorporated the various strategy parameters that determine the operations of the firm in the existing market structure. For the same purpose, we have done rigorous exercise to find out the basis of classification of the requisite factors in our domain of research.

As a conclusion we could draw this inference that its all about the user friendliness of the web portal created by the e-business houses that determine the range of quality attributes on the alignment balance score card of an e-business firm. The further classifications are done upon the same approach in the course of study. Our paper would clearly help one researcher or a firm expecting to be a part of the e-based industry in the country to define its strategy on inception as well as for making decisions about the strategic shift in the coming times.

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Comparing strategic orientation of two online pharmaceutical firms: cases of Netmeds and Medplus

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ABSTRACT

Most of the companies are leveraging the use of information technology to expand their reach among the customers and other associated stakeholders. The trend is followed by almost all the firms industry wide or sartorially. At the same time, they learn by their peers to strengthen their IT based best practices and evolve them strategically compete one another. In the health sector firms are also experimenting the use information technology to leverage its benefit directly or indirectly just like other consumer sensitive online firms e.g. Flipkart, Amazon, Myntra, Zomato, Ola, so on. Likewise, in health sector two recent online based companies that are Netmeds and Medplus are rapidly increasing their market share and gaining popularity. Alignment through Balance Scorecard has been used, in order to compare the orientation of strategies of these two companies. As an outcome of the research, findings are the Strategic Orientation of the two organizations, Critical Success Factors and the future aspects leading to the success of both of the organizations.

This research should help the industry to learn and modify from peer's and researchers can also analyze the orientation. Strategic orientation is about the direction in which the organization is going, the ways to achieve objective and competitive advantage, satisfying the needs of stakeholders and responding to the environment.

Introduction

E-commerce is the activity of buying or selling of products on online services or over the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. After the introduction of internet into the society, it has created a great impact on everything, business is one of them. Now these days business or so called e-commerce uses internet for at least one part of the transaction's life cycle although it may also use other technologies such as e-mail.

Small Business Enterprises (SBEs) do play a major and important role in today's world economy, and they are recognized as one of the main contributors to economic, development and employment growth. According to Mulhern (1995) 99% Available on SSRN-Elsevier

of all European companies are small and medium sized (SME) and from 1985-1995 it provided 66% of the employment in Europe. On the other hand, the revolution in information technology (IT) and communications changed the way people conduct business today.

In recent days business has been using the internet and other electronic media in conducting and giving chances e-marketing to grow very dramatic way. From the author point of view, implementing E-Marketing by small business enterprise can change both the shape and nature of its business all over the world. Because the increase usage of the Internet and other Electronic Marketing tools (i.e.: E-mail, Intranets, Extranets and Mobile phones) in electronic transactions might create not only a lot of opportunists for small business enterprises but also can eliminate a lot of its threats. From this prospective, it is noticed that the Internet, other electronic media tools and Electronic Marketing tools are playing a vital and essential role in conducting marketing activities within business enterprises regardless of its type or size.

It opens the global market to the customer; it helps the customer by providing huge options while buying a product or a service. The online searching and comparing facilities enables customer to select right product or service. Another major advantage of e-commerce is that it is 24x7 available to the customer the customer can shop almost anything within his/hers comfort zone just by sitting at home, office, during travel or almost from any place at any time.

E-Commerce in India

This phenomenon was introduced in India in the mid 1990's. At the very beginning it was providing importance to matrimonial and job portals. But however in India it couldn't grow much faster. Some of the following are the reasons among all the other reasons;

- Limited availability of internet

- Weak online payment system

- Lack of awareness in customers

Due to the above reasons the e-commerce progressed very slowly in Indian market. In mid-2000 the e-commerce industry in India grown rapidly offering online services like travelling, many airline companies started providing the travel services online to customers, even today online travel booking holds a major share of e-commerce space. Today almost everything is sold online in India and one can find a lot of options not only in the choices upon a single online market, but also can find a lot of web sites to compare a single product over the internet.

Literature Review for Strategic Typology of Organizations

Organizational typology is constructed to study the different types of organizations. It relates to the different categories into which organizations can be classified. It involves a scheme of categorization of organizations based on certain general characteristics. Together, these actions make up a company's strategic plan. Strategic plans take at least a year to complete, requiring involvement from all company levels. Top management creates the larger organizational strategy, while middle and lower management adopt goals and plans to fulfill the overall strategy step by step. This

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unified effort to can be likened to a journey. Daily challenges such as road conditions must be overcome to complete sequential legs of the journey, which eventually lead to the ultimate destination.

According to the most popular theory of Miles-Snow typology the organizational strategy of an organization can be categorized in to different categories. In their 1978 book *Organization Strategy, Structure, and Process*, Raymond E. Miles and Charles C. Snow argued that different company strategies arise from the way companies decide to address three fundamental problems: entrepreneurial, engineering (or operational), and administrative problems. To eradicate all the above mentioned organizational issues, each & every organization approaches different kind of solutions. As a result, they postulated that there are four general strategic types of organizations: prospector, defender, analyzer, and reactor organizations.

Prospector

The companies come under this category continually search for product and market opportunities, and regularly experiment with potential responses to emerging environmental trends. They always support the production of new products and are the creators of change and uncertainty to which competitors must respond. A prospector distributes power across different parts of the organization in order to encourage flexible and innovative behavior that should allow it to locate and exploit opportunities for new ventures.

Defender

The companies that come under this category have a small area of market interest. The top level managers in these organizations are highly expert in their perspective areas as they have to control and manipulate a limited market area. As a result, these organizations seldom need to make major adjustments in their technology, structure, or methods of operation. Defender characteristics include a limited product line, a single, capital-intensive technology, a functional structure, and skills in production efficiency, process engineering, and cost control. In this kind of organization the top level employee has only the authority to have the information and only they have the superior power to take the important decisions.

Analyzer

Analyzers work in stable and changing product-market domains. In a stable domain, analyzers operate routinely and efficiently through the use of a formal structure and processes. These are the companies which have the greater potential to adopt the new ideas according to the changing level of competition in the market. Analyzers tend to have a limited basic product line, a small number of related product and/or market opportunities, and technology for stable and new products that is cost efficient.

Reactor

These are the kind of organization in which the top level managers or employees of the organization have the high level of environmental uncertainty. These are so called because the organizations come under this category don't take any important step until and unless they are forced to do so by the external factors. Unlike defenders or prospectors, reactors have no predictable organizational structure; some may be centralized, whereas others are decentralized. They do not possess a set of mechanisms that would allow them to respond consistently to their environment

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Organizational Alignment for “Fit”

Strategic fit among many activities is fundamental not only to competitive advantage but also to the sustainability of that advantage. It is harder for a rival to match an array of interlocked activities than it is merely to imitate a particular sales-force approach, match a process technology, or replicate a set of product features.

When formulating corporate strategy, researchers have emphasized the importance of fitting or aligning the organization's strategy with an internal appraisal of the firm and an external assessment of environmental opportunities and threats (see Ansoff, 1965; Andrews, 1971). Its important in formulating strategies as well as in their implementation. Implementation is fostered by aligning and adjusting key systems, processes, and decisions within the firm (Galbraith and Nathanson, 1978; Lorange and Vancil, 1977; Stonich, 1982; Kaplan, 2005).

The idea of fit has been promoted in the strategy literature from various perspectives. For instance, In Search of Excellence (Peters and Waterman, 1982), the 1982 best-selling book, proposed that when firms achieve an integrated harmony among three “hard” “Ss” of strategy, structure, and systems, and four “soft” “Ss” of skills, staff, style, and super-ordinate goals, they tend to become higher performing or excellent firms.

Alignment requires a shared understanding of organizational goals and objectives by managers at various levels and within various units of the organizational hierarchy. A firm's ability to seek and maintain a competitive advantage rests on its ability to acquire and deploy resources that are coherent with the organization's competitive needs (Porter, 1996). However, some strategy researchers have argued that too much alignment may result in firms with components that are very tightly coupled and lead to problems with adapting to a dynamic external environment. For instance, Hagel and Singer (1999) argue that fit should be considered in light of the interaction costs faced by a firm. They contend that if the interaction costs of performing an activity within the confines of the firm are higher than the costs of performing it externally, then it ought to be performed externally rather than attempting to create a fit within the tightly couple bounds of the firm.

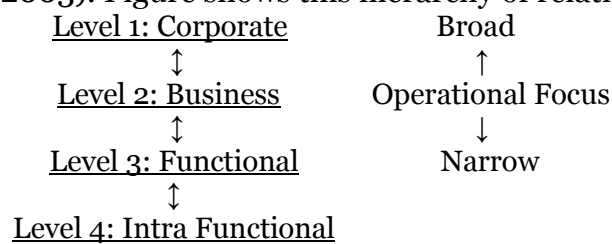
Forms of Alignment for “Fit”

The organizational alignment can be categorized into two types of organizational alignment – vertical and horizontal or lateral. Vertical alignment refers to the configuration of strategies, objectives, action plans, and decisions throughout the various levels of the organization. The conceptualization of strategy at three levels – corporate, business, and functional (which refer to as levels 1, 2 and 3, respectively in Figure 1) – has gained widespread acceptance in the literature. In addition to coordinating activities and priorities across each of these three levels, vertical alignment depends on coordination at a fourth level – the decision areas within each function (Kathuria and Porth, 2003).

Vertical Alignments

Businesses with a large number of employees often choose to run a vertical organization, which is typically structured like a pyramid with executives at the top,

midlevel managers in the middle, and low-level managers and employees at the bottom. In vertical organizations, other senior-level executives make all the major decisions and communicate those decisions to midlevel managers. These managers develop methods to implement decisions and communicate these methods to the low-level managers that are responsible for supervising employees as they go about their daily tasks. This top-down structure has a defined chain-of-command and strict protocols regarding how employees can make suggestions that reach the upper levels of company. The conceptualization of strategy at three levels – corporate, business, and functional has gained widespread acceptance in the literature. In addition to coordinating activities and priorities across each of these three levels, vertical alignment depends on coordination at a fourth level – the decision areas within each function (Kathuria and Porth, 2003). Figure shows this hierarchy of relationships.



Horizontal Alignment

If company culture is all about tapping into the creativity and imagination of their staff and empowering them to do their jobs without micromanagement, then it may want to set up a horizontal organizational structure. In this structure, it grants employees the authority to make decisions without having to obtain executive approval. A horizontal organization has few – if any – managers because the focus is on empowering the staff members and removing any barriers between the executive level and the staff level. Teamwork, collaboration and the exchange of ideas are the hallmarks of a horizontal organization.

Theory Building and Analysis

Depending, on the above explained alignment an organizational strategy is the sum of the actions a company intends to take to achieve long-term goals. Together, these actions make up a company's strategic plan. Strategic plans take at least a year to complete, requiring involvement from all company levels. Organizational strategy consists of following categories;

- Organisational Structure
- Dominant System
- Internal Process
- Information & Growth
- External Environment & Customer

Organizational Structure

Organization structure is a system of task, reporting, and authority relationships within which the work of the organization is done. Thus, structure defines the form and function of the organization's activities. Structure also defines how the parts of an organization fit together, as in an organization chart. The organizational structure can be classified into following dimensions

Standardization

It refers to the degree of behavioural variation that is tolerated by the rules and regulations that define the activities specific to each position within an organization.

Formalisation

The formalization can be defined as the degree to which jobs activities (occupations) within an organization are standardized using rules and procedures, job descriptions, etc.

Specialization

It refers to the number of specialized tasks that exists within the organization and the training period required by each of these specialized activities.

Complexity

It refers to the differentiation degree that exists within an organization.

Centralization

Centralization can be defined as the degree to which decision-making process is concentrated at a single level within the organization. It is not about other form of spatial differentiation, what interesting here is the dispersion of authority and not the geographical one.

	Company A	Company B	Reviews
Standardization	High	High	Since both of the organizations are following flat hierarchy.
Formalization	High	Moderate	As per the survey it has been found that Company A is following better regulations than Company B
Specialization	Moderate	Moderate	Both of the organizations are having Specialized workforce on Healthcare domain
Work flow complexity	Low	Low	Both platform are providing good working culture and environment
Centralization	High	Moderate	Being a flat hierarchy, every employee as their roles & responsibilities

Observation 1: Comparison on Organization Structure

Comparison On the Basis of Dominant System

Dominant system of an organization is a system that measures the effectiveness and efficiency of the other system that really affects the alignment with attribute of the organization. The identification of distinctive and effective forms of economic organization in East Asia has emphasized the close connections between dominant social institutions and ways of coordinating economic activities as well as the interrelations between firm and market characteristics in separate business systems. Differences in major institutions thus generate significant variations in how firms and markets are structured and operate. These variations suggest that an important element in the analysis of market economies is the comparison of firm-market

relations across institutional contexts. This requires their key characteristics to be identified. These can be summarized under three main headings which constitute the components of business systems: the nature of firms as economic actors, the nature of inter-firm relations in markets and the nature of authoritative co ordination and control systems within firms.

	Company A	Company B	Review
Production System	Low	Low	Since they are just a platform so their production is very less
Finance Allocation	High	Low	Since presence of Company A in national market is higher than Company B
Controlling System	High	High	As per the volatile markets they both are having very controlled strategic system
Exception Reporting Information System	High	High	Both of the companies are having good technical support team to handle all the exceptions
CRM System	High	Moderate	As Company A is more of customer centric company in terms of providing medical consultation support, they are having better customer relationship management system.

Observation 2: Comparison on Dominant System

Comparison On the Basis of Information & Growth

The advancement of technologies and Information Systems (IS) associated with the search for success in the competitive market leads organizations to seek strategies that assist in acquisition, retention, storage, and dissemination of knowledge in the organization in order to be reused in time, preserving its Organizational Memory (OM). Growth is something for which most companies strive, regardless of their size. Small firms want to get big, big firms want to get bigger. Indeed, companies have to grow at least a bit every year in order to accommodate the increased expenses that develop over time.

In an increasingly competitive and globalized world, organizations are constantly changing in order to stay in the market. This constant competitiveness leads organizations to seek more and more quality not only in the products and services offered but also in their strategies, decisions and structures. However, these changes in the organization, whether strategic or structural, may result in a loss of the accumulated knowledge retained in an individual. Once the information is generated the organization has to be aware of and seek mechanisms and that enable to keep this accumulated knowledge in the organization.

As of the above explanation, an entrepreneur or an organization has to track the organizational record on a regular basis. This is because face variety of problems in an endeavour to setup new enterprise particularly during the growth phase of the organizational life cycle. Growth obstacles and problems of the entrepreneurs have been studied by many researchers and provided detailed solutions in this regard. The growth process itself generates complexity for the firm because of the growth crisis arising at different stages as described by the growth models.

Growth aspiration is at the heart of any enterprise soon after its set up and addressing the problems of the start-up phase. This is a turning point for most of the firms and very critical to decide its future whether to pursue the growth challenges or just concentrate on maintain a particular life style without wishing growth benefits. It is very critical for the organizations facing the growth challenges of the different stages as elaborated in the growth models. Because the growth process can create a lot of complexity for the company and if not handled properly, such crisis can become very damaging for these entrepreneurial ventures. The pace of growth is also an important aspect of consideration for the entrepreneurs and it depends upon the growth rate of the industry and profitability of the enterprise.

Growth Models and Growth strategies are of vital importance for the entrepreneurs pursuing the growth. Entrepreneurs should be careful in the selection of strategies for the firm especially the growth strategies. Because choice of one strategy may be suitable for a firm while it is not for the other. The choice between both of the growth strategies should carefully be evaluated considering all these aspects and growth strategy should be selected according to the requirement of the particular firm for which entrepreneur is pursuing growth option. Sometimes choice of combination of different strategies may be effective for the firm.

	Company A	Company B	Review
Financial Expertise Skill	High	High	Since the revenue of both the companies is increasing year on year (YoY) so it has been can predict that they are having expert financial skills
Production Expertise Skill	Low	Low	As they don't have any main production line for their revenue so having a expert skill set in production is not on priority
Technology Advancement for Price Reduction	High	Moderate	Both of the organizations are working for better logistics and delivery services to reduce price.

Observation 3: Comparison on Information & Growth

Comparison On the Basis of Internal Process

The business processes that can be executed without involvement of an external business partner such as the internal production process are called internal processes. The internal environment includes all elements that are endogenous to the organization, which are influenced to a great extent and totally controlled by it. The study of the internal environment must answer all resource related questions, solve all resource management issues and represents the first step in drawing up the marketing strategy.

An organization's internal environment is composed of the elements within the organization, including current employees, management, and especially corporate culture, which defines employee behavior. Although some elements affect the organization as a whole, others affect only the manager. A manager's philosophical or leadership style directly impacts employees. Traditional managers give explicit instructions to employees, while progressive managers empower employees to make

many of their own decisions. Changes in philosophy and/or leadership style are under the control of the manager. The following sections describe some of the elements that make up the internal environment.

An organization's mission statement describes what the organization stands for and why it exists. It explains the overall purpose of the organization and includes the attributes that distinguish it from other organizations of its type.

	Company A	Company B	Review
Low Pricing	High	High	As per the delivery and offers both of the companies are going neck to neck
Quality Conformance	High	Moderate	Delivery and package quality is better in Company A as per the google reviews
Quality Assurance	High	High	Delivery and package quality is better in Company A as per the google reviews
Product Processes	Low	Low	As they don't have any main production line for their revenue so having a product process is not on priority
Customer Satisfaction	High	High	Customer satisfaction criteria is on high priority for both the organizations
Single Core Production Technology	Low	Low	As they don't have any main production line for their revenue core production technology is low
Internal Stability	High	Moderate	As per the statistics found on survey Company A is more stable internally

Observation 4: Comparison on Internal Process

Comparison On the Basis of External Environment and Customer

An external environment is composed of all the outside factors or influences that impact the operation of business. The business must act or react to keep up its flow of operations. External factors have crucial impact to SMEs environment. Nowadays business environment is more global and competitive than it has been in the past. A range of business factors are connected to SME's competitive advantage. The aim of this research is to show the importance of external and internal factors in creation of the SME's competitive advantage. The resource – based view of the SMEs, such as capabilities, competencies etc., and the threat of new entrants, rivalry, threat of substitutes, supplier power and buying power; the combine of these factors are in the center of this study. Firms need to better understand the competitive environment and develop strategies that create sustained competitive advantage. Then the study of methodology used on this study which consists in a combination of qualitative and quantitative method.

To realize the aim of this study are determines some objectives and research question pertaining the impact of the external and internal factors, such as Porter's five forces or, tangible and intangible assets in the creation of competitive advantage etc. Based Available on SSRN-Elsevier

on the research questions are made hypothesis. The empirical analyze is done to understand the potential sources of competitive advantage for SMEs. Study consists on a final sample of 460 participants from different small and medium enterprises in Northern Albanian Region. It is used regression analysis. The result revealed that both, external and internal factors have positive affect in competitive advantages of SMEs. Based on the result of this analyze are done conclusions. Findings support the idea, within limitations, that external environment has greater impact than internal environment on SME's success. Results strongly suggest some important academic and practitioner implications and some suitable recommendations.

	Company A	Company B	Review
Customer Retention	High	Moderate	As Company A is more stable organization the retention is better in it.

Observation 5: Comparison on External Environment and Structure

Overall Comparison			
	Company A	Company B	Remarks
Organizational structure	High	Moderate	Overall study of the organization, Company A is highly structured
Dominant System	High	High	Both are having Internet Technologies as Dominant System.
Internal Process	Moderate	Low	As per the statistics found on survey Company A is more process oriented internally
Information & Growth	High	Moderate	As both of them are internet based market so their growth is highly dependent on it
External environment & customer	High	High	As per the trend in environment, customers are relying on healthcare e-commerce.

Observation 6: Overall Comparison

Real Time Survey Report

As our study totally deals with the strategy of the e-commerce organization Company A and Company B against above parameters mentioned in BSC (Balance Scorecard), personal interview (over social media – LinkedIn) and survey had been conducted. Their personal comments and feedbacks were taken into consideration. At the end, questionnaires were asked to be filled to register their demographics and personal details.

Processing of The Data for Analysis

Once the respondents were addressed, questionnaires were filed; the data was registered to the software “Google Analytics”. The data was then run under “Descriptive Statistics”.

AGE:

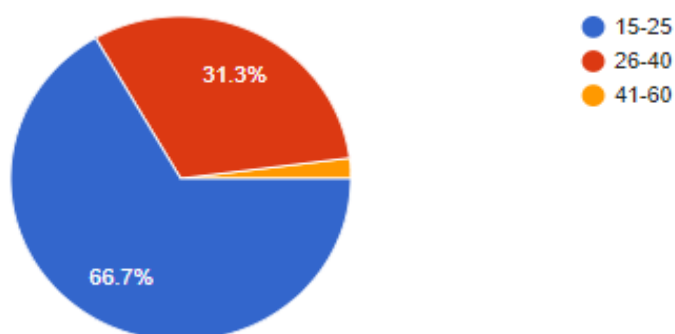


Figure 1: Pie-Chart for Age

Interpretation

The age of the respondents after taking the survey was

66.7% - 15-25 years

31.3%- 26-40 years

2% - 41-60 years

GENDER

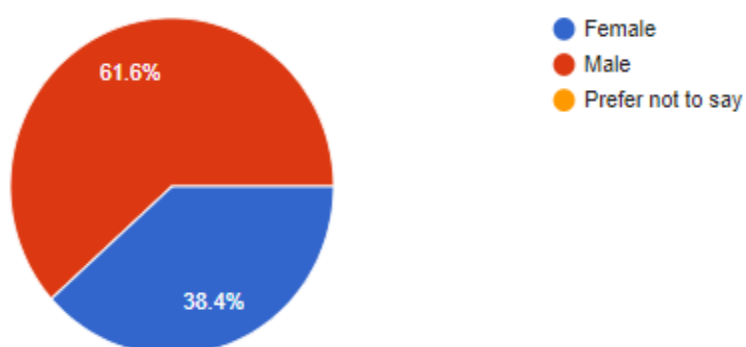


Figure 2: Pie-Chart for Gender

Interpretation

The gender after taking the surveyed were

Male – 61.6%

Female – 38.4%

Occupation

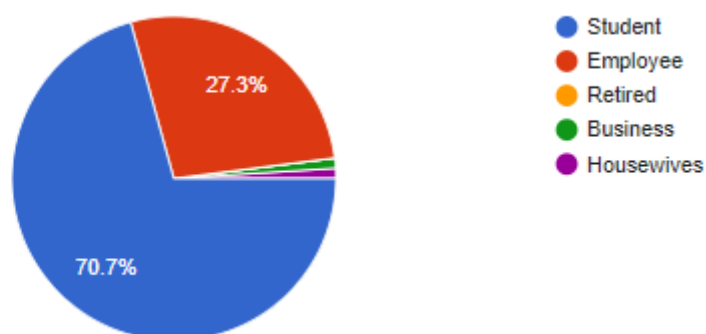


Figure 3: Pie-Chart for Occupation

Interpretation

The Occupation of the people who had been surveyed are

Students- 70.7%

Employee- 27.3%

Business- 1%

Housewives- 1%

Salary

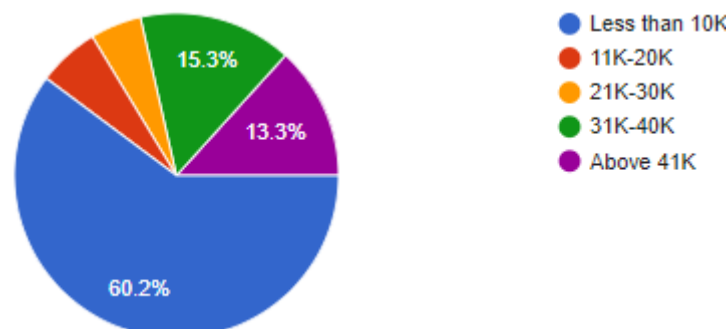


Figure 4: Pie-Chart for Occupation

Interpretation

The salary of the people who had been surveyed are

Less than 10k – 60.2%

Between 11k-20k – 6.1%

Between 21k-30k – 5.1%

Between 31k-40k – 15.3%

Above 41k – 13.3%

People Using Company A

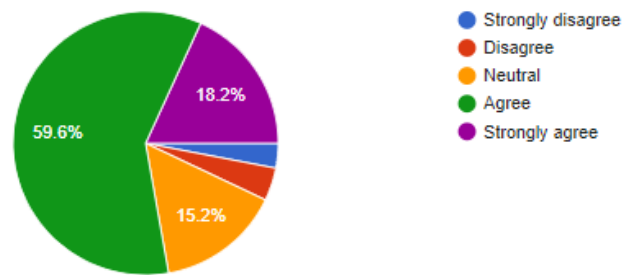


Figure 5: Pie-Chart for People Using Company A

Interpretation

According to the survey taken, around 3% people strongly disagreed that the Quality of the Company A and enables customer to buy the product.

Around 4% people disagreed that the Quality of the Company A motivates and enables customer to buy the product.

Around 15.2% people were neutral that the Quality of the Company A motivates and enables customer to buy the product.

Around 59.6% people agree that the Quality of Company A motivates and enables customer to buy the product.

Around 18.2% people strongly agreed that the Quality of the Company A motivates and enables customer to buy the product.

People Using Company B

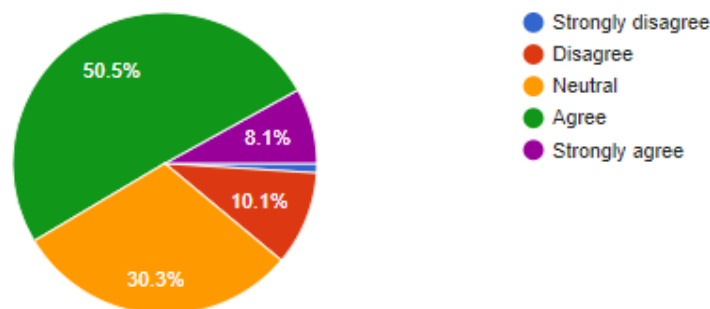


Figure 6: Pie-Chart for People Using Company B

Interpretation

According to the survey taken, around 1% people strongly disagreed that the Quality of the Company B and enables customer to buy the product.

Around 10.1% people disagreed that the Quality of the Company B motivates and enables customer to buy the product.

Around 30.3% people were neutral that the Quality of the Company B motivates and enables customer to buy the product.

Around 50.5% people agree that the Quality of Company B motivates and enables customer to buy the product.

Around 8.1% people strongly agreed that the Quality of the Company B motivates and enables customer to buy the product.

Questionnaire

- Comparison based on user Interface of the website.
- Comparison based on payment gateways
- Comparison based on Stock available
- Comparison based on Logistics quality and delivery time
- Comparison based on product availability and variety of products
- Comparison based on security of payment
- Comparison based on customer care services
- Comparison based on live/online doctor consultation

SWOT Analysis

It is often said that the E-COMMERCE sector has no cyclical factor attached to it. Irrespective of whether the economy is in a downturn or in an upturn, the general belief is that demand for products is likely to grow steadily over the long-term.

True in some sense. But are there risks? This article gives a perspective of the Indian e-commerce industry by carrying out a SWOT analysis (Strength, Weakness, Opportunity, and Threat).

SWOT Analysis of Company

Strength

Better reach to customer and attract them.

Accessibility and easiness

Weakness

Limited to some states of India.

Customer loyalty becomes a bigger issue as there is a minimal direct customer-company interaction

Opportunities

Scale up the reach in different geography

Tie up with health insurance companies

Threats

Uncertainty of GST and other Tax regulation.

Market capture by different other providers, who has better reach.

SWOT Analysis of Company B

Strength

Keep an eye on buyer's habit.

Sell across the country.

Weakness

Hackers attacked once, so low security.

Inability to experience products beforehand leads to more checkout dropouts.

Opportunities

Scale up with physical stores as well

Tie up with health insurance companies

Threats

Uncertainty of GST and other Tax regulation.

Market capture by different other providers, who has better reach.

Conclusion

As a conclusion, business environment involves internal and external environment. Business environment is important for an organization to identify the weaknesses and threats. A firm maybe strong in certain areas and it may be weak in some other areas. The firm should identify weaknesses and threats so as to correct it as early as possible. This helps an organization to reduce the risk of getting failure in their operation and development in new product. PEST analysis and Porter's Five analysis is used to find out the external environment, where, value chain analysis and SWOT analysis is used to find the internal environment of an organization.

Strategy is about the direction in which the organization is going, the ways to achieve objective and competitive advantage, satisfying the needs of stakeholders and responding to the environment. Different organization develops different strategy in order to respond to the environment of their organization. They can identify that these both companies are prospectus in their strategic orientation as per the study.

Business environment have a great impact on the working of business. It may also lead to its failure or success. The factor affecting may be internal or external it needs to be analyzed timely so that measures can be taken and any type of lose or resentment among interested parties is prevented.

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Appendix

Company A

MedplusMart.Com is the online gateway to favourite OTC and general store, MedPlus. At medplusmart.com can order the products to their customers regularly buy from our stores from the convenience of home and pick them up from a MedPlus store near everyone. To start shopping, simply search for the products anyone wish to buy, choose the quantity and place the order. They should inform the customers when the products are ready for pick up. All orders are filled within 6 hrs during the regular business hours and on the next day for evening or weekend orders.

At medplusmart.com, one can also view or **take prints** of all previous **MedPlus bills**, and conveniently **reorder** the products bought earlier. Regardless of how one shop at MedPlus, be assured that they should continue to offer them high quality and **genuine** products, stored and handled in optimal conditions at **attractive discounts**.

MedPlus has always been and continue to be everyone's **one-stop shop** for all the **OTC and general** product needs, now with the added convenience of shopping from home at the click of a button. This is an online platform which not only focused to the marketing but also takes care of the followings;

- Authentic list of products

- Superior buying experience

- On-time delivery of products

- Quick resolution of any concerns

Company B

Netmeds.com, India Ki Pharmacy, is brought by the Dadha & Company – one of India's most trusted pharmacies, with over 100 years' experience in dispensing quality medicines. At net meds they look after the health and provide the best healthcare inside India. Everyone can buy and send medicines from any corner of the country - with just a few clicks of the mouse.

At netmeds.com, we make a wide range of prescription medicines and other health products conveniently available all across India. Even second and third tier cities and rural villages can now have access to the latest medicines. Since they also offer generic alternatives to most medicines, online buyers can expect significant savings.

About Buying & Sourcing

For both the companies buying and sourcing team's sole aim is to select what items should be stocked in a store, based on his or her predictions about what should be popular with shoppers. One of the main roles of a buyer is to negotiate with the clothing vendors. Buyers may negotiate with vendors on a regular, sometimes daily, basis. It is important for a buyer to establish a strong relationship with the vendors since it should be beneficial to both parties. This follows the inventory models of the organization.

Inventory Models

Shopping websites where online buyers choose from among products owned by the online shopping company or shopping website take care of the whole process end-to-end, starting with product purchase, warehousing and ending with product dispatch. A few examples of such are Netmeds and Medplus.

Outright or bought out- In the outright or bought out model, products are available from various brands and stored in the warehouse.

Managed marketplace model- In the managed marketplace model, both keep the inventory but take care of service and returns for the consumers.

Sell or Return- In the sell or return model, goods should be shipped or sent or transferred by the supplier. However, they should pay for these goods only when these goods are sold by the company or used by them. If these goods are not sold then they should be returned by the suppliers.

M-Commerce Acceptance in India: Model Development and Validation

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ABSTRACT

The main aim of the present study was to propose and validate a model explaining the factors influencing the M-Commerce Acceptance among the Indian consumers. The data was generated employing close-ended structured questionnaire from the students enrolled in AKTU affiliated institutions in the largest state of India i.e. Uttar Pradesh. The data was analyzed with the help of exploratory factor analysis (EFA) and structural equation modeling (SEM). The study findings suggest that perceived ease of use (PEU) significantly and positively influences intentions of Indian consumers to accept mobile commerce. The study findings also suggest that utility and innovativeness in information technology (IIT) are predictors of perceived ease of use (PEU). The findings from the present study are expected to assist academicians, researchers and practitioners to understand the phenomenon of m-commerce acceptance by Indian consumers.

Introduction

In India on the back of rising Internet population and augmented online shoppers the digital commerce market is expected to cross \$50 billion mark by the end of 2018 from the current level of \$ 38.5 billion (2017) (ASSOCHAM Deloitte joint study). India is still a big growth story. Assuming conservative GDP increases of 6% to 7% a year, by 2025, we expect consumption outflows to rise and to reach \$4 trillion. India's nominal year-over-year expenditure growth of 12% will make India the third largest consumer market by 2025. (Singhi, Jain and Sanghi, 2017)

The 'digital commerce' Indian market has grown progressively. Devices like smartphones, tablets and technologies like 4G, 5G, Wi-Fi and high-speed broadband is helping to intensify the number of digital customers transacting online. Players in e-commerce and banks are providing payment gateways for a secured online transaction run effortlessly giving rise to smooth transactions. Due to increase mobile penetration, m-commerce sales and improvement in payment modes, the businesses are now focusing on more mobile friendly transactions and applications which is acting as major platform for digital growth in India.

In India the trend is now shifting from desktop to mobile (smartphone) devices and therefore increase in mobile commerce can be seen. According to the joint study by Assocham and Deloitte, one out of three customers, in tier-1 and tier 2 cities in India, Available on SSRN-Elsevier

currently makes transactions through mobile phones. The study also reveals that 82 percent customers in 2017, made shopping queries through mobile devices, which is 6 percent increase from previous year i.e. 2016. This figure is expected to grow in future also. In 2017, the highest growth rate in m-commerce was found in apparel industry (72%), followed by food items (65%), electronic items (63%), beauty care (52%) products and home furnishing (49%) reveals the study. The survey also highlighted that 70 percent of regular shoppers lie between the age group of 18-35 years (ASSOCHAM, 2017).

In 2017, the global mobile industry, having surpassed 5 billion people connected to mobile services, will reach further milestones over the next years. By 2025, the number of unique mobile subscribers may spread to 5.9 billion (71% of the world's population). Growth will be driven by developing countries, particularly China, India, Pakistan, Bangladesh and Indonesia, along with Latin America and Sub-Saharan Africa. Including contribution to the UN's Sustainable Development Goals (SDGs), mobile internet acceptance is increasingly becoming the key metric to measure the reach and value created by the industry (A Small Footprint, Financial Express, 2017).

By 2025, it is expected that mobile internet infiltration will reach 61 percent of the global population and 86 percent of unique subscribers. Majority of 1.75 billion increased customers in the mobile internet segment between 2017 and 2025 will come from China followed by India (330 million). Increased coverage of 4G and 5G networks align with affordable smartphone tariffs and social media outreach will be the major influencers and drivers in the growth of mobile users.

Globally between 2017 and 2025, smartphone acceptance will grow by 20 percentage points, thus becoming the leading handset type in all individual regions by 2020 and nearly all individual countries by 2025. By 2025, there will be more than 10 markets in the world with over 100 million smartphone connections (The Mobile Economy, 2017).

Customers can now get alerts, purchase and pay, view product catalogues with a simple mobile application offering a great user experience. The biggest driver of m-commerce in India is the greater adoption of Internet and smartphones. The smartphone is steadily growing and consists of 55% of the overall mobile phones market in the country. The e-commerce success rate is directly connected to the success of some technologies (A Small Footprint, Financial Express, 2017).

According to June (2014), convenience, efficiency, wider selection options and rich information are some benefits of the adoption of *m-commerce*. Some researchers like Eastin, (2002); Tiwari and Bose, (2007); Chong, Chan and Ooi, (2012) have also highlighted effectiveness of m-commerce in banking services, shopping, easy payment options, etc. Plouffe, Hulland and Vandenbosch, (2001) highlighted some concerns too where one of the major concerns is the cost for adopting m-commerce. According to Hung, Yang and Hsieh (2012) consumer intent to embrace m-commerce may have a large bearing on such factors like security, privacy etc.

As per Census (2011), the majority if Indian population holding the key for the success of m-commerce in India, resides in small villages and towns. Yiu and Soman, (2016) also supported this claim in their publication. Recent reports (The Financial Express, March 22, 2016; Kalaari Capital Report, 2017) have suggested that small towns have great potential for m-commerce growth in India and there is a need to inspect customer preferences in small towns as well. Contrary to previous studies, this paper takes the perspective of Indian consumers living in Tier 2 cities. Previous

studies (Wu and Wang, 2005; Tiwari and Bose, 2007; Wei *et al.*, 2009; Maity, 2010; Agrebi and Jallais, 2014; Kim *et al.*, 2009; Chou *et al.*, 2010; Malhotra and Malhotra, 2009; Maity, 2010; June, 2014; Cabanillas *et al.*, 2017) analysed their models and understanding on consumers located in metropolitan cities.

Literature Review

The notion of m-commerce recognition has its origin in the Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB) which was proposed by Fishbein and Ajzen (1975), Ajzen and Fishbein (1980) and Ajzen (1985). As per Chen, Gillenson and Sherrel, (2002), these models have been replicated time and again and are well-established models in order to explain consumer behaviour in various cultural and industrial contexts. Further Davis (1989) tried to replicate this model by adding technological usage, thus proposing Technology Acceptance Model (TAM). TAM used perceived usefulness, ease of use, usage attitude, usage intention, and actual system use for understanding the customer intentions. Igbaria, Zinatelli and Cragg, (1997) and Venkatesh and Morris, (2000) are few studies which tried to re-validate TAM and new models (TAM2) have been proposed by Venkatesh and Davis in 2000. Table 1 below shows various factors studied in the literature for m-commerce acceptance model.

Earlier studies on m-commerce were mainly based on TAM and TAM2 (Cheng *et al.*, 2006; Wei *et al.*, 2009; Chong *et al.*, 2010). In the context Chong *et al.*, (2012) dealt with m-commerce, Chen (2012) tried to deal with shopping online and Zarmouh *et al.*, (2012) tried to focus upon other mobile services. Recently Taylor and Strutton (2010) examine the importance of perceived usefulness for m-commerce consumer acceptance. Perceived usefulness could positively influence the intention of purchase (Chou *et al.*, 2010; Kim, Ferrin and Rao, 2009). For determining the mobile usage, perceived usefulness can be a critical determinant (Hung *et al.*, 2007; Lin and Shih, 2008). According to other researchers (Chong *et al.*, 2010; Choi, 2017), perceived usefulness can be useful in determining the adaptability of technology. Similarly, recent researches have shown that perceived ease of use can also have a straight impact on the post adoption usage of m-commerce (Taylor and Strutton 2010; Choi, 2017). Researchers like Nysveen *et al.*, 2005; Ha, Yoo and Choi, 2007; Zhou, 2011; Chong *et al.*, 2012 have revalidated the impact of perceived ease of use on TAM and TAM2.

There are many researches pertaining to innovativeness in the acceptance model for m-commerce (Lu *et al.*, 2005; Kwon, Han *et al.*, 2006; Choi and Kim, 2007; Hung *et al.*, 2007; Wu, Li and Fu, 2011; Zhao, Lu and Gupta, 2012). Innovativeness also acts as an indicator of their risk tolerance of consumers as it reflects the confidence in their ability to use new technology (Sun, 2012). According to Wei *et al.*, (2009) perceived cost of the technology can be detrimental for the m-commerce acceptance model especially for young consumers living in Asian countries. This factor cost is also confirmed by Dai and Palvia (2008). The cost factor is quite a significant factor particularly in India where young consumer market is growing (Wei *et al.*, 2009; Lu *et al.*, 2016).

Table 1: Review of previous studies pertaining to m-commerce acceptance.

Factor	Studies related to the implementation of these factors
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<i>perceived ease of use</i>	Lederer <i>et al.</i> , (2000), Davis (1989), Lu <i>et al.</i> (2005); Taylor and Strutton (2010); Kim, Ferrin and Rao, (2009); Sadia, (2011); June, (2014); Choi, Kim and Kim, (2011); Choi, (2017); Nysveen <i>et al.</i> , (2005); Ha, Yoo and Choi, (2007); Liu and Forsythe, (2011); Zhou, (2011); Chong <i>et al.</i> , (2012); Cabanillas <i>et al.</i> (2017).
<i>perceived usefulness</i>	Lederer <i>et al.</i> , (2000); Chou <i>et al.</i> , (2010); Kim, Ferrin and Rao (2009); Hung <i>et al.</i> , (2007); Lin and Shih (2008); Kim <i>et al.</i> (2011); Jeyaraj, Rottman and Lacity (2006).
<i>Technological acceptance</i>	Hsu and Lu, (2004); Chong <i>et al.</i> , (2010) and Wei <i>et al.</i> , (2009); Choi, (2017).
<i>Innovativeness in information technology</i>	Lu <i>et al.</i> , (2005); Kwon, Han <i>et al.</i> , (2006); Yi, Fiedler and Park (2006); Choi and Kim, (2007); Hung <i>et al.</i> , (2007); Aldas-Manzano, Ruiz-Mafe and Sanz-Blas, (2009); Wu, Li and Fu, (2011); Zhao, Lu and Gupta, (2012); Agarwal and Prasad (1998); June (2014); Sun (2012).
<i>Cost (equipment, transaction cost and access cost)</i>	Wei <i>et al.</i> , (2009); Grandson and Pearson, (2004); Wu and Wang, (2005); Dai and Palvia (2008); Lu <i>et al.</i> , (2016).
<i>Perceived risk</i>	Moorman, Zaltman and Deshpandey, (1992); Warrington, Abgrab and Caldwell, (2000); Sultan and Mooraj, (2001); Gefen and Straub, (2003); Forsythe and Shi, (2003); Cho, (2004); Wu and Wang, (2005); Taylor, (1974); Suh and Han, (2002); Zhao, (2011); Lin and Chen, (2012); Zhao <i>et al.</i> , (2012); Cabanillas <i>et al.</i> (2017).

Another hurdle in the m-commerce acceptance is the privacy and security issues taken up by some researchers. With no or little information, the risk is greater and customers do not trust online transactions (Bagozzi, 1998; Ba and Pavlou, 2002; Forsythe and Shi, 2003). Recently, Cabanillas *et al.* (2017) speculated that trust of the consumer is the key determinant in user decision for accepting mobile technology. Wu and Wang (2005) and June (2014) have comprehensively analyzed acceptance intentions of the *m-commerce* model. They have examined the factors *perceived usefulness*, *perceived risk*, *cost*, *compatibility* and *innovativeness in information technology* for predicting the consumer intention to accept *m-commerce* for their transaction and usability.

To understand the consumers' better vis-à-vis m-commerce acceptance looking at the issues discussed in literature, the researchers have identified factors like perceived risk, intention to use a technology, perceived cost, perceived usefulness, compatibility etc. for predicting customer acceptance to m-commerce.

Research Methodology

Scale development

The questionnaire items can be classified into two section. In the first section, there are items (Table 1) based on 5-point *Likert scale* (1=*strongly disagree*; 5= *strongly agree*). These items were adapted from the studies by Wu and Wang (2005) and June (2014) for the purpose of scale development and refinement in the Indian context. The *second* section was intended to generate demographic information of respondents such as *gender* (male or female), *age* (Under 25 years or 25 years and above), *educational qualifications* (graduation or below and post-graduation) and *family income* (below ₹ 20,000; ₹ 20,000-40,000; ₹ 40,000-60,000 and above ₹ 60,000).

Sample

Previous studies, in the Indian context, have suggested that the youth population in India is in significant numbers. For examples, the studies have observed that the proportion of *youth* (population in the age bracket of 15-29 years) in total Indian population is around 35 percent (Heslop, 2014; Lu *et al.*, 2016; Central Statistics Office, 2017). According to the estimates by *National Commission on population* (2006), the average age in India would be 31.39 years in 2026. This suggests that the young population is expected to play a crucial role in the future. Hence, it was decided to generate data from the young students enrolled in *AKTU* affiliated institutes in the largest state of India i.e. Uttar Pradesh. *AKTU* is affiliating in nature and its jurisdiction spans the entire state of UP in affiliating various courses such as B.Tech, MBA, MCA, PhD., etc. *AKTU* follow strict norms to maintain quality of education in its affiliated institutions. Hence, the students enrolled in *AKTU* affiliated colleges are expected to possess threshold level of understanding for providing feedback to questionnaire employed in the present study.

Data collection

A total of 500 questionnaires were distributed. Of these, only 277 responses were received, out of which, 80 were partially filled and hence, considered as unfit for further analysis. Thus, the analysis was performed on the feedback of 197 respondents. This sample size is line with the criterion of subject to variable ratio of 5:1 suggested by a significant number of previous researchers for employing the *exploratory factor analysis* (EFA) and *confirmatory factor analysis* (CFA) (Hair *et al.*, 2010; Malhotra and Dash, 2011).

Findings

Exploratory factor analysis

Exploratory factor analysis (EFA) was performed using SPSS 20. The factor extraction and rotation were performed using *principal component analysis* and *varimax rotation* with *Kaiser Normalization*. The items with low factor loadings (<0.4) were eliminated and a refined scale of six variables and 22 items was obtained (Kline 1994; Hinkin, 1995; Buyukozturk *et al.* 2004; Malhotra & Dash, 2011; Metin *et al.* 2012). The significant value (<0.05) of Bartlett's Test of Sphericity (BTS) and acceptable value (0.749; >0.6) of Kaiser-Meyer-Olkin (KMO) established the sample adequacy for performing EFA (Malhotra & Dash, 2011; Khan and Adil 2013). The six factors extracted explain 62.7 percent of total variance.

Table 2: Items and EFA Result			
Item Code	Item	EFA Loading	Factor
Items Retained after EFA			
S1*	I think using Mobile Commerce in monetary transactions has potential risk.	0.704	Perceived Risk Cronbach's Alpha= 0.848
S2*	I think using Mobile Commerce in product purchases has potential risk.	0.808	
S3*	I think using Mobile Commerce in merchandise services has potential risk.	0.672	
S5*	I think the equipment cost is expensive of using Mobile Commerce.	0.735	Perceived Cost Cronbach's Alpha= 0.824
S6*	I think the access cost is expensive of using Mobile Commerce.	0.85	
S7*	I think the transaction fee is expensive of using Mobile Commerce.	0.749	
S9*	Using Mobile Commerce fits my lifestyle	0.732	Utility Cronbach's Alpha= 0.860
S10*	Using Mobile Commerce fits well with the way I like to engage in online transactions	0.74	
S11*	Using Mobile Commerce would improve my performance in online transactions would increase my productivity in online transactions	0.753	
S13*	Using Mobile Commerce would enhance my effectiveness in online transactions	0.646	
S14*	Using Mobile Commerce would make it easier for me to engage in online transactions	0.581	
S15*	I think using Mobile Commerce is very useful for me to engage in online transactions	0.708	
S18*	I think becoming skillful at using Mobile Commerce is easy	0.775	Perceived Ease of Use
S19*	I think using Mobile Commerce is easy	0.761	

S20*	Assuming I had access to Mobile Commerce, I intend to use it	0.585	Cronbach's Alpha= 0.792
S22#	I intend to continue using Mobile Commerce in the future.	0.648	Intention to Use
S23#	As a user, I would keep on using Mobile Commerce in the future.	0.721	
S25@	Have free access to Mobile Commerce applications for a month might convince me to use it	0.796	
S27#	I like to experiment with new technologies.	0.818	Innovativeness in Information Technology (IIT)
S29#	In general, I would not hesitate to try out new information technologies.	0.612	
S30	I would look for ways to experiment with new technologies.	0.779	
Items Not Retained after EFA			
S4*	I think using Mobile Commerce puts my privacy at risk.	<0.40	Not Retained
S8*	Using Mobile Commerce is compatible with most aspects of my online transactions	<0.40	
S12*	Using Mobile Commerce would increase my productivity in online transactions	<0.40	
S16*	I think learning to use Mobile Commerce is easy	<0.40	
S17*	I think finding what I want via Mobile Commerce is easy	<0.40	
S21@	Given that I had access to Mobile Commerce, I predict that I would use it	<0.40	
S24@	I would like to know more about Mobile Commerce before using it	<0.40	
S26@	Trial access to 4G might convince me to subscribe to 4G and use Mobile Commerce.	<0.40	
Keys:			
*Items adapted from the study by Wu and Wang (2005)			
#Items adapted from the study by June (2014)			
@ Items adapted from the study by Chong <i>et al.</i> (2012)			

(Source: Prepared by the Researchers)

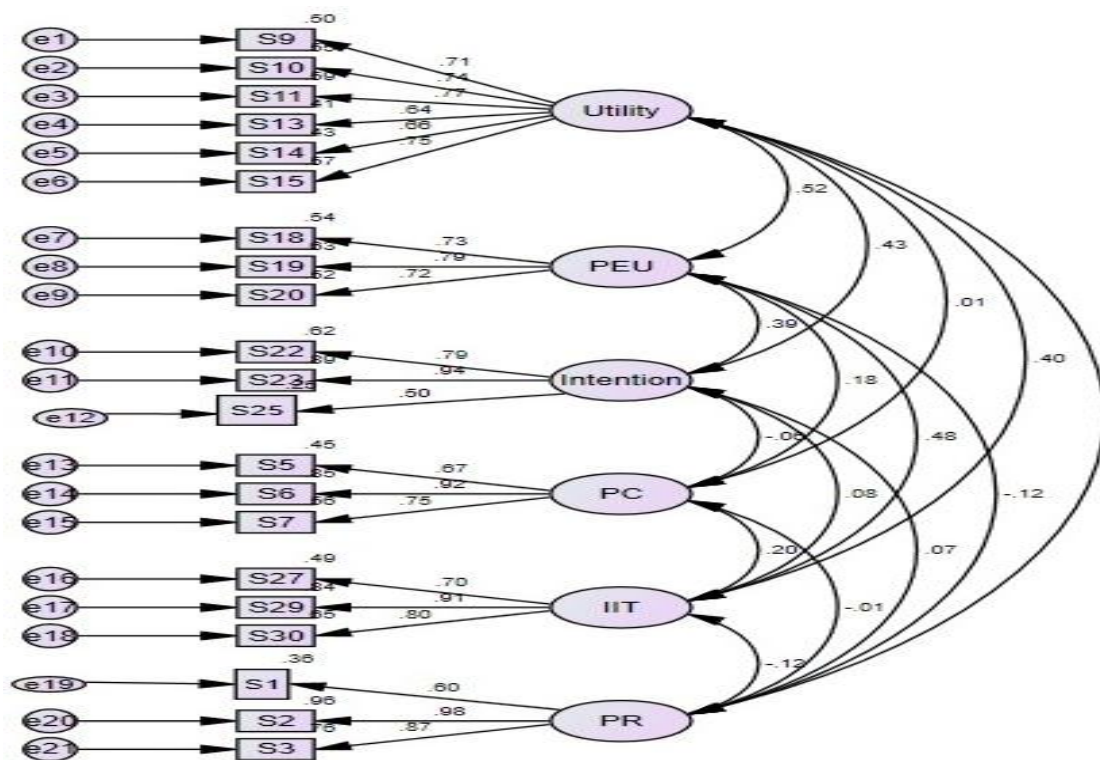
The Cronbach's alpha values for all six variables were found to be in the acceptable range of 0.748 to 0.860. The first and second variables (**perceived risk** and **perceived cost** respectively), represented by three items each, had an alpha value of 0.848 and 0.824 respectively. The second variable (**Utility**), represented by six-item items, had alpha value of 0.860. The fourth variable (**perceived ease of use**), comprising three items, had an alpha value of 0.877. The fifth (**intention to use**) and sixth (**perceived innovativeness in information technology**), each comprising three items, had alpha values of 0.768 and 0.848 respectively. Thus, the scale was found to be reliable with Cronbach's alpha values of more than 0.6 for all seven variables (Hair *et al.* 1998; Kerlinger and Lee 2000; Khan and Adil 2013). It should be noted all of these variables are the refined version of the original variables employed in the studies by Wu and Wang (2005) and June (2014). This Indian version of the scale comprising six variables can be termed as **MCScale** (mobile commerce acceptance scale). The **MCScale** is intended to measure the degree of acceptance of mobile commerce among Indian consumers.

Confirmatory factor analysis (CFA)

One of the limitations of *EFA* is that it fails to describe the cross loadings of items and correlation among the variables (Ahire, Golhar and Waller, 1996; Khan and Adil 2013). To overcome this limitation, researchers have recommended the use of *CFA* for scale refinement (Lee, 2008; Khan and Adil 2013; Ahmad and Khan, 2017). Thus, using AMOSS 20, CFA was performed on the six factors. The loadings of the items for the seven variables are given in Figure 1 and Table 2. The loadings for a majority of scale items were reasonably high (>0.4) and hence, these items were retained onto their intended factor (Ryu, Han and Jang, 2010). The summary of the accepted and observed values for the fit indices is presented in Table 3. The model fit indices were within the acceptable range (Gerbing and Anderson, 1988; Hu and Bentler, 1999; Hair *et al.*, 2010).

Average variance extracted (AVE) was used to assess the discriminant and convergent validity (Fornell & Larcker 1981; Hair *et al.* 2010). *AVE* values for all seven variables were above 0.5, indicating adequate convergent validity (Fornell and Larcker 1981; O'Leary- Kelly and Vokurka 1998; Hair *et al.* 2010; Khan & Adil 2013). The square root of *AVE* (diagonal values highlighted in Table 4) is greater than the 'inter-construct' correlation, confirming acceptable discriminant validity (Fornell and Larcker 1981; O'Leary-Kelly and Vokurka 1998; Hair *et al.* 2010; Khan and Adil 2013). The values for *CR* were also within acceptable range (>0.7) indicating adequate composite reliability.

Figure 1: Measurement Model



Source: Prepared by the Researchers

Table 3: Standardized Regression Weights	
Path	Estimate
S1 \square PR	0.602
S2 \square PR	0.979
S3 \square PR	0.869
S5 \square PC	0.674
S6 \square PC	0.924
S7 \square PC	0.746
S9 \square Utility	0.705
S10 \square Utility	0.744
S11 \square Utility	0.768
S13 \square Utility	0.643
S14 \square Utility	0.657
S15 \square Utility	0.753
S18 \square PEU	0.732
S19 \square PEU	0.795
S20 \square PEU	0.719
S22 \square Intention	0.878
S23 \square Intention	0.943
S25 \square Intention	0.497
S27 \square IIT	0.7
S29 \square IIT	0.914
S30 \square IIT	0.804

Source: Prepared by the Researchers

Available on SSRN-Elsevier

The composite reliability (CR) for each factor ranged from 0.778 to 0.912. Thus, the values were quite satisfactory, being higher than the desired value of 0.70, indicating adequate scale reliability (Fornell and Larcker 1981; Hair *et al.* 2010; Malhotra & Dash 2011).

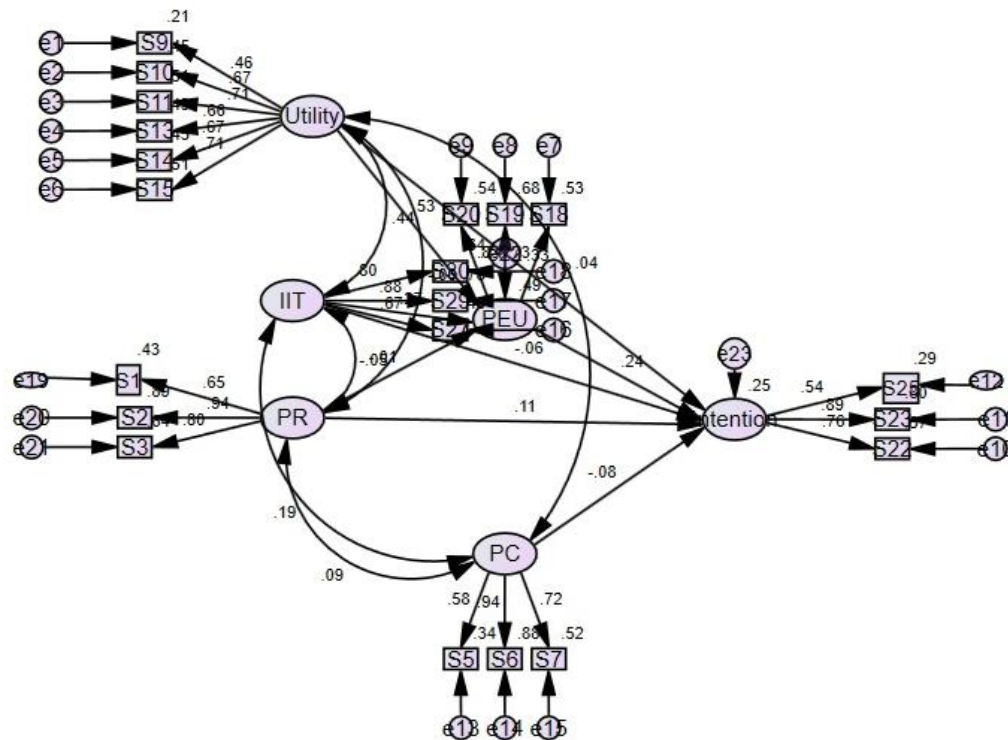
Table 4: Fit Indices of Measurement Model (CFA)		
Fit Index	Recommended Values*	Observed Values
CMIN/DX	<0.30	1.581
GFI	0.9	0.846
AGFI	0.8	0.795
CFI	0.9	0.926
RMSEA	<0.70	0.064
*Source: Hu and Bentler (1998); Hooper <i>et al.</i> (2008); Hair <i>et al.</i> (2010); Malhotra and Dash (2011)		

Table 5: Reliability and Validity								
	CR	AVE	IIT	Utility	PEU	Intention	PC	PR
IIT	0.85	0.66	0.811					
Utility	0.86	0.51	0.402	0.713				
PEU	0.79	0.56	0.483	0.52	0.749			
Intention	0.8	0.59	0.076	0.425	0.386	0.765		
PC	0.83	0.62	0.202	0.014	0.182	-0.058	0.79	
PR	0.87	0.69	-0.13	-0.15	-0.12	0.073	-0.01	0.83
Keys: IIT= Innovativeness in Information Technology; PEU= Perceived Ease of Use; PC= Perceived Cost; PR=Perceived Risk								

Structural Model

The SEM output revealed that the *research model* fits the data well ($\chi^2=312.184$; $df=175$; Normed $\chi^2=1.784$; GFI=0.877; AGFI=0.838; CFI=0.916; RMSEA=0.063). The findings revealed that utility ($\beta=0.531$; $p<0.05$) and innovativeness in information technology ($\beta=0.274$; $p<0.05$) are significant predictors of perceived ease of use. Further, the study findings also suggest that the construct utility ($\beta=0.330$; $p<0.05$) also positively affecting the intention to use m-commerce. For significance level of 90 percent, the construct perceived ease of use ($\beta=0.236$; $p<0.1$) is also observed to be influencing intention of consumers to use m-commerce.

Figure 2: SEM (Research Model)



Conclusion

The present study was based on the premise that the understanding of the linkage between the factors important for m-commerce acceptance by Indian consumers is crucial for deciding future strategies m-commerce promotion in India. In this regard, the present study has proposed and validated a model for mobile commerce acceptance in India. The study findings suggest that the construct utility is the most important for mobile acceptance in India as it significantly and positively influence intention to use directly as well as indirectly through perceived ease of use. The construct perceived ease of use is also crucial because it is observed to a significant predictor of intention to use mobile commerce. Further, the construct innovativeness in information technology is also important as it is an indicator of the consumer compatibility with the technology. The marketers must focus on these constructs to design appropriate strategies for the promotion of mobile commerce in the Indian context. However, the marketers are required to customize their strategies depending upon the specific needs of the rural consumers who possess a very distinct set of characteristics. In fact, the success of m-commerce hugely depends upon the rural population which is around 70 percent of the total population in India (Census, 2011; Lu *et al.*, 2016). Thus, the researchers must undertake fresh studies in future to validate the significance of the model for the rural consumers.

The future researchers may also identify the factors that could play mediators and moderators in the *m-commerce* acceptance model for Indian consumers. Also, the present study is an example of cross sectional design that fails to capture the subtle shifts in voter preferences over a period of time. Thus, the future researchers may prefer a longitudinal study design to capture the changes over a period of time.

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Preeminence and Credibility of Online Advertisements – A Behavioural Analysis of Young Internet Users

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ABSTRACT

Digital and technological advancements have enabled online advertisements penetrating into most of internet users' day-to-day life and this has led internet users, particularly, young people to spend more time on it. The internet enables the users being attracted towards and engages in accessing online advertisements. Amongst several media available for business advertisements, for example from print to electronic media advertising through internet or through World Wide Web has emerged as a popular medium and online advertising is a key element of digital marketing around the world.

Introduction

Advertising is an important promotional tool for manufacturers and marketers to promote their goods and services. Kotler (2001) defined advertising is any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor. Among the several media for advertisements from the print to electronic, advertising on the Internet and World Wide Web emerging as fast growing element of marketing communication around the world. Internet has become the emerging fifth major media for advertisement because of its wide accessibility and coverage than other traditional forms (Hoffman and Novak, 1997).

In recent days' technological advancement has enabled internet penetration into every one's day-to-day life and people are spending more time on internet (Abd Aziz et al., 2008). This ultimately enables the internet users to engage themselves in online advertising. The online advertising is highly attracted by the several marketers due to the fact that it is highly flexible and it is easy to update their product information as and when (Ducoffe 1996). The creative way of delivering advertising message through internet enables the consumers for more surprise and excite. It captures the quick attention of the consumers with attractive animation as in the popup advertisements (Tsang and Tees 2005). In today's internet centric world online advertising covers wide spectrum of geographical areas with the feature of high reachability when compare to traditional advertising (Blech and Blech 1998).

Method

- The behavioral study was adopted as a methodology. The required data were collected by administering questionnaire. Responses from young users who

are viewing online advertisements are captured and critically analyzed using descriptive statistics and non-parametric test.

Methodology

The behavioral study was adopted as a methodology. The required data were collected by administering questionnaire. Responses from young users who are viewing online advertisements are captured and critically analyzed using descriptive statistics and non-parametric test.

Statement of the problem

In recent days, the Internet has emerged as a “fifth medium,” together with the television, radio, newspapers, and magazines (Cutler, 1990). The internet is also growing as convenient communication medium in which the consumers and business people can exchange their information rapidly (Townsend, 2001) in an interactive way with comfortable one-to-one environment (Anderson, 2000). Now-a-days, due to the rapid growth in the multimedia technology, online advertising methods are also booming well with the wide variety of online advertising formats (Reed, 1999; Burns & Lutz, 2006) such as banner ads, pop-ups, sponsorships, in-game advertising, and other emerging formats. Online advertisement delivers information about varieties of products and services at 24*7 accessibility benefit by connecting to the entire world. Under this condition, the internet users are not only surfing the internet for information and entertainment but also they are forced to view and/or watch the advertisements displayed in the website in which they are browsing. Among the different age group of people who browse the internet for their various purpose, the teenagers are widely using the internet for sending email, chatting with friends and even for buying the products and services by online. This will ultimately influence the attention of the young users of internet for viewing and/or watching online advertisements.

When the target audiences are youngsters, knowing whether it is influential or misguiding is always important. The teenagers differ from each other based on their gender, age and educational qualifications. As a result, their attitude to online advertisements might differ based on their personality traits. Hence, the present research problem was stated to answer the following research questions:

- What is the attitude of young users of internet towards online advertisements?
- Does the youngsters’ attitude towards online advertisements are subject to change based on their age, gender and educational qualifications?

Objectives of the Study

Based on the research questions raised above, the Objectives for the study is framed as follows:

- To analyze the youngster’s attitude towards Online advertisements
- To examine the influence of online advertisements towards purchase decisions

Analysis and Interpretation

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The young users were surveyed using the questionnaire to capture their general opinion about online advertising, the responses captured using the Questionnaire were tabulated and analyzed using the appropriate statistical techniques and are presented in the following sections.

Table 1					
Opinion on using useful online advertisements					
S. No.	Opinion	Frequency	Percentage	Cumulative	Chi-Square
				Percentage	(Significance at
					5% Level)
1	Yes	1401	70	70	320.64
2	No	600	30	100	df=1
	Total	2001	100		p=0.000

Table 1 portrays the frequency analysis on the respondents' opinion about watching online advertisements even when elders are not around. It is clear that majority of the respondents have agreed that they watch only useful online advertisements even when elders are not around. Further, the significant Chi-Square value (320.640; p=0.000) imply that there is a significant difference in the respondent's opinion on watching online advertisements even when elders are not around.

Table 2					
Influence of Online advertisements on study time					
S. No.	Opinion	Frequency	Percentage	Cumulative	Chi-Square
				Percentage	(Significance at
					5% Level)
1	Yes	970	48.5	48.5	1.86
2	No	1031	51.5	100	df=1
	Total	2001	100		p=0.173

It can be extracted from Table 2 that majority of the respondents (51.5%) have stated that online advertisements have not influence them and spoiled their study time. But, 48.5% of the respondents have agreed that online advertisements influence them and spoil their study time. The insignificant Chi-Square value (1.860; p=0.173) have depicted that the respondents do not differ significantly based on influence of online advertisements and spoiling of study time.

Table 3					
Opinion on the way how online advertisements spoil respondents' study time					
S. No.	Opinion	Frequen cy	Percent age	Cumulati ve	Chi-Square
				Percenta ge	(Significanc e at

					5% Level)
1	It took my time while clicking the ad to know more about it	655	32.7	32.7	
2	The products on the online advertisements had influenced me to give a try on the product	651	32.5	65.3	1.775
4	The entertaining advertisement made me to watch/play	695	34.7	100	df=2
	Total	2001	100		p=0.412

Table 3 presents the respondents' opinion on the reason how online advertisements spoil their study time. It is evident from the table that majority of the respondents (34.7%) have opined that the entertaining advertisements influences them to watch and play followed by 32.7% stating that they clicked the online advertisements to know more about the product and finally 32.5% opining that the products on online advertisements had influenced them to try the product.

Table 4					
Opinion on purchase of product in online advertisements					
S. No.	Opinion	Frequency	Percentage	Cumulative	Chi-Square
				Percentage	(Significance at
					5% Level)
1	Yes	574	28.7	28.7	363.623
2	No	1427	71.3	100	df=1
	Total	2001	100		p=0.000

It is clear from Table 4 that majority of the respondents (71.3%) have stated that they have not purchased any product after watching online advertisements followed by 28.7% agreeing that they have purchased the products. The significant Chi-Square value (363.623;p=0.000) have depicted that there is a significant difference in the respondents' opinion based on purchase of product in online advertisements.

Table 5					
Frequency analysis on the reasons how they will purchase online advertisements					
S. No.	Opinion	Frequency	Percentage	Cumulative	Chi-Square
				Percentage	(Significance at
					5% Level)

1	I will politely ask my parents whether the product is useful and request them to buy for me	391	19.5	19.5	
2	I will stubbornly ask my parents to buy the product for me irrespective of their opinion	389	19.4	39	
3	I have enough money so I will buy it	399	19.9	58.9	

It is evident from Table 5 that majority of the respondents (20.7%) have stated that they will influence their friends to buy the product followed by 20.3% stating that they will get money from parents for other reasons and then buy the product. But 19.9% have opined that they have money to buy the product followed by 19.5% stating that they will politely ask their parents to buy the product and 19.4% of them have opined that they will stubbornly ask their parents to buy the product.

Results

The results suggest that internet has become one of the emerging media for online advertisements, because of its wide accessibility and coverage as compared to other traditional forms of advertisement. In fact, use of digital technology could result in young internet users, not only for browsing internet for information and entertainment, but they are also forced to view and/or watch online advertisements displayed in the website which they are accessing. Amongst different age group of internet users, who browse for various purposes, young people, particularly teen age group, are widely using the internet, not only for email communication, social messaging but also for buying products and services through online.

Implications

- The results of the study have potential implications on online advertisements that could be helpful in framing digital strategies for organizational success.
- Thus, this paper emphasizes the preeminence and credibility of online advertisements through a critical behavioral analysis of young internet users and their perspectives.

Conclusion

The results suggest that internet has become one of the emerging media for online advertisements, because of its wide accessibility and coverage as compared to other traditional forms of advertisement. In fact, use of digital technology could result in young internet users, not only for browsing internet for information and entertainment, but they are also forced to view and/or watch online advertisements displayed in the website which they are accessing. Amongst different age group of

internet users, who browse for various purposes, young people, particularly teen age group, are widely using the internet, not only for email communication, social messaging but also for buying products and services through online.

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Associations between Employee personality and their intent to leave among higher Education Teaching staff in Gwalior

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ABSTRACT

The current research is an attempt to measure the associations between big five personality traits and turnover intention. The study was conducted on 200 faculty members from higher education institutes of Gwalior city. For the data collection process standardized scales for big 5 personality traits and turnover intentions were utilized and correlation analysis was applied as a tool for data analysis as well to test the hypothesis. Results of the analysis showed positive associations between 4 personality dimensions (Agreeableness, Conscientiousness, Openness to experience, extroversion) and turnover intentions as showed a negative association between emotional stability and turnover intention. The present study provides various suggestions and implications to the higher education institutes to reduce the frequency of turnover intention among faculty members.

Introduction

In present context there is vast change in the outlook of employees towards their jobs. Nowadays Jobs are also very challenging and demanding which in turn resulting in stress and burnout among the employees but many few employees are able to deal with these circumstances. So what about those who are not able to deal with them? Simple answer is the intention to leave the organization. Previous researches focused on benefits, welfare, job satisfaction, commitment and their linkage with the turnover intention, but we cannot ignore the psychological antecedents of employee turnover intention. The present study evaluates the associations among employee personality traits and their intent to leave among faculty members of colleges. The perspective of employees towards their intention to leave varies according to their personality depending on which type of personality they possess. This research paper will answer many questions regarding which personality trait is the prominent cause of turnover among the employees and which trait is the prominent cause of their retention too.

Big Five Personality Traits

Colquitt et al. (2000) characterized personality as sensibly stable highlights of people (other than capacity) that effect on their insight and conduct. Personality traits are likewise conceptualized as relentless attitudes and inclinations of people to carry on in

certain ways (Chamorro-Premuzic and Furnham, 2005; Ones et al., 2005). Therefore, there is an extensive connection between a person's personality and his/her character, that recognizes that him/her from others, and this is prove by the inclination to think, feel, and act in clear ways. The five-factor model of personality includes five decently autonomous traits that give huge data about individual contrasts in an association and their reactions (Kumar and Bakhshi, 2010). These are: openness to experience, conscientiousness, Extraversion, agreeableness and neuroticism. The total of these measurements gives a significant classification to the investigation of individual differences. Neuroticism likewise called emotional stability alludes to how much a man is on edge, fickle, and grouchy (Teng, 2008). It is maybe the main Big Five measurement where scoring high is bothersome. Neurotics experience series of problems at work. They have trouble forming and maintaining relationships and are less likely to take advice and forge or, maintain friendship (Klein et al., 2004). Neuroticism estimates the continuum between emotional alteration or stability and emotional maladjustment or neuroticism (Costa and McCrae, 1992; Jam et al., 2012). Psychotics are seen as negative, apprehensive, strained, and lacking social abilities (Judge et al., 1999, 2002). They additionally need trust in others and have out of line perspectives of the world. They see disappointment circumstances in life from a guarded credit allotment (for instance, the discernment that association has been uncalled for) trying to decrease mentally undermining data (Duval and Duval, 1983). This condition empowers choices identifying with intentions to quit the activity.

Intent to leave

Employee turnover intention means an employee who are thinking about and thinking to quit a job (Lucy et al. 2002). Turnover intention is characterized as the manifestation of 'the (emotional) probability that an individual will change his or her job inside a certain era (Sousa-Poza and Henneberger, 2002, p.1). Employee turnover intention means an employee's plan for intention to leave the present place of employment and look onwards to discover another job in the near future (Purani and Sahadev, 2007; Weisbeg, 1994). Turnover intention is a measurement of whether a business' or organization's employees plan to leave their positions. Managers and researchers look at turnover as an issue because of expenses associated with it (Soon et al., 2005). Employee turnover intention can be characterized as employees voluntarily leave the organization (Mobley William H. et al. 1979). Turnover intention is characterized as the employees voluntary cessation of enrollment of organization, and its flexibility that they can leave the organization for any reason, for example, environmental factors, career issues or may be affected by the external open doors (Morrel et al., 2001).

Review of Literature

Neuroticism also called emotional stability which means the amount to which an individual is restless, unpredictable, and moody (Teng, 2008). It is possibly the only Big Five dimension wherever scoring high is unwanted. They face series of problems at work. They face issues in maintain relationships with others and failed to maintain friendships.(Klein et al., 2004). Neuroticism evaluates the range among emotional adjustment or stability and emotional maladjustment or neuroticism (Costa and McCrae, 1992; Jam et al., 2012). Neurotics are noticed as which seems to be negative, Available on SSRN-Elsevier

nervous, tensed, and lacking social skills (Judge et al., 1999, 2002). They usually do not trust others and have a unrealistic view towards others. They perceive their failures as there is something wrong happened to them or kind of injustice faced by them (for example, perception that organization has been unfair) in an effort to minimize psychologically threatening information (Duval and Duval, 1983). This condition stimulates decisions relating to intentions to quit the job. Thus we presumed that:

H1: Emotional stability is negatively related with turnover intentions

Agreeableness signifies an individual's outgoing, patience, thoughtfulness, trust-worthy, kindness, and warm kinds of behavior (Kumar and Bakhshi, 2010). Individuals who are high in agreeableness are likable individuals who coexist with others easily. Generally, agreeable individuals are genius social and have a communal orientation toward others (Costa and McCrae, 1992; John and Srivastava, 1999). Mooradian and Swan, (1996) call attention to that the impacts of higher agreeableness incorporate progressively and better interpersonal relationships, greater life satisfaction, and better health. These factors, subsequently, are probably going to satisfy an employee and thus bring down his/her intention to quit a job. In the workplace, agreeableness advances interpersonal interactions, interpersonal trust in peers, collaborations with others, and customer benefit setting which have a bearing on choices related to stay in an organization as an employee or quit (Hurtz and Donovan, 2000). But it has been seen that agreeable individuals carry a compromising attitude which in turn increase their stress levels. Thus we presumed that:

H2: Agreeableness is positively related with turnover intentions.

Conscientiousness indicates the degree to which an individual is composed, methodical, dependable, success-oriented, and solid (Barrick and Mount, 1991). These kind of individuals are very disciplined and they perform their jobs very dutifully (Erdheim et al., 2006). Due to their inherent attributes, they always prefer to do what is expected from them to achieve their day to day tasks as well as they maintain a cordial bond with their customers. These characteristics prevent the employees to quit their jobs and helps in their retention. Those people who show attributes related with a solid feeling of purpose, commitment, and steadiness by and large remain on their employments longer, in spite of the related troubles they experience. Intention to leave is to a great extent reliant on self-restraint, ability to act obediently, among others we expect that conscientiousness will be negatively related to turnover intentions. These individuals are very dedicated and disciplined towards their jobs at the same time they are also very success oriented, so it is a tendency that if any employee has not been compensated as per the hardwork and dedication, discipline shown towards their jobs then it creates a dissatisfaction. Thus we presumed that:

H3: Conscientiousness is negatively related with turnover intentions.

Extroversion is a personality trait in which an individual is outgoing, talkative, friendly and loves meeting and maintaining relationships with others (Teng, 2008). These individuals have a propensity to be society oriented, positive, self-confident, excited and optimistic (Costa and McCrae, 1992; John and Srivastava, 1999). Extroverts are people oriented, they want to be in a circle of friends also they prefer groups, enjoy enthusiasm, motivation and also feel positive emotions such as energy, passion and optimism. At

work, Employees who possess this type of traits consist of large number of friends and spend lot of their time in social gatherings. They are very open for getting feedbacks from others and are very flexible as well as prefers building effective relationships at work which in turn helps them to cope up with various situations like intention to quit (Wanberg and Kammeyer-Mueller, 2000). Thus we presumed that:

H4: Extroversion is positively related to turnover intentions.

Openness to experience is an extent to which an individual possess characteristics such as eagerness, innovativeness, rationality, creativity and one who is open to new ideas and prospects for instance- job offers. Mostly these kind of individuals are quiet original, inventive and always open to take initiatives (Teng, 2008). Lounsbury et al. (2003) observed a significant association among openness and work drive, while term work drive can be referred to as a continuing force for the completion of important assignments, meeting various deadlines and to be very effective and efficient for the completion of several work related tasks in order to achieve success. It consists of various elements- work ethics, job engrossment and job centrality (Lounsbury et al., 2003). Therefore the conception of work drive encouraged by openness makes employees more committed, engaged towards their jobs as a result it lowers their turnover intentions but there is also a dark side of this trait which is they are also open to accept the other company's job offers which may result in their turnover intentions also.

Thus we presumed that:

H5: Openness to experience is positively related to turnover intentions.

Objectives of the Study

- To measure reliability of the variables (Big 5 personality types and Employee turnover intentions)
- To measure the associations between Big 5 personality types and Employee turnover intentions.

Research Methodology

The Study: The study was Empirical in nature with survey method used to complete the study.

Population: Population included higher education teaching staff from Gwalior city.

Sampling Element: Individual respondents were the sampling element.

Sampling Technique: Non-Probability purposive sampling technique was used to select the sample.

Sample Size: Sample size was 200 Respondents.

Tools Used for data Collection

Variable	Author
Big Five personality Types	John, O. P., & Srivastava, S. (1999)
Employee turnover intention	Solomon Oyetola Olusegun (2013)

Tools Used for Data Analysis

- Reliability test was applied to measure the reliability of questionnaires.
- Karl pearson correlation coefficient was applied to measure the associations between Big five personality types and Employee turnover intention.

Results and Discussions

Cronbach's Alpha method was applied on Big 5 personality types – Extroversion, Emotional stability, Agreeableness, Conscientiousness and openness to experience and Employee turnover intention to calculate reliability of all items in the questionnaire. Reliability test using SPSS software and the results of the measure is given below.

Table 1: Reliability Statistics of Big five personality types (Extroversion, Emotional stability, Agreeableness, Conscientiousness and openness to experience and Employee turnover intention)

S.No	Instrument	Cronbach's alpha
1	Extroversion	0.719
2	Conscientiousness	0.812
3	Agreeableness	0.762
4.	Openness to experience	0.850
5.	Emotional stability	0.870
6.	Employee Turnover intention	0.762

It is considered that the reliability value more than 0.7 is good Nunnally (1978) and it can be seen that reliability value of all the variables are quite higher than the standard value, so all the items in the questionnaire are highly reliable.

Correlational analysis

Table 2 shows the associations between Big 5 personality traits and Employee turnover intention. The r value of Emotional stability towards Employee turnover intention is -.512 (-51.2%) which reveal a negative and significant association, which means that emotionally stable employees are able to manage their emotions as per the requirements of the job that is why they do not prefer to quit their organizations. Whereas the r value between conscientiousness and employee turnover intention is .387 (38.7%) showing positive association, which means that conscientious employees are prone to turnover intentions due to some of their characteristics prevailing in the current sample such as success, and future career orientation, dedication and hard work that is why they do not accept any kind of injustice from their organizations which causes their turnover intentions. On the other hand r value of Agreeableness and turnover intention is .339 (33.9%) showing a positive association, which means that employees who have a tendency to accept each and every thing at work are more prone to turnover intention it

is because they are not much expressive about their likes and dislikes they accept each and every thing at work as the part of their work environment which put them into stressful and dissatisfying situations due to which they prefer to leave, whereas the r value of both Extroversion and turnover intention is .528 (52.8%) and Openness and turnover intention is .497 (49.7%) showing positive and significant associations which means employees who carry these traits are more open to leave their organizations because of several characteristics like: outgoing attitude, experiencing several things, eagerness etc.

Correlations		1	2	3	4	5	6
Emotional stability	Pearson Correlation	1	.322**	.394**	.437**	.258**	-.512**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	200	200	200	200	200	200
Agreeableness	Pearson Correlation	.322**	1	.562**	.560**	.406**	.339**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	200	200	200	200	200	200
Conscientiousness	Pearson Correlation	.394**	.562**	1	.573**	.452**	.387**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	200	200	200	200	200	200
Openness to experience	Pearson Correlation	.437**	.560**	.573**	1	.404**	.497**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	200	200	200	200	200	200
Extroversion	Pearson Correlation	.258**	.406**	.452**	.404**	1	.528**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	200	200	200	200	200	200
Employee turnover intention	Pearson Correlation	-.512**	.339	.387	.497**	.528**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	200	200	200	200	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

Findings of the analysis revealed that expect emotional stability trait all the 4 dimension of personality (Agreeableness, Openness, Extraversion and Conscientiousness) were positively associated with turnover intention among faculty members in higher education institutes. The positive association of the of the 4 dimensions with turnover intention was found consistent with other authors also, for Agreeableness the results were consistent with the findings of (Barrick and Mount, 1991; Mooradian and Swan, 1996; Hurtz and Donovan, 2000), For Conscientiousness(Barrick and Mount, 1991; Erdheim et al., 2006), For Extroversion (Wanberg and Kammeyer-Mueller, 2000), For openness Sundstrom, Loveland, and Gibson, 2003) while the negative association of Emotional stability with turnover intention was found consistent with the findings of (Costa and McCrae, 1992; Jam et al., 2012).

Hypothesis Testing

S.No	Relationship Tested	Result
H1	Emotional stability is negatively related with turnover intentions	Supported
H2	Agreeableness is positively related with turnover intentions.	Supported
H3	Conscientiousness is negatively related with turnover intentions.	Supported
H4	Extroversion is positively related to turnover intentions.	Supported
H5	Openness to experience is positively related to turnover intentions.	Supported

Conclusion

Earlier researches focused on organizational causes of individual's turnover intentions like job satisfaction, job involvement, job enrichment, compensation structure, career planning & succession planning, etc. In this study, we are trying to focus on individual differences specifically personality (Big 5 personality types) responsible for turnover intention.

Results indicated that one dimension emotional stability showed significant & negative association with employee turnover intention. Emotional stable people are much more capable to manage different situations like turnover intentions.

The remaining four dimensions showed a consistent positive relationship with different magnitude of correlation. The trait Openness & Extroversion has the high turnover intention due to intellectual curiosity, too much attentiveness of inner feelings & enthusiasm. On the other side conscientious & agreeableness also have significant association with lower magnitude, they people also found to be highly task focused & carry a higher degree of concern for legal & ethical aspects.

Overall the results show numerous implications for the study of personal psychology as well as contribute to educational institutions.

Implications and Suggestions

As per the findings of the study it was observed that those employees having personality empowered with agreeableness, conscientiousness, openness and extraversion traits were more prone to turnover intentions, So employers and policy makers can work on above traits to subside their effects so that they can minimize turnover intentions in their organization and also to use their human capital in a productive manner

Limitations

Out of several limitations of the study, the first limitation was that we were confined to higher education faculties of Gwalior city only. Another limitation was that the sample size could have been larger than 200 respondents which was due to unresponsive behavior of respondents, that is why research could not be done on a large scale. In this study we only focused on Big five personality traits and their association with turnover intention but we ignored other personality traits which may have a strong connection with the turnover intention of faculties. This study opens new vistas for future researchers, students and practitioners of this area and they may consider different personality traits, sample in their research work.

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Digital Marketing: The Vital Vitamin for The Future Marketing

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ARTICLE INFO

Keywords

Digital Marketing,
Consumers,
Advertisement &
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ABSTRACT

Through the superpower of “globalization”, the smart cities in India have not only become digital but people also are in receipt of transforming themselves to the digital era. Citizens of the smart cities are not only consuming digital content on a daily basis but also the companies and the business world, in general, are starting to recognize the importance of getting into digital. Equivalently, it is very essential that marketing departments need to adapt to new environments and hire active professionals in the field of digital marketing. Digital marketing, on the other hand, can be defined as an umbrella term for the marketing of products or services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium. The concept of digital marketing has become a fashion in companies to promote their products and services. While marketers with positive experiences would tend to believe that digital marketing works and some would disagree in India, but one would be sure that magnitude of its impact is increasing in the market, when compared to other markets.

This paper studies and establishes the power of digital marketing in the smart cities of India. The study also probes into the learning of impact of digital marketing in Indian smart cities. Through research and analysis, the paper emerges some points which can be used as a blueprint criterion for the digital marketing strategies to be considered in the smart cities.

Introduction

Digital marketing can be defined as an umbrella term for the marketing of products or services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium. The concept of digital marketing has become a fashion in companies to promote their products and services. Digital marketing is the promotion of products or brands via one or more forms of electronic media and differs from traditional marketing in that it involves the use of channels and methods that enable an organization to analyze marketing campaigns and understand what is working and what isn't – typically in real time. Digital marketers monitor things like what is being viewed, how often and for how long, sales conversions, what content works and doesn't work, etc. While the Internet is, perhaps, the channel most closely associated with digital marketing, others include wireless text messaging, mobile instant messaging, mobile apps, podcasts, electronic billboards, digital television and radio channels, etc.

The Importance of Digital Marketing in the current scenario

Whether it is a product or a service, we just can't underestimate the power of digital marketing. The current age where we live, it is fully dedicated to digital media and so when we are marketing or advertising then we must not forget that there has to be online marketing too. What makes a difference? Almost everyone would use the online and social media these days. Also, there have been many people who would just like surfing and checking what's on the web. Thus, we can see that almost everyone would come online once a day at least. In fact, some people stay the online the whole day. Keeping these facts in mind, we just can't leave digital marketing alone when it comes to marketing the product or service. With the boom of Smartphones and Tablets, Digital Marketing has reached a new high. People who were previously unrelated to the field are now learning about it and are excited for the same. The era has changed does much that if a person does not have a Social Media account, he/she is looked down on. So, how does a marketer gets to make use of Digital Marketing?

Why Digital Marketing is very essential in Metro Cities

The metro cities are quickly becoming digital. People in smart cities are consuming digital content on a daily basis. Companies and the business world, in general, are starting to recognize the importance of getting digital and it is essential that marketing departments adapt quickly to the new circumstances and actively hire professionals in the field of digital marketing. Digital marketing is extremely important in smart cities, not only because of its rapid growth but also because it is essentially the future of marketing. Soon all other traditional marketing forms will disappear as digital marketing will replace them altogether in smart cities. While some generations will no doubt lament the loss of paper newspapers, books and old-fashioned communication methods, new generations who have grown up with internet and mobile phones are already embracing the brave new world of digital consumption.

Digital marketing methods are faster, more practical and versatile than the old traditional ones. Technology has put the business in the digital age. Some of the most common forms of digital marketing are:

- Website (SEO content)
- Blogs
- Internet banner ads
- Online video content
- Pay-per-click advertising
- Email marketing
- Social media marketing (Facebook, LinkedIn, Twitter, etc)
- Mobile marketing (SMS, MMS, etc)

“A smart city with all this connectivity will create more touch points with consumers, more opportunities to market, and will put a brand in front of consumers,” said Steve Koenig, senior director of market research at the Consumer Technology Association. “If you know that Joe Citizen tends to walk past a [digital] billboard, an ad could be instantly tailored to him and shown for 30 seconds. But when somebody else walks by, they might see an ad for something completely different.”

Impact of Digital Marketing in Metro Cities

- In smart cities, competition among brands is steadily increasing as branding channels and messages proliferate.
- In the smart cities, as consumers become more digitally empowered, brand messages lose their impact, and the likelihood of conversion, on average, decreases.
- In the smart cities, the brands will most likely to convert digitally jaded consumers into purchasers offer the strongest array of digital experiences. These successful players seem to be pulling away from less robust digital brands and gaining further momentum as they build up positive word of mouth on social media.

Tie between Digital marketing & Companies

Impact of digital marketing has never been more important for brand development – but this can be a strange and challenging world for businesses that are just beginning to develop their online presence. Here are several ways that digital marketing and the brand are closely tied and why that matters so much in today's online advertising world.

Impact of Digital Marketing on Consumer Behaviour in smart cities

With the boom of Smartphones and Tablets, Digital Marketing has reached a new high. People who were previously unrelated to the field are now learning about it and are excited for the same. The era has changed does much that if a person does not have a Social Media account; he/she is looked down on. So, how does a marketer gets to make use of Digital Marketing?

Research Methodology

The research was carried out with a sample of 100 in size (Students of MBA Department), to explore the objective of the paper. The research methodology used here was an exploratory method. The designed questionnaire was given to the students. The methodology used was the drafting of a questionnaire based on the objectives of the paper and analyzing the data. From the tabulated and analyzed data (Which is on a percentage basis), I have arrived at the following analysis and conclusions.

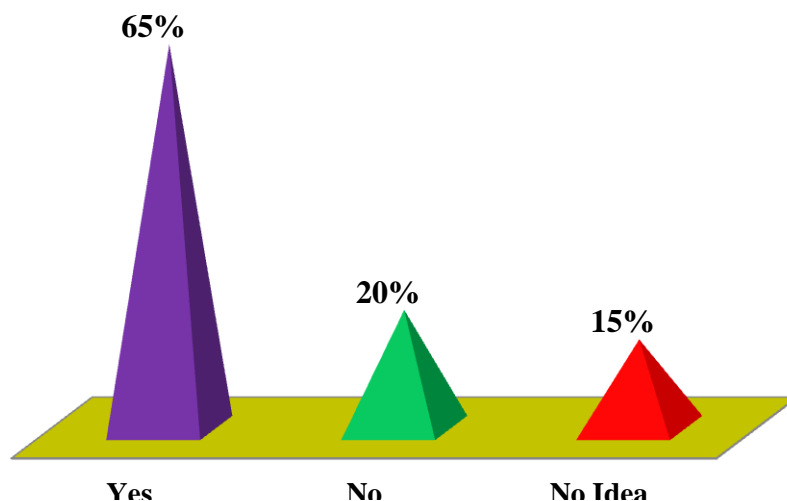
Sample size	:	100.
Sampling Technique	:	Quota Sampling. (Students who owned smart phones)
Data collection Procedure	:	Questionnaire technique.
The objective of the study	:	To study Power of Digital Marketing

Scope of the study

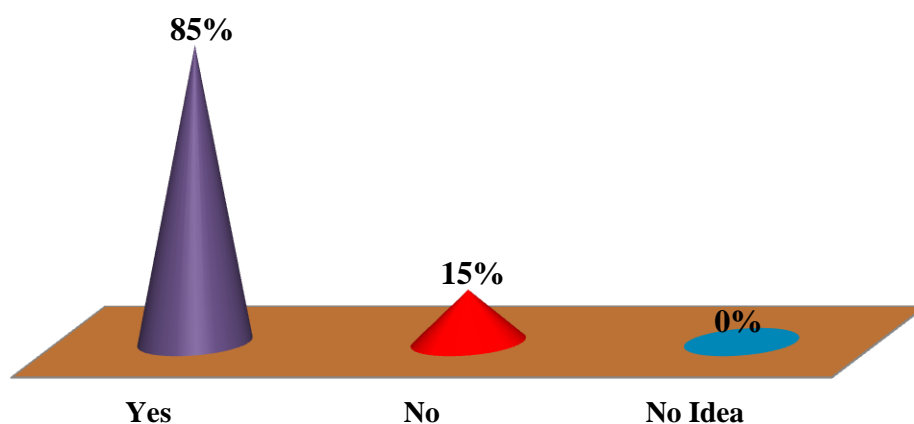
- a. The paper establishes a strong sense of the relationship between consumers, branded products and online marketing in metro cities

b. The paper showcases the factors that influence consumers while choosing branded products using digital marketing in metro cities.

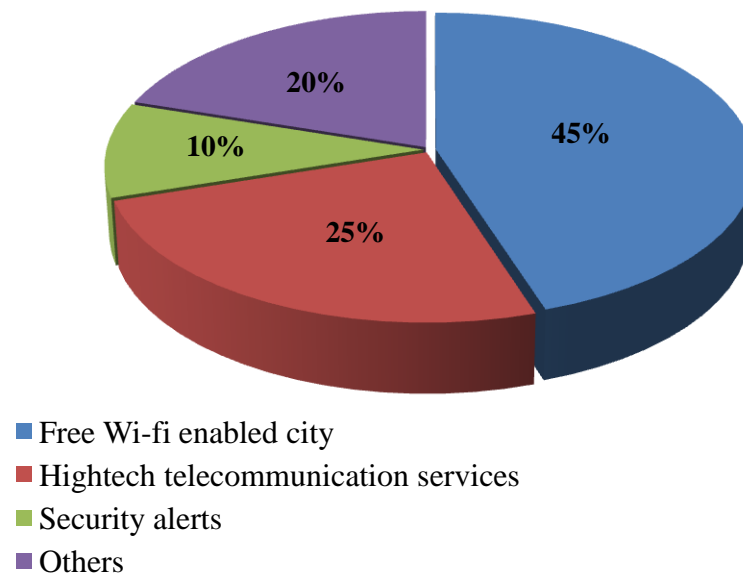
Diagrammatic presentation of the data collected and analyzed
Respondent's perception of "Is digital marketing one of the key components in metro cities ? "



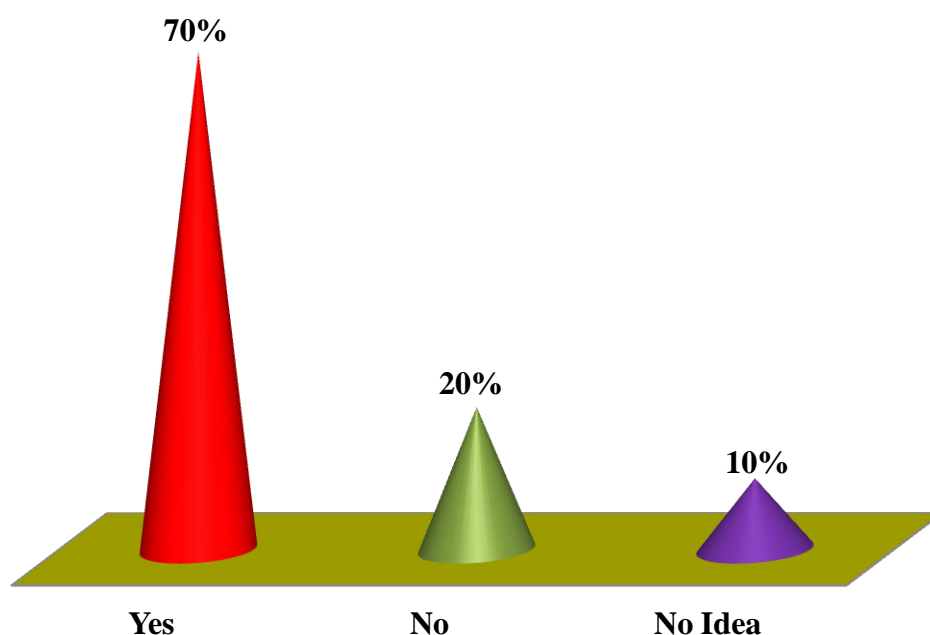
Respondent's perception towards "Digital marketing is the suitable marketing technique in metro cities ? "



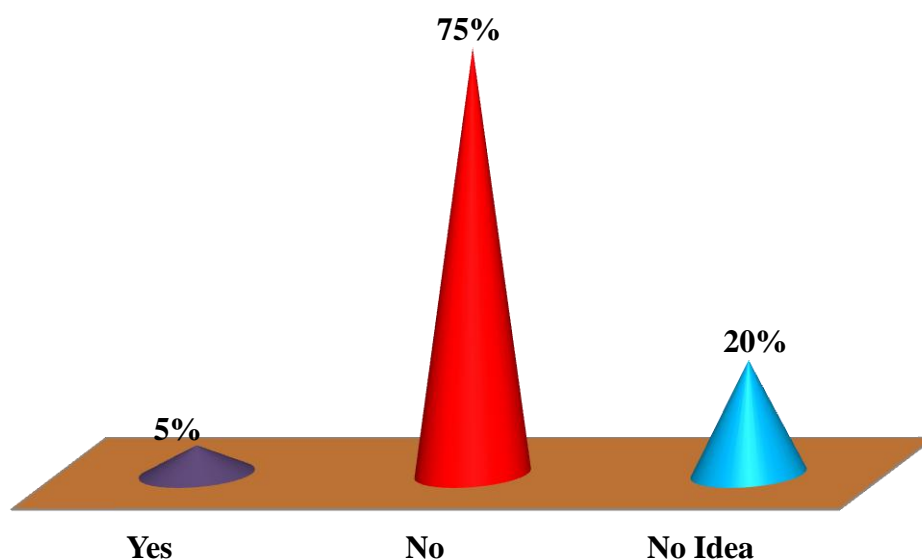
Respondent's perception of "Motivating factors for citizens of metro cities to go for digital marketing"



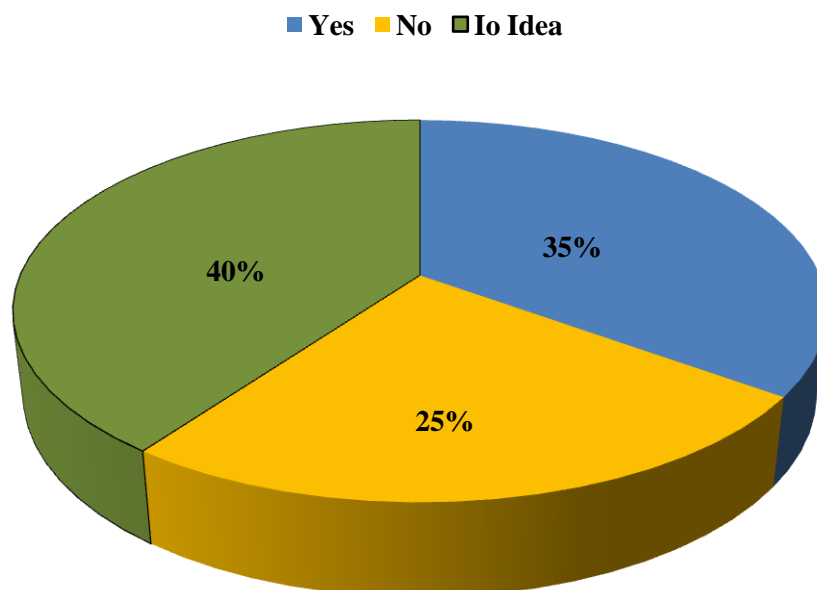
Respondent's perception towards "Metro cities makes the marketers and smart consumers"



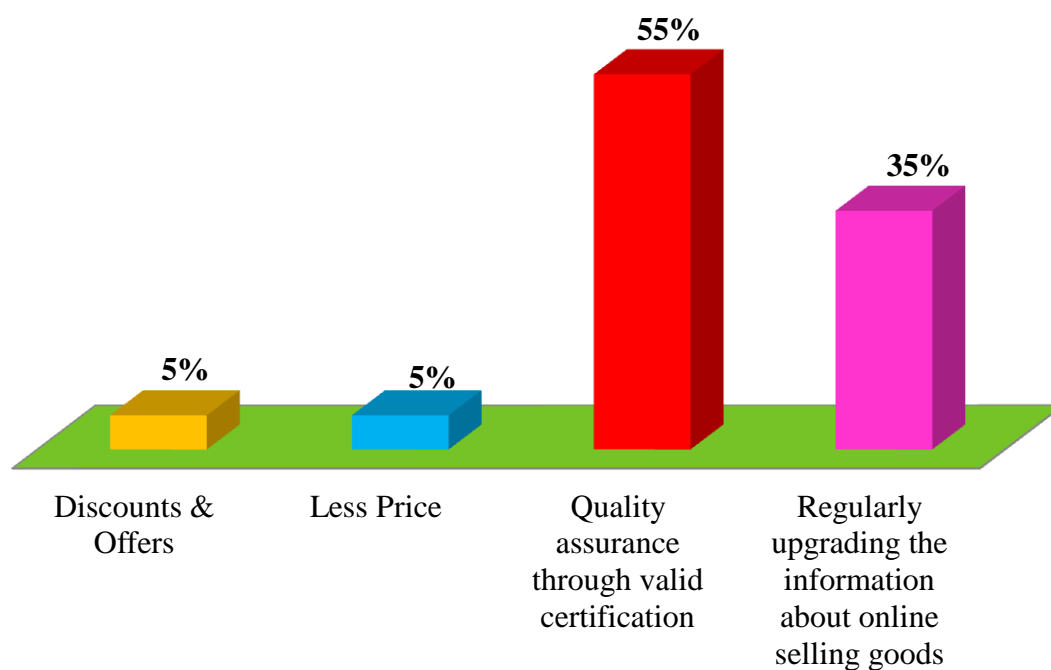
Respondent's perception of "Digital marketing is accessed by only literate consumers in India? "



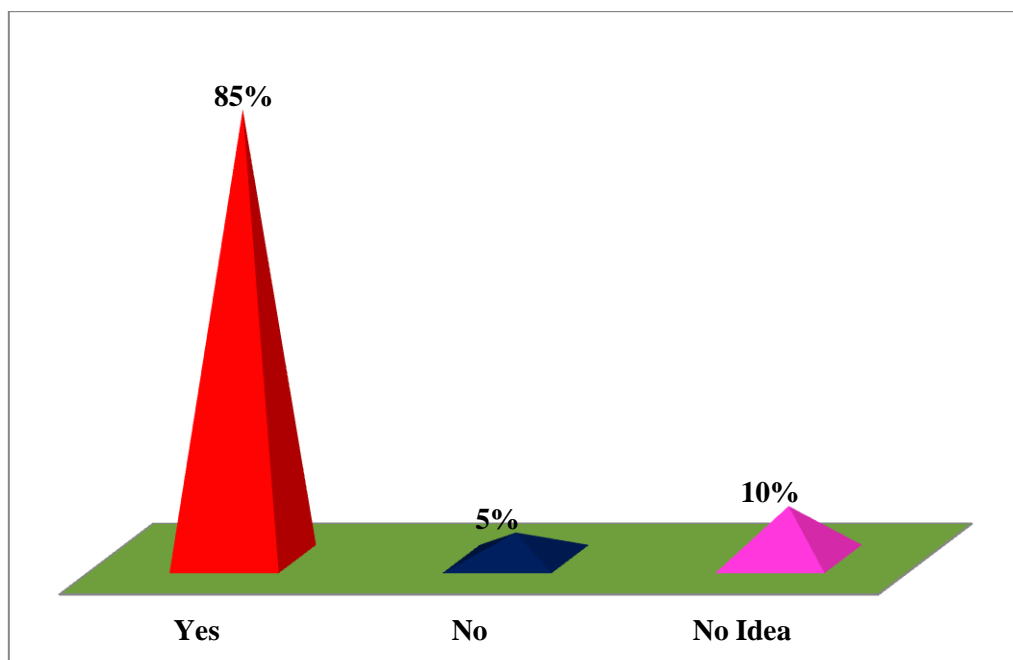
Respondent's perception towards "Digital marketing promotes the market potential of only branded products in Smart cities "



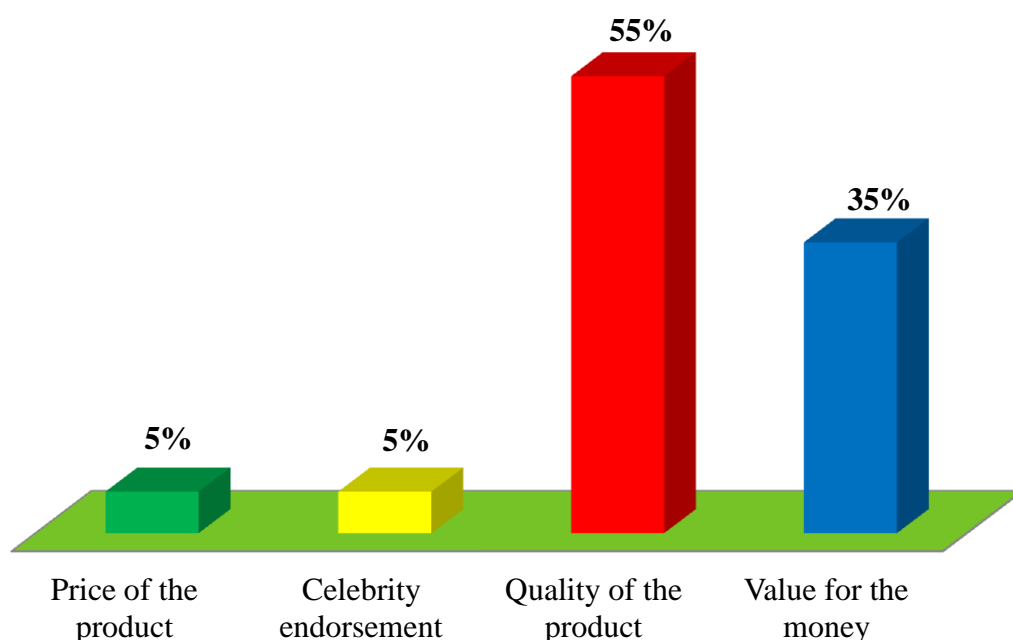
Respondent's perception of "Essential factors for companies in the metro cities to promote their products through digital marketing"



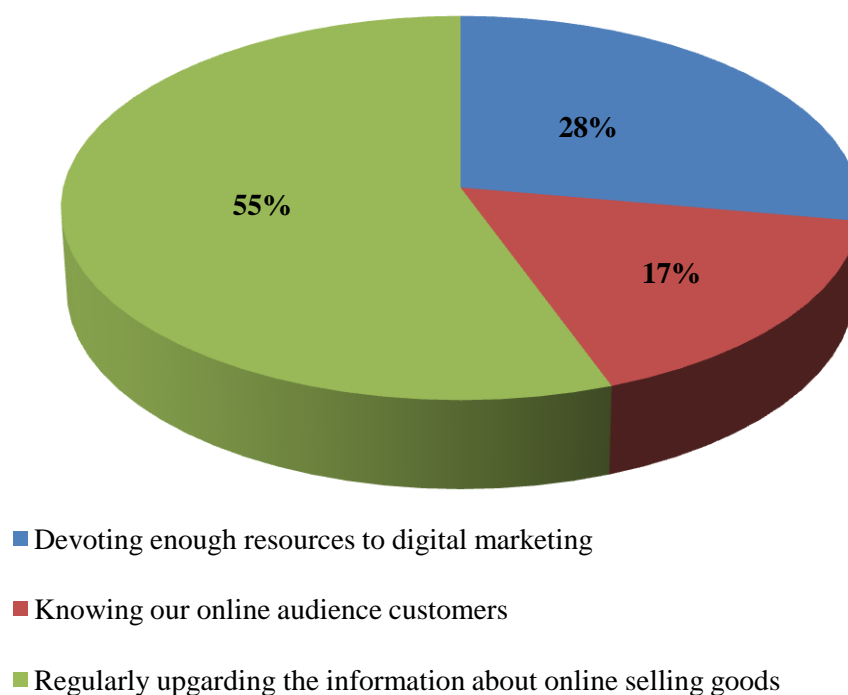
Respondent's perception towards "Make In India is equally contributing to digital marketing to the Prime Minister Narendra Modi's vision Digital India"



Respondent's perception towards "Influencing parameters for consumers to purchase the branded products through digital marketing in metro cities"



Respondent's perception of "Other means of strategies influencing digital marketing in metro cities"



Final conclusion on "The Power of Digital Marketing in The Metro Cities Of India:"

The following are some of the valid conclusion of my survey,

- 65% of the respondents have stated that digital marketing is one of the key components in metro cities.
- 85% of the respondents have stated digital marketing is the feasible marketing technique in metro cities.
- 45% of the respondents have stated that free Wi-Fi enabled city is the motivating factor for the citizens of metro city to go ahead with digital marketing in metro cities and 25% of the respondents have stated that high tech telecommunication service is also the second motivating factor for the citizens of metro city to go ahead with digital marketing in metro cities.
- 70% of the respondents have accepted that metro cities make metro marketers and metro consumers.
- 75% of the respondents have clearly stated that digital marketing is not only accessed by literates but also illiterates, as it convinces the consumers through several facets.
- 35% of the respondents' state that digital marketing promotes the market potential of only branded products in metro India.

- The most important motivating factor for the companies in the metro cities to promote their products through digital marketing is quality assurance through valid certification.
- Regularly upgrading the information about online selling goods also happens to be the motivating factor for the companies in the metro cities to promote their products through digital marketing.
- 85% of the respondents state that “Make in India” is equally contributing to digital marketing to the Prime Minister’s Narendra Modi’s vision “Digital India”
- 55% of the respondents state that Quality of the product is the influencing parameters for consumers to purchase the branded products through digital marketing in metro cities and 35% of the respondents state that Value for money is the second influencing parameters for consumers to purchase the branded products through digital marketing in metro cities.
- 55% of the respondents state that the best strategy influencing digital marketing in metro cities is regularly upgrading the information about online selling goods
- Another important strategy influencing digital marketing in metro cities is devoting enough resources to digital marketing.
- Last but not the least the important strategy influencing digital marketing in metro cities is knowing our online audience customers.

Finally, Digital marketing is undoubtedly complex but there are some simple truths that we need to accept. The marketing strategies need to be very value-conscious. They may or may not have purchasing power, but they can make a difference to the company's growth if concentrated. Gone were the days when a consumer had to go to a nearby town or city to buy a branded product. The growing power of the consumer through technology is an opportunity for companies to flock to the markets.

Any starting venture in the market must have to look into these aspects and after that, schedule their next steps, because one-step wrong from their side can ruin their whole brand image in parts of India also.

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Online Shopping Behaviour Technology Advancement: A Great Change in Consumer Behaviour

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Communication,
Consumer, Shopping,
Strategies, Trust.

ABSTRACT

Internet has gained status of as a dynamic commercial platform, more than a rich source of communication. It has intensified the complexities of the simple act of buying. "Google" has become the generic term for "searching information". Traditional buying by individuals has taken the complex mixture of store, mall, television, internet, mobile- based shopping. Not only developed western-countries but even Asian countries, with poor infrastructure and low internet penetration rates, are equally adopting online buying. Online shopping refers to the recent trends of being able to buy everything from home or the process of researching and purchasing products or services over the internet. Many companies have realized that the consumer behaviour transformation is unavoidable trend, and thus change their marketing strategy. The digital environment has a growing effect on consumer's mind and buying behaviour. In an online shopping environment, interactive decision making may have an influence on aid customer decision making. Each customer is becoming more interactive, and though online reviews customers can influence other potential buyers' behaviors. One of the most research oriented area of marketing discipline is consumer behavior. There are plethoras of quantitative and qualitative studies resulting into a robust set of different theories available on buying behavior. Azjen (as cited in Kim & Park, 1991) claims that online shopping provides convenience for consumers such as time saving and search convenience if compared to the traditional way of shopping, For online shopping behavior the stages involved in online shopping can be divided into: Attitude formation, Intention, Adopting and continuation with online buying. Most important factor that influence online shopping attitude, motivation, trust, risk, demographics, websites etc. are widely researched and reported. The clear understanding of the online buying behavior can provide the opportunities for designing new capabilities and strategies that would quench online buyer's thrust on value.

reliability together as one single concept, which was defined as (1) “the accurate display and description of a product so that what customers receive is what they thought they ordered” and (2) “delivery of the right product within the time frame promised.” Security and privacy were defined as “security of credit card payments and privacy of shared information.” Zeithaml, Parasuraman and Malhotra (2002) examined privacy and security separately as two different concepts. They found the determinants of privacy were (1) sharing (selling, renting) personal information to other companies; (2) tracking of shopping habits, purchases, etc., (3) placement of cookies on a consumer’s computer, (4) being contacted by the company without providing consent; and (5) general privacy concerns. Conversely, security refers to protecting users from the risk of fraud or financial loss from their use of credit cards during the transaction. The security determinant includes (1) explaining security information clearly, (2) guaranteeing credit card security, disclosure by the firm regarding the intended use of personal details and (3) personal details being treated as private and confidential (Zeithaml, et al., 2002). Fulfillment and reliability are related to customer service. Wolfinbarger and Gilly (2003) defined them as (1) “the accurate display and description of a product so that what customers receive is what they thought they ordered” and (2) “delivery of the right product within the time frame promised.” However, Dabholkar (1996) examined reliability separately from fulfillment and he proposed the term “expected reliability”, which was defined as how accurately customers’ orders will be filled when they used the Web. Another dimension of customer service is delivery of products (Francis & White, 2002), which focus on online retailer’s delivery system including delivering the correct products and receiving an order in good condition.

Consumer’s Intention to Continue Purchasing through the Internet Many studies on customer behavior, in particular, customer satisfaction and intention to continue purchasing, have applied expectation-confirmation theory in the EC context. [Kim et al.] Proposed a framework combining trust, expectation, and satisfaction. Their findings showed that customer’s trust and expectations are positively related with satisfaction which has a positive influence on the intention to repurchase. [Lee et al.] argued that retaining customer loyalty is vital to make Internet users visit Internet shopping websites again. Trust and low transaction cost help to increase customer loyalty towards an Internet shopping website. On the other hand, [Liang and Lai] examined the effect of design quality on consumer choice of online bookstores. Their results showed that design quality is as important as product price to make customers visit and purchase again. [Chung and Lee] indicated that product perceptions, customer service, perceived ease of use, site image, promotion, communications environments, and overall customer satisfaction for the Internet shopping stores are positively correlated with the repurchase intention, but perceived consumer risk has a negative relationship with the repurchase intention.

The Benefits of Online Shopping Two kinds of benefit, extrinsic and intrinsic, extrinsic benefits offer a means with which customers can achieve other goals. Since extrinsic motivation refers to the performance of an activity because it is perceived to be helpful in gaining valued outcomes that are distinct from the activity itself, extrinsic benefits pertain to the benefits obtained from the outcome of performing the activity, but are distinct from the activity itself. Such benefits can motivate a consumer’s intention to perform an action to gain benefits that serve as a means to reach other outcomes.

Intrinsic benefits refer to the benefits gained from purchasing through Internet shopping, apart from any purchase consequences that may be anticipated, and are ends in themselves to customers. When a customer considers the intrinsic benefits, they perform a task simply because the performance of the task offers them benefits. Previous studies indicate that online customers seek out consumption experiences obtainable from purchasing (pleasure, novelty, and fashion involvement) as ends in themselves.

- Pleasure positively affects a customer's continuance of purchasing behavior in Internet shopping.
- Novelty positively affects a customer's continuance of purchasing behavior in Internet shopping.
- Fashion involvement positively affects a customer's continuance of purchasing behavior in Internet shopping.

Methodology and Measurements of Consumer Shopping Behavior



Theories and Models

Consumer buying behavior process

In the field of Consumer behavior research the classical model of consumer buying behavior is of utmost important. We as persons take actions in purchasing and using products and services and actions are derived by mental and social process. Behavioral science helps us to better understand why we go for a certain product and why not, why we set priorities while making decision.

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Consumer decision process carries five stages, starting with Problem recognition and following Information search, Evaluation of alternatives Purchase decision and finally Post Purchase behavior. Problem recognition starts with the perception of need and moves towards information search where consumer uses internal and external sources to analyze given information and use that information in the next step of evaluation of alternatives. While evaluating alternatives one assessing values of the products by giving weights. Once you have successfully evaluated alternatives you will move towards purchase decision where you may encounter three possibilities, from whom to buy, when to buy and do not buy. Once you have actually made the purchase now it comes to Post purchase behavior, whether you are satisfied or dissatisfied with your purchase, Solomon, bamossy, askegaard and hogg (2006).

Theory of Reasoned Action (TRA)

TRA proposed in 1975 has been still been utilized, highlight “behavioral intentions”, refers to the willingness of performing a specific action under an established situation, and is determined by the behavioral attitude and the subjective norms. Also referred as Fishbein’s model (cited in(H. Zhang, Tian, & Xiao, 2014)). In consumer behavior literature TRA is foundation to understand and predict buying behavior(Yu & Wu, 2007)(K. K. Z. K. Zhang, Cheung, & Lee, 2014).

Theories of planned behavior (TPB)

Theory of planned behavior proposed by Icek Ajzen (1988, 1991) actually provides a link between attitude and behavior. Consumer action is guided by three considerations.

- Behavioral Beliefs
- Normative Beliefs
- Control Beliefs

TPB is basically an extension of theory of reason action (TRA) proposed by (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). As you can see in the below figure and as suggested by Icek Ajzen (1988, 1991) intention serve as a central role to perform a behavior. Icek Ajzen (1988, 1991) also proposed that a given behavior is influenced by the certain factors and these factors are assumed to be captured by the intention. In Icek Ajzen (1988, 1991) words these intentions indicate as how one is willing to put the effort in order to perform a given behavior. As you can see in the below figure attitude towards behavior and subjective norm are basically the factors that influence intention and as discussed above intention serve as a central role to perform behavior. On the other side perceived behavioral control actually moves towards the actual behavioral by influencing the intention.

Behavioral belief: It’s about one’s belief about the final outcome of particular behavior, Icek Ajzen (1988, 1991).

Attitude toward behavior: It is about personal performance of individual’s positive or negative evaluation Icek Ajzen (1988, 1991). It is considered as personal or emotional factor that can affect in a positive or negative manner, Icek Ajzen (1988, 1991).

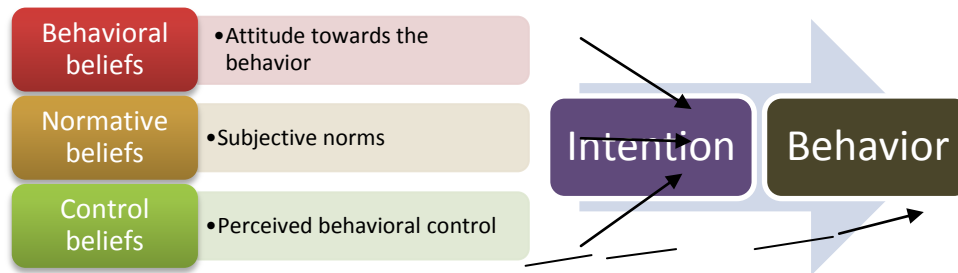
Normative belief: It is about individual’s particular behavior that can be influenced by other important actors, Icek Ajzen (1988, 1991). These actors can be your friends, family members, co-workers etc.

Subjective norm: Its concerns with social normative pressures or other belief that can affect one's behavior whether a person should perform the behavior or not, Icek Ajzen (1988, 1991). Subjective influence is basically the social influence factor.

Perceived behavioral control: An individual's perceived ease or difficulty of performing the particular behavior, Ajzen, (1988). A person's way of performing a particular behavior with some difficult or performing it easily, Ajzen, (1988).

Control beliefs: Person's beliefs about the presence of circumstances that may help or prevent performance of the behavior, Ajzen (2001).

Schematic diagram of theory of planned behavior by Ajzen, I. (1991)



Source: Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, p. 179-211

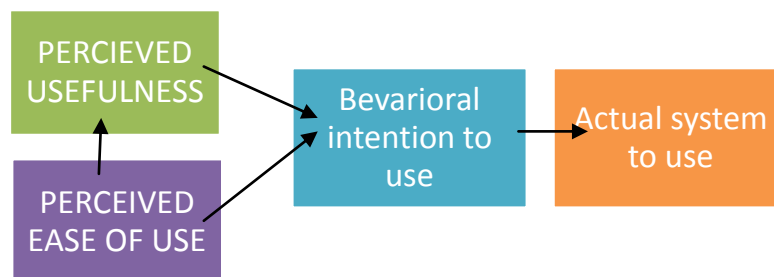
Technology acceptance model (TAM)

Technology acceptance model (TAM) is an extension to Theory of reasoned action proposed by (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), TAM is developed by (Fred Davis and Richard Bagozzi (Davis 1989, Bagozzi & Warshaw 1992). TAM is basically information system theory that covers how a user accepts and uses a technology, TAM outlines number of factors that influence a user's decision and at the same time it deals with the how and when users will use it. The model deals with the acceptance of information technology. The external factors that influence users to make a decision are:

- Perceived Usefulness (PU)
- Perceived Ease of Use (PEOU)

In Davis (1989) words Perceived Usefulness (PU) is the “the degree to which a person believes that using a particular system would enhance his or her job performance” and Perceived Ease of Use (PEOU) is the “degree to which a person believes that using a particular system would be free from effort”. The main purpose of the TAM is to explain how a user accepts a specific technology.

Technology Acceptance Model (TAM) by (Davis 1989, Bagozzi & Warshaw 1992).



As you can see in the above figure PU and PEOU are the external factors that influence the behavior intention to use and then finally it moves towards the actual system use, as you can see in the above figure author has explained that user will first consider that if he or she uses the particular system that would be free from effort and that is PEOU factor and then this factor leads to the one's thinking that particular system will increase one's job performance and that is PU factor, and then he or she will move forward to think about creating and intention to use that system and finally the will actually use the system.

Innovation Diffusion Theory (IDT)

Along with above three, this theory proposed by Roger (1962, 1995), has also been widely cited and adopted to understand adoption of an innovation. Technology adoption speed, amount and degree depends upon five characteristics of the innovation namely: relative advantage, compatibility, complexity, divisibility or trialability, and communicability or observability (T Hansen, 2005; Turan, 2012). Researchers have utilized this model along with other constructs to understand online buying intentions (Wen Gong, Maddox, & Stump, 2012; Wen Gong & Maddox, 2011). Online buying has been considered as “discontinuous innovation” as it includes technological and buying changes as well (T Hansen, 2005; Torben Hansen, Jensen, & Solgaard, 2004)

Adopted in combination to other theories, to explain intention and adoption of online buying in different setting e.g. internet banking (Lallmahamood, 2007), online travel purchase, online grocery buying (Torben Hansen et al., 2004) (AMARO, 2014; N Delafrooz, Paim, & Khatibi, 2011) (Amaro & Duarte, 2015) (H. Y. Lee, Qu, & Kim, 2007) (N Delafrooz et al., 2011) (Eri, Islam, Daud, & Amir, 2011) (Sinha, 2010) (Ganguly, Dash, & Cyr, 2011) (Narges Delafrooz, Paim, Haron, & Sidin, 2009) (Ostrowski, 2009) (Choi & Geistfeld, 2004). Some of the refined models explained even 64% of actions (Sentosa & Mat, 2012).

In a comparative study, TPB model reported to be better fit in a developing country as compare to extended TAM model (Turan, 2012). Other extensions and revisions based on these four models have been compared and proposed to predict online buying.

Motivational Model

Motivation with other psychological factors like perception, learning and attitude is always been cited as major factors influencing consumer to buy even by Kotler (2000) and Schiffman (2000). Different studies explored consumer motives to buy online. A detailed typology (Shrivastava, 2011) classified motives into: Pragmatic motivations (e.g. Convenience, Learning about new Trends, Ease of use, Comparison), Product motivations (e.g. Availability, variety, quality), Service excellence motivations (Accessibility, Timely delivery, Reliability, Responsiveness), Economic motivations (discounts and deals, competitive prices) Hassel reduction motivations (e.g. transportation, timing, driving and parking), Social motivations (e.g. social influence, peer pressure, social learning, status and authority), Hedonic motivations (Self gratification, fun-of- buying , Going through search pages, Sensory stimulations, Impulsive shopping). Rest named as exogenous motivations (Prevision online experience, life style, trust). Understanding of online buying motivation is insufficient to explain the complexities on online buying behavior.

Empirically Studied Dependent Variables

Following section covers major endogenous variables reported in different studies.

- Attitude towards online buying and Intention to buy online

A basic construct of most of psychological theorist is the likely-hood of a particular behavior, “buying intention” is long been utilized as reliable predictor of “buying behavior”. As mentioned already, TRA and its family models (most cited one- TAM) have been extensively employed to predict online buying and future buying intentions (Venkatesh et al., 2003), (Dholakia, Bagozzi, & Pearo, 2004)(Amaro & Duarte, 2015; Cai, Zhao, & Chi, 2012; Gefen, Karahanna, & Straub, 2003; Hong, Thong, & Tam, 2005; H. Lee, Kim, & Fiore, 2010; Ling, Daud, Piew, Choon, & Corresponding, 2011; Muthalif, 2014; Rapp, Rapp, & Schillewaert, 2008; Taiwo & Downe, 2013; Tan & Qi, 2009; Tang & T.H., 2011). Consumer intentions to buy online have been explained by attitude uniformly in the previous studies (Turan, 2012), but all constructs have not found universally applicable across all environments. In a Chinese study PEU “Perceived ease of use” has not been found influencing, whereas PU- “Perceived usefulness” influence online buying intentions (Wen Gong & Maddox, 2011)Wen; Gong et al., 2013). Subjective norms have been statistically significant and have reported to have positive influence.

- Adoption of online buying Investigations, on the segments buying online have been reported extensively. Studying buying of different products online (Sarigiannidis & Kesidou, 2009) e.g. books, travel, grocery (T Hansen, 2005), electronics (Bashir, 2013; J. Kim & Forsythe, 2010; Liu, Forsythe, & Black, 2011), e-ticketing (Sulaiman, Ng, & Mohezar, 2008). Characteristics of adopters in terms of age, gender and other socio-demographical along product category have been examined. Some reported online buyer to be typically characterized as high income level (T Hansen, 2005).

- Continuation with online Buying Behavior Available literature of online buying behavior can be clearly divided into two major sets; first set of studies concentrating acceptance or adoption and second set of studies concerning continuation-intention, which is still in its infancy stage. Earliest study of online banking employed Expectation- confirmation theory (Bhattacharjee, 2001). Bhattacharjee (2001) highlighted application of ECM better than adaptation of SERVQUAL model to the online buying behavior. ECM is the only framework available which constitute of three constructs namely: expectation, perceived performance and resulting level of satisfaction (Luo, Ba, & Zhang, 2012). Against attitude, satisfaction temporally and causally precedes post-purchase attitude and influence continue-intentions. In contrast to traditional buying, delivery of product is part of post purchase stage. Delivery time, the delivery of the right product regarding its attributes and performance is highly associated with post-purchase satisfaction (Jiang and Rosenbloom, 2005) cited in (Claudia, 2012). Hence return policy has been reported an important factors in considering transaction quality. Another research, combining ECM and TAM in two stages of online buying-ordering and fulfillment, reported customers’ satisfaction with the ordering process and the fulfillment process, and the perceived usefulness of the website contribute significantly (C. Liao et al., 2010)

By combining TAM and ECM and other construct - trust, utilitarian and hedonic motivation the constructed model explained as high as 64% of variance in US (Wen, Prybutok, & Xu, 2011).Contrary to it one more extension of ECM by adopting online buying perspective incorporated both constraint-based and dedication-based relationships in a model (Chang & Chou, 2011). Dedication-based influences

included two constructs, “satisfaction” and “perceived usefulness”. Constraint-based influences included two constructs, “trust” and “perceived switching costs”. Also “website effectiveness” and “perception of relationship closeness” proposed as antecedent to trust. This study reported stronger influence of Constraint-based influences. Along with satisfaction, trust, perceived-usefulness and “perceived switching costs” combined to predict continuation of online buying, but only 61% of variance were explained by the model in China. TAM and ECM combined with SCT also utilized to express continuation intentions (Chen et al., 2010).

Other Variables and Major Constructs

Following section covers major predictor and exogenous variables reported in different studies.

- Demographics characteristics

Online buyers have different characteristics with varying motives to buy online, consequently have been extensively studied, in the context of attitude, behavioral intention and adoption of online buying with respect to different categories of products and different cultural settings. The factors what characterize the consumer demographic profile: age, sex, occupation, education, family status, income, living conditions and life expectancy (Andersone & Gaile-Sarkane, 2009). Age, education and profession have been reported to have significant impact against other variables-income, gender and ethnicity. Regarding gender there is no consensus e.g. Chinese male and female consumers hold similar online shopping intentions (Wen Gong & Maddox, 2011). Same is found even in developed countries. Yet, few reported male more likely to shop online(Cha, 2011). Interestingly, different online buying motives have been reported for both the gender. In the same Chinese study age and Perceived risk were not found significantly different, but income and marital status were found to have influence on online buying intentions. Contrary to other findings married with children are more likely to buy online as compare to singles or married with no children. Which is consistently found in other studies as well (Brown, Pope, & Voges, 2003). Students as online buyers have been studied (Al-Swidi, Behjati, & Shahzad, 2012).

- Trust, Risk and Security

To overcome the inherent limitation of employing different IS-adoption models which have their foundations in TRA other related psychological theories, construct of trust, risk and security concerns have been strongly established in the online buying literature. “Online trust” has been reported to be an integral component of customer purchase intention in the context of both developed and developing countries (Thamizhvanan & Xavier, 2013). Perceived trust has been reported as positively influencing intention, adoption and continuation behavior. Other equally important, extensively studied and found as predictor variables are- risk (having inverse relation) and privacy & security concerns. Online security concern varies over the product category bought online(Cha, 2011).

- Social Influences

Subjective norm is defined as —the perceived social pressure that most people who are important to him/her think he/she should or should not perform the behavior in question (Ajzen, 1991; Cameron, Ginsburg, Westhoff, & Mendez, 2012; Fishbein & Ajzen, 2011). SN have been found to be strongly influencing intention to buy online (Turan, 2012) (Cha, 2011).

- Product characteristics

Three major types of product: search, experience, and credence goods (Luo et al., 2012). Search products are those that can be evaluated from externally provided information. Experience products, on the other hand, require not only information, but also need to be personally inspected or tried. Credence products are those that are difficult to assess, even after purchase and use (Brown et al., 2003) (Cha, 2011). “Tactility” is ability to examine/ test, in terms of touch and sight, a product (Alkailani, 2009). Findings for this construct as an has mixed results in different cultural environments e.g. Chinese are not more concerned about the lack of face-to-face contact or the inability of them to touch and feel tangible products or credit as against Americans (Wen Gong et al., 2012). Study comparing online buying intention of “real” vs. “virtual” items reported different criterion employed for each by online buyer (Cha, 2011). There is no uniformly accepted standard product classification available (Sarigiannidis & Kesidou, 2009) so far in the context of online buying. For virtual items PEU, PU, enjoyment and security have not found significant, hence proposed different strategy for both types of items.

- Shopping orientations

Different shopping orientations have been found (Brown et al., 2003) when exploring different motivations e.g. personalizing shoppers, recreational shoppers, economic shoppers, involved shoppers and convenience shoppers. “Impulse purchase orientation” has significant impact on the customer online purchase intention but “quality orientation” and “brand orientation” also has not impact (Thamizhvanan & Xavier, 2013). But there is no consensus on the relevant classification of online buyers. Moreover which class dominates the total segment of online buyers is not identified. Some study reported convenience as the major orientation other highlighted economy or personalizes. Moreover shopping orientation is not found significant enough for online buying intentions.

- Website characteristics

Website design along with customer service and pricing have been reported as major “retailer characteristics” affecting online buyer satisfaction (Luo et al., 2012) (Mishra & Priya Mary Mathew, 2013). Perceived control over site navigation and product category are primary factors influencing website quality. Study highlights that “high trust consumers” who spend more and buy more often online the “return policy” cannot compensate the poor website design (Bonifield et al., 2010). Website quality influence consumers’ perceptions of product quality, and affect online purchase intentions (Sun, Chen, & Huang, 2014) and even continuation intentions. Signal credibility found to strengthen the relationship between website quality and product quality perceptions for a high quality website.

Conclusion

Online buying behavior researchers, majorly explores demographics influence on the buying intentions and adoption stages. However, there is no systematic interpretation about how the first time buyer is likely to continue with buying online or would like to intensify or pull more of existent products available offline. Deductive theory approach has been utilized to identify main factors influencing different stages of online buying. Psychological theories are utilized to understand behavior of an individual which is extensively employed to predict “information

system” or “technology” adoption behavior. Further, extending and applying the same framework to understand “online buying behavior” in business to consumer (B2C) setting of E-Commerce. The relation between internet as an invention and its broadening application in business activities can be labeled both as a driver and result of consumer’s online behavior, which needs exploration. Interestingly, time-saving and convenience are long been associated with adoption of online mode is contradictory to the strengthening mall-culture and retail-chains, emergence in even developing countries like India.

The researcher of online buying behavior mainly focuses on the quantitative analysis of constructing model based on survey, limiting only to intention and adoption stages. Interestingly, majority of the study utilize students either university or college as representative of online buyers (Cha, 2011; Wen Gong & Maddox, 2011; Suharno et al., 2014; Turan, 2012). Its contrasting to the findings that married with children are more likely to buy. What makes an information-seeker over internet to become buyer over internet has been explored in detail, yet the supporting factors that encourage online consumer to remain active online needs to be established. Questions like will online mode of buying is going to dominate (given the rapid rate of smart phones as a driver-current) other modes of buying like traditional store, mall etc. remains still un-attempted. Other possibility of disappearance of this mode due to high reliance on internet services and security threats cannot be completely ruled out. In essence, it is high time to focus more on continuation and intensification of online buying. Moreover forces that can intensify buyers spending in absolute amount and over different categories remain unanswered.

Recommendations on how to use the important factors in online shopping could be aimed at developers of websites and owners of e-stores. They should change their marketing strategies giving priority to customer orientation and they should be particularly focused on the ease of use of online shopping services. E-stores should devote resources to better understand consumer behavior, technologies of the future and their development.

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A Factor Analysis Methodology for analyzing the competencies affecting Entrepreneurs of SMEs

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ABSTRACT

The concept of competency-based management has gone from a new technique to a common practice in the 35 years since David McClelland (1973) first proposed them as a critical factor of employees' performance. Today, almost every organization small or large uses some form of competency-based human resource management. The purpose of this paper is to development of required competencies needed to enhance skills of entrepreneurs of this era. In this paper Competencies are defined on the basis of several literatures since 1973 to till now. After collecting data of 200 entrepreneurs from small and medium scale industries of Uttarakhand and Uttar Pradesh exploratory Factor analysis is performed to know the adequate factors or we can say competencies which are required by entrepreneurs to carry out their business successfully. There were total seventy entrepreneurial competencies variables which were identified through previous literature, among them only 47 variables are relevant for the study. Attitudinal, Behavioural and Managerial competencies predict the effectiveness on leaders or managers. Four factors of attitudinal competencies were extracted after eliminating two variables on the basis of anti-image matrices, for behavioural competencies six factors were extracted on the basis of communalities $< .05$, which explains this dimension and for managerial competencies there were also four factors which were extracted on the basis of individual KMO $< .05$. Rotated component matrix was identified for each factor with Eigen value greater than > 1 for each factor. In addition, these competencies can be developed in upcoming entrepreneurs. Despite widespread application, there are few published empirical studies that may give the exact factors of competencies which will be needed by entrepreneurs of SMEs. There are even a lesser number of published studies showing that they can be developed. This special issue will add to both literatures.

Introduction

Entrepreneurship throughout the developed and developing countries has played a significant role in strengthening the economies of country due to creation of new businesses, opportunities and the reengineering of existing business to ensure the growth and productivity. Entrepreneurship is considered as a source of development, innovation and growth in any organization. Since these factors are important for the productivity and stability of organization, it is requisite to identify the vital factors that may affect entrepreneurial process.

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The entrepreneurial process can be classified into three levels of organizations, those can be micro, small & medium and large. In this paper main focus was on to the small and medium industries. In India these industries play a crucial role in economic growth and development of the country. In the presence of recent global economic turbulence, SMEs remain one of the main economic contributors in the recovery process by providing an estimated 67% of total jobs (Mammum, A. 2016). Entrepreneurial competencies are considered as the key determinant of enterprise performance (Man, Lau & Snape, 2008). In simple words, competency of an individual is an assemble method of knowledge, skills, abilities, behaviours and other characteristics that he/she needs to carry out their work roles efficiently and successfully. (Mitchlemore & Rowly, 2013) described entrepreneurial competencies in four areas personal and relationship competencies, business and management competencies, entrepreneurial competencies and human relation competencies. If we give a general point of view attitudes are defined as a specific regularities of an individual's feelings, thoughts and predisposition to act toward some facet of individual environment (Maio, Haddock, 2010). There are certain attributes of entrepreneurs which include Ambitious, Tolerance of Ambiguity, bearing risk and uncertainty, Stick ability etc., which are normally found almost in every entrepreneur irrespective of the type of their industry. They reflect the attitude of entrepreneurs towards his work these skills often known as the attitudinal competencies of entrepreneur. Another vital competency for entrepreneurs is behavioural competencies which may refer as socially observable influenced by individual process of cognition, decision and intension. Beha;vioural competencies have been categorized to include initiative, opportunity seeking, persistence and assertiveness (Osman & Rahim,2014). Further researchers like (Mwaniki & Nassiuma, 2017) also identified the behaviour competencies of individual and their relationship with female entrepreneurial success in Kenya. Managerial competencies of an entrepreneur often relate to the success of any business. Therefore, it is important to identify factors which consolidate the success of small and medium scale enterprises. (Egbu, 1999) found that the six most important types of management skills are: 1) Leadership, 2) Communication (oral/written), 3) Motivation of others, 4) Health and safety, 5) Decision making and 6) Forecasting and planning. Managerial competencies refer to skills and knowledge of basic principles in the area of SME management. They refer as the certain skills of management such as finance, advertising or logistics (Laguna et.al, 2012).

The structure of the further important areas of this article is as follows. First, a literature review argues the case for the importance of entrepreneurial competencies and the role of competencies in the development of entrepreneurs. Next, the methodology for this research is outlined, including the questionnaire design, data collection and analysis. The Findings section that follows presents the result of the exploratory factor analysis. The Discussion section then compares the new identified clusters of competencies with previous research on entrepreneurial competencies. Finally, the Conclusions section summarises the contribution of this research and offer recommendations for practice and for further research.

Literature Review

Literature review tries to identify trends of competency mapping and methods available for it. It explains the scenario when entrepreneurs are faced with the challenges of identifying appropriate competency and develop competencies for the

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same. The study focuses on identifying competencies that may aid entrepreneurs to enhance their performance. The relationship between attitudinal, behavioural and managerial competencies has also been discussed.

In the words of (White, 1959) "competency" defined as a concept for performance motivation. New motivational concept of "competence" is introduced indicating the biological significance of exploratory behaviour. Lundberg defined competence from executive planning point of view and organization's growth perspective (Lundberg, 1972). He focused on "knowledge", "attitude" and "ability" as building blocks of executive competences which can be defined respectively as thinking, feeling and doing in terms of activities. He had pioneered the competency movement across the world and brought out several new dimensions of the competencies. It was established that traditional achievement and intelligence score may not be able to predict success on job and competencies are more important. (Hoffmann, 1999) analysed former literature and concise three key themes in describing a competency: (a) original requirement and qualities of an employee, (b) noticeable behaviours, and (c) standard of individual performance outcomes. Holmes & Hooper, (2000) claimed that core competency is one of a range of concepts that deal with the idea of essential skills to support personal development, employability, and socialization. They define 'core competence' as a set of learning outcomes (skills or competencies) which each individual should acquire during or demonstrate at the end of a period of learning. Some recent studies have been conducted on this topic in India and other countries as well which mainly focuses on the required competencies of entrepreneurs. (Irene, B.N.O., 2017) this study offers a comprehensive analysis of the competency variable in understanding the factors that influence business success in the context of South African female entrepreneurs. It provides a basis for an agenda for focus on training and development of the entrepreneurial competencies of female entrepreneurs in South Africa. The aim of this research is to examine the innate and acquired competencies of female entrepreneurs in South Africa with a view to differentiating the behavioural and non-behavioural elements of competency, which will further lead to the identification and exploration of competency clusters and the associated behavioural pattern. (Ngoasong, 2017) has focused on the development of entrepreneurial digital competencies. Study highlights important implications for encouraging digital entrepreneurship by focussing on institutional, technology and local dimensions of context and measures to develop the entrepreneurial and digital competencies.

On the basis of literature reviews it is evident that various studies have been done on entrepreneurial competencies but there are no particular studies on which competencies are prominent for entrepreneurs. Earlier research studies have focused major competencies only on identifying the competencies within the organization, and most of the studies are gender specific. It is also said that competencies of entrepreneurs vary from region to region. Competencies differ for types of units' entrepreneurs own, their community, gender, and more other factors. Therefore, it was mandatory to give insights on entrepreneurial competencies for the SMEs owners/Managers of Uttarakhand and Uttar Pradesh.

Research Methodology

Scaling Technique

A questionnaire based survey was conducted in order to collect data about entrepreneurs, their business performance and competencies required to carry out their business successfully. This method of survey was selected as the research strategy for two main reasons first was the questionnaire based survey would be helpful in comparing the previous research work on competencies. There were some previously developed scales of competencies like Man et. Al. in 2001, his developed scale was used immensely by researchers all over the world. This survey also allowed the researcher to include the large number of respondents from different sectors of business. The questionnaire had two sections. First is entrepreneurial profile which includes (basic personal information, educational background, entrepreneurial orientation) and the second section of questionnaire includes (entrepreneurial competencies) which were categorized into attitudinal, behavioural and managerial competencies based on previous research. Competencies were measured using a five point -likert scale range from (1= strongly disagree to 5= strongly agree).

Sampling

The samples drawn from the population data were analyzed using maximum likelihood extraction. A sample size of 200 entrepreneurs was taken for the study. Sample was drawn from the various entrepreneurs of Uttarakhand particularly from the districts (Dehradun and Haridwar), and from western Uttar Pradesh giving the focus on the districts (Gautam Budhh Nagar and Ghaziabad). Collected data were entered into SPSS for descriptive and exploratory factor analysis (EFA) for validating the scale which was used in the study.

Objectives

1. To explore the factors underlying entrepreneurial competencies of SME owners/mangers.
2. To validate the scale of competencies in the context of proposed study.

Findings

Entrepreneurial Profile

Entrepreneurs' profile in terms of their age, education, years in business experience, sector of business, and stage of business are presented below. Comparison with other statistics and studies suggests that on the basis of these variables the sample in this study can be regarded as representative of entrepreneurs of Uttarakhand and Uttar Pradesh. Regarding the age of respondents, the highest responding age group among respondents was between 31 to 50 years. 88% entrepreneurs among the 200 entrepreneurs were married. Overall, entrepreneurs within this sample were mostly graduated. 52% respondents were technically trained while 48% had management training. 55% entrepreneurs were from manufacturing units while rest of the entrepreneurs from service sectors or others. Major section of entrepreneurs was having experience between 6 to 10 years. Majority of the businesses were on growing stage in their field.

Identification of clusters

For the Identification of competencies Exploratory Factor analysis was used to determine the key features of competencies. Prior to conducting EFA the suitability of the data for this test was established by various means. Cronbach's coefficient was

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calculated with a value of 0.88 this confirmed the reliability of the scale within the sample. Both Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were conducted to measure sampling adequacy. The KMO value for Attitudinal competencies was 0.78, which was greater than the recommended value of 0.6 (Kaiser, 1974). For behavioural competencies the KMO value was .73 and for the managerial competencies was 0.77 which was also higher than the given standards.

A scree plot was used to identify the number of valid factors this resulted in the identification of four factors from attitudinal competencies, six factors were extracted from behavioural competencies and four factors were identified from managerial competencies. Table I, Table II and Table III lists the eigen-values associated with these extracted factors, and the total variance of each identified competencies explained by each of the factors.

Table I

	Factor Name	Eigen Value	Variance explain	item convergence	Factor Loadings
Attitudinal Competencies	Self – reliable	4.089	16.600	AC14	.772
				AC11	.732
				AC10	.724
				AC4	.609
				AC13	.584
				AC20	.528
	Self – Assurance	2.405	17.604	AC2	.692
				AC3	.641
				AC5	.681
	Self- Believe	2.143	10.719	AC8	.767
				AC6	.648
				AC7	.528
	Value Oriented	1.141	9.399	AC15	.575
				AC16	.665
				AC17	.635

The selected four components explain a total of approx 55 per cent of the variance. More specifically, Factor 1 explains 17 per cent of the total variance; factor 2, 11 per cent; factor 3, 17 per cent; and factor 4, 10 per cent of the total variance. Next, the last column of the matrix shows a clear structure, with meaningful strong loadings for each of the four components. Factor 1 which was named as self – reliable have five statements, factor 2 which was named as self-assurance having three statements with some similarities Factor 3 named as Self-Believe is having three statements and factor 4 which was called value oriented was also having three statements. Factor1: self- reliable. Six items cluster were identified to form the first factor. This factor includes an interesting mix of reliability of entrepreneurs. Factor2: Self assurance. Three items cluster were identified. The factor includes competencies relating to assurance of coming opportunities. Factor3: Self Believe. Three items represent this factor which was related to the belief of entrepreneurs for achieving the goals of organizations. Factor4: Value-oriented. In this factors three dimension were identified to explain this factor. The items in this factor are mix of those skills and competencies typically related to the urge of achieving the standards for the firm. Hence, these four factors define the attitudinal competencies of entrepreneurs in

terms of their reliability, assurance of work accomplishment, believe in their abilities to perform better and achieve high standards for the firm.

Table II

Behavioural Competencies	Factor Name	Eigen Value	Variance explain	item convergence	Factor Loadings
	Innovation & Creativity	4.645	11.485	BC23	.660
				BC24	.751
				BC25	.679
				BC26	.674
	Task – orientation	2.262	12.659	BC7	.753
				BC18	.720
				BC19	.743
	Power-orientation	2.003	8.923	BC6	.640
				BC11	.742
				BC15	.682
				BC21	.520
	Entrepreneurial Efficacy	1.573	7.976	BC8	.548
				BC10	.732
				BC12	.674
	Achievement orientation	1.289	7.439	BC2	.657
				BC3	.573
				BC13	.591
	Self sufficient	1.524	7.857	BC5	.521
				BC16	.607
				BC17	.655

The selected six components explain a total of approx 57 per cent of the variance. More specifically, Factor 1 explains 11 per cent of the total variance; factor 2, 12 per cent; factor 3, 9 per cent, factor 4, 5, 6 explains 7 per cent of the total variance respectively. Next, the fifth column of the matrix shows a clear structure, with meaningful strong loadings for each of the four components. Factor 1 which was named as Innovation and creativity have four statements, factor 2 which was named as task –orientation having three statements with some similarities Factor 3 named as power - orientation having four statements, factor 4 which was called entrepreneurial efficacy was also having three statements, Factor5 named as achievement orientation is having three statements and last factor6 which was called self sufficient was having three questions. . Factor1: Innovation and creativity. Four items cluster were identified to form the first factor. This factor depicts the innovative and creative behaviour of entrepreneur. Factor2: Task-Orientation. Three items cluster were identified to form this factor. This factor depicts the behaviour of entrepreneur which was related to perform the given task. Factor3: power - orientation. Four items cluster were identified. The factor includes competencies relating the use of power given to the entrepreneurs. Factor4: entrepreneurial efficacy. Three items represent this factor which was related to entrepreneurs' self – belief and confidence in their own skills, expertise and competencies as well. Factor5: achievement orientation. In this factors three dimension were identified to explain this factor. This factor depicts the need for achievement of entrepreneurs. Factor6: self Sufficient. Three dimensions depict this factor in the sense of independent nature of entrepreneurs. Hence, overall six factors define the behavioural competencies of in terms of their nature of giving or thinking in a creative and

innovative manner, competencies related to the task performing skills of entrepreneurs their independent nature, and lastly their behaviour towards the power given to them.

Table III

Managerial Competencies	Factor Name	Eigen Value	Variance explain	item convergence	Factor Loadings
	Future oriented	4.821	9.306	MC5 MC6 MC7	.723 .766 .580
	Association-oriented	2.483	16.399	MC16 MC17 MC23 MC24	.853 .519 .708 .566
	Skill - oriented	1.843	8.957	MC19 MC20 MC21	.744 .628 .796
	Knowledge-oriented	1.272	8.034	MC2 MC3 MC4	.522 .712 .697

The selected four components explain a total of approx 43 per cent of the variance. More specifically, Factor 1 explains 9 per cent of the total variance; factor 2, 16 per cent; factor 3, 8 per cent; and factor 4, 8 per cent of the total variance. Next, the fifth column of the matrix shows a clear structure, with meaningful strong loadings for each of the four components. Factor 1 which was named as future -oriented was having three statements, factor 2 which was named as Association- Oriented was having three statements factor 3 which was called skill- oriented having three statements with some similarities and factor 4 which was called Knowledge- oriented was also having three statements. Factor1: future -oriented. Three items cluster were identified to form the first factor. This factor includes the thought of achieving of future goals for organization. Factor2: Association- Oriented. Three items cluster were identified. The factor includes competencies related to the deliberating the ideas to peer group by owners/mangers. Factor3: skill- oriented. Three items represent this factor which was related to the skills of mangers like technical skills to achieve the predetermined goals. Factor4: Knowledge- oriented. In this factor three dimensions were identified to explain this factor. The items in this factor are mix of knowledge of entrepreneurs towards their work and staff. Hence, these four factors define the Managerial competencies of entrepreneurs in terms of their ability to perceive ambiguous situations, vision, communication skills, technical knowledge, and relation with peer group.

Discussion

Adapting a competency based framework the main objective of this study was to identify individual's competencies that would be related to the entrepreneurs of small and medium scale industries. The finding supported the research objective, showing that the most of the competencies under investigation are significant predictors for entrepreneurs. This study has contributed to the limited previous

research on entrepreneurial competencies. Concretely, it has generated a framework that shows entrepreneurial competencies in three dimension which was named as Attitudinal, Behavioural and Managerial. In attitudinal competencies there are four dimensions 1) Self- Reliable 2) Self – Assurance 3) Self Believe 4) Value – oriented. Behavioural competencies includes 1) Innovation and creativity 2) Task- Orientation 3) Power- Orientation 4) Entrepreneurial Efficacy 5) achievement- Orientation 6) self Sufficient. Managerial Competencies of entrepreneurs includes four factors which are 1) Future – Oriented 2) Association – Oriented 3) Skill- oriented and 4) Knowledge- Oriented.

The entrepreneurial competency framework produced in this research is comparable with other frameworks of classification of entrepreneurial competences generated by earlier researchers; although it is important to remember that most of these earlier classifications looked at entrepreneurs were gender specific. In a similar way to this study, (Mitchelmore & Rowly, 2013) has developed the scale of entrepreneurial competencies which was specific to female entrepreneurs. He has identified four factors 1) personal and relationship competencies 2) business and management competencies 3) entrepreneurial competencies and 4) human relations competencies. Perhaps the most interesting study for our purposes is that conducted by (Man et al. 2002). He has identified the following ten areas of entrepreneurial competencies: (1) opportunity; (2) relationship; (3) analytical; (4) innovative; (5) operational; (6) human; (7) strategic; (8) commitment; (9) learning; and (10) personal strength competencies All of these are variously apparent in the items in Entrepreneurial Competencies framework, but they cluster differently. This may be because the competencies for entrepreneurs do indeed have different clusters for different regions. To support the findings, result reveals that the KMO value is .78, for attitudinal competencies. This was greater than the given standards. But if we look at the KMO value individually for each variable there are two variables which are less than those standards so on the basis of that researcher have eliminated the two variables AC9 and AC19 (see Annexure II (Table I). For identifying the factors of behavioural competencies, KMO value is good for all the variables so on the basis of each given communalities which is less than $< .05$ researcher eliminated three constructs BC1, BC4 and BC9 (see Annexure II (Table 2). In the case of managerial competencies KMO value is .77 which is also greater than $> .05$ after that looking at the values of anti image matrices there are two variables less than $< .06$ MC22 and MC10 (see Annexure II (Table 3). After eliminating these variables four final factors were extracted for managerial competencies. Eventually, given the different approaches to the construction of scales, classifications and frameworks of entrepreneurial competence it is difficult to make comparisons, therefore on the basis of this research to offer a definite answer as to whether the entrepreneurial competencies of entrepreneurs are essentially different to those exercised in other countries. However, we draw attention to our identification of the three key dimensions of competencies in this research – i.e. attitudinal, behavioural and managerial which seem to lend more emphasis on the personal growth of entrepreneurs.

Conclusion

Organisations that support and direct the entrepreneurs are increasingly paying attention to the issue of knowledge, skills and competencies as they acknowledge the importance of the development of these for growth and performance in the

knowledge-based economy. This research proposes the Entrepreneur Competence (EC) framework, which encompasses three dimensions 1) Attitudinal 2) Behavioural and 3) Managerial which was further subcategorized in identified factors. One of the key findings and conclusions from earlier study of entrepreneurial competencies is that if individual perceive that they have the capabilities or competencies for entrepreneurship, they are more likely to believe the set accordingly, the EC framework can be used to enhance competencies and to help entrepreneurs to understand their strengths and weaknesses in entrepreneurial ventures. In addition, it can be used as a framework for developing the future entrepreneurs. We add our voice to others before us who have suggested that further research into entrepreneurial competencies would be a valuable basis for improving understanding of owners/managers and their businesses, and would support the development of training and other relevant initiatives that could drive the performance and growth of SMEs, and thereby enhance their contribution to the economy. Finally, it is possible in future to do an extensive further research in this area, with the entrepreneurs from different sector of business. A comparison can be made on the basis of entrepreneurs of different regions within the country. A cross culture study is also possible with the context of community, gender or circumstances. The development of scales would establish the relationship between entrepreneurial competencies, and business performance and growth in further research.

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Annexure I

Table 1: Entrepreneurial Competencies

Competency Name	Factors	Statements
Attitudinal Competencies	AC1	I have a strong believe in my abilities
	AC2	I have the ability to achieve predetermined goals for my organization.
	AC3	When trying something difficult or challenging, I feel confident
	AC4	I defend myself for my own interest and needs.
	AC5	I have the ability to develop healthy confidence.
	AC6	I am positive towards new opportunity.
	AC7	I believe that failure is the part of entrepreneurial process.
	AC8	I believe in moving towards future.
	AC9	Sometimes, I get negative thoughts about my work environment.
	AC10	I perceive all challenging situations.
	AC11	I feel the ambiguous situation as challenging, desirable and interesting
	AC12	I look for things that need to be done.
	AC13	It bothers me when things are not done very well.
	AC14	My own work is better than other people I work with.
	AC15	I have an urge to be better than existing standard of the organization
	AC16	I always take care of the needs and expectations of customers.
	AC17	I always observe the establish standards and norms of the firm.
	AC18	I believe in my ability to control the outcomes.
	AC19	I always take responsibility of failures.
	AC20	I feel helpless when situation is not under my control

Table2

Competency Name	Factors	Statements
Behavioural Competencies	BC1	I am willing to do more than the requirement.
	BC2	I do things that need to be done before being asked to by others
	BC3	I usually focus on identifying what the customers need from my business.
	BC4	I like challenges and new opportunity.

	BC5	I am capable of recognizing the potential business opportunities.
	BC6	I view all social gatherings as an opportunity to expand my network.
	BC7	When faced with difficult problems, I spend a lot of time to find a solution.
	BC8	I feel self-motivated, while facing obstacles.
	BC9	I give up when things are not going right.
	BC10	I have a confident personality.
	BC11	When situation go wrong, I deal aggressively with others.
	BC12	I have a positive attitude.
	BC13	I set challenging goals for myself.
	BC14	I have a strong need in activities or tasks that have a high degree of individual responsibility to achieve a goal.
	BC15	I have a drive to control others.
	BC16	I do not have influence of other people.
	BC17	I am able to get people who have strong opinion or ideas to change their minds.
	BC18	I do not try something new without making sure I will succeed
	BC19	I do things that others consider risky.
	BC20	I weigh my chances of succeeding or failing before I decide to do something.
	BC21	I feel full of energy all the time.
	BC22	I always try to expand the business.
	BC23	I have an interest to change the techniques of work process.
	BC24	I am always ready to introduce new techniques.
	BC25	I always try to do old things in a new way.
	BC26	I always try to give new solution to the problems.

Table3

Competency Name	Factors	Statements
Managerial Competencies	MC1	I seek the advice of people who know a lot about the task that I am working on.
	MC2	I have an urge to look for information to achieve the desired goals.
	MC3	When starting a new job or project, I gather a great deal of information
	MC4	I plan a large project by breaking it down into smaller tasks.
	MC5	I deal with problems as they arise rather than spending time in trying to anticipate them.
	MC6	I think about the advantages and disadvantages of different ways of accomplishing things
	MC7	I understand various techniques involved in resolving different problematic issue.
	MC8	I feel I am confident of solving my problems.
	MC9	I do not spend much time thinking how to influence others.
	MC10	I get others to supply my recommendations.
	MC11	In order to achieve my goals, I think of solution that benefit everyone involved in the problem.
	MC12	I set up specific goals and objectives.
	MC13	I usually set my goals and I proceed accordingly.
	MC14	I bear difficulties calmly without complaints.
	MC15	I consider myself hardworking.

	MC16	I know how to end a conversation tactfully.
	MC17	I am successful in transiting ideas to my employees.
	MC18	I try to understand feelings of my peer group and employees.
	MC19	I am aware about technical changes in the industry.
	MC20	I am open towards higher levels of technology in order to meet productivity demands.
	MC21	I always ready to update my technical knowledge.
	MC22	I have the ability to perceive others accurately.
	MC23	I can express myself in front of others.
	MC24	Mostly I leave good impression on others.

Annexure II

Factors Extracted (Rotated component Matrix)

Table1

Attitudinal Competencies	Factor Name	Item extracted	Statements
	Self - reliable	AC14	My own work is better than other people I work with
		AC11	I feel the ambiguous situation as challenging, desirable and interesting
		AC10	I perceive all challenging situations
		AC4	I defend myself for my own interest and needs
		AC13	It bothers me when things are not done very well
		AC20	I feel helpless when situation is not under my control
	Self - Assurance	AC2	I have the ability to achieve predetermined goals for my organization.
		AC3	When trying something difficult or challenging, I feel confident
		AC5	I have the ability to develop healthy confidence
	Self- Believe	AC8	I believe in moving towards future
		AC6	I am positive towards new opportunity.
		AC7	I believe that failure is the part of entrepreneurial process.
	Value Oriented	AC15	I have an urge to be better than existing standard of the organization
		AC16	I always take care of the needs and expectations of customers.
		AC17	I always observe the establish standards and norms of the firm.

Table 2

Behavioural Competencies	Factor Name	Item	Statements
	Innovation & Creativity	BC23	I have an interest to change the techniques of work process.
		BC24	I am always ready to introduce new techniques.
		BC25	I always try to do old things in a new way.

	Task - orientation	BC26	I always try to give new solution to the problems.
		BC7	When faced with difficult problems, I spend a lot of time to find a solution
		BC18	I do not try something new without making sure I will succeed
		BC19	I do things that others consider risky.
	Power-orientation	BC6	I view all social gatherings as an opportunity to expand my network
		BC11	When situation go wrong, I deal aggressively with others
		BC15	I have a drive to control others
		BC21	I feel full of energy all the time
	Entrepreneurial Efficacy	BC8	I feel self-motivated, while facing obstacles
		BC10	I have a confident personality
		BC12	I have a positive attitude
	Achievement orientation	BC2	I do things that need to be done before being asked to by others
		BC3	I usually focus on identifying what the customers need from my business.
		BC13	I set challenging goals for myself
	Self sufficient	BC5	I am capable of recognizing the potential business opportunities
		BC16	I do not have influence of other people.
		BC17	I am able to get people who have strong opinion or ideas to change their minds.

Table 3

Managerial Competencies	Factor Name	Item	Statements
	Future oriented	MC5	I deal with problems as they arise rather than spending time in trying to anticipate them.
		MC6	I think about the advantages and disadvantages of different ways of accomplishing things
		MC7	I understand various techniques involved in resolving different problematic issue.
	Association-oriented	MC16	I know how to end a conversation tactfully.
		MC17	I am successful in transiting ideas to my employees.
		MC23	I can express myself in front of others.
		MC24	Mostly I leave good impression on others.
	Skill - oriented	MC19	I am aware about technical changes in the industry.
		MC20	I am open towards higher levels of technology in order to meet productivity demands.
		MC21	I always ready to update my technical knowledge.
	Knowledge-oriented	MC2	I have an urge to look for information to achieve the desired goals.
		MC3	When starting a new job or project, I gather a great deal of information
		MC4	I plan a large project by breaking it down into smaller tasks.

Analysis of Foreign Direct Investment in India

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ABSTRACT

Since independent, India has adopted cautious approach for economic growth but after the implementation of LPG policy (economic reforms in 1991) India has liberalized its foreign policy and took series of measures to pull FDI. This paper aimed to investigate empirically the impact of GDP, population, import of crude oil and corruption perception index on FDI over the last 20 years i.e. 1998-2018. The multiple regression tests were used in order to analyze the causal relationship among corruption perception index, import of crude oil, GDP and increasing rate of population. It was found that there is significant relationship between FDI, and GDP import of crude oil, corruption perception index and population.

Introduction

The definition of FDI isn't solely restricted to a straightforward transfer of cash, however has currently extended to being outlined as a live of foreign possession of domestic productive assets like factories, land and organizations and different intangible assets like technologies, promoting skills and social control capabilities. Economic literature has been dominated by FDI over the last thirty years, particularly in the areas of political boundaries of an economy like India. The consequences experienced varies from influencing production, generation of employment, modification in financial gain levels, import and exports, impact on economic process, balance of payments and general welfare of the host country

However apart from FDI, History revealed that growing population on Economic development is one of the most arguable topic on earth. Different study showed that increasing population has always bad/negative effect on both economic growth and development of a country. All these debates have started since Malthus planned his theory within the book "Essay on the Principle of Population". He tried to search out the explanation for decreasing returns in most of the countries and he foresaid that increasing rate in population is that the major reason. His theory goes in as follows.

- Population increases by compounding
- Food Production doesn't get compounded

The new populace won't get adequate measure of sustenance (food)

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In general population have three kind of impact like positive, negative or no impact on the economic development of a nation. Three, they believe that there is no relation between economic development and population growth.

Malthusian Population entice is that the main example for the theories that support negative impact. There area unit some alternative theories that support the positive impact stating the importance of human capital on economic development in a very country. This additionally rises from the very fact that any growth within the economic development wants human capital as its main weapon and therefore the rise in population will act as a supplier of human capital. Consistent with this read growth is that the real strength and power of a rustic. They additionally say that with higher population, can| have high labor and this may facilitate for making labor diversity within the nation and successively will facilitate for the increase in output of a nation.

But there's an opportunity of alternative manner around too. This population rise are often a disaster if we have a tendency to don't use them properly. This is often the key drawback with most of the developing countries face. Both the stands of views gift their arguments concerning growth and economic development. Every of the views is supported each in theory and by trial and error (theoretically and empirically).

In India, the population has increased from 870.017million in 1990 to 1342.512million in 2018. Whereas the GDP in 1990 was 326.608 in Million US Dollars and it has reached a new height by getting almost close to 2.61trillion dollars. The vast majority of the examinations express that the consistent increment in the number of inhabitants(population) in the country has prompted the moderate development rate of country. In any case, they do concur that the expansion in populace has prompted the assortment in labor. This assortment in labor likewise prompted the general increment in profitability of the country, if we have a tendency to compare ourselves with the China, they conjointly had an enormous population rise however they're able to cope up thereupon and that they created one in every of the highest most economies within the world. The wasteful aspects in the Government might be one reason for backing off the advancement of our country. So we considered the Corruption Perception Index along with import of crude oil as a variable in our model to produce some good results.

Oil prices matter to the health of an economy, despite a consistent fall in global oil intensity; crude oil remains an important commodity and events in the oil market and continues to play a significant role in shaping global economic and political development. Crude oil is the world economy's most important source of energy and is therefore, critical to economic growth. The price of crude in global market is essentially driven by supply and demand. The performance of world economy in general and the world's largest economies such as US, Japan and recently China have a significant impact on the demand for crude oil and vice versa. The various method developed by IMF, World Bank(WB) and OECD have estimated that 10-dollar increase in crude oil prices would lead to a decline of world production of goods and services by 0.5%.

Oil costs refer the health of associate economy, despite a regular fall in world oil intensity; oil remains a very important commodity and events within the oil market and continues to play a big role in shaping world economic and political development. oil is that the world economy's most vital supply of energy and is thus, important to economic process. the worth of crude in world market is actually driven by demand and supply of oil. The

performance of world economy generally and also the world's largest economies like North American nation, Japan and recently China have a big impact on the demand for oil and contrariwise. The varied methodology developed by United Nations agency, World Bank(WB) and OECD have calculable that ten (10 Dollars) increase in oil costs would result 0.5% decline of world production of products and services.

Objective

The main objective of the study is to analyses the impact of foreign direct investment on economic development in India by doing the regression analysis of different variables such as FDI, GDP, Impact of crude oil, Corruption perception index, populations which act as indicators for economic development.

Literature Review

Many researchers analyzed the connection between economic and demographic variables within the past. Majority of man of science have made mixed results and that they deviate in their result. As a result twenty fifth (25%) decline in birth rate is lead to fifty percent (50%) decrease in infant death rate (Professor Schultz).

Xiujian Peng (2002) examined the link between rise within the productivity of increment and also the labor division. He found that the modification is productivity isn't explained by the expansion of population. However, he found that division in labor has enlarged the productivity. He conjointly explained that the rise in population of a nation helps the development in division of labor during a country.

Kothare (1999) investigated the relationships between increment and economic development of the Indian economy. He over that Asian country is one among the world's quickest growing economies, primarily because of the increase in increment making a positive result on its long haul economic process. Asian country is currently hierarchical in an exceedingly producer in agriculture and could be a top nation in terms of value in a developing country. In several cases, economist's area unit correct in oral communication that increment contains a positive result on economic process of a nation. In reality, economists may say, "If it weren't for its high populations Asian country would still be a suffering developing nation.

Gill (1992) investigated the relationships between increment and economic development for the economy of Asian country. He over that increment is nice however up to some extent, whereas massive increment caused pressure on resources inside the economy. massive increment has negative impact on economic development. According to Aguirre (1999), There are unit several debates happening the impact of big increment of a nation. The approach for nearly all of them is totally different (completely different) and their motivation is different too. An operating information of the parties and their underlying philosophies can enable one to shift through the varied rhetoric and hold them up to the sunshine of scientific information.

Later Hamilton (2000) reportable clear proof of nonlinearity-oil worth will increase is way a lot of necessary than oil worth decreases. an alternate interpretation was planned supported the estimation of a linear functional form exogenous disruptions in oil supplier as Associate in Nursing instrument. His study shows that oil shocks play a vital role in decisive economic science behavior as a result of they disrupt disbursement by

consumers and corporations. Hamilton extended his analysis work (2003, 2005, and 2009) and has put forward empirical proof suggesting that oil worth shocks are one amongst the most causes of recessions within the U.S.

Kaushik Bhattacharya et al. (2005) broke down the effect of increment in oil cost on swelling. They contemplated the system of increment in the costs of oil based commodities on the costs of different items and the yield in India. In February 1999, from a record-breaking low of 11 U.S Dollars for each barrel, it expanded to a pinnacle of 35 dollars in the main seven days stretch of September 2000. Because of this, all oil bringing in nations confronted the risk of oil stun; India, being a noteworthy oil shipper, was especially influenced. Truly, there have been four oil stuns in the previous thirty years. Despite this, low inflationary weight has been helping the created nations in alleviating the hazard related with oil stuns.

Hooda (2011) through her investigation of FDI and Indian economy inferred that her outcomes acquired from the Economic Growth Model and Foreign Direct Investment Model demonstrate that FDI upgrades the money related position of India by giving a sound base to financial development and improvement of the nation. FDI adds to the GDP as well as to the outside trade stores of the nation.

As opposed to this, Rizvi and Nishat (2009) finished up their investigation of the effect of FDI on business openings in India, China and Pakistan, by expressing that it would not do the trick to anticipate that FDI will make an immediate effect on work openings in the previously mentioned nations. They additionally recommend that notwithstanding FDI upgrade arrangements, different measures to support work development ought to be created.

Gong and Wu (2012) think about the instance of in excess of 2800 reports. He found that bribery occurs in divisional cadre and authority level frameworks and they are the heads of administrative office Rosenblatt (2012) points out from the hypothesis of social control that individuals in the societal position of the overwhelming think they are in a predominant position. It is more hard to understand the debasement for them. This is on the grounds that they have a solid familiarity with the rights and want to keep the principle put. Regardless of whether this needs to take utilization of others Native Chinese researcher Chen (2013) likewise sets out from the social connection hypothesis. He, taking the information of 31 areas of China in 2003-2007 as the example, found that the rate of defilement (corruptions) among Chinese authorities significantly affects the spread of the territories. The impact of this sort of contamination fundamentally originates from the exhibition impact of authority defilement. The focal point of hostile to debasement system may lie in the supervision and administration of abnormal state authorities.

Methodology

This research study has adopted the linear regression model include variables like, Corruption Perception Index, Foreign Direct Investment and Population, Gross Domestic Product, Import of Crude Oil and Population Growth to get result.

$$Y = \beta_0 + \beta_1 \text{GDP} + \beta_2 \text{IMPCO} + \beta_3 \text{PG} + \beta_4 \text{CPI} + \mu.$$

Y = Foreign Direct Investment

GDP=Gross Domestic Product

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IMPCO= Import of Crude Oil

PG = Population Growth

CPI = Corruption Perception Index

μ = White noise error term

Data Source

The data for this model are collected from different sources like Reserve Bank of India (RBI), National Sample Survey Organization (NSSO), the World Bank data have used in the regression analysis to find out the estimates of these coefficients.

Results

After the initial regression analysis, we have have found the following conclusions which are shown in the table below.

Hypotheses

H_{o1} : There is no significant relationship between FDI (Foreign Direct Investment) and GDP (Gross Domestic Product) in economics decision making.

H_{o2} : There is no significant relationship of FDI (Foreign Direct Investment) and Import of Crude Oil in economics decision making

H_{o3} : There is no impact of population on FDI (Foreign Direct Investment).

H_{o4} : There is no impact CPI (Corruption Perception Index) on FDI (Foreign Direct Investment)

Result and Discussions

Through Below model summary (Table 1.1,1.2,1.3 and 1.4) we find that the adjusted R^2 of GDP our model is -.032with the $R^2 = .022$, adjusted R^2 of IMPCO is .401 with the $R^2 = .432$, adjusted R^2 of POPULATION is .847 with the $R^2 = .855$ and adjusted R^2 of CPI is .817 with the $R^2 = .827$ respectively. This means that the linear regression explains 22.1%, 43.2%, 85.5%, and 82.7 % of the variance in the data.

The Durbin-Watson $d = .267$ for GDP, .485 for IPMCO, 1.100 for population and 2.013 for CPI show the positive autocorrelation in the variables. Therefore, we can say that our model is fit (Refer Table: 1.1,1.2,1.3 and 1.4).

Table: 1.1

Model Summary ^b						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Dimension	1	.148 ^a	0.022	-0.032	15577.30663	0.267
a. Predictors: (Constant), GDP						
b. Dependent Variable: FDIUSDMILLION						

Table: 1.2

Model Summary ^b						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
dimensiono	1	.658 ^a	0.432	0.401	11867.47983	0.485
a. Predictors: (Constant), IMPCO						
b. Dependent Variable: FDIUSDMILLION						

Table: 1.3

Model Summary ^b						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
dimension	1	.924 ^a	0.855	0.847	6005.10996	1.1
a. Predictors: (Constant), POPUINMILLION						
b. Dependent Variable: FDIUSDMILLION						

Table: 1.4

Model Summary ^b						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Dimension	1	.909 ^a	0.827	0.817	6558.10518	2.013
a. Predictors: (Constant), CPI						
b. Dependent Variable: FDIUSDMILLION						

The Durbin-Watson statistic is always between 0 and 4. A value of 2 means that there is no autocorrelation in the sample. Values from 0 to less than 2 indicate positive autocorrelation and values from more than 2 to 4 indicate negative autocorrelation.

If we would have forced all variables (Method: Enter) into the linear regression model, we would have seen a slightly higher R^2 and adjusted R^2 (.891 and .862 respectively). Refer Table: 1.5

The Durbin-Watson $d = 1.679$, which is positive autocorrelation in the variables. Therefore, we can say that our model is fit. **(Refer Table: 1.5)**

Table: 1.5

Model Summary ^b						
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Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
dimensiono	1	.944 ^a	0.891	0.862	5701.81936	1.679
a. Predictors: (Constant), CPI, GDP, IMPCO, POPUINMILLION						
b. Dependent Variable: FDIUSDMILLION						

The next output table is the F-test

Table:1.6

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.823E7	1	9.823E7	.405	.533 ^a
	Residual	4.368E9	18	2.427E8		
	Total	4.466E9	19			
a. Predictors: (Constant), GDP						
b. Dependent Variable: FDIUSDMILLION						

Here F value is .405 at .533 significant level. This means that this model does not significantly improve our ability to predict the dependent variable. Therefore, null hypothesis i.e. There is no significant relationship between FDI (Foreign Direct Investment) and GDP (Gross Domestic Product) in economics decision making is accepted.

Table: 1.7

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.931E9	1	1.931E9	13.710	.002 ^a
	Residual	2.535E9	18	1.408E8		
	Total	4.466E9	19			
a. Predictors: (Constant), IMPCO						
b. Dependent Variable: FDIUSDMILLION						

Here F value is 13.710 at .002^a significant level. This means that this model is significantly improve our ability to predict the dependent variable. Therefore, null hypothesis i.e. there is no significant relationship of FDI (Foreign Direct Investment) and Import of Crude Oil in economics decision making is rejected.

Table: 1.8

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.692E9	1	3.692E9	85.839	.000 ^a
	Residual	7.742E8	18	4.301E7		

	Total	4.466E9	19			
a. Predictors: (Constant), CPI						
b. Dependent Variable: FDIUSDMILLION						

Here F value is 85.839 at .000^a significant level. This means that this model is significantly improve our ability to predict the dependent variable. Therefore null hypothesis i.e There is no impact CPI (Corruption Perception Index) on FDI (Foreign Direct Investment)is not supported

Table: 1.9

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.817E9	1	3.817E9	105.844	.000 ^a
	Residual	6.491E8	18	3.606E7		
	Total	4.466E9	19			
a. Predictors: (Constant), POPUINMILLION						
b. Dependent Variable: FDIUSDMILLION						

Here F value is 105.844 at .000^a significant level. This means that this model is significantly improve our ability to predict the dependent variable. Therefore, null hypothesis i.e. There is no impact of population on FDI (Foreign Direct Investment) is rejected.

In overall by applying all variable in multiple regression, the following result is found. The linear regression's F-test value is 30.592 at .000^a significant level. The F-test is highly significant, thus we can assume that the model explains a significant amount of the variance in Gross Domestic Product, Import of Crude Oil, Population Growth, Corruption Perception Index.

Table: 1.10

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.978E9	4	9.946E8	30.592	.000 ^a
	Residual	4.877E8	15	3.251E7		
	Total	4.466E9	19			
a. Predictors: (Constant), CPI, GDP, IMPCO, POPUINMILLION						
b. Dependent Variable: FDIUSDMILLION						

The following table show multiple linear regression analysis which estimates including the intercept and the significance levels, in our stepwise analysis.

If we force all variables into the multiple linear regression, we find that only population is significant predictors in the study. We can also see that population has a higher impact than other variable as GDP, IMPCO and CORRUPTION PERCEPTION INDEX by comparing the standardized coefficients (beta = .678 versus beta = -.104, -.114 and .390).

Table: 1.11

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-137074.244	25111.944		-5.459	.000		
GDP	-799.008	691.593	-.104	-1.155	.266	.891	1.123
IMPCO	-.006	.007	-.114	-.840	.414	.394	2.538
POPULATION	.000	.000	.678	2.713	.016	.116	8.584
CPI	1342.102	744.705	.390	1.802	.092	.156	6.428
a. Dependent Variable: FDIUSDMILLION							

$$Y = -799.008\text{GDP} + -.006\text{IMPCO} + .00\text{POPULATION} + 1342.102\text{CPI}.$$

The information in the table above also shows multicollinearity in our multiple linear regression models. Tolerance should be > 0.1 (or VIF < 10) for all variables, which they are for the entire variable

Conclusion

Our analysis has shown that the population growth and corruption perception index had a positive impact on the economic development in India. We can also find that Population Growth, and Corruption Perception Index has explained 85% and 82% variation of Y. The p values are well below 0.05 and the multiple R² is 0.89. Therefore, the above three independent variables can be considered and they explain about 89% of changes in FDI and thus the final equation we obtained is:

$$Y = -799.008\text{GDP} + -.006\text{IMPCO} + .00\text{POPULATION} + 1342.102\text{CPI}.$$

The above equation shows that Population growth rate and corruption perception index, GDP and import of crude oil has a positive impact on the economic development of the country like India.

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Recent Advances in Shopping Through Mobile: An Indian Perspective

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ABSTRACT

Electronic Commerce refers to all forms of commercial transactions that involve individuals and organizations based on the electronic processing of data whereas Mobile Commerce is the buying and selling goods and services using electronically (mobile phones). Mobile Commerce is at emerging level in India. Mobile commerce is worth US\$230 billion, with Asia representing almost half of the market, and has been forecast to reach US\$700 billion in 2017. According to BI Intelligence in January 2013, 29% of mobile users have now made a purchase with their phones. Walmart estimated that 40% of all visits to their internet shopping site in December 2012 were from a mobile device. M-Commerce made up 11.6 per cent of total e-commerce spending in 2014, and is forecast to increase to 45 per cent by 2020, according to BI Intelligence. Com Score reported in February 2017 that mobile commerce had grown 45% in year to December 2016(Wikipedia). The potential and the growth rate of the Indian Mobile Commerce market indications at an exciting future ahead. Present, online sales in India are dominated only in the metros. As of 2015, smartphone users in India were at 220 million, growing at 23%. The number of consumers who purchase online is expected to cross 100 million by the end of 2017, with the e-retail market likely to jump 65% year on year in 2018, a recent research study reveals. By the end of 2018, Indian e-retail is expected to touch USD 17.52 billion. Mobile commerce is likely to jump to 45-50% in 2017 to the current 30-35% of e-commerce sales. Demonetization and a reduction in cash transactions, along with an improvement of net banking facilities, can be opportunities for the Indian e-commerce sector, according to stats made public by an ASSOCHAM-Resurgent India study, Indiatimes.com reports (riversand.com). This paper analyzes the recent advances of shopping through mobile in India. The need for mobility seems to be a major dynamic force for Mobile Commerce applications such as Mobile Banking, Online booking, Mobile Entertainment and Mobile Marketing etc. This paper focuses the issues being faced by the Indian Mobile Commerce. Surely mobile shopping needs some improvement in specific area like secure transaction, better shopping practice and enhanced features.

Introduction

Electronic Commerce refers to all forms of commercial transactions that involve individuals and organizations based on the electronic processing of data whereas Mobile Commerce is the buying and selling goods and services using electronically

(mobile phones). Mobile Commerce is at emerging level in India. Mobile commerce is worth US\$230 billion, with Asia representing almost half of the market, and has been forecast to reach US\$700 billion in 2017. According to BI Intelligence in January 2013, 29% of mobile users have now made a purchase with their phones. Walmart estimated that 40% of all visits to their internet shopping site in December 2012 were from a mobile device. M-Commerce made up 11.6 per cent of total e-commerce spending in 2014, and is forecast to increase to 45 per cent by 2020, according to BI Intelligence. ComScore reported in February 2017 that mobile commerce had grown 45% in year to December 2016(*Wikipedia*). The potential and the growth rate of the Indian Mobile Commerce market indications at an exciting future ahead. Present, online sales in India are dominated only in the metros. As of 2015, smartphone users in India were at 220 million, growing at 23%. The number of consumers who purchase online is expected to cross 100 million by the end of 2017, with the e-retail market likely to jump 65% year on year in 2018, a recent research study reveals. By the end of 2018, Indian e-retail is expected to touch USD 17.52 billion. Mobile commerce is likely to jump to 45-50% in 2017 to the current 30-35% of e-commerce sales. Demonetization and a reduction in cash transactions, along with an improvement of net banking facilities, can be opportunities for the Indian e-commerce sector, according to stats made public by an ASSOCHAM-Resurgent India study, *Indiatimes.com* reports(*riversand.com*). Surely mobile shopping needs some improvement in specific area like secure transaction, better shopping practice and enhanced features. India is an increasingly urban country, with over half a billion people expected to live in towns and cities by 2020. More than one fifth of the urban population lives in slum areas, and in some major cities the slum areas account for almost half the population. With large numbers of migrants arriving from the countryside in search of better opportunities, the slums are growing. This makes the economic and social dynamism of the slums a central issue for development. The alternative is that they will remain traps of despair and poverty. The rapid urbanization of the Indian population and the consequent strain on urban infrastructure means that the economic and social plight of those living in the slums will be one of the defining characteristics of India during the next twenty years. This context makes it crucial to develop public policies and private opportunities which will allow slum dwellers to find ways to address their particular needs.

The need for mobility seems to be a major dynamic force for Mobile Commerce applications such as Mobile Banking, Online booking, Mobile Entertainment and Mobile Marketing etc.

The objective is to analyses the uptake and use of mobile phones within some of India's urban slums, and its effect on the economic and social lives of their inhabitants. Few innovations have become as pervasive as quickly as the mobile phone. While there is much anecdotal evidence on the ways mobile use can improve the social and economic status of poor people, there is little systematic evidence on the benefits of mobiles for these groups.

Online shoppers are expected to increase from 20 million in 2013 to 40 million in 2016, as an additional 200 million Indians will access the Internet in the next three years, with majority of them coming online through smartphones, indicates a new joint study by Ascham and Grant Thornton. According to the study, a significantly low (19 percent) but fast-growing Internet population of 243 million in 2014 is an indicator of the sector's huge growth potential in India. This underlines the potential of Internet use in India and as Internet penetration increases, the

potential of growth of the e-commerce industry will also increase, it says. It also predicts that the Indian e-commerce market is estimated to grow at a compounded annual growth rate (CAGR) of 63 percent to reach \$8.5 billion (Rs. 54,304 crores approximately) in 2016 on the back of growth in the penetration levels of mobile and Internet and increased consumer demand. The number of users making online transactions has also grown exponentially, and it is expected to increase from 11 million in 2011 to 38 million in 2015. "Online travel accounts for nearly 71 percent of the e-commerce business in India. This business has grown at a compound annual growth rate (CAGR) of 32 percent between 2009 and 2013. E-tailing, on the other hand, accounts for only 8.7 percent of organized retail and a minuscule 0.3 percent of total retail sales," the study shows. The study also showed that the percentage of working women in India grew 43 percent year-on-year in 2013, which constitutes 10 percent of the active online users in India. The women focused share of e-commerce market will increase from 26 percent in 2013 to 35 percent in 2016, it predicts. (*Indo-Asian News Service*)

Review of Literature

Mr. Abhijit Mitra (2013) The article entitled "E-Commerce in India-A review". In this article an attempt is made to study the present status and facilitators of E-Commerce in India, analyze the present trends of E-Commerce in India and examine the barriers of E-Commerce in India. The study found that, there has been a rise in the number of companies taking up E-Commerce in the recent past. The study also found that, major Indian portal sites have also shifted towards E-Commerce instead of depending on advertising revenue

Dr. Anukrati Sharma (2013) The article entitled "A study on E-commerce and Online Shopping: Issues and Influences". In this article an attempt is made to study the recent trends, influences, preferences of customers towards E-commerce and online shopping and to give the suggestions for the improvement in online shopping websites. The study found that, most of the people who are engaged in making the decision of purchasing are in the age of 21-30 years. While making the websites for online shopping it must be designed in a very planned and strategic way.

Nisha Chanana and Sangeeta Goele (2012) The article entitled "Future of E-commerce in India". In this article an attempt is made to study the overview of the future of E-commerce in India and discusses the future growth segments in India's of E-commerce. The study found that, various factors that were essential for future growth of Indian E-commerce. The study also found that, the overall E-commerce will increase exponentially in coming years in the emerging market of India.

Sarbapriya Ray (2011) The article entitled "Emerging Trends of E-commerce in India: Some Crucial Issues Prospects and Challenges". In this article an attempt is made to present a snapshot of the evolution of E-commerce business indicating the chronological order, category of E-commerce business, description of organizations involved in E-business in India. The study found that, the role of government should be to provide a legal framework for E-commerce so that while domestic and international trade are allowed to expand their horizons, basic rights such as privacy, intellectual property, prevention of fraud, consumer protection etc., are all taken care of.

Issues in M-Commerce

1. Mobile commerce needs high speed connectivity of 3G. Then it becomes different for user to go through entire product purchase process.
2. There is less security in wireless network, so in data transfer hacking chances are more hence it is risky.
3. Mobile has no big screen like desktop or laptops, so sometimes users tried to navigate more and more to choose just one item from thousands. The reduction in screen size makes it a lot harder to communicate everything that would usually appear on main site.
4. The smaller screen sizes of mobiles compared to desktop, entering credit card details and shipping addresses can be incredibly time consuming. The use of M Commerce is the cumbersome checkout process most mobile sites offer.
5. The challenge is to work with the content and service providers who provide underlying value and to handle customer inquiries and issues
6. This challenge will evolve and is likely to be mastered only after repeated trials
7. Internet based activity often relates to physical location of the user.
8. Smartphone adoption has led by the innovative iPhone and now being spearheaded by Android devices, it seems almost everyone has one. Mass adoption leads to confusion, and for retailers this introduces problems. The classic problem is the app versus mobile site issue.
9. M-commerce apps and sites need to cater for these changeable conditions, this is especially important for areas such as the checkout or other sensitive areas of the site.
10. The simple issue is while typing your 16-character credit card number into a mobile phone is not an easy experience. Mobile payments are a highly innovative area and payment providers are rolling out new solutions at an impressive rate.
11. The major limitation, but one that can be partially addressed, is screen size. The solution to the limited real estate is to use a much smaller image, sharper messaging requiring less text, and more pages so that more information can be gleaned if the customer requires.
12. The users worry about the safety and reliability of conducting business over a wireless connection, will engage in m-commerce only if they trust that the transactions made through their devices are secure
13. Business to Consumer (B2C) is considered the future of mobile commerce, businesses and consumers are becoming more concerned about security issues since identity theft has become a growing problem. The wireless telecommunication industry has seen enormous advancements in technology and hence the development of standards. But a question arises on whether the early adoption of the standards may hinder future developments in mobile commerce.
14. Let us have a look at the major differences between mobile commerce and electronic commerce and what drives the consumer to adopt m-commerce over e-commerce. The attributes such as ubiquity that is anytime, anywhere availability, high interactivity, convenience, personalization, that is mobile phones are more personal with most probably a single owner when compared

to home computers or internet cafes which is shared between a number of people, and finally localization are some of the benefits of mobile commerce which is driving the consumer market.

15. While live internet on the mobile may sound intuitively appealing, it is very difficult to estimate the utility and the extent of its usage.
16. Businesses, governments, service providers, mobile users and stakeholders still need to address many issues and obstacles before mobile commerce pervades in to our daily lives.
17. A query of who would be responsible for the financial or data loss remains a challenge in security. Someone has to be responsible for the loss and it is quite costly and becomes a risk for stakeholders.
18. Mobile devices also have limited processing and computational power, memory and disk capacity, limited battery life and surf ability.
19. All the drawbacks which do not support complex applications and transactions may lead to the limited usage of mobile commerce.
20. There are some false impressions that only laptops or computers are exposed for viruses and cell phones or handheld devices such as PDAs and smart phones are immune to viruses.

Benefits in M-Commerce

The increased inclination of Indians towards the mobile phones, especially smart phones, creates a large platform for mobile commerce to flourish and as a result the percentage of mobile purchases in total E-commerce sales is increasing every year. Factors such as increased use of smart phones, convenient and economic internet access, and busy schedules of working professionals etc., lead to the growth of E-commerce. The future seems to be promising as the online sales in India are expected to hit \$ 120 billion by 2020. Indian customers are in the process of going online to access basic mobile phone services. Since there is no standard platform around which mobile payments are evolving, there is a lack of understanding among consumers and merchants on how they can use mobile payments services. Once transactions fail or are stuck at a certain point, they are unsure of the alternative available to them and its timeliness. Furthermore, in a country such as India, mobile as a platform has to be multilingual and should be capable of eventually enabling voice-based transactions. Presently, mobile payments are largely being driven by single program managers that are creating closed loop payment systems. For example, digital wallet companies in India that have acquired a large customer base are building an acceptance platform by empaneling merchants to accept payments. Mobile commerce may still be in its nascent stage, but here are some companies to watch as they lead the charge from bricks to thumb clicks.

B2B / B2C Benefits

1. Mobile-commerce provides the various types of opportunities to the Wholesalers, Retailers, Manufacturers / service providers and the prospective customers.
2. As more and more people using internet and smart phones people feel comfortable to book the orders online and at the same time attracted to the day to day innovative offers. Hence, the people are taking advantage of it and acquiring benefits.

3. In the world of E-commerce, wholesalers are at greatest risk as customers are booking order through online directly to the seller. As producers are linking their business with online so as wholesaler should also link with online for doing their business.
4. Not only distributor but the retailer exist tries to links his business with the online distribution to have existence. Therefore, E-commerce is a good opportunity.
5. Not only the middle-men but producers also started sharing information about their products to the other links in the business to increase the brand recognition.
6. Advertising through social media, television, websites creating awareness of innovative, differentiated products make prospective customers 4Ps information at their eye sight.

Conclusion

Today E-commerce has become an essential part of everyday life. Availability to E-commerce platform is not a privilege but rather a necessity for people, particularly peoples who are staying in urban areas. Because of fast adoption of internet enabled devices like Smartphone and Tablets, we have seen an unparalleled growth in E-commerce. The communication technology has completely changed the way of our living, communication methods, shopping etc. E-Commerce has a huge impact on how we communicate with friends and relatives how we travel, how we access the information and the way we buy or sell products and services. The evolution of E-commerce volumes in India is attracting the attention of players around the globe. It generates new opportunities for business it also creates new opportunities for education and academics. It seems that there is tremendous potential for providing E-business education.

At the main strategic level, Indian policy makers also need to assess whether their approach is consistent with the potential economic value of the sector. India has preferred a policy of creating a highly competitive, fragmented industry, which has delivered extraordinarily low prices and high minutes of use per subscriber. Though, these low prices are only currently enjoyed by about 25–30% of the Indian population, the rest do not have a mobile phone. The question is to whether the same model will eventually deliver universal access to telecommunications and most significantly access to high-quality data services. India wants to set out a stable policy framework to attract long-term investment in telecommunications. This requires a stable licensing structure, consistent policy decisions and a predictable framework for regulatory intervention.

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Digitization of Human Resource Practices- An Emerging Trend

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ABSTRACT

These days, the digitization is transforming the traditional style business model. Among all functions human resources management (HRM) is largely affected by the digitization because of increasing usage of employee related software, IT enabled HR functions, Social networks, and mobile solutions. The organizations are infusing digital approach in handling their human resources (HR). There is a need to persistently develop and innovate the human resource practices to remain competitive in the business. And the recent studies have shown the organizations are designing digitally enabled employee-centric HR practices. To deliver the best results and face the competitive market the upgradation of HR is inevitable. Therefore, technical advances are being made in the field of human resource with time and gradually the customary HRM is being replaced by new and technically advanced HRM. This paper attempts to explore the use of Digitalized (IT) devices in HR practice i.e. change in HRM to E-HRM. E-HRM refers to an integrated, organization wide electronic network of HR information, services, devices, applications and exchanges.

Introduction

With the advancement in technology the internet is acting like the principle driver of change in the organizations. As it acts as a better approach to exchange information more efficiently and to approach larger audiences than any time in recent memory. Today, HR professional needs to respond to increased competition for all-inclusive digitalized change and quick advances in HR technology. New sort of technical knowledge, aptitudes and abilities would be required by HR practitioners in future who are flexible and willing to deal with the ever-accelerating pace and often unpredictable changes in the worldwide workplace. The HR professionals need to assess the ramifications of a movement into an era of decentralization, which if used properly, can lead to emancipation. The era will require a new sort of association, based on a different system that can unite the commitment of independent people in a socially sustainable manner. It is consequently clear that a better approach to manage HR as a system is emerging, and new HR managers ought to manage themselves (Anyim et al, 2011). In the present day, business is conducted on international scale and this involves the transfer of products and enterprises, technology, managerial knowledge and funding to other countries or crosswise over national boundaries. Globalization has made the world smaller through quick correspondence network. The economies of the world have become increasingly

integrated (Bhagwatti, 2004). Besides, we are presently in reality as we know it where, digital HRM becomes a prominent capacity of management compared to conventional HRM, because the survival of an association depends on the nature of human resources available to it and/or use. Human resources department need to embrace the digital change and put great practices at the heart of their HR arrangement. However, there are number of challenges faced by human resource management around the globe. In order to succeed in the modern world, it is necessary for business concerns to take a stab at expanding into the worldwide market. For the HR work, this is the most challenging chance, attempting to dealing with the complexities of change and change. HR today is assuming a lead role alongside business works in creating the necessary momentum and internal capabilities for associations. As per Indermun (2014), the responsibility of human resource manager is these days evolving with the change in the competitive market environment and the realization that human resource management (HRM) must play a more strategic capacity in the success of an association. The nature of human resources in an association depends on the success in recruiting process largely. Burma (2014) emphasizes the importance of a talented workforce as "in an era of competition the development of any association is relative to the development of its talent." Retaining great employee is as imperative as selection and recruitment to help them to give of their best. Therefore, consistent reward system is interrelated to objective, defined and consistent performance evaluation systems. Taylor (2009) states that four focuses are huge to make the employee "become hopelessly enamoured with" the association: reward reasonably in line with market place, treat well: i.e. centre in recognition of every employee's commitment, prepare and improve abilities and develop talented people. In the web-based economy, it would be most useful and beneficial for HR professionals to understand the relation between HR and IT and utilize a theoretical approach in enhancing the performance of the HR work through its integration. Technology is an integral strategy to ensure the balance between innovation and efficiency in any association. Due to HR being a centre point of the association and generally responsible for designing authoritative structure, the coordinated effort between the two is exceedingly huge.

Digital technology helps the association to increase its profitability by augmenting its most valuable assets 'Human'. Digital HRM is a path by which strategies, policies and practices can be effectively implemented, "An umbrella term covering all possible integration mechanism and contents between HRM and IT going for creating value inside and crosswise over association for targeted employees and management". The vast majority of the undertakings associated with HR are outsourced. As a result, business requires more new expertise from their HR team.

Digitalization in Recruitment: The recruitment business is the oldest business among the other service industries of the world. Technology positively affects recruitment. Recruitment is the process of pulling in potential candidates for the authoritative anticipated vacancies. E-Recruitment provides numerous digital apparatuses.

Types of E- Recruitment

- Operational E-Recruitment-this includes essential exchanges characterized by here and now candidate relationships worldwide messages and significant automation

- Relational E-Recruitment-this is characterized by development of real candidate relationships through better feedback, the personalization of candidate messages and the use of web 2.0 devices, for example, informal organization sites.
- Transformational E-Recruitment-it is anchored in a worldwide talent management strategy, comprising in identifying the basic positions, and then drawing in and retaining people who correspond to the established profile Employer branding and reputation could be a strong help.

Digitalization in Training Development: IT instruments have affected the method for formal learning in a work place. In the era of digitalization, E Learning provides an enormous chance to the employees by making learning more interesting and attractive. "E Learning refers to the use of internet technologies to deliver a wide method for arrangements that enhance knowledge and performance". The preparation changes from fundamental preparing activities like lectures, case studies, role play etc. to the more complex techniques like technology based learning, video, internet and computer based. Numerous open and additionally private sector companies are receiving the concept of E-Learning. E-Learning refers to learning that depends on or is enhanced by electronic or online correspondence utilizing the latest information and correspondence technology".

Digitalization in Performance management: Performance measures the employee efficiency and effectiveness in the achievement of hierarchical objectives. E-Performance Management is the arranging and implementation of Information technology in overseeing Performance Management System. E-Performance Management is the piece of E-HRM. IT enabled Performance Management comes to an effective instrument to leverage the full benefits of the system at a comparatively lesser cost of organization. The E-Performance Management enables the associations to keep up the record of core abilities and competencies into the employee's overseeing process. With the emergence of technology, performance evaluation software's are becoming regular in the associations. Performance management software helps the HR to carryout performance of the employee in the best route, by sparing time and cost. Performance management software provides an innovative way to deal with employees' performance examinations. It provides performance review as well as helped in increasing efficiency, relationship, behaviour, development and core competency.

Digitization of Bank of Baroda: Bank of Baroda has started the Human Resource Network for employee services. It covers the entire range of HRM work in the bank. Bank covers all the HR processing by the Oracle Core HR Module. This software helps the employees to undergo with different learning courses. The Performance Management System is implemented for all officers w.e.f 2009-10 onwards. System begins from performance arranging and objective setting and takes it forward into performance review, discourses, feedback and development. The new system is business linked, profoundly objective and completely transparent with people owning and dealing with their own performance themselves. Baroda sujhav and ideaonline@bank of baroda.com are the idea channels where new employees can share their ideas. The bank elicits new ideas from employees with structured rewards arrangements for the best ideas.

Digitization in SBI-Gyanodaya E Learning Gateway: It is the e-learning entrance of the SBI which provides the preparation facilities in order to enhance the aptitudes of the employees. The entryway has the learning modules for different

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posts like chief manager, branch manager, money officer and field officers separately. Every employee of SBI can access entrances that have their information in HRMS entryway. The idea behind this entry is to provide learning at anytime and anywhere. By utilizing this entrance, the employees are free to choose any module and they can get certified by accessing tests. Getting Started with Portal: - (1) New Users Registration: The details of the employees from HRMS will be computed in your personal details and authority details section. After that employees have to enter work details and contact details. The employees after filling this information are able to create his record. (2) Registering for lessons-"course registration". (3) Accessing Lessons: - access to "course apparatuses". (4) Taking Tests and Quizzes: - assessment test. System requirement for the SBI E-Learning entrance is very ordinary. It requires the use of Internet Explorer 6.0 or Firefox 3.x.

Research Objective

The current study aims to fulfil following objectives:

- To understand the need of digital transformation in the HRM function.
- To understand the current role of digitization in the HRM function of the organizations.
- To comprehend the working and fruitful execution of digital apparatuses in HRM practices in India.

Literature Review

HR experts are as of now utilizing innovation to some degree, yet the subject of whether it is being acknowledged; amplified, estimated still should be replied. There is the basic need to see how HR can join IT in their system to draw in and hold the people who will make the upper hand and have the procedures that help the business methodology (Huselid, 1995). Late cases among nearby and organizations abroad have demonstrated its significance being incorporated into HR practices to build gainfulness. For instance, Deutsche Bank has made its HR segment a vital accomplice in its business by making every HR individual a change operator and characterizing key competency. Improvement and data innovation were prime movers in changing Deutsche Bank's work force administration (Svoboda and Schroder, 2001). Past examinations have conceptualized technology" as a valuable instrument that may encourage upper hand just when joined with existing firm capacities (Tippins and Sohi, 2003). The traditional HRM practices, for example, enrolment, remuneration, execution examination, retraining, redeployment, and rightsizing (Huselid 1995) are accounted for to be purposefully adjusted with advancements, which are characterized as creative HRM practices to receive aptitudes, practices, and associations amid the procedure of hierarchical re-outlining (Som, 2012). The significant issue amid execution of HR rehearses was noticed that, associations don't put much into IT because of the restrictive expenses of doing as such. In any case, it is unquestionable that innovation is one of the key markers that impact HR rehearses execution (McCampbell, Clare and Gitters, 1999). Pfeffer (1981) says that the selection of creative HR hones depends broadly on relative intensity of authoritative variables to maintain such advancement on hierarchical setting (e.g. size and unionization) (Kossek 1987, 1989). While supervisors have begun to understand that the appropriation and reconciliation of IT by associations has turned

into an aggressive need, they have additionally started to see that there is still much to find out about how to deliberately position innovation to guarantee the noteworthy beneficial outcome on firm execution (Tippins and Sohi, 2003). Additionally, innovation can give an edge in reaping learning from heaps of old information stores. Past analysts have demonstrated that inventive HR rehearses have different advantages for the receiving association (Agarwala 2003; Bhatnagar and Sandhu 2005; Bhatnagar 2007).

Likewise, it can empower fast hunt, access and recovery of data and can bolster joint effort and correspondence among hierarchical individuals. A few analysts found that among every one of the measurements, presentation of creative HR hones clarified the greatest measure of change in hierarchical duty and in this manner were best in upgrading worker connection to the association. Further, past specialists have contended that the idea of relationship of the HR division in any association with best and centre administration, and the routes through which the HR procedure is connected with the hierarchical methodology (Ulrich 1997). Som (2007) proposed a few factors that impact creative HRM hone selection in associations working in India i.e. national condition, or institutional system, culture and motivating force structures for imaginative practices; unionization; innovative complexity; hierarchical size, professionalization, rebuilding; initiative and style of best administration; and part of HR division.

Oxford Economics (2012) calls attention to that innovation is additionally reshaping the execution of (HR). HR pioneers today can use devices that put measurements around things that used to be hard to quantify or anticipate. Research demonstrates that the change of HR into a vital business work is well under way and will proceed throughout the following years. The procedure includes extending and widening joint effort among HR and different specialty units to enhance the execution and investigation of ability administration, and a more prominent spotlight on driving business results through the key utilization of innovation.

Wolf (2015) clarifies that execution administration is really being changed by social and computerized advances. Going paperless is presently a standard in numerous associations, yet the progressions are developing past that. Presently directors can catch and give input to representatives almost persistently, with the goal that they generally know how they're doing and where they stand (Wolf, 2015). This casual criticism can likewise be specifically nourished into the formal execution administration process, which can help increment culmination and precision and limit shocks

Chase (2014) states that changing ability administration requires digitisation, yet it likewise includes utilizing social and computerized innovations in manners that advance and improve correspondence, coordinated effort, and commitment - not simply between a worker and the association, but rather between and among representatives themselves. HR and ability forms and the innovation that empowers them will never again comprise their own particular space. Or maybe, numerous parts of HR and ability administration will turn out to be completely inserted into the eventual fate of work (The Innovation venture, 2015).

Bondarouk and Ruël (2009) contended that e-HRM definitions have 'prospered, with little consistency or assenting in locate'. The creators additionally contend the significance of seeing how analysts characterize e-HRM. They declare that minor contrasts in phrasing may result in ensuing investigations expecting various

bearings, or in a scope of client 'subsets' inside the e-HRM target populace. Since early takes a shot at the crossing point between electronic innovations and HRM, various definitions have been proposed with respect to this wonder. e-HRM has been alluded to as HR Information System (HRIS), virtual HR(M), online HRM and intranet-based HRM, in spite of the fact that the writing strikes a qualification between these different electronic and electronic marvels Bondarouk, T., Schilling, D., and Ruël, H. (2016).

Size and achieve gives off an impression of being a noticeable contrast between a HRIS and e-HRM. A few meanings of e-HRM in existing writing centre on a system structure as a focal characterizing highlight. For instance, Strohmeier, S. (2007) characterized e-HRM as the 'arranging, usage and use of data innovation for both systems administration and supporting of no less than two individual or aggregate on-screen characters in their common performing of HR exercises'

Thite, M., and Kavanagh, M.J. (2009), partitioned HRM exercises into three classifications: (1) value-based exercises, including everyday exchanges and recordkeeping, (2) conventional HRM exercises, for example, enlistment, choice, arranging, preparing, pay and execution administration and (3) transformational exercises which increase the value of the association, for example, hierarchical advancement, ability administration and learning. As innovation has turned out to be progressively fused into HR frameworks substantial extents of value-based exercises are currently conveyed electronically. In the accompanying area the contrasts between mechanized human asset data framework/human asset data frameworks (CHRIS/HRIS) and e-HRM are investigated trying to learn the relevance of an innovation driven and online interface went for numerous clients in driving HRM viability and productivity.

Walker (2001) characterized HRIS as including an efficient methodology for gathering, putting away, keeping up, recovering, and approving information around an association's HR, work force exercises, and hierarchical unit qualities. In understanding what comprises e-HRM it is imperative to think about the accompanying. An incorporated HRIS, and in addition suitable innovation, is required all together for e-HRM to be adequately executed and in this manner take into account the procurement, stockpiling, investigation and stream of human asset data all through the association (Van Heerden, Poisat and Mey, 2012. HRIS must, through a successful e-HRM stage, help both human asset and line administrators in basic leadership that is connected to the accomplishment of key business targets through methodically producing precise, auspicious and pertinent data (Van Heerden et al., 2012).

It is critical for the two supervisors and workers to draw in with another e-HRM framework for it to be acknowledged and utilized inside the association. Troubles in urging administrators and representatives to make utilization of e-HRM frameworks have been experienced as chiefs have grumbled that utilizing e-HRM is definitely not a decent utilization of their opportunity some still fall back on utilizing customary disconnected frameworks (Parry and Tyson, 2011). This case accentuates the significance of urging individuals to change their outlook with respect to the benefit of embracing e-HRM to keep away from delays and receiving the related rewards (Parry and Tyson, 2011). The part of abilities advancement, preparing and a relatable e-HRM framework are featured as imperative in such manner.

The reception of e-HRM may likewise be affected by social components, as the national culture in which an organization is arranged may thusly affect the way of life of the association (Bondarouk, Schilling and Ruël, 2016). For instance, a culture that depends on up close and personal connections and individual associations may discover e-HRM rehearses fewer closes to home and consequently harder to embrace and draw in with (Bondarouk et al., 2016).

Watson (2002) recognized four components which give proof of the estimation of e-HR: profitability changes, cost decreases, rate of profitability and better worker correspondences. A few bits of existing writing and contextual investigations allude to expanded efficiency because of e-HRM. This is viewed as being accomplished through a decrease in HR staff, cost reserve funds and less regulatory weight because of computerization (Hawking, Stein and Foster, 2004; Ruël et al., 2004 as referred to in Strohmeier, 2007). Be that as it may, it isn't conceivable to specifically decipher the time spared by e-HRM into monetary advantages (Dias, 2001). E-HRM can help accomplish social objectives, to be specific, the arrangement of brilliant administrations to the inward clients of the association, through expanding the opportunities and enhancing the customer benefit introduction of HR experts (Snell, Pedigo and Krawiec, 1995 as referred to in Lepak and Snell, 1998).

Findings

HR's virtual transformation starts off evolved with an exchange of thoughts-set inside the hr organization, prioritizing connectivity, actual-time operations, structures, automation, and cellular-first. For many groups, both in HR and across the enterprise, that is a modern opportunity. The digital HR journey focusing at the worker and HR enjoy is one part of the larger virtual HR task: to reply the query, "how can HR play a position in developing the general digital corporation method, company, and tradition?"

In this study, an attempt was made to decide the contemporary reputé of e-HRM and the frame of know-how which exists in this regard. It's far argued that e-HRM can boom the performance of HR sports, improve HR carrier shipping and rework the position of the HR feature into one this is extra strategic. This means that using e-HRM may additionally allow the HR function to growth its fee and make a contribution to the competitive advantage of the company. The increasing deployment of HR generation and systems might be an additional source of organisational cost as those assets have lower obstacles to imitability than factors such as know-how. The suggestion that e-HRM can enhance the performance of HR activities via lowering prices and increasing the rate of HRM approaches can be discovered in many portions of current literature and one of the most important desires of e-HRM is to produce performance profits or cost discounts via decreasing headcount in HR departments and removing administration. E-HRM can for that reason be used as an alternative to having human beings perform administrative or transactional responsibilities manually and also supply those responsibilities extra successfully. Sophisticated e-HRM structures can be used to provide manager and worker self-service options to in addition reduce administrative tasks.

Thus, associations are attempting to diminish their cost and time to accomplish productivity. Associations are endeavouring to change over their HR Practices in to E-HR Practices. In the period of globalization, Organizations need to extend all-inclusive by contacting the general population the whole way across the world

organizations required end to end deceivability in their esteem chain and improved process proficiency all through the associations. Enterprises in India like SBI-Gyanoday E-Learning Entryway, Bank of Baroda are attempting to change over their HR hones into E-HR hones. These organizations utilized distinctive programming for various HR Capacities. These web advancements help the associations in accomplishing upper hand. These associations demonstrate the significance and need of advanced instruments in Indian Industry. The majority of the organizations for their HR exercises are reliant upon outsider advisors, so they require more specialists in their HR group. The idea driving EHR is to make authoritative culture that upgrades the working learning of the representatives by increasing the value of the business. Our fundamental discoveries demonstrate that digitalization is seen as a progressing change in the public arena that makes outer weights for change inside associations. Digitalization was depicted as making a quick changing condition to which the association needs to adjust keeping in mind the end goal to survive. Besides, it was underscored that it infers changes in human conduct, both with respect to clients and representatives. By and by, digitalization some way or other influences everybody, and hence results in both immediate and roundabout ramifications for the association. Expanding on this, it was exhibited that digitalization likewise has suggestions for HR supervisors in different ways.

Conclusion

Purpose of the study was to overview of contemporary literature on the character and extent of digital HRM changed into carried out. Digitalization empowers new work frames through better approaches for conveying and associating all around with the utilization of computerized apparatuses. It likewise requests new work frames as a type of adaptability in meeting the capricious condition that digitalization involves. This makes challenges for HR chiefs as they are placed in a somewhat dumbfounding circumstance, requiring both here and now and vital concentration concerning the representatives. E-HRM (electronic human useful resource control) is boost business answer which offers a complete on-line support inside the control of all processes, sports, statistics and statistics required to manipulate human sources in a modern business enterprise. It's far an efficient, dependable, and easy – to apply tool, accessible to a large institution of different customers. Its miles clear that some components of e-HRM are greater normally researched than others. The findings of this evaluation appeared to indicate that lots of the studies targeted on the relevance and fee of e-HRM for the hr department and personnel. Greater studies are required to benefit a more know-how of this discipline and show the idea that the implementation of e-HRM will cause strategic benefits, including progressed productiveness. This implies a focus in phrases of HRM price chain on 'what the employer achieves in the marketplace/society'. This will entail empirical studies centred on setting up reliable and valid measures to demonstrate the link between e-HRM and reduced prices, elevated revenue or earnings, return on funding, financial price addition, shared income, discount in pollutants ranges, poverty relief, amongst others. Further, it is similarly proposed that future studies need to awareness on assessing the relevance of, and price introduction related to, e-HRM for numerous companies of customers, such as operational personnel and line management. This would mean that HRM cost chain specializes in 'what takes place with the people' and 'what the human beings obtain in the organization'. E-HRM is a manner of enforcing HR strategies, rules, and practices in groups through a conscious and

directed guide of and/or with the total use of web-generation-based totally channels. as in our examine some of the essential issue were mentioned in same manner it covers all elements of human resource management like personnel management, training and education, profession development, company agency, activity descriptions, hiring system, employee's private pages, and annual interviews with employees. Therefore e-HRM is manner of doing HRM.

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A Study on Employee's Perceptions Towards E-HRM in Banking Sector of Madhya Pradesh

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ABSTRACT

Human Resources Management is a crucial part of every organization as it deals with a vital resource: human capital. In the past 15 years, HRM has been going through a transformation adopting technological tools to improve its performance; the combination of information technology tools in "electronic Human Resources Management".

E-HRM strives to implement all the operational activities that HRM is concerned with, with the help of technological tools in a fast and accurate way. Nowadays, technology is an inherent part of our daily lives. People have been simplifying some routine tasks and problems with the use of computers and the Internet. It has speed up some processes and increased the efficiency of performed assignments. The purpose of this study is to know the employee's perceptions towards E-HRM in banking sector of Madhya Pradesh.

Introduction

Technology advancement is one of the powerful driving forces which paved the way for E-HRM. It has reshaped the way we play, communicate, live, work and also the way business is conducted. The technology and digital business communications improvement have changed various organizational activities. The way that organizations perform their task is currently associated to contemporary concepts such as digital business, e-commerce, customer relationship management, human resource management etc. Nowadays, digital business services are being considered as pertinent and prominent parts of the organization.

Need of The Study

The Banking sector has been immensely benefited from the implementation of superior technology during the recent past, almost in every nation in the world. Productivity enhancement, innovative products, speedy transactions seamless transfer of funds, real time information system, and efficient risk management are some of the advantage derived through the technology. Information technology has also improved the efficiency and robustness of business processes across banking sector. A study on employee's perceptions towards E-HRM in banking sector of Madhya Pradesh is to analyze the perception of bank employees on E-HRM as Information technology is dynamic and also to know how far Banks using IT for its employees.

Objectives of the study

1. To study the employee's perceptions towards E-HRM.
2. To suggest some measures for better E-HRM practice.

Methodology

To undertake this study a sample of 120 bank employees from banking sector of Madhya Pradesh have been selected as respondents by applying simple random sampling technique. A questionnaire has been administered to the respondents and primary data have been collected. Statistical tools namely simple percentage analysis, Chi Square and T-test have been used to analyze the primary data. Secondary data for the study have been collected from various publications, journals, magazines, websites and books.

Review of literature

The human resource management function has changed dramatically over time evolving Walker (2001) A.J. (2001). Web-Based Human Resources: The Technologies and Trends That Are Transforming HR. New Delhi: Tata McGraw Hill. If HR technology is to be considered successful, it must change the work performed by the Human Resources Personnel by dramatically improving their level of service, allowing more time for work of higher value and reducing their costs. Many systems have been implemented by cutting HR staff, outsourcing and imposing new technology.

According to Prasad (2003) Human Resource Management. New Delhi: Sultan Chand & Sons, the concept of computerized HRIS is derived as an organized method of providing information about human resources, their functioning, external factors relevant to managing human resources. Large organizations generally install e-HR because it enables them to collect, store, process and manipulate large amount of data inputs, reduce costs of maintaining human resource data and provide accurate information about human resources anytime and anywhere.

In the view of Armstrong (2006). A Handbook of Human Resource Management Practice. New Delhi: Kogan e-HR provides the information required to manage HR processes. These may be core employee database and payroll systems but can be extended to include such systems as recruitment, e-learning, performance management and reward. The system may be web-based, enabling access to remote or online and at any time. The information provided by the e-HR process can be communicated across organizations.

Kettley and Reiley (2003) P. (2003). E-HR: An introduction. IES Report states that a computerized human resource information system consists of "a fully integrated, organization wide-network of HR-related data, information, services, databases, tools and transactions. Technology has only recently developed in a way that enables e-HR to make its mark, especially the introduction of corporate intranets and web-enabled HRIS. The nature of the development path, however, varies considerably from organization to organization

Analysis and Interpretations

Table 1: Personal profile of the respondents

Particulars	Variables	No	%
Gender	Male	93	77.5
	Female	27	22.5
	Total	120	100
Age	20-30	79	65.8
	30-40	23	19.2
	40-50	9	7.5
	Above 50	9	7.5
	Total	120	100
Marital Status	Single	107	89.2
	Married	13	10.8
	Total	120	100
Education	UG Degree	92	76.7
	PG Degree	27	22.5
	Others	1	0.8
	Total	120	100
Salary	Less than 15000	15	12.5
	16000-20000	53	44.2
	21000-25000	26	21.7
	Above 25000	26	21.7
	Total	120	100.0
Experience	Less than 5 years	79	65.8
	6-10 years	39	32.5
	11-15 years	2	1.7
	Total	120	100.0
Name of the bank	UCO BANK	19	15.8
	HDFC	16	13.3
	SBI	17	14.2
	INDIAN OVERSEAS BANK	13	10.8

	CENTRAL BANK OF INDIA	13	10.8
	ICICI Bank	8	6.7
	Allahabad Bank	8	6.7
	PNB	7	5.8
	Bank of Baroda	7	5.8
	AXIS Bank	6	5.0
	IDBI Bank	3	2.5
	Kotak Mahindra Bank	3	2.5
	Total	120	100.0

From the above table it is evident that

- Majority (77 per cent) of the respondents are male and 23 percent of the respondents are female.
- 66 percent of respondents are in the age group of 20-30, 19 percent are in the age group of 30-40, 8 percent of them are in the age group of 40-50 and remaining 7 percent are above 50 years
- 89 percent of the respondents are single and 11 percent of the respondents are married.
- 77 percent respondents have completed UG degree and 28 percent have completed their PG degree and 1 percent have done other i.e. school level.
- Majority (53 percent) of respondent's salary is from 16000-20000, 26 percent of respondent's salary is from 21000-25000, 26 percent respondent's salary is above 25000 and 15 percent of the respondent's salary is below 15000
- Majority (79 percent) of the respondents are having less than 5 years of experience, 39 percent of them are having 6-10 years of experience and only 2 percent of the respondents are having 11- 15 years of experience.
- 19 percent respondents are working in UCO bank, 17 percent respondents are working in SBI, 16 percent working in HDFC, 13 percent respondents are working in INDIAN OVERSEA bank, 13 percent respondents are working in CENTRAL BANK OF INDIA 8 percent respondents are working in ICICI Bank ,8 percent respondents are working in Allahabad Bank, 7 percent respondents are working in PNB, 7 percent respondents are working in Bank of Baroda, 6 percent respondents are working in AXIS Bank, 3 percent respondents are working in IDBI Bank and 3 percent respondents are working in Kotak Mahindra Bank.

Table 2: Showing Employees satisfaction towards the System Design Quality

Particulars	Variables	No	%
Interface	Highly satisfied	94	78.3
	Satisfied	26	21.7
	Not satisfied	0	0
	Total	120	100.0
Screen	Highly satisfied	81	67.5
	Satisfied	39	32.5
	Not satisfied	0	0
	Total	120	100.0
Site design	Highly satisfied	68	56.7
	Satisfied	52	43.3
	Not satisfied	0	0
	Total	120	100.0
Entry guidance	Highly satisfied	81	67.5
	Satisfied	39	32.5
	Not satisfied	0	0
	Total	120	100.0
Website structure	Highly satisfied	81	67.5
	Satisfied	39	32.5
	Not satisfied	0	0
	Total	120	100.0
Layout	Highly satisfied	107	89.2
	Satisfied	13	10.8
	Not satisfied	0	0
	Total	120	100.0
Aesthetic design	Highly satisfied	81	67.5
	Satisfied	26	21.7
	Not satisfied	13	10.8
Total		120	100.0
Visual appeal	Highly satisfied	91	75.8
	Satisfied	15	12.5

	Not satisfied	14	11.7
	Total	120	100.0

- Majority (78.3%) of the respondents are highly satisfied with E HRM system's Interface and (21.7%) of the respondents are satisfied with E HRM system's Interface.
- Majority (67.5%) of the respondents are highly satisfied with E HRM system's screen layout and (32.5%) of the respondents are satisfied with E HRM system's screen layout
- Majority (56.7%) of the respondents are highly satisfied with E HRM system's Site design and (43.3%) of the respondents are satisfied with E HRM system's Site design.
- Majority (67.5%) of the respondents are highly satisfied with E HRM system's entry guidance and (32.5%) of the respondents are satisfied with E HRM system's entry guidance.
- Majority (67.5%) of the respondents are highly satisfied with E HRM system's website structure and (32.5%) of the respondents are satisfied with E HRM system's website structure.
- Majority (89.2%) of the respondents are highly satisfied with E HRM system's layout and (10.8%) of the respondents are satisfied with E HRM system's layout.
- Majority (67.5%) of the respondents are Highly satisfied with E HRM system's aesthetic design, (21.7%) of the respondents are satisfied with E HRM system's aesthetic design and (10.8%) of the respondents are not satisfied with E HRM system's aesthetic design.
- Majorities (78.3%) of the respondents are highly satisfied with E HRM system's Visual appeal, (21.7%) of the respondents are satisfied with E HRM system's Visual appeal and remaining (11.7%) of the respondents are not satisfied.

Table 3: Opinion of Respondents towards E-HRM

Particulars	Variables	No	%
Self service	Strongly agree	26	21.7
	Agree	94	78.3
	Neither agree nor disagree	0	0
	Disagree	0	0
	Strongly disagree	0	0
	Total	120	100
Commitment	Strongly agree	28	23.3
	Agree	79	65.8

	Neither agree nor disagree	0	0
	Disagree	0	0
	Strongly disagree	13	10.8
	Total	120	100
Friendly	Yes	105	87.5
	No	15	12.5
	Total	120	100
Clear format	Yes	93	77.5
	No	27	22.5
	Total	120	100
Updated	Yes	80	66.7
	No	40	33.3
	Total	120	100.
Confidentiality	Yes	93	77.5
	No	27	22.5
	Total	120	100.0
Security	Yes	79	65.8
	No	41	34.2
	Total	120	100.0
Attendance	Strongly agree	14	11.7
	Agree	106	88.3
	Neither agree nor disagree	0	0
	Disagree	0	0
	Strongly disagree	0	0
	Total	120	100.0
Payroll	Strongly agree	13	10.8
	Agree	79	65.8
	Neither agree nor disagree	28	23.3

	Disagree	0	0
	Strongly disagree	0	0
	Total	120	100.0
Administrative practice	Strongly agree	68	56.7
	Agree	0	0
	Neither agree nor disagree	52	43.3
	Disagree	0	0
	Strongly disagree	0	0
	Total	120	100
Accurate Data	Strongly agree	14	11.7
	Agree	93	77.5
	Neither agree nor disagree	13	10.8
	Disagree	0	0
	Strongly disagree	0	0
	Total	120	100
Opportunities	Strongly agree	39	32.5
	Agree	54	45.0
	Neither agree nor disagree	27	22.5
	Disagree	0	0
	Strongly disagree	0	0
	Total	120	100
Welfare	Strongly agree	2	1.7
	Agree	92	76.7
	Neither agree nor disagree	26	21.7
	Disagree	0	0
	Total	120	100

	Strongly disagree	0	0
	Total	120	100
Satisfaction	Highly satisfied	42	35.0
	Satisfied	78	65.0
	Not satisfied	0	0
	Total	120	100
Interaction	Yes	94	78.3
	No	26	21.7
	Total	120	100
Expertise	Excellent	0	0
	Good	94	78.3
	Very Good	26	21.7
	Poor	0	0
	Very poor	0	0
	Total	120	100.0

- Majority (78.3%) of the respondents agree that E-HRM works as self service and the remaining (21.7%) of the respondents strongly agree that E-HRM serves as self service. Hence it shows that E-HRM performs as self service method and need not depend on others.
- Majority (65.8%) of the respondents agree that E-HRM creates commitment towards work and the remaining (23.3%) of the respondents strongly agree that that E-HRM creates commitment towards work. Hence it shows that E-HRM creates commitment towards work.
- Majority (87.5%) of the respondents feel E-HRM is User friendly and remaining a meager (12.5%) of the respondents feel it is not user friendly. Hence we can assume E-HRM is user friendly.
- Majority (77.5%) of the respondents says that E-HRM is in clear format and only few (22.5%) says it is not in clear format. The E-HRM is designed in a clear format.
- Majority (66.7%) of the respondents says that E-HRM is updated and only few (33.3%) says that E-HRM is not updated on routine basis. Mostly E-HRM is updated, as 33% feels it's not updated. Hence it may be updated on routine basis.

- Majority (77.5%) of the respondents says that E-HRM is provides confidentiality and only few (22.5%) says that E-HRM is not providing confidentiality.
- Majority (65.8%) of the respondents says that E-HRM is secured and only few (34.2%) says that E-HRM is not secured.
- Majority (88.3%) of the respondents agree that E-HRM is useful in knowing and to track their attendance record and only few (11.7%) of the respondents strongly agree that E-HRM is useful in knowing and to track their attendance record.
- Majority (65.8%) of the respondents agree that E-HRM is useful in knowing and to track their payroll record, only few (10.8%) of the respondents strongly agree that E-HRM is useful in knowing and to track their payroll record and a meager (23.3%) Neither agree nor disagree that E-HRM is useful in knowing and to track their payroll record.
- Majority (56.7%) of the respondents strongly agree that E-HRM is supports administrative practice and remaining (43.3%) of the respondents Neither agree nor disagree that E-HRM is supporting administrative practice
- Majority (77.5%) of the respondents agree that E-HRM provides accurate employee, (11.7%) of the respondents strongly agree that E-HRM provides accurate employee data and meager (10.8%) of the respondents Neither agree nor disagree that E-HRM provides accurate employee data.
- Majority (45.0%) of the respondents agree that E-HRM provides opportunities to learn, (32.5%) of the respondents strongly agree that E-HRM provides opportunities to learn and remaining (22.5%) of the respondents Neither agree nor disagree that E-HRM opportunities to learn.
- Majority (76.7%) of the respondents agree that E-HRM supports in welfare measures undertaken by banks, (21.7%) of the respondents neither agree nor disagree that E-HRM supports in welfare measures undertaken by banks and remaining meager (1.7%) of the respondents that E-HRM supports in welfare measures undertaken by banks.
- Majority (65.0%) of the respondents are satisfied with overall performance of E-HRM and (35.0%) of the respondents are highly satisfied with overall performance of E-HRM.
- Majority (78.3.0%) of the respondents feel that E-HRM creates a plat form for interaction about Bank functions and opportunities and (21.7%) of the respondents feel that E-HRM is not creating a plat form for interaction about Bank functions and opportunities.
- Majority (78.3%) of the respondents feel that their overall E-HRM system is good and remaining (21.7%) of the respondents feel that their overall E-HRM system is very good.

Table 4: Banks and the employee's satisfaction

Private Banks	Employees satisfaction towards E-HRM	Total
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	Highly satisfied	Satisfied	Not satisfied	
UCO BANK	5 (4.2%)	14 (11.7%)	0	19 (15.8%)
HDFC	7 (5.8%)	9 (7.5%)	0	16 (13.3%)
SBI	7 (5.8%)	10 (8.3%)	0	17 (14.2%)
INDIAN OVERSEAS BANK	6 (5%)	7 (5.8%)	0	13 (10.8%)
CENTRAL BANK OF INDIA	4 (3.3%)	9 (7.5%)	0	13 (10.8%)
ICICI Bank	2 (1.7%)	6 (5 %)	0	8 (6.7%)
Allahabad Bank	3 (2.5%)	5 (4.2%)	0	8 (6.7%)
PNB	2 (1.7%)	5 (4.2%)	0	7 (5.8%)
Bank of Baroda	2 (1.7%)	5 (4.2%)	0	7 (5.8%)
AXIS Bank	2 (1.7%)	4 (3.3%)	0	6 (5%)
IDBI Bank	1 (.8%)	2 (1.7%)	0	3 (2.5%)
Kotak Mahindra Bank	1 (.8%)	2 (1.7%)	0	3 (2.5%)
Chi Square Value=2.909		Table Value=.992		df=11
				120

H₀: There is no significant relationship between Banks and the employee's satisfaction.

As the calculated value (0.002) is less than the table value (0.227), the hypothesis is accepted so it is concluded that there is no significant relationship between Banks and the employee's satisfaction.

Table 5: E-HRM application serve as self-service influence level of expertise in HR using E –HRM.

E-HRM	Level of expertise in HR using E -HRM	Total
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application serve as self-service						
	Excellent	Good	Average	Poor	Very poor	
Strongly agree	26 (21.7%)	0	0	0	0	26 (21.7%)
Agree	68 (56.7%)	26 (21.7%)	0	0	0	94 (78.3%)
Neither agree nor disagree	0	0	0	0	0	0
Disagree	0	0	0	0	0	0
Strongly disagree	0	0	0	0	0	0
	94 (78.3%)	26 (21.7%)	0	0	0	120 (100%)
Chi Square Value=0.002			Table Value=0.227		df=1	

H₀: There is no significant relationship between E-HRM application serve as self-service and level of expertise in HR using E –HRM.

As the calculated value (0.002) is less than the table value (0.227), the hypothesis is accepted so it is concluded that there is no significant relationship between E-HRM application serve as self-service and level of expertise in HR using E –HRM.

Table 6: Is there any difference between Experiences of employees using EHRM & Performance.

Paired Samples	Mean	Std. Deviation	Std. Error	T	df	Sig. (2-tailed)
Experience – Performance using EHRM	-20833	.79806	.07285	-2.860	119	.005

As the calculated value 0.005 is more than the table value -2. 860.of 95% Confidence Interval of the Difference, hence we conclude that there is no significant difference between Experiences of employees using EHRM & Performance

Table 7: Is there any difference between Performances of EHRM with Administrative practice

Paired Samples	Mean	Std. Deviation	Std. Error	T	df	Sig. (2-tailed)
Performance of EHRM with Administrative	-.867	.744	.068	-12.761	119	.000

ve practices						
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As the calculated value 0.000 is more than the table value -2.860 of 95% Confidence Interval of the Difference, hence we conclude that there is no significant difference between Performance of EHRM with Administrative practice

Suggestions

The employees have a positive impact on E-HRM as it can be accessed from outside the work place also. As now the smart phones have become popular and used by most of the people, the banks can launch a special mobile application for its employees as they already have mobile application for his customers for mobile banking functions.

Conclusion

The banking today is re-defined and re-engineered with the use of Information Technology and it is sure that the future of banking will offer more sophisticated services to the customers with the continuous product and process innovations at the same time its making a better place for its employees

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Cyber Security Issues and Challenges in E-Commerce

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ABSTRACT

E-commerce (electronic commerce) is the purchasing and selling of merchandise and ventures, or the transmitting of assets or information, over an electronic network, essentially the internet. These business exchanges happen either as b to b (business-to-business), b to c (business-to-consumer), c to c (consumer-to-consumer) or c to b (consumer-to-business). It is the exchanging of items or services utilizing computer networks like Internet or online informal communities. Here the Business conducted using computers, telephones, fax machines, barcode readers, credit cards, ATM or other electronic appliances without the exchange of paper-based documents or physically moving to a shopping centre. It includes activities, for example, procurement, order entry, exchange processing, online payment, authentication, inventory control, order fulfilment, shipment, and customer bolster. When a buyer pays with a bank card swiped through a magnetic-stripe-reader, he or she is taking an interest in e-commerce.

E-commerce Security is a piece of the Information Security framework and is specifically applied to the components that affect e-commerce including of Data security and other wider realms of the Information Security framework. E-commerce security is the protection of e-commerce assets from unauthorized access, use, alteration, or destruction. E-commerce offers the managing an account industry great chance, yet additionally creates a set of new dangers and vulnerability, for example, security threats, hackings. Therefore, it is an essential management and technical requirement for any efficient and effective Payment exchange activities over the internet. Even the shopping through e-commerce has penetrated all segments of merchandise going from groceries to electronic products and even vehicles.

Fast development in mobile figuring and correspondence technologies has facilitated ubiquity of e-commerce. The fundamental impediment in development of e-commerce is cyber misrepresentation and identity theft. Hackers are people who complete the cybercrime. Hence, poor security on e-Commerce web servers and in user's computers is core issue to be resolved for fast development of e-commerce. This paper provides directions for e-commerce security in order to improve

Introduction

Security in E-commerce is a piece of the Information Security framework and is specifically applied to the components that affect e-commerce that include Computer Security, Data security. E-commerce needs high security components that affect the end user through their everyday payment interaction with business. E-commerce required a reliable infrastructure and framework to enable a secure and successful e-commerce. Today, protection and security are a noteworthy concern for electronic technologies, for example, M-commerce (Mobile – Commerce) shares security concerns with other and associations engaging with ecommerce. On the web e-commerce applications that handle payments like online saving money, electronic exchanges or utilizing debit cards, credit cards, PayPal, E-money, prepaid cards, master cards, visa cards or other tokens have more compliance issues, technologies in the field. Protection concerns have been discovered, revealing an absence of trust in a variety of contexts, including commerce, electronic health records, e-recruitment technology and long-range interpersonal communication, and this has directly influenced users.

Security is one of the most vital variables that restrict customers and associations engaging with ecommerce and e-commerce currently addressing gradually for the security issues on their internal networks. There is such sort of guidelines for securing systems and networks available for the ecommerce systems personnel to read and implement. As a large portion of the customers those are utilizing online shopping some are literate, and others are illiterate, thus educating the consumer on security issues is still in the earliest stages stage. Yet, it will prove to be the most basic element of the e-commerce security architecture.

Virus, worms, Trojan horse programs launched against client systems pose the greatest threat to e-commerce because they can sidestep or subvert the greater part of the authentication and approval mechanisms used in an ecommerce exchange. These projects can be installed on a remote computer by the simplest of means: email attachments. So, some Privacy has become a noteworthy concern for consumers with the rise of identity theft and impersonation, and any concern for consumers must be treated as a noteworthy concern for e-Commerce providers. The quick evolution of online and mobile channels has carved out new markets and brought huge opportunities for emergent and established associations alike.

The previous decade has likewise witnessed noteworthy interruption to ecommerce payment processes and systems. The interconnected, mysterious and instantaneous nature of these channels has inevitably led to the development of vindictive threats targeting ecommerce and retail services firms, their people and their customers. These e-crime and computerized misrepresentation threats continue to evolve quickly, with attackers using increasingly sophisticated techniques to target vulnerabilities in people, processes and technologies. The e-crime threats, if successfully realized, can undermine essential advanced services, cause noteworthy damage to mark reputations, and result in considerable money related and operational torment for associations and their customers. To achieve the security objectives, it is necessary to recognize that the security of the services and the protection of the customers' information are essential. To this end, and specifically to help the current security equation, it is necessary to have an enterprise wide target customer security model. This ought to be designed to deliver enhancements to both

customer-confronting and back office security capabilities, and specifically to improve existing security defences for remote online, telephone and mobile keeping money channels. Security is one of the main and proceeding with concerns that restrict customers and associations engaging with e-commerce. The point of this paper is to explore the perception of security in e-commerce B2C and C2C websites from both customer and authoritative perspectives. With the fast development of E-commerce, security issues are emerging from people's attention. The security of the exchange is the core and key issues of the development of E-commerce. This paper about the security issues of E-commerce activities set forward arrangement strategy from two aspects that are technology and system, to improve the environment for the development of E-commerce and promote the further development of E-commerce.

Web applications increasingly integrate outsider services. The integration introduces new security challenges due to the complexity for an application to coordinate its internal states with those of the component services and the web client over the Internet. E-Commerce offers the managing an account industry great chance, yet in addition creates a set of new dangers and vulnerability, for example, security threats. Data security, therefore, is an essential management and technical requirement for any efficient and effective Payment exchange activities over the internet. In any case, its definition is a complex endeavour due to the steady technological and business change and requires a coordinated match of calculation and technical arrangements.

E-Commerce Security Issues

E-commerce security is the protection of e-commerce assets from unauthorized access, use, alteration, or destruction. Consumers fear the loss of their budgetary information, and e-commerce sites fear the money related losses associated with any resulting terrible exposure and break-ins. There are a number of basic social and authoritative issues with security. The first is the development of adequate authoritative processes for chance management, development of security policies, and separation of duties, security assurance and access control. The second is that the weak connection in security is often employees or users, rather than the technology and the third is software engineering management, or overseeing how security technology is deployed. A persistent problem is users' differing and incorrect models of security and their seeming unwillingness or failure to adhere to basic security policies and guidelines. For example, users may store passwords in unencrypted files on vulnerable machines or employees may divulge their passwords to outsiders.

- *Unauthorized access:* It implies illegal access to information, systems or applications for some malignant purpose. In Passive unauthorized access the hacker listens to correspondence channels for discovering secrets or content which might be used for harming purposes. However, in Active unauthorized access the hacker modifies system or information with an intention to manipulate or change.
- *Denial of Service:* It might happen by spamming and viruses. Spamming is essentially surprising e-mail shelling caused by a hacker targeting one computer or network, and sending a large number of email messages to it. DDOS (Distributed Denial of service Attacks) involves hackers putting software agents onto a number of outsider systems and setting them off to simultaneously send requests to an intended target. However, viruses are self-replicating computer programs designed to perform unwanted events. Worms are special viruses that spread utilizing direct Internet connections and Trojan

Horses are disguised as legitimate software that trap users into running the program.

- *Theft and Fraud*: Misrepresentation happens when the stolen information is used or modified. Theft of software implies illegal duplicating from organization's servers or theft of hardware, specifically PCs. Hackers break into insecure merchant web servers to harvest archives of credit card numbers generally stored alongside personal data when a consumer makes an online purchase. The merchant back-end and database is additionally susceptible for theft from outsider fulfilment centres and other processing agents.

Research Objectives

To analyse the significance of E-commerce security.

- To analyse and examine the purpose of Security in E-commerce.
- To identify the involvement of outsider hazard in Online Shopping.

Literature Review

Generally interpersonal trust is focused on the off chance that we discuss customary commerce, for example, a customer's trust in a salesperson. Board et al recognized that consumer trust could have multiple referents like item, salesperson and friends and as needs be defined trust as a worldwide belief with respect to the buyer that the salesperson, item, and friends will satisfy their commitments as understood by the buyer. So also, in the e-commerce context some like researchers have tended to define and describe trust as the willingness of a person to be vulnerable, a person's expectation, and a subjective belief, reliance on parties other than oneself or a subjective likelihood.

Ecommerce web site owners on one side are considering how to pull in more customers and how to make the guests feel secured when chipping away at the site, while on the other side how the end users should rate an ecommerce website and what they ought to do to protect themselves as one among the online network (V. Srikanth (2012)). Each phase of E-commerce exchange has security measures. Viruses are a nuisance threat in the e-commerce world. They just disturb e-commerce operations and ought to be classified as a Denial of Service (DoS) apparatus. Watchword protection, encrypted client-server correspondence, open private key encryption schemes are altogether negated by the simple actuality that the Trojan horse program enables the hacker to see all clear text before it gets encrypted (Randy C. Marchany, Joseph G. Tront, (2002)). Due to the increase in admonitions by the media from security and protection breaches like identity theft and money related misrepresentation, and the elevated awareness of online customers about the threats of performing exchanges online, e-commerce has not been able to achieve its maximum capacity.

Numerous customers refuse to perform online exchanges and relate that to the absence of trust or fear for their personal data (Rashad Yazdanifard, Noor Al-Huda Edres, (2011)). Clearly, the online exchange requires consumers to disclose a large measure of sensitive personal data to the vendor, putting themselves at critical hazard. Understanding (indeed, even precisely defining) consumer trust is essential for the proceeding with development of e-commerce (Pradnya B. Rane, Dr. B.B.Meshram, (2012)). Some of the researchers analysed the technologies in Transaction Security for E-commerce Application as Encryption Approach:

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Encryption is the process of changing plain text or information into cipher text that can't be read by anyone other than the sender and the receiver. The purpose of encryption is: (1) To secure stored data and (2) To secure data transmission (Chaum, David. 1985). Secure Socket Layer: The most well-known type of securing channels is through the Secure Sockets Layer (SSL) of TCP/IP. The SSL convention provides information encryption, server authentication, discretionary client authentication, and message integrity for TCP/IP connections. Secure Socket Layer (SSL) is a security convention, first developed by Netscape Communications Corporation and now taken over by the vehicle layer security working group.

The design objective of the convention is to prevent eavesdropping, tampering or message forgery when information is transported over the Internet between two conveying applications (Pradnya B. Rane, Dr. B. B. Meshram, 2012), Secure Hypertext Transfer Protocol (S-HTTP): S-HTTP is a secure message-oriented interchange convention designed for use in conjunction with HTTP. It is designed to coexist with HTTP and to be easily integrated with HTTP applications. Whereas SSL is designed to establish a secure connection between two computers, S-HTTP is designed to send singular messages securely. Utilizing S-HTTP, any message might be signed, authenticated, encrypted or any blend of these. Generally, S-HTTP attempts to make HTTP more secure (Shazia Yasin, Khalid Haseeb, 2012), Digital Signature: Computerized signature means an advanced method executed by a gathering with the intent to authenticate a record, which is a unique to the person utilizing it and is capable of verification. It is linked to the information in such a manner, to the point that if the information is changed, the electronic signature is invalidated. An advanced signature is typically a hash of the message which is encrypted with the owner's private key (Delaigle, J-F., C. De Vleeschouwer, and B. Macq. 1996).

Secure Electronic Transaction (SET): A SET specification for credit/payment card exchanges is required for the safety of all involved in e-commerce. It is designed to meet three fundamental objectives. In the first place, it will enable payment security for all involved, authenticate card holders and merchants, provide confidentiality for payment information and define conventions and potential electronic security service providers. It will likewise enable interoperability among applications developed by different vendors and among different operating systems and stage (Anderson, Ross. 1994), Digital Certificate: An advanced certificate is a computerized document issued by a trusted outsider establishment known as a certification specialist that contains the name of the subject or organization, the subject's open key, an advanced certificate serial number, an expiration date, an issuance date, the computerized signature of the certification expert and other identifying data. The Certification Authority (CA) is a trusted outsider that hands out certificates and publishes identities and open keys in a directory. The certificate is signed with the private key of the Certification Authority; therefore, its authenticity can be confirmed by utilizing the known open key of the CA.

Discussion & Findings

Cyber security issues remain inside the area of engineers and software masters. Other employees know nothing or have no idea what to do. Second, numerous layers of technology (old, obsolete and new) exist in an association, and fixing updates to the new systems don't resolve vulnerability of older systems. Third, companies are not organizing time, money and personnel for cyber security because they remain focused on the creation line, and primary concern. Cyber security is becoming a

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major problem for some companies in all industries, as an assault can permanently damage a business or even a person's life. As the cyber security industry continues to develop at a fast pace, the measure of malware continues to develop each year too.

Cybercrime damage expenses to hit \$6 trillion every year by 2021. Cybersecurity spending to exceed \$1 trillion from 2017 to 2021. There is hacker assault every 39 seconds, affecting one out of three Americans each year. Just 38 percent of worldwide associations assert they are prepared to handle a sophisticated cyber assault. 7 out of 10 associations say their security chance increased altogether in 2017. 54% of companies experienced one or more successful assaults that compromised information and additionally IT infrastructure. 77% of those assaults utilized file less techniques. Cyber security breaches are increasing world over and India is likewise confronting the same. Clearly, the cyber security challenges before the Narendra Modi government are tremendous and there is a urgent need to begin working in this direction immediately. Indian cyberspace must be protected on a need premise and cyber security infrastructure of India needs hearty protection.

The payment gateways and banks giving saving money and budgetary service should likewise be completely cyber secure. Cyber security trends of India (PDF) have highlighted different weaknesses of Indian cyber security initiatives. However, the essential obligation for non-disclosure of cyber security breaches beginning at e-commerce stages is attributable to e-commerce stages themselves. E-commerce websites and entrances are required to ensure security and information protection of their customers. A failure to ensure proper techno legal due diligence and e-commerce due diligence would draw in both common and criminal liabilities against e-commerce websites of India. The opportunity has already come and gone to draft a regulatory framework for cyber security disclosure in India for cyber breaches with the goal that rights and interests of Indian consumers and customers are appropriately protected.

Conclusion

Online business is generally viewed as the purchasing and offering of items over the web, however any exchange that is finished exclusively through electronic measures can be thought about internet business. Step by step E-business and M-trade assuming great part in online retail advertising and people groups utilizing this innovation step by step expanding everywhere throughout the world. Online business security is the insurance of internet business resources from unapproved get to, utilize, adjustment, or obliteration. Measurements of online business security; Integrity: aversion against unapproved information alteration, No disavowal: counteractive action against any one gathering from reneging on an understanding afterward. Genuineness: validation of information source. Secrecy: assurance against unapproved information exposure. Security: arrangement of information control and divulgence. Not exclusively should web based business destinations and customers judge security vulnerabilities and survey potential specialized arrangements, they should likewise evaluate, assess, and resolve the dangers included.

An arranged application can't offer full proportions of network, security, and usability, all in the meantime; there is by all accounts a natural exchange off here, and some forfeit is unavoidable. Likewise, the principal security worry from an internet business dealer's viewpoint ought to be to keep the web servers' documents of ongoing requests not toward the front web servers but rather behind the firewall.

Besides, touchy servers ought to be kept very specific, by killing and evacuating every single inessential administration and applications (e.g., ftp, email). Until internet business merchants accomplish the fundamental fragile adjust of protection, trust and security, compelling and quantitative online business exchanges will remain an issue. Along these lines the components of encryption, assurance, check and validation without a doubt impact impression of security. The commercial centre can be reliable just when buyers feel trust in executing in that condition.

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Outcome Based Education: Assessment of Understanding in Higher Education Institutions in the state of Rajasthan

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ABSTRACT

This study investigates the understanding of Outcome Based Education concept among the faculty members of Higher Education Institutions in the state of Rajasthan. The study used a descriptive method of research where the quantitative data was collected using a survey questionnaire. Research was done on 301 faculty members of higher education institutions in the state of Rajasthan. The data on understanding of OBE was collected through a structured close ended questionnaire consisting of 47 items. The questionnaire collected data on the understanding of the different components of OBE such as PLO, CLO, Pedagogy & Assessment. The results of the study indicate that there is lack of understanding of OBE among the faculty members of HEIs in the state of Rajasthan. Also it was observed that there was no significant difference in the understanding of OBE among the male & female faculty members. Research was limited to the state of Rajasthan & the understanding of OBE among faculty members of HEIs in other states was not studied. The paper attempts to highlight the level of understanding of this concept & emphasize the need for educating the faculty members on OBE and enhancing the level of Higher Education in the state. Similar studies can be done on other states to assess their status & necessary measures taken to enhance the understanding wherever necessary.

Problem Statement

OBE concept is important for achievement of higher order learning. Faculty members follow traditional teaching-learning processes that fail to achieve the outcomes desired from the Programme.

Introduction

Traditionally teaching was considered as a means of transmitting information to the students and it was a one-way process of content delivery from the teacher to the learner. Outcome Based Education on the other hand intends to find out what the learner should be able to do at the end of the program. OBE concept originated in 1950s with the movement toward setting educational objectives. Ralph Tyler (1949) identified the importance of formulating clearly defined objectives for the systematic

planning of the learning experience with the focus on what the student should be able to do after completing the learning process and mastering the content. Subsequently, Bloom and colleagues (1956) developed the well-known Bloom's taxonomy to conceptualize the intellectual objectives aimed at expanding the cognitive domains involved in the learning process. OBE involves the restructuring of curriculum, assessment and reporting practices in education to reflect the achievement of high order learning and mastery rather than accumulation of course credits. "An outcome is a culminating demonstration of learning; it is what the student should be able to do at the end of the course" Spady (1993). Studies about teachers understanding of teaching-learning reflects that learning-centered orientations are more favorable than teaching-centered orientations, Samuelowicz & Bain (2001). OBE has shifted focus from teaching to learning. It is based on the concept that students learn best through experience. It was experienced that the students passing out of Higher Education Institutions lacked the skills suitable for employment. This is led to a change in all aspects of education from Curriculum design to Pedagogy to Assessment. Bloom's Taxonomy defines the levels of performance to be achieved by a student at different levels of learning. In the Indian scenario it has been observed that quality in Higher education is facing numerous challenges due to increase in competition at all levels & increase in expectations of the key stakeholders in education namely the students & their parents.

Research Objectives

1. Assessing the understanding of Outcome Based Education Concept among Faculty Members of Higher Education Institutions in Rajasthan.
2. Identifying differences in understanding of OBE concept based on gender.

Hypothesis

Ha1: Faculty Members of HEI do not have an understanding of OBE

Ha2: Understanding of OBE differs among Male & Female Faculty Members of HEIs

Literature Review

- Schalkwyk, G. J. (2015), opined that the instructor in a higher education setting facilitates the actions aimed at achieving the intended learning outcomes. Merely asking students to work together as a team or assigning a group task without careful planning and understanding of the intricate dynamics underlying OBTL will not succeed.
- Esmaily, H. M. et al (2009) examined that a program, with an outcome-based approach utilizing active learning principles, was more effective than a lecture-based program in supporting general physicians to develop their knowledge and skills.
- Deneen, C. et al (2013) opined that a lack of transparency in providing students with an understanding of the OBE innovation may have had a negative effect on students' ability to fully judge the planning and changes that OBE represented in the course. Designing greater transparency into an OBE process and, more generally, any curricular change process would seem an important step in enhancing the value and quality of student evaluation.
- Fanta, F., & Boubacar, I. (2016) concluded that activity-based teaching gives higher gains to students as compared to discussion based teaching. The results

of the study support the effectiveness of active-based teaching over the traditional teaching approach.

- Mahmoud F. et al concluded that traditional methods of assessment of student learning are used in higher education. Colleges of engineering and sciences and college of nursing use a greater variety of methods to assess learning such as real-life tasks, projects, and graded homework.
- Borsoto, L.D. et al opined that Outcomes-Based education is useful in terms of academics, attitude and instructions. There is a significant relationship between the status of OBE implementation and the level of usefulness of Outcomes-Based Education.

Research Methodology

The study is descriptive in nature. The population for the present study was Faculty Members from HEI in the state of Rajasthan. Convenience sampling was used to collect the data of faculty members through structured close ended questionnaire. The questionnaire framed consisted of 47 questions on various aspects of OBE concept like-Program level outcomes, Course Level outcomes, Pedagogy & Assessment. The responses were measured on a 5 point Likert scale coded as 5 - Strongly agree, 4 - Agree, 3 - Neither agree nor disagree, 2 - Disagree, 1 - Strongly disagree. Based on the sample of 301 faculty members an assessment was done and T- Test was applied to analyze the data collected as above & conclusions drawn. Independent Sample T test was used to study the variances in responses based on gender of the faculty members.

Table 1: Reliability

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.874	.875	47

The reliability of Questionnaire was tested and Alpha for a sample of 301 faculty members was found to be 0.874

Data Analysis

Selected test for the data is One Sample T-Test since the data collected is a single sample.

One Sample T-Test basically has the below mentioned four assumptions:

1. The dependent variable should be measured at the interval or ratio level (i.e., continuous).
2. The data are independent (i.e., not correlated/related), i.e. there is no relationship between the observations.
3. There should be no significant outliers.
4. Dependent variable should be approximately normally distributed.

The data collected is an interval data on Likert's Scale & the observations are independent. Hence the first & second assumptions are proved. There are no clear

outliers in the data hence fulfilling the third assumption as well. To test the normality of the data Shapiro Wilk test was applied on the data.

Table 2: Normality

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
OBETotal	.051	150	.200*	.991	150	.474

Assumed “p” value is 0.05

Ho-Data is normally distributed.

As Table 2 clearly indicates that the calculated “p” values is 0.474 which is greater than the assumed” p” value of 0.05, hence we accept Ho & conclude that the data is normally distributed.

Ha1: Faculty Members of HEI do not have an understanding of OBE

Table 3: T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
OBET	300	2.9108	.80752	.04662

One-Sample Test

	Test Value = 2.5					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
OBET	8.811	299	.000	.41078	.3190	.5025

Table 3 shows the result of one sample T-Test. It clearly shows that at 95% confidence level the statistical significance p-value (0.000) is < 0.05. Therefore, it can be concluded that faculty members of HEIs in Rajasthan do not have understanding of OBE. There is a statistically significant difference between means ($p < .05$) and, therefore we can reject the null hypothesis and accept the alternative hypothesis which states that faculty members of HEIs do not have an understanding of OBE.

Ha2: Understanding of OBE differs among Male & Female Faculty Members of HEIs

Table 4: Test of Normality (gender-wise data)

Tests of Normality

	Gender	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
OBET	Male	.057	138	.200*	.990	138	.445
	Female	.044	162	.200*	.990	162	.334

Assumed “p” value is 0.05

Ho-Data is normally distributed.

As Table 2 clearly indicates that the calculated “p” values is 0.474 which is greater than the assumed “p” value of 0.05, hence we accept Ho & conclude that the data is normally distribute

Table 5: Independent Sample T-test

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
OBET	Male	138	3.0045	.77850	.06627
	Female	162	2.8310	.82545	.06485

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
OBET	Equal variances assumed	.246	.620	1.862	298	.064	.17350	.09316	-.00983	.35684
	Equal variances not assumed			1.871	294.904	.062	.17350	.09272	-.00898	.35599

An independent sample t test was run to determine if there were differences in understanding of OBE among male & female faculty members of HEIs. There were no outliers in the data. Data for understanding of each level of gender i.e. Male & Female (Table 4) was normally distributed as assessed by Shapiro Wilks Test ($p > .05$). Homogeneity of variances was achieved as assessed by Levenes test of Equality of variances ($p = 0.620$). The study found that the understanding of OBE among male ($3.0 \pm .78$) & female ($2.8 \pm .83$) faculty members was not statistically different, $t(298) = 1.86$, $p = 0.064$. Hence we accept Ho that there is no difference in the understanding of OBE among male & female faculty members.

Result Discussion

The study aimed to study the understanding of the OBE concept among the faculty members of Higher Education Institutions in the state of Rajasthan. The data from 301 faculty members was collected using a survey questionnaire & the understanding of the concept was tested using T-test. The results of the test were statistically significant at p-value (0.000) which is < 0.05 indicating a lack of understanding of OBE. The test results for the relationship between understanding & gender observed that there was no significant difference in the understanding of OBE on the basis of gender, $p=0.064$. Based on the data it can be concluded that both male & female faculty members have almost similar levels of understanding of OBE.

The results of the study indicate a need for continuous training of faculty members to keep them updated on the concept & train them on OBE for proper implementation of the concept in HEIs, Laguador, J. M., & Dotong, C. I. (2014). For education to achieve its goal it is essential that teaching curricula and academic goals should be formed according to the needs, demands and ambitions of a given student population and educational context in order to strengthen students' motives and ensure active participation in the learning process, Aida R. Nurutdinovaa et al (2016). Much needs to be done to achieve the goal of OBE understanding by the faculty as they would serve as the guiding factor for educating the students & other stakeholders about the concept & its impact as the change driver to enhance quality of education & make our students industry ready when they pass out of HEIs across the state. Similar studies can be conducted for other states or pan India to understand the level of understanding & implementation of OBE.

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Study on Cash Flow Management: With Reference to Bharat Heavy Electrical Limited, Haridwar

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ABSTRACT

Cash flow management is the corporate process of collecting and managing cash, as well as using it for (short term) investing. It is a key component of insuring a company's financial stability and solvency. In business anything done financially affect eventually, cash is the crucial for ever business, every company has to have cash on hand or at least access to cash in order to be able to pay for the goods and services it uses and consequently, to stay in the business as on simple it can be said that the company has to viable of managing its day to day operation. Cash movement in a business is two-way traffic. its keep on moving in and out of business. The inflow or outflow of cash never coincides, the cash management is one of the effective tools to maintain and manage the cash which is the king of business. Cash management can be effectively done using various cash management techniques which is in practice. working of various cash management techniques like cash flow synchronization, speeding up collection controlling payments, cash flow forecasting and etc. important aspect which is unique to cash management is time dimension associated with the movement of cash the primary aim of cash management is to ensure that there should be enough cash availability when the needs arises, not to much but never to little.

Introduction

Managing cash flow is a fine art. Especially in these tough times, you have to carefully watch the flow of cash in and out of your practice. Good cash management assures the life of your practice; you will have the cash on hand when you need it. However easy to state, it is difficult in application, as we have seen with so many businesses tottering on the edge of bankruptcy. Accordingly, this session is aimed at getting at the basics of cash flow management for a small practice. If you don't already have an accountant to act as an advisor and a part-time bookkeeper to keep your financial records in good shape, I would recommend that you shop around and find one of each that are recommended by other lawyers who have successful small practices. I have seen many lawyers try to keep

their financial records and postings themselves; the (relatively) small amount of money that you spend on a part-time bookkeeper familiar with your accounting system and your practice will be money well spent. They will keep you on top of deadlines and draw potential problems to your attention before they become big problems. Furthermore, they will free you to do what you do best - practice law - while they do what they do best - keep your financial books in proper form. I am asked many times by lawyers to advise them on the cheapest accounting system they can buy. Oftentimes, I spend an hour explaining to them that a proper integrated (general, trust and practice management) legal accounting system will pay for itself many times over in just the first year by allowing them to not only report on required historical results but also allow you to forecast your goals in financial terms and track your progress in real time. That kind of power is invaluable and can make the difference between being successful and just getting by. What can a proper financial system tell you? Greater detail is in the full article, but a good system can provide you with the ability to:

- Set a budget (which is a forecast of your income and expenses) and track your progress towards meeting your goals of keeping expenses in line and achieving your income expectations.
- Determine your cost of providing an hour's worth of services. We all know what hourly rates lawyers are charging; without any analysis of what it costs you to render an hour's worth of services you have no idea of where your break-even point is on a file – and whether or not you can benefit by moving to fixed-fee quotes.
- Determine if your timekeepers are recording their time accurately, writing off excessive amounts of time or achieving a businesslike and acceptable realization rate.
- See if your accounts receivable is ballooning and if so, why.
- Create a good 'dashboard report' that allows you to see the financial workings of your firm and in particular, how the finances of the firm are matching your expectations (see the full article for a suggested dashboard report). Early warning of a problem(s) can allow you to take action – now – before you are facing a financial crisis.

Review of Literature

R.N JOSHI 1997- CASH MANAGEMENT: PERSPECTIVE, PRINCIPLE & PRACTICE: - R.N JOSHI describe basic tenets of cash management are:

Optimum Utilisation of Operating Cash Flow-Rapid generation, efficient utilisation and effective conservation of cash resources.

Cash Forecasting- Genesis of forecasting formatting and preparation of short and long term cash budgets.

Cash Management Techniques- Accelerating cash collections and decelerating cash payments for exploiting scarce resource to the maximum.

Liquidity Analysis - efficient utilisation of cash in a business so as to plateau the liquidity at the optimum level.

Profitable Development of Surplus Cash- Remunerative parking of focus in short term slots.

Economical terms- Rising of funds both long-term and short-term at most economical term. These tenets have been explained lucidly in various chapters takes into account theoretical and practical aspects of the assigned topic by considering both the associated principles and practices.

STEVEN M. BRAGG- CORPORATE CASH MANAGEMENT - Writer capture methods for collecting and disbursing cash, also characteristics of the major cash concentration systems. It also investigates ways to improve flow, and how to raise funds from debt and equity. There is extensive coverage of risk management related to the variability of foreign exchange and interest rates, as well as controls and measurements required for a cash management system.

Research Methodology

The Research Methodology is a way to systematically solve the research problem. The research methodology included various methods and techniques for conducting a research. "Marketing Research is a systematic design, collection, analysis and reporting of data and finding relevant solution to a specific marketing situation or problem."

My research project has specified framework for collecting the data in an effective manner. Such framework is called "Research Design." A research design serves as a bridge between what has been established i.e. the research objectives and what is to be done, in conduct of the study to relish those objectives. If there were no research design, the research would have only foggy notions as about what is to be done.

Features of the Research

- Research originates with a questions or problems.
- Research requires a clear articulation of a goal.
- Research follow a specific plan of procedure.
- Research usually divides the principle problem into more manageable such Problems.
- Research is guided by specific research problem questions and hypothesis.
- Research accept certain critical assumption.
- Research require the collective and interpretation of data in attempting to resolvr the problem that initiated the research.

The research process which was followed by me consisted following steps:

Definition of the Problem & Research Objectives

It is said, "A problem well defined is half solved." The step is to define the project under study and decline the research objective. The definition of problem includes cashless economy and bottleneck in Indian society.

The objective of the study is to understand: what are people's concerns and preferences in cashless payment.

Data Collection

Primary Data- Depending upon the nature of problem primary data can be collected through various methods in this study personal interaction with senior official of bank to know about the performance were conducted.

Sample Technique

Questionnaire Method- A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents.

Sample Size

58 people

Unit of Analysis

Local people

BHEL employees

Findings

- From the balance sheet of the company we can say that reserve or provision of the company is also good. It will be consumed by the company in case of emergency.
- I found from the balance sheet of the company that mostly cash transaction is to be done by the company.
- The ratio analysis of the company gives data that there is scarcity of the cash in the company because quick ratio and current ratio of the firm is less as compared to the previous year.
- Net profit Ratio of the firm is also decreased in the current year as compared to the previous year. So, we can say that profit of the company is also decreased in current year.
- Current ratio of the company is also decreased in the current year as compared to the previous year. it indicates that it ability to pay short term debt is less in this year 2015-16.
- Cash ratio of the company is greater in the current year as compared to the previous year So, Company has maintained enough cash balance in the company to pay its short term liability.

Recommendations & Suggestions

Although, the company is using cashless system very efficiently still there is scope of improvement.

The company should minimise its paper work in order to save paper.

Study on Cash Flow Management: With Reference to Bharat Heavy Electrical Limited, Haridwar

It should upgrade its technology and software of accounting which will be very helpful in reducing unnecessary task.

Usage of cash should be reduced to completely change itself into cashless system.

Employees should be given training to use the new system.

Workshop and seminars should be conducted about how to make new cashless system applicable in the company.

Employees suggestions and grievances should be handled and taken care of so as to get better understanding where the lacking is and how it can be solved.

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Journals

Annual report 2016-17 of Bharat Heavy Electrical Limited

Cryptocurrency technology: Prospects in the success of different organizations

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ABSTRACT

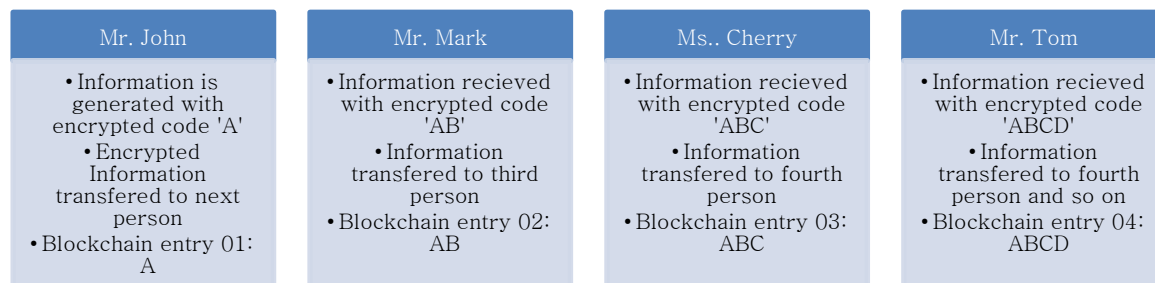
Evolution of cryptocurrency brings all new dimensions of doing banking, but with time and experience we are now trying to implement its fraud free and error free technology in many other non-banking sectors like Government bodies, Corporates, Educational bodies, Charity firms. and few others too. If blockchain technology used in cryptocurrency is infused in organizations, then it can influence productivity and efficiency directly. In this article the technology behind the cryptocurrency is discussed. The paper will also focus about the prospects in organizations.

Introduction

In this paper we will discuss benefits of blockchain technology implementation in some fields. Though it can be applied in any field of concern but we will give focus only on few fields of its application. Blockchain came forward after a success of cryptocurrency worldwide. It attended attraction of many industries like real estate [1], utilities [2] and government sector [3]. It is a technology which adds many benefits to cryptocurrency. With a time, we start learning that we can use this fraud free and incorruptible blockchain technology into many fields like administration, banking, education, distribution, research, social media etc.

What is blockchain

Block chain and its working is very well explained here [4]. Blockchain in layman terms. can be explained as a digital ledger which records transactions, it can be financial or any other kind of information but necessary to be in digital form only.



For example, in above chart if we have to investigate the information in blockchain of entry no.03 which represent code 'ABC'. We can easily identify who is the owner of information, from where it passed, who all previous owners of information were, what is the flow of information? How many hands the information is exchanged and who the initial owner of information is? As per above chart we can retrieve that holder of current information 'ABC' is Ms.Cherry. This information is exchanged between two more persons i.e. Mr. John and Mr. Mark before reaching Ms.Cherry. This information was initiated by Mr. John. We can also retrieve precise time and date of each entry.

Why blockchain is impossible to corrupt

Benefits of this system are that it is decentralize database and it is impossible to corrupt all databases at same time. This database/blockchain is encrypted in nature and need very sophisticated technology to break it. Database is shared by many servers worldwide which are updated at each second. Any transactions or exchange is updated on this digital ledger/blockchain on all servers simultaneously in fraction of seconds. If anyone somehow successfully hack this encrypted information system at one server and proceed to make changes in blockchain then the system will cross verify the entry with other servers and nullify the transaction as it doesn't match with ledger/blockchain on other servers which are updated on seconds. In process to hack the encrypted system one need to hack all encrypted servers at same second which is practically impossible to do even for any supercomputing machine. Technically one second to do this horrendous task is impossible.

Now we will discuss merits of blockchain in fields other than cryptocurrency.

Safeguard the proprietary rights

In today's digital world millions of GB data is exchanged on internet every day. Data can be in form of pictures, videos, word file, PPTs, articles etc. After implementation of this technology on internet it will be very difficult for anyone to copy and share content without giving credit to its real owner. This way ownership of content can be restored forever. Photographs by amateur and professional can be easily copied, pasted and shared by any user, this way blockchain technology will stop any unauthorized use of pictures. Any digital content will carry encrypted code along with it and it can never be separated from content.

No Plagiarism

Research scholar's work cannot be copied or shared by anyone without citing its writer. Plagiarism will be no longer possible to carry. This will bring internet and content over internet more genuine and original. Research field will be more refined, hardworking researcher will always get recognition for their work.

Use of Block in chain in Human Resource

Human resource plays a vital role in functionality of any organisation. Candidates and working professionals often pass on false information on their records at time of

selections of new roles or new jobs. To avoid this HRs can maintain centralized record keeping ledger but decentralise in information sharing, this record keeping will be encrypted and digital in nature. Through blockchain organisations can keep updating employee records, performance and other merits and demerits time to time. This information is encrypted, fraud free and cannot be modified by candidates or employees. Through it HR can keep and pass on the authenticity of employee records. While checking the background of candidate HR has to go through references or have to hire third party for physical verification of records which is time consuming and information may get influenced but through blockchain records HR can get incorruptible information. It is impossible for individual to corrupt or modify their information. This use of technology in HR will save a lot to organisation in terms of money, time and resources. Organisations will grow more steeply with adoption of this technology.

Use in Government Schemes

Since government does not represent a single individual but a collection of individual and agencies with common duty of serving their duties. Being too many individuals and too many departments involved in its functionality, it is very difficult to detect corruption and many other immoral activities in various government schemes. Through application of blockchain we can easily track down the transactions, its initiation points, inter mediatory points and to its final beneficiary. We can even track down where the beneficiary of scheme holder is spending the benefits. This will bring more transparency in distribution of government schemes.

Use in Government property keeping records

Property is considered to be tax haven asset. Black money are parked easily in property. If land record department and revenue department can implement blockchain technology in property and land ownership records then it will be much easier to track down property from its initial land owner to its present ownership. If any disproportions found in records of any owner then concern department can cross check the monetary worthiness of owner through banking blockchain. This way we can weed out the fake ownership and it will be more difficult for black money holders to park their wealth in property. Implementation of this will bring down the property demand and property will be more affordable and accessible to common man.

Tracking social media fake news, misinformation and rumors

Nowadays everyone is connected to everyone because of social media. But this connection also opened a door of misinformation, rumors, and fake news by miscreants. Through technology of information blockchain we can easily track down the origin of information. This will stop anyone from sharing any misinformation or fake news over internet. This will also stop individual on sharing any inappropriate information over social media. This will clean social media and will serve its real purpose of being connected.

Conclusion

With all above discussion of possibility of usage of blockchain in different fields it is clear that this part of technology will take over future with more reliability and efficiency. This blockchain technology will change our economic and social infrastructure completely. Benefits of this technology are endless.

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A Comparative Study of Factors Affecting Organizational Citizenship Behavior of Employees in Few Selected Sectors with Special Reference to Chennai (Tamil Nadu)

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ABSTRACT

Organizational Citizenship Behavior (OCB) is a term that means anything positive and constructive activity that employees do, of their own interest, which supports the co-workers and benefits the company by increasing the performance. OCB is one of the most crucial factors that influence the effectiveness of an organization. The success of any organization depends on how far the employees are willing to engage themselves in OCB. Earlier studies have shown various outputs and analysis about the factors affecting OCB based on specific sectors like IT, Banks, Education etc... The present study is under taken by the researchers in order to determine, understand and compare the organizational citizenship behavior of employees in relation to the factors affecting it in various fields or sectors of business such as Manufacturing, Hotel, Banking, Education, information technology, etc. with special reference to Chennai

"Are 'Good Employee' traits always quantifiable in performance appraisals, or is there something more to consider"

Experteer Magazine 2 Oct 2014

Introduction

Every organization wishes to be successful. Success of an organization mainly depends on its organizational goals. Organizational goals are strategic objectives that help the organization in directing and engaging its employee's efforts in achieving the desired results. It is commonly believed that success of an organization is dependent on willingness of its employee in engaging themselves in OCB. Employee plays two roles 1) in-role and 2) extra- role performance. In role refers to results related to job like sales target achieved, increase customer base where as extra role refers to performance of employee beyond job description. Such employee behavior includes extending help to co-worker, taking leave in case of need only, housekeeping behavior, taking good care of organizational property, not participating in arguments, not finding fault on others or complaining about things that are not significant. These are few intangible or non-quantifiable behaviors some employees bring inside an organization. There are research results to believe that employees who work beyond job description do add to organizational effectiveness. (Organ, Podsakoff& Mac Kenzie 2006) ⁽¹⁾. The term Organizational citizenship behavior (OCB) since 1980's has undergone slight revision. But the meaning remains the same at its core. According to Turnipseed ⁽²⁾ "OCB includes pro-

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social behavior, including helping others, innovating, volunteering and the lack of undesirable behavior. OCB is Individual Behavior that is discretionary not directly or not directly recognized by the official reward system and that in the collectively promotes the successful functioning of the organization. D.W. Organ ⁽³⁾

Review of Literature

Subrahmanian Muthuraman & Mohammed Al-Hazi (2017)⁽⁴⁾ in the research paper on “Examining the Factors of Organizational Citizenship Behavior with Reference to Corporate Sectors in Sultanate of Oman” focused and studied about the extent in which employees exhibit OCB. Primary data was collected through a structured questionnaire from 91 employees of different sectors from Muscat city on factors such as Altruism, Sportsmanship, Civic Virtue, and Conscientiousness. Results of the study revealed that there is a positive relationship between factors and the OCB.

Mohammad Shahidul Islam & Saima Akter Farjana Afroz (2015)⁽⁵⁾ in there research paper on “Factor Affecting Organizational Citizenship Behavior of Corporate Sector in Bangladesh” as brought out the factors determining OCB. The study has also suggested policy guidelines by developing a conceptual model on OCB. Data for the study is been collected personally by the researcher through a structured questionnaire with 27 statements from 36 executives of different corporate sectors. The results of the study show that Organizational Loyalty is the first key factor that leads OCB among corporate sector in Bangladesh followed by Altruism and civic virtue. The authors have also concluded saying that if employees participate in activities that are not compulsory for them to take part will result in organizational growth and will create a pleasant work place for employees.

T. Shobana Thulasi & Dr. A. Geetha(2015)⁽⁶⁾ in there analytical research paper on “A study factors influence on organization citizenship behavior in corporate sector” as focused on studying the relationship between influences of various characteristics and organization citizenship behavior. Primary data is been collected by the researchers through convenient sampling method from 250 employees working in Chennai corporate sectors. The results of the study showed that there is positive influence between OCB and individual, organizational and leadership characteristic. OCB is important for successful functioning of an organization. It increases the morale of employees.

Omer Faruk Unal (2013)⁽⁷⁾ in his study on “Relationship between the dimensions of organizational citizenship behavior and the facets of job satisfaction” in few companies at turkey states that job satisfaction has several impact on scope of OCB and each aspect of job satisfaction do not predict each of the dimensions of OCB.

Mario Martinez (2012) ⁽⁸⁾ in his dissertation on “What Factors are Associated with a School’s High Level of Organizational Citizenship Behavior? The Case of a Middle School Staff that Goes Above and Beyond” focused on identifying factors of OCB present at middle school. The researcher used a mixed method research called sequential explanatory. 14 teachers and principal were interviewed to know the factors that helped in promoting OCB. The results of the study showed teachers those exhibited OCB teaching improved, were able to make difference in student’s lives, because of them school environment improved, students enthusiasm and achievement increased and teachers were satisfied with their jobs.

Dr. Jai Prakash Sharma, Dr. Naval Bajpai, Prof. Umesh Holani (2011) ⁽⁹⁾ in the article on “Organizational Citizenship Behavior in Public and Private Sector and Its Impact on Job Satisfaction: A Comparative Study in Indian Perspective: brought out that Organizational

Citizenship Behavior is vital for increasing job satisfaction. OCB is greater with employees working in public sector in comparison to private sector employees.

Podsakoff, Whiting, Podsakoff & Blume, (2009)⁽¹⁰⁾ in the research paper on ‘Individual- and Organizational-level consequences of organizational citizenship behavior : A meta-analysis’ stated that organization that encourages its employees in engaging in OCB will be benefited in terms of less absenteeism, attrition, cost, increased satisfied customers.

Bukhari Z.U (2008) ⁽¹¹⁾ in his research paper on “Key Antecedents of Organizational Citizenship Behavior (OCB) in the Banking Sector of Pakistan” stated that Altruism, Conscientiousness, and Civic Virtue three antecedents of OCB have significant positive relationship with OCB in the Banking Sector of Pakistan.

Statement of the problem

Every employee joining an organization faces certain problems initially due to new environment once they work for some time in an organization due to their experience employee’s start feeling comfortable and show OCB. OCB is a type of discretionary behavior which is not recognized or rewarded in formal organizational structure. But the known and accepted fact is that it is very important for the success and effectiveness of an organization. It helps in promoting teamwork, eases communication between superiors and subordinate relationship, reduces attrition and helps in employee retention. Based on going through the existing literature on OCB, the researchers found that there are research studies been conducted on factors influencing OCB in different sectors like Bank, Education, Information Technology and Hospital. This paper focuses on making a comparative study on factors influencing OCB in few selected sectors.

Objectives of the study

- To understand more about organizational citizenship behavior and the factors influencing it.
- To make a comparative study on factors influencing OCB sector wise

Limitations of the Study

- Research is conducted in the Chennai City only
- Sampling method adopted is convenience sampling

Research Methodology

Research Design - This is a descriptive study. To make a comparative study of factors influencing the OCB Primary data were collected with the help of structured questionnaire which was administered among middle level employees of few selected sectors like Education, IT, Bank, Hospital and manufacturing. Secondary data were collected from books, articles, research papers and other online sources.

Sampling Design - Convenient sampling method was adopted to collect the data.

Sample Size - Around 250 questionnaires were circulated with a covering letter 146 responses were received out of which 100 responses was used for research analysis after

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deleting questionnaires not filled completely and biased responses. Sample size of the study was 100.

Data Collection Method – The Data collected was a primary data i.e. it was collected for the first time for a specific purpose. Data collection was restricted to Chennai city only. Around 250 questionnaires were circulated via family and friends.

Statistical Tool– Statistical tools refer to those methods or techniques through which a data is processed and information is obtained. The statistical analysis gives meaning to the meaningless numbers (data that is collected) and there by adds value to the data. The statistical tools used here are Cronbach α reliability test, KMO and Bartlett's Test, factor analysis and average analysis.

Factor Analysis- Factor analysis is a technique that is used to reduce a large number of variables into fewer numbers of factors. This technique extracts maximum common variance from all variables and puts them into a common score. In these 29 statements were grouped into seven factors based on the common variance, the following were the 7 factors Integrity, courtesy, sincerity, morality, thoughtfulness, extra role behavior and altruism.

Average Test or Mean- Average or mean, means something that represents a middle point. Average is obtained by dividing the sum total of a set of figures by the number of figures.

Analysis and Interpretations

Here we have used two different tests and statistical tools to do our analysis and interpretations. Factor Analysis and Average or Mean test. The following table consists of a list of statements used in the study to find out the OCB of employees in an organization.

TABLE 1

Statements used in the study

Variables	Statement
ocb1	Helping colleague, when he/ she is in trouble.
ocb2	Always ready to help.
ocb3	Going to help others
ocb4	Helping others even when busy
ocb5	Co-operative towards new entrants
ocb6	Keep organization clean
ocb7	Proper utilization of organizational resources
ocb8	Attending non- compulsory meetings after work
ocb9	Adhere to organizational rules and regulations
ocb10	Understanding others problem

ocb11	Release employee stress
ocb12	Consistent results towards organization
ocb13	Responsible attitude
ocb14	Friendly and lively attitude towards employees
ocb15	Updated with employees performance
ocb16	Utilize space time by increasing knowledge
ocb17	Follow organization's working procedure
ocb18	Appreciate constructive ideas of subordinate
ocb19	Helping other colleagues
ocb20	Acting proactively
ocb21	Loyal towards my organization
ocb22	Sense of belongingness
ocb23	Working above expectations
ocb24	Team work
ocb25	Encourage peers to follow organizational policies
ocb26	Remain committed towards organization
ocb27	Keeping personal and professional differences
ocb28	Active participation in extracurricular activities
ocb29	Committed towards the organization

Reliability Test

TABLE 2

Reliability Test for statements used in the study

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.943	0.945	29

Source – Primary Data

The scale of measurement was tested using Cronbach's α reliability test where the result was found out to be 0.945 which is considered a satisfactory level of reliability.

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Factor Analysis

KMO and Bartlett's Test

TABLE 3

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.638
Bartlett's Test of Sphericity	Approx. Chi-Square	2608.068
	Df	406
	Sig.	0.000

KMA and Bartlett's Test results

KMO (Kaiser-Meyer-Olkin) recommends that value greater than 0.5 as acceptable and Bartlett recommends that the accepting value is less than 0.05. Since the accepting value for variables is 0.638 (which is more than 0.5) for KMO and 0.000 for Bartlett' test (which is less than .05), these measures indicate that the set of variables chosen is appropriate for factor analysis and the analysis can proceed for next stage.

Factor Table

After interpreting the data and results from the rotated matrix in factor analysis the statements were combined and distributed through seven factors.

TABLE 4

Statements under each factor

Factor Number	Factors	Factor Loading	Name given to the factor
1	Consistent results towards organization	.690	INTEGRITY
	Responsible attitude	.638	
	Updated with employees performance	.606	
	Acting proactively	.760	
	Loyal towards my organization	.842	
	Sense of belongingness	.460	
	Encourage peers to follow organizational policies	.792	
	Committed towards the organization	.830	
2	Always ready to help.	.743	COURTESY
	Going to help others	.835	

	Keep organization clean	.726	
	Appreciate constructive ideas of subordinate	.601	
3	Adhere to organizational rules and regulations	.691	SINCERITY
	Utilize space time by increasing knowledge	.715	
	Follow organization's working procedure	.536	
	Helping other colleagues	.586	
4	Friendly and lively attitude towards employees	.766	MORALITY
	Working above expectations	.614	
	Team work	.456	
	Active participation in extracurricular activities	.597	
5	Helping colleague, when he/ she is in trouble.	.710	THOUGHTFULNESS
	Co-operative towards new entrants	.689	
	Keep organization clean	.757	
6	Proper utilization of organizational resources	.923	EXTRA ROLE BEHAVIOR
	Remain committed towards organization	.467	
	Keeping personal and professional differences	.859	
7	Attending non- compulsory meetings after work	.619	ALTRUISM
	Understanding others problem	.394	
	Release employee stress	.554	

Factor analysis results

Integrity Factor

This factor provides the quality of being honest and having strong moral principles. Therefore it includes these statements - ocb12, ocb13, ocb15, ocb20, ocb21, ocb22, ocb25 and ocb29. This may be identified as '**Integrity Factor**'.

Courtesy Factor

This factor shows the politeness in one or of one's attitude and behavior towards other people in the organization. Therefore it includes these statements - ocb2, ocb3, ocb6 and ocb18. This may be identified as '**Courtesy Factor**'.

Sincerity Factor

This factor is a mix of honesty and seriousness. It is the quality or state of being sincere i.e. Honest of mind and freedom from hypocrisy Therefore it includes these statements - ocb9, ocb16, ocb17 and ocb19. This may be identified as '**Sincerity Factor**'.

Morality Factor

This factor consists of principles concerning the distinction between right and wrong or good and bad behavior. Therefore it includes these statements - ocb14, ocb23, ocb24 and ocb28. This may be identified as '**Morality Factor**'.

Thoughtfulness Factor

This factor looks after considering the needs of other people keeping in mind others comfort via generosity, kindness, safety etc. Therefore it includes these statements - ocb1, ocb5 and ocb6. This may be identified as '**Thoughtfulness Factor**'.

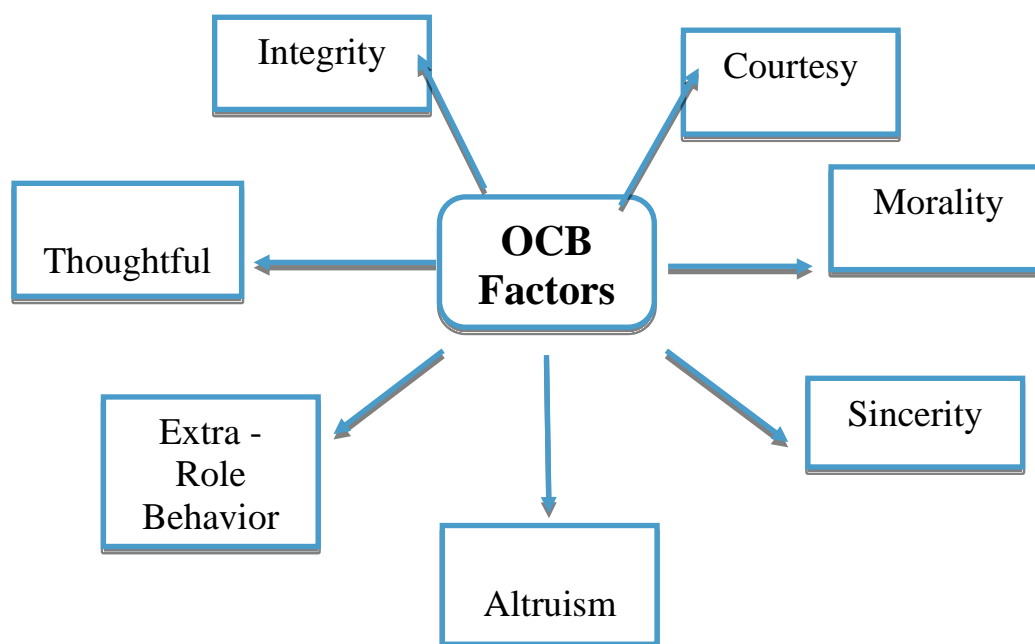
Extra-Role Behavior Factor

This factor is concerned with the consent of an individual to behave beyond the formal lines of a role expectations and work for the benefit and effectiveness of the organization. Therefore it includes these statements - ocb7, ocb26 and ocb27. This may be identified as '**Extra-Role Behavior Factor**'.

Altruism Factor

This factor deals with willingness to do things that bring advantages to others, even if it results in disadvantage for self. It is an unselfish concern for other people's happiness and welfare Therefore it includes these statements - ocb8, ocb10 and ocb11. This may be identified as '**Altruism Factor**'.

Factor Chart



Average Test

TABLE 5

Average test results of the factors in relation to the sectors

Sectors	Factors						
	Integrity	Courtesy	Sincerity	Morality	Thoughtfulness	Extra role behavior	Altruism
IT	3.98	3.94	4.02	4.19	4.37	3.96	3.55
Manufacturing	4.63	4.02	4.18	4.26	4.4	4.51	3.27
Banking	4.39	4.04	4.17	4.3	4.53	4.56	3.86
Education	4.56	4.4	4.59	4.5	4.72	4.72	4.28
Hospital	4.55	3.94	4.38	4.25	4.26	4.52	3.7

Source – Primary Data

TABLE 6

Table showing the Highest and the lowest sectors influenced by the factors

Factor	Highest	Lowest
Integrity	Manufacturing	IT
Courtesy	Education	IT and Hospital
Sincerity	Education	IT
Morality	Education	IT
Thoughtfulness	Education	Hospital
Extra role behavior	Education	IT
Altruism	Education	Manufacturing

Source – Primary Data

Through the above table we can conclude that the presence of Integrity factor is highly present in the manufacturing sector while the factors courtesy, sincerity, thoughtfulness and altruism are highly present in the education sector.

In the IT sector the presence of factors like integrity, courtesy, sincerity, morality and extra role behavior are very low whereas factors courtesy & thoughtfulness are low in the hospital sector and altruism factor is low in the manufacturing sector.

Banking is the only sector where OCB lies between courtesy, sincerity, morality, thoughtfulness and extra role behavior factors.

TABLE 7

Factors prevailing the most in the sectors

Sectors	Highest	Lowest
IT	Thoughtfulness	Altruism
Manufacturing	Integrity	Altruism
Banking	Extra role behavior	Altruism
Education	Thoughtfulness & Extra role behavior	Altruism
Hospital	Integrity	Altruism

Source – Primary Data

Through this table we can conclude the various factors that dominate in an industry and the factors that do not or have less influence/ controlling power in an industry.

Thoughtfulness factor is dominant in IT and education sector, where as extra role behavior factor is dominant in banking and education sector and integrity factor, is dominant in manufacturing and hospital sector.

Altruism factor is the least un-controlling factor in the IT, manufacturing, banking, education and hospital sectors.

Findings and Conclusion

- This research work contributed to the existing literature review on OCB by studying the various factors in different sectors in Chennai.
- The results of the study indicate that factors play important role in influencing OCB. Factors influencing also varies from sector to sector. In general, the result of this study gives an idea to the different sectors top management to adopt techniques that will increase the OCB.
- Through Factor analysis we found out that the OCB of individuals revolves around seven factors. These seven factors are Courtesy, Altruism, Integrity, Sincerity, Morality, Thoughtfulness and Extra role behavior.
- With the help of TABLE 5 we can see the relation of the sectors with the various factors involved

- Altruism factor is the least un-controlling factor in the IT, manufacturing, banking, education and hospital sectors.
- In future study relating to various other variables such as Age, Gender, Marital status, Work experience influence on factors influencing OCB on different sectors can be conducted.

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Impact of Service Quality on Customer Satisfaction: Evidence from Boiler Water and Cooling Tower Water Treatment Chemical Industry in Sri Lanka

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ABSTRACT

Boiler water and cooling tower water treatment chemical industry is one of the markets where high competitive rivalry exists. Therefore, increasing the market share even by a very small percentage is a considerable challenge. Also, retaining the existing customers is a difficult task since the bargaining power of the buyer is high in this market. Therefore, operational cost that has to be borne by the supplier to retain their customers is a considerable cost. Hence, it is important to identify the factors that affect the customer satisfaction in this particular industry since it will enable to make decisions on how and to what extent that investment should be made to enhance the customer satisfaction and thereby increase the market share. This study is dedicated to understand the relationship between the service quality and customer satisfaction in the above mentioned industry. A customer feedback survey was carried out using a standard questionnaire distributed among 50 customers who contribute more than LKR80,000 per year to the revenue of XYZ company. The SERVQUAL model was used to measure the service quality. After data was collected and treated with statistics, it revealed that there is a strong positive relationship between the service quality and customer satisfaction. And the five dimensions of the service quality also have relationships with the customer satisfaction independently.

Introduction

This study was carried out to obtain an insight on the impact of service quality on customer satisfaction in the boiler water and cooling tower water treatment chemical industry in Sri Lanka. Customer satisfaction can be defined as the extent to which a product's or services' perceived performance matches a buyer's expectations (Kotler P, Armstrong G, 2005,p.41). A highly satisfied customer will be a loyal customer who will pay less attention to the competitors, spread positive word of mouth regarding the products and services, provides constructive feedback to improve the performance of the products and services and be less price sensitive. Since the transactions are routine, the cost of services will be less, compared to a new customer. Moreover, high customer satisfaction creates a bond between the customer and the product or service provider. (Hoffman K.D, Bateson J,E,G. 2008. p. 146). The significance of customer satisfaction is that it is considered as a driving force for

many companies. (Manani, Nyaoga, Bosire, Ombati and Kongere, 2013). For an example, customer satisfaction is considered as the essence of success in the highly competitive aviation industry. Hence, to survive in an industry which is highly competitive, a company has to develop strategies that will enhance the customer satisfaction. (Masarrat and Jha, 2014)

According to Peter Babich's customer satisfaction model, if a company has a higher customer satisfaction rating it will have more resistance towards the efforts made by its competitors to increase their market share (Hoffman K,D. Bateson J,E,G. 2008, p. 301). Also, to gain a new customer, a company has to spend five times more than the amount that should be spent to satisfy and retain an existing customer. Depending on the industry, a company can increase profits from 25 percent to 85 percent by reducing the customer defection rate by 5 percent. Moreover, the customer profit rate of the retained customers will increase over time (Kotler P. 2003)

Usually, customers will evaluate each and every benefit and cost offered to them with the alternative offers. The offer that will deliver them the highest perceived value will be accepted. The difference between the cost benefit evaluations of an offer perceived by the customer with alternative offers is considered as the customer perceived value. Furthermore, the perceived monetary value of the functional, economical and psychological benefits that a customer seeks in a given offer is known as the total customer value. Moreover, the costs that a customer expects in the process of evaluation, obtaining, using and disposing of an offer in terms of money, energy and time is known as the total customer cost. Thus, the total customer value can be increased by providing more functional or emotional benefits to the customer and by reducing one or more costs that contributes to the total customer costs. (Kotler P, Keller K.L. 2006.p. 141)

Service quality can be considered as a critical success factor which can impact the competitiveness of an organization (Masarrat and Jha, 2014). Services can be defined as deeds efforts or performances. Service quality is defined as an attitude formed considering a long-term overall performance evaluation of a company. Service quality gap is the difference between the expected level of service and the perception of the actual level of service delivered. (Hoffman K.D, Bateson J.E.G, 2011, p. 321). The ultimate target of a company is to close the service gap by attempting to narrow or eliminate the knowledge gap, standards gap, delivery gap and the communication gap. Parasuramen explained that using technology will help to enhance the service quality of the companies which in turn will enable them to create their competitive advantage (Manani, Nyaoga, Bosire, Ombati and Kongere, 2013). Service quality is considered as a critical success factor that has an impact on the competitiveness of an organization (Masarrat and Jha, 2014). As explained by Masarrat and Jha, providing high quality service enables an airline to differentiate itself from competitors.

In many industries where steam is used, boilers are considered as vital machinery. Also, where central AC systems are present and many other applications of chiller lines are present, cooling towers are considered as important systems. Garment industry, tea industry, desiccated coconut mills, rice mills, tire industry, food industry and activated carbon industry are some of the industries that use boilers for steam generation. Also, high pressure boilers are used in power plants where pressurized steam is used to rotate the turbines.

Sri Lankan customers most of the time selects a product with low price since they are price sensitive. Thus, even if the branded, value added products provides extra protection to the metal surfaces of the boilers and chillers, it is very difficult to convince a customer to buy these products due to high price. In order to convince a customer, there will be the necessity of carrying out trials providing free samples or

with a considerable amount of discount which in turn will add up to a significant amount of promotional cost. Hence, retaining an existing customer is very important since it is a significant saving. Special offers such as significant discounts for the initial couple of months, free on-site trials, free investigations of the boiler or the cooling tower to identify their maintenance issues, free after sales services and free deliveries are given to entice prospective customers. These contribute a significant amount of value to the sales and distribution cost.

Moreover, the after sales services such as monthly visits to the sites and performing free chemical testing to monitor the quality of water, softener plant services and technical consultancy provided to the customer has a considerable impact on building a long-term relationship with the customer. Therefore, it is important to explore the relationship between service quality and customer satisfaction in the boiler water and cooling tower water treatment chemical industry in Sri Lanka. Furthermore, by examining the dimensional perspective of service quality and customer satisfaction in this particular industry will enable the companies to identify their gaps in service quality and how these gaps will impact on their customer satisfaction which in turn will influence their revenue.

Also, to measure the service quality the SERVQUAL scale is used which has five dimensions such as tangibles, reliability, responsiveness, assurance and empathy as suggested by Parasuraman et al. (1988). Boiler water and cooling tower water treatment chemical market has a high competitive rivalry since the customer bargaining power is high, switching costs between the competitors are low, price war between the competitors are high, entry and exist barriers to this market are low and the competition between the competitors are intense due to the fact that they are approximately equal in size. Also, threat of substituents and the threat of new entrants increase the competitive rivalry in this market. Thus, customer satisfaction cannot be increased by merely reducing the price which also will have a significant impact on the profits.

Problem Statement

Research regarding service quality and its impact on customer satisfaction is a research area where ample amount of studies has been conducted. Most of them are carried out in airline industry, banking industry, restaurant industry, telecommunication industry, health services, public services and education industry using the SERVQUAL measurement approach developed by Parasuraman, Zeithaml and Berry (1988) that consists of 22 items to measure service quality. Yet, there is no evident of a study that has been carried out to understand and determine the relationship between the service quality and customer satisfaction in the boiler water treatment and cooling tower water treatment chemical industry in Sri Lanka. Also, any research materials related to the application of SERVQUAL method to boiler water and cooling tower water treatment chemical industry are not available. Hence, the findings of this study will be useful to the companies that are in this business to obtain important facts that will enable them to identify and understand the need of developing strategic capabilities to sustain in this industry which has a high competitive rivalry in the market.

Thus, the research problem of this study is,

What is the relationship between the service quality and customer satisfaction in the boiler water treatment and cooling tower water treatment chemical industry in Sri Lanka?

The following are the research objectives of this study.

- a. To determine the relationship between service quality and customer satisfaction in the boiler water treatment and cooling tower water treatment chemical industry in Sri Lanka.
- b. To study the dimensional perspective of service quality and customer satisfaction of boiler water treatment and cooling tower water treatment chemical industry in Sri Lanka.
- c. To investigate the significance of service quality factors that contribute to the customer satisfaction in the boiler water treatment and cooling tower water treatment chemical industry in Sri Lanka.

Literature Review

Customer satisfaction can be defined as a comparison of customer expectations to perceptions regarding the actual service encounter (Hoffman, K, D. Bateson, J,E,G. 2011. P.289). Expectancy disconfirmation model helps marketers to compare customer expectations with their perceptions. According to this model, the customer is satisfied if the customers' perceptions meet expectations. In other words, the expectations are considered to be confirmed. On the contrary, the expectations are considered to be disconfirmed if the customer perceptions are not equal to the expectations. When actual perceptions are less than the expected a negative disconfirmation will occur. And it will give rise to customer dissatisfaction which in turn result customer attrition and negative word of mouth. If the perceptions exceed the expectations a positive disconfirmation will occur and the customer is satisfied. This in turn results customer retention and positive word of mouth. Although there are instances where some service providers feel that certain customers are difficult to satisfy and make unreasonable demands, there are ample amount of benefits that a company is bound to receive due to customer satisfaction. The customers that demand high customer satisfaction ratings tend to have the ability to insulate themselves from competitive pressures such as price competition (Hoffman, Bateson, 2001, p. 290).

According to Peter Babich's customer satisfaction model, firms with higher customer satisfaction ratings make the firm more resilient to competitors' efforts to increase their market share. Also, a company can make business decisions such as the amount of investment needed to increase the customer satisfaction that will improve the bottom line of the company by considering the facts and figures regarding the increase that results in the bottom line by improving 1% of the market share.

According to Savana and Rao (2007) the most important critical factors that make the marketer in providing superior service quality in order to achieve customer satisfaction is the need for the survival and growth in the markets where competition is increasing. Cronin and Taylor (1992) explained that customer satisfaction is conceptualized based on the customers experience regarding a particular service encounter. Whereas Jones and Suh (2000) considered that customer satisfaction is cumulative and is based on the overall evaluation of service experience. Wicks and Roethlein (2009) also mentioned that the customer satisfaction is formed through an effective evaluation process which is carried out after the purchasing experience of a customer. When considering the above facts, it is visible that customer satisfaction is

based on experience with the service provider and the outcome of the service (Manani, Nyaoga, Bosire, Ombati, Kongere, 2013).

Rust and Zahorik (1993) made efforts to quantify the dollar impact of customer satisfaction at the program attribute level. And the mathematical framework they suggested can be used when resource allocation is carried out to improve customer satisfaction. Also, this framework they suggested enables a marketing manager to determine the elements of customer satisfaction that have the greatest impact on corporate performance. Furthermore, it is helpful to determine the financial value of managerial actions that focus on improving service aspects. Fornell and Wernerfelt (1987, 1988) conducted studies to identify the effect of complaint handling programs on customer retention and its impact on profitability that revealed the relationship between customer satisfaction and profits.

According to the definition provided by Lewis and Booms (1983) service quality is a measure of how well the level of service delivered matches with the expectations of the customers. And confirming to customer expectations on a consistent basis is meant by delivering quality service (Parasuraman, Zeithaml and Berry, 1985, p. 42). Parasuraman, Zeithaml and Berry (1990) mentioned that service quality is an extrinsically perceived attribution based on customers experience regarding the service that was perceived during the service encounter. Oliver (1997) explains that the service quality is the result of comparison done by the customer between their expectations regarding a particular service and their perception about the service company. Moreover, according to Deming (1986), quality can be defined as a predictable degree of uniformity and dependability at low cost and suited to the market.

Gibson (2005) mentioned that the satisfied customers most of the time turns to be loyal customers that will spread the positive word of mouth which in turn leads to the increase in market share. Obtaining an in depth understanding regarding the factors that contribute to the customer satisfaction enables to design and deliver services that comply with the market demands.

The following figure 01 depicts the service quality model proposed by Parasuraman, Zeithaml and Berry (1985). The key features of this model are, the identification of key attributes of service quality from customer and the management perspective, highlighting the gaps between the customers and service providers by comparing the perceptions and the expectations and understanding the suggestions for service management of closing the gaps. The most important fact that can be learned from this model is that there is a set of gaps existing between the executive perception of service quality and the tasks associated with delivering a service to a customer. Gap 1 is the overall gap between the service provider and the customer. In many service providing organizations expectations of a customer is not clearly understood. Gap 2 is the discrepancies that occur in service quality due to the absence of total management commitment towards service quality, lack of resources and excessive demand. Gap 3 arises due to the variations in the performance of the customer contacting personnel. Gap 4 is the gap that arises due to making a set of promises that cannot be delivered but only to entice the customer. Finally, gap 5 is the gap regarding the perceived service quality which a comparison between the expected service and the perceived service delivery. (Mudie,P. Cottam,A. 1993.p.80-81). Thus, the five gaps that are defined by Parasuraman are the positioning gap (Gap1), the specification gap (Gap 2), the delivery gap (Gap 3), the communication gap (Gap 4) and the perception gap (Gap 5).

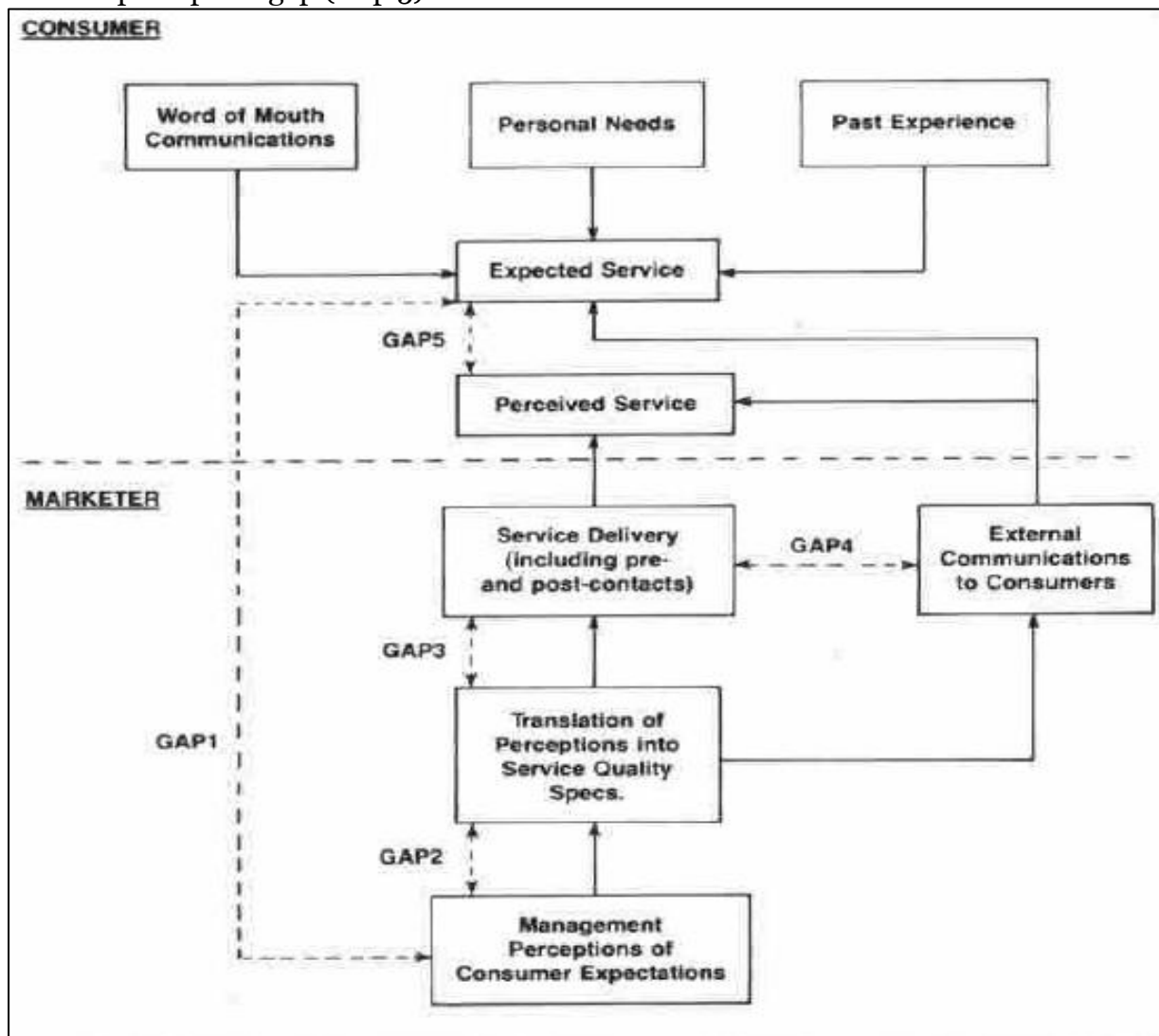


Figure No. 01 Service quality model (Source: Parasuraman,A. Zeithaml,V,A. Berry,L,L. (1985) “ A conceptual model of service quality and its implications for future research”, Journal of marketing, Volume 49, p.44)

Evaluating performance against a previously agreed set of standards is meant by measuring service quality (Mudie,P. Cottam,A. 1993.p.88). In this research project a multiple item scale called SERVQUAL which measures the gap between customer expectations and perceptions is used as the tool of measuring the service quality of the company that is considered in this study. Tangibles, reliability, responsiveness, assurance and empathy are the five determinants of service quality that are being considered in this multiple item scale. There are 22 items in the SERVQUAL scale. In order to measure the service quality, the respondents are made to indicate their strength of agreement or disagreement regarding quality of delivering the service of a particular service provider using a likert scale.

There is ample amount of research conducted using the SERVQUAL scale. Manani, Nyaoga, Bosire, Ombati and Kongere from Egerton university, Kenya conducted a research on service quality and customer satisfaction at Kenya Airways Ltd. in 2013. And they found that in order to remain competitive in the airline industry, the Kenya Airways Ltd. needs to increase the service quality. In their study they have identified that Kenya Airlines has to improve performance on all the dimensions of service quality to increase the customer satisfaction.

Ramseook, Lukea and Naidoo (2010) from university of technology, Mauritius conducted a study on service quality in the public service in order to understand the extent to which the service quality is delivered within the Mauritian public service by studying the perceptions of the front line employees and customers. According to their findings the highest gap between the customer perceptions and the expectations existed in the reliability dimension. To be more specific, the highest gap was detected in the area of front-line employees providing services at the promised time. Moreover, their study explained that the second highest gap exist in the responsiveness dimension. And among the four items in the responsiveness dimension the greatest gap was related to the fact that the public services offer prompt services to customers. And the second highest gap observed in this dimension was for “always willing to help customers”.

Moreover, Manjutha and Shivalingaiah (2004) conducted research to study the customer perception of service quality in libraries and they found that reliability is the most important dimension among the five dimensions and the others can be ranked as responsiveness, tangibles, assurance and empathy. Also, in this study they identified that tangibles dimension is the third most important dimension unlike in many other research outcomes. Furthermore, their studies revealed that the five dimensions of the Parasuramans’ SERVQUAL model, overall customer satisfaction level and the word of mouth have an impact on the customer perceptions regarding the service quality of libraries.

According to the research findings of Saha (2014), who conducted research to measure the service quality of private banks in Siliguri, tangibility, assurance and reliability had a significant impact on customer satisfaction. The following regression equation was developed as a result of this research carried out by Saha.

$$z = -0.115 + 0.052x_1 + 0.039x_2 + 0.166x_3 + 0.145x_4 + 0.721x_5$$

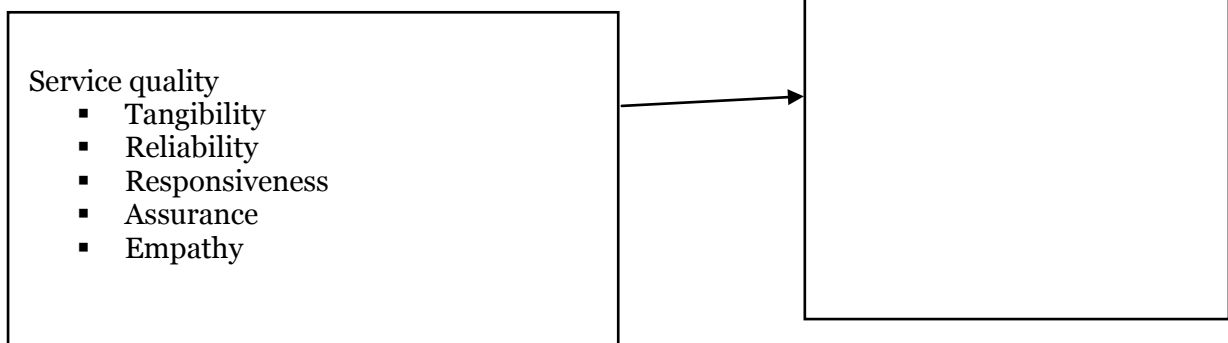
where x_1 is tangibles, x_2 is reliability, x_3 is responsiveness, x_4 is assurance and x_5 is empathy.

Conceptual Framework

Conceptual framework was built based on the SERVQUAL model developed by Parasuraman et al (1985).

Independent Variables

Dependent variable



Variable	Definition	Author
Customer satisfaction	A comparison of customer expectations to perceptions regarding the actual service encounter.	Hoffman, K,D. Bateson, J,E,G. 2008
Service quality	The difference between consumer perceptions and expectations which is the outcome of interaction and experience with the service.	Parasuraman, Zeithaml and Berry. 1988
Tangibles	Appearance of physical facilities, equipment, personnel and communication materials	Parasuraman, Zeithaml and Berry. 1988
Reliability	Ability to performed the promised service dependably and accurately	Parasuraman, Zeithaml and Berry. 1988
Responsiveness	Willingness to help customers and provide prompt service.	Parasuraman, Zeithaml and Berry. 1988
Assurance	Knowledge and courtesy of employees and their ability to convey trust and confidence.	Parasuraman, Zeithaml and Berry. 1988
Empathy	The caring, individualized attention the firm provides its customers.	Parasuraman, Zeithaml and Berry. 1988

Methodology

This study can be considered as a correlation study since it is conducted to establish a relationship between customer satisfaction and service quality. For this study the unit of analysis is the decision maker in the purchasing of boiler water treatment chemicals in the factories. Since there is no secondary data readily available on this research topic. Only primary data is considered. A standard questionnaire was

distributed among the 50 customers that contribute more than LKR 80,000 per year to the company revenue. The total population sampling method was used. The standard questionnaire was obtained from the text book services marketing concepts, strategies and cases (Hoffman,K,D. Bateson,J,E,G. 2008. p. 327-331). There are seven questions in the questionnaire apart from the standard questions to obtain an insight on the population that is being considered in this study. Some demographic factors such as age, gender and occupation are also analysed.

Interval scale is used in this study since it allows to carryout arithmetical operations on the data that is collected from the respondents (Sekaran,U. 2003). Thus, a five point likert scale is used to quantify the service quality and customer satisfaction, in this study where a score of 5 points is given to strongly agree respond and a score of 1 point is given to strongly disagree respond. Minitab version 16 software is used to carry out the statistical analysis of the data collected. Nominal scale is used to obtain personal data of the respondents in order to understand the nature of the population that was studied. The questionnaire was given to the respondents during the site visits carried out by the technical team.

Raw data is treated statistically using Minitab version 16 to test the hypothesis. To check whether there is a relationship between the independent variables and the dependent variable the Karl Pearson correlation coefficient is obtained. From the p-value the significance of the relationship is determined. And by performing the regression analysis, an effort is made to check whether the relationships between the tested variables are positive or negative. Furthermore, Cronbachs' alpha is calculated for each raw data set to check the internal consistency and reliability of the data. Out of the 50 customers in the population considered in this study, only 48 customers responded to the questionnaire.

Data Analysis

The population considered in this research comprises 33% from apparel industry, 27% from tea industry, 17% from rubber industry, 4% from desiccated coconut mills, 2% from rice mills and 17% other industries such as activated carbon industry. Also, 50% of the respondents that contributed to the customer feedback survey have an education up to diploma level. Most of them are from disciplines such as mechanical engineering, textile engineering and plantation management. Furthermore, 48 % of the respondents in the population have experience in boiler / cooling tower maintenance between 1 to 5 years, 42 % of respondents have 6 to 10 years, and 46% of respondents have 11 to 20 years. Moreover, 100% of the respondents are males.

The calculated Cronbach's Alpha for tangibles is 0.7768, for reliability 0.7708, for responsiveness 0.8285, for assurance 0.8194 and for empathy and it is greater than 0.7. Therefore, the reliability of tangibles, reliability, responsiveness, assurance and empathy of the sample is acceptable. Since the Karl Pearson correlation (r) is 0.741 and it is $0.6 \leq r < 1$ there is a strong positive relationship between the service quality and customer satisfaction. Moreover, the P-Value is 0.000 which indicates that the relationship is significant. When the regression analysis is performed to the same data set obtained for the service quality and customer satisfaction, the resulting fitted line confirms that the relationship between service quality and customer satisfaction is positive. Also, the R-Sq = 54.9% which explains that service quality contributes 54.9% for creating customer satisfaction.

Since the Pearson correlation coefficient is 0.503 and it is $0.4 \leq r < 0.6$, there is a moderately positive relationship between the tangibles and the customer satisfaction. Moreover, this relationship is significant since the P-value is 0.000. According to the fitted line plot obtained by regression analysis, the relationship between tangibles and the customer satisfaction is positive. And the R-Sq = 25.3 % which means that 25.3% of contribution on customer satisfaction is done by tangibles. Since the Pearson correlation coefficient is 0.629 and it is $0.6 \leq r < 1$, there is a strong positive relationship between the reliability and the customer satisfaction. Also, this relationship is significant since the P-value is 0.000. The fitted line plot obtained for the data set that measured the reliability dimension and the customer satisfaction by performing the regression analysis reveals that the relationship between reliability and the customer satisfaction is positive. And the R-Sq = 39.5 %. Hence, reliability contributes 39.5 % on gaining customer satisfaction. Since the Pearson correlation coefficient is 0.645 and it is $0.6 \leq r < 1$, there is a strong positive relationship between the responsiveness and the customer satisfaction. And this relationship is significant since the P-value is 0.000. According to the fitted line plot, the relationship between responsiveness and the customer satisfaction is positive. And the R-Sq = 41.6 %. Hence, the contribution of responsiveness on gaining customer satisfaction is 41.6%.

Since the Pearson correlation coefficient is 0.532 and it is $0.4 \leq r < 0.6$, there is a moderate positive relationship between Assurance and the customer satisfaction. Furthermore, this relationship is significant since the P-value is 0.000. The fitted line plot obtained for the data set that measured the assurance dimension and the customer satisfaction reveals that the relationship between assurance and the customer satisfaction is positive. And the R-Sq = 28.3 %. Hence, the contribution of assurance on achieving customer satisfaction is 28.3%. Since the Pearson correlation coefficient is 0.547 and it lies in the range $0.4 \leq r < 0.6$, there is a moderate positive relationship between empathy and the customer satisfaction. In addition, this relationship is significant since the P-value is 0.000. When considering the fitted line plot, the relationship between empathy and the customer satisfaction is positive. And the R-Sq = 29.9 %. Therefore, the empathy of the employees of the service providing company towards their customers has a contribution of 29.9 % on customer satisfaction.

Finally, the regression equation obtained from the data that is being collected in this research project provides the relationship between the customer satisfaction and the five service quality dimensions.

Customer satisfaction = $-0.19045 + 0.0894874 \text{ Tangibles} + 0.374304 \text{ Reliability} + 0.0998306 \text{ Responsiveness} + 0.213052 \text{ Assurance} + 0.26923 \text{ Empathy}$

Discussion

This study reveals very important findings regarding the impact of service quality on customer satisfaction in the boiler water and cooling tower water treatment chemical industry where 50 customers who contribute more than LKR 80,000 per year to the revenue of the XYZ Company were taken in to consideration. Through this research it was identified that there is a strong positive significant relationship between the service quality and customer satisfaction in the boiler water and cooling tower water treatment chemical industry. Moreover, it was revealed that there is a positive

relationship between the all five dimensions of service quality and customer satisfaction.

In this study, only the perceptions of the customers were taken in to account when measuring the service quality. There are many other research works conducted by other researches to measure the service quality gap in different industries. Ramseook and Lukea (2010) conducted research to measure the service quality in the public services by measuring the gap between the customers' expectations and the perceptions of the front-line employees by using the SERVQUAL instrument. Moreover, Ravichandran, Mani, Kumar and Prabhakaran (2010) carried out a research to study the influence of service quality on customer satisfaction by applying SERVQUAL model. They developed the following regression equation to find out the overall satisfaction of the customers.

Overall service quality = $3.793 + 4.976A + 2.958B + 2.630C - 4.830D - 2.453E - 3.226F - 3.463G$ Where, A= Employees respond to customer request, B= consistently courteous with customer, C= complaint handling system, D= Modern looking equipment, E= promises to do something, F= Services at the time they promise, G= willing to help the customer.

In this study only, the perception of the customers regarding a particular service providing company was measured in order to understand the impact of service quality on customer satisfaction in boiler water and cooling tower water treatment industry. Since it is visible that there is a strong positive relationship between the service quality and the customer satisfaction in this particular industry, a future researcher can extend this research to measure the gap between the perceived level of service quality and the expected level of service quality using a more broader customer profile such as boiler customers in Sri Lanka. Moreover, a future researcher can use the SERVQUAL method to determine the service quality gaps using samples from different strata of the boiler and cooling tower customers in Sri Lanka, such as boiler customers in tea industry or boiler customers in desiccated coconut industry or boiler customers in apparel industry.

Conclusions

There is a strong positive relationship which is significant, between the service quality of the XYZ Company and the customer satisfaction of the customers those who are contributing more than LKR 80,000 per year for the revenue of the company. Therefore, H1 hypothesis which states that there is a relationship between the service quality and customer satisfaction, can be accepted. And the null hypothesis Ho is rejected. Moreover, if actions are taken to improve the service quality of this particular company by 100%, only 54.9 % of that effort will contribute to improve the customer satisfaction of the customers in the population that is considered in this study.

There is a significant, moderate positive relationship between the tangibles of the XYZ Company and the customer satisfaction. Thus, H1a hypothesis which states that there is a relationship between the tangibles and the customer satisfaction is accepted. And the null hypothesis Hoa is rejected. Also, if actions are taken to increase the quality of tangibles such as using modern instruments and fully equipped laboratories by 100% , only 25.3 % of these improvements will contribute to enhance the customer satisfaction of the population considered in this study.

There is a strong positive relationship which is significant, between the reliability of the services provided by XYZ Company and the customer satisfaction. Therefore, H1b hypothesis which states that there is a relationship between reliability and customer satisfaction is accepted. And the null hypothesis H0b is rejected. Moreover, if actions are taken to improve reliability by 100 %, only 39.5% will contribute to enhance the customer satisfaction of this particular population.

There is a strong positive relationship between responsiveness of the employees of XYZ Company and the customer satisfaction. Hence, H1c hypothesis that states there is a relationship between responsiveness and customer satisfaction, accepted. And the null hypothesis H0c is rejected. Furthermore, if the responsiveness of the employees of this particular company is developed and enhanced by 100 %, only 41.6 % of this effort will contribute to increase the customer satisfaction of the customers in this particular population.

There is a moderate positive and significant relationship between assurance of the XYZ Company and the customer satisfaction of the population considered in this research. Thus, H1d hypothesis which states that there is a relationship between assurance and customer satisfaction is accepted. And the null hypothesis H0d is rejected. Also, if the measures are taken to improve the assurance of this service providing company by 100 %, only 28.3 % of this effort will contribute to increase the customer satisfaction of the population that is considered in this study.

There is a moderate positive relationship between the empathy of the employees of the XYZ Company that is being exhibited towards the customers and the customer satisfaction in the studied population in this research. And this relationship is significant. Therefore, H1e hypothesis that states there is a relationship between empathy and customer satisfaction, is accepted. And the null hypothesis H0e is rejected. Moreover, If actions are taken to increase the empathy that is being exhibited towards the customers by 100 %, only 29.9 % of this effort will contribute to enhance the customer satisfaction of the population that is being concerned in this study.

Finally, it is concluded that the relationship between the customer satisfaction and the five service quality dimensions can be depicted by the following regression equation.

$$\text{Customer satisfaction} = -0.19045 + 0.0894874 \text{ Tangibles} + 0.374304 \text{ Reliability} + 0.0998306 \text{ Responsiveness} + 0.213052 \text{ Assurance} + 0.26923 \text{ Empathy}$$

Recommendation

According to the results obtained for this study it is visible that all the five dimensions of service quality have an impact on the customer satisfaction in the boiler water and cooling tower water treatment chemical industry. Since all the dimensions of service quality have a positive relationship with the customer satisfaction of the population considered in this study, it is vital to take the necessary measures to improve the activities related to these dimensions to enhance customer satisfaction. Since tangible dimension contribute only 25.3 % of its 100% effort made to satisfy the customers considered in this particular study, it is not necessary to invest a considerable amount on maintaining a high standard laboratory for this type of service providing company. Yet, it is vital to provide the technical staff with the

necessary modern looking equipment used to analyse the water quality parameters in the boiler water and the cooling tower water, in order to impress the customers during their sit visits.

The service providing companies in this industry should concentrate on improving the activities that are under the responsive dimension since it has a greater impact on the satisfaction of the customers in the population considered here. If the responsiveness of the employees of this type of industry is improved by 100%, there will be a 41.6 % contribution from the efforts made, on the customer satisfaction. Therefore, there should be a plan prepared at the beginning of a year, mentioning the exact date that the site visits will be done and communicate the visit plan to the relevant customers at the start of a new financial year. Also, when they receive inquiries for operations such as boiling out operations, boiler descaling operations the proposals should be submitted promptly and the customer should be informed a date that they can exactly perform the operation. Having proper systems to maintain the chemical stocks and having necessary facilities such as chemical delivery vehicles and the availability of delivery vehicles and necessary test kits are vital in order to provide the customer with prompt service.

Furthermore, the technical staff should be provided with sufficient training to solve technical issues efficiently. When there are gaps in knowledge, the engineers and the chemists involved in issues handling in this industry are left clueless when they are faced with a technical issue at some sites. This will consume more time to provide a solution to the customer and sometimes there will be significant damaged done to the machine at the time the problem is solved. This will definitely make the customer frustrated and disappointed.

Furthermore, most of the customers seek personal attention in this industry since they are handling highly expensive machines such as boilers. Also, it is very important to maintain a sufficient number of technical staff in order to avoid any site visit delays and to spend more time at customer sites to build a strong customer relationship.

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Consumer's Online Shopping Behavior with Reference to The Flipkart

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ABSTRACT

A descriptive type of study using judgmental sampling for selecting the samples from online shopping users of Kanpur city. The data has been collected with the help of questionnaire & schedule. The descriptive analysis and nonparametric test has been used for hypothesis testing. The study results suggest that how consumers come to know about Flipkart? Which features consumer do not like about Flipkart? Which features consumer like about Flipkart? What are the products consumer buy from Flipkart? Which mode of payment consumers prefer to pay? And are they satisfy with the product quality & services provided by Flipkart?

Introduction

The online shopping in India has changed the way of shopping goods and services. The consumer who wanted to purchase products after touching and feeling the product, have started shopping goods by seeing its picture on website. It is just because online shopping has been creating trust and gaining acceptance in India. The Flipkart which was started in October 2007 has done a lot in making trust about online shopping. The Flipkart is a leading online shopping website which offers 80 million products across 80+ categories, having around 100 million registered users, 100 thousand sellers, 21 state of the art warehouse, 10 million daily page visits, and 8 million shipment per month (Flipkart website). In 2016 it has become the first Indian online shopping App to cross 50 million users. It offers certain product categories, such as books & stationary, music CDs & movies, home & furniture, electrical and electronic goods, sports equipment, life style & fashion, toys and automotive. Flipkart provides 24X7 customer support, it also provides products at minimum possible price, and consumer gets offers and discounts on purchasing products online. It provides 30 days replacement policy for faulty transactions. Many researcher have conducted investigations for understanding consumer's online shopping behavior, what drive consumer's to buy online? (Toñita Perea y Monsuwé Benedict G.C. Dellaert Ko de Ruyter, 2004), What Makes Consumers Buy from Internet? (Limayem, Khalifa, and Frini, 2000), Barriers to Online Shopping in Switzerland (Rudolph, Rosenbloom, and Wagner, 2004).

Literature Review

According to Mohammad Hossein Moshref Javadi¹ & Hossein Rezaei Dolatabadi (2012) financial risks and non-delivery risk negatively affected attitude toward online shopping and domain specific innovativeness, subjective norms, and attitude toward online shopping positively affect online shopping behavior.

According to Said S. Al-Gahtani & Malcolm King (1999) relative advantage of the system contributed most to attitudes and satisfaction. Compatibility (of the system to the task performed) contributed most to usage and is the most important antecedent of the belief variables, including relative advantage. They also advised that the usage-satisfaction relationship is unclear and confusing and there is a strong positive correlation between satisfaction and usage. They advocated that attitude is 'more than' a substitute for satisfaction and that satisfaction should be used as a complement to usage when evaluating end-users' acceptance of computer technologies.

According to Toñita Perea y Monsuwé Benedict G.C. Dellaert Ko de Ruyter, (2004) attitudes toward online shopping and intention to shop online are not only affected by ease of use, usefulness, and enjoyment, but also by exogenous factors like consumer traits, situational factors, product characteristics, previous online shopping experiences, and trust in online shopping.

According to A.Lakshmanan (2016) product preferences, problems faced by the customers, more number of products with discount, risk perception and after sales services are the factors which affects customer satisfaction towards online shopping.

According to Evanschitzky, Iyer, Hesse, Ahlert (2004) financial security of the transactions convenience and site design are the most important factors affecting e-satisfaction.

According to Szymanski & Hise (2000) consumer perceptions of online convenience, merchandising (product offerings and product information), site design, and financial security are dominating factors affecting e-satisfaction assessments.

According to Yooncheong Cho, Fjermestad and Hiltz (2003) perceived price, information search effort, and ego involvement on the degree of dissatisfaction are significantly affected by product category. They also investigated that the effect of the degree of dissatisfaction on propensity to complain is significantly different based on product category on the Web.

According to Sirrka L., Peter A. (1996) Product perceptions, shopping experience, customer service, and perceived consumer risk are the factors affecting electronic shopping on the World Wide Web.

According to Sang Yong Kim & Young Jun Lim (2001)) the factors of entertainment, convenience, reliability, and information quality and speed plays important role in customer satisfaction while shopping online.

According to Hausman, Siekpe (2008) Human factor (no. of visitors to site), Entertainment, informativeness, irritation, usefulness, attitude towards website, revisit intention are the important aspect of a good website and it affects consumer's online shopping buying behavior. According to Bai, Law, Wen (2008) website quality has a direct and positive impact on customer satisfaction, and that customer satisfaction has a direct and positive impact on purchase intentions.

According to Hasanov Jasur, Khalid Haliyana (2015) website quality is not the only determining factors that could increase consumer purchasing intention. Other qualities such as good customer service, efficient product distribution and logistics and also positive reviews from customers also play an important role.

According to Nitish Singh Georg Fassott Mike C.H. Chao Jonas A. Hoffmann, (2006) attitude toward using the web site is shown to have a strong impact on their intent to purchase from these international websites.

According to Forsythe Sandra M., Shi Bo (2003) Internet shoppers perceive several risks in Internet shopping, these perceived risks may not significantly influence Internet patronage behaviors among current Internet shoppers in an extensive and systematic way.

According to Constanza Bianchi Lynda Andrews, (2012) perceived risk online had an inverse relationship with consumers' attitude and that attitude has a positive influence on intentions to continue purchasing.

According to Juniwati (2014) perceived usefulness, ease of use and risk have significant influence on attitude toward online shopping. Where perceived usefulness and ease of use have not significant influence toward intention to shop online but perceived risk and attitude have significant influence toward intention to shop online.

According to Hernandez Blanca, Jimenez Julio, Martin M. Jose (2008) self-efficacy and usefulness are important perceptions in explaining the behaviour of experienced consumers, while ease of use does not have a significant influence.

According to Azzam Al, Mahmoud Abdel Fattah (2014) perceived ease of use; perceived behavioral control, attitude, and perceived usefulness are essential antecedents in determining online consumer behavior and there is no significant relationships between trust and online purchasing behavior.

Research Methodology

Respondents were selected from Kanpur city because it had convenience for the researcher. The sample selected had at least one time online shopping experience. The size of the sample selected was 100. A combination of Judgmental and snowball sampling were used because of the list of the online shoppers was not available. The first set of respondent was selected on the basis of judgement. Subsequently additional units were obtained on the basis of information given by initial sample units and then further referrals were taken from those selected in the sample. Total 150 questionnaires were distributed out of that 115 was received and 15 questionnaire were found incomplete. So only 100 questionnaire were selected finally for further analysis of data. The structured questionnaire including dichotomous, multiple choice, and semantic differential questions. All the differential questions are considered to be based on interval scale. The arithmetic mean, standard deviation, reliability test based on Cronbach's Alpha value, factorial analysis were the statistical measures and test used for data analysis.

Data Analysis

Frequency distribution of demographic variables

Table 1 was drawn to understand the socioeconomic background of the respondents and it was found that out of the total sample (n=100) 69% consisted of male and 31% of female. Further we have divided the age group in four categories and we found that more than half (65%) of respondents were below 20 years of age, while (22%) belonged to the age group of 20 to 25, (11%) respondents belonged to the age group of 25 to 30 years of age. And (2%) respondents belonged to the age group of 30 to 35 years of age. We have categorized marital status in two categories i.e. un-married and married and it was observed that more than half (81%) of respondents were un-married and (19%) of them were married.

We have categorized family monthly income in four categories, It was observed around (58%) of respondents were having income group ₹ 20000 - ₹ 30000, (22%) were in income group ₹ 30000 - ₹ 40000, (12%) were in income group ₹ 40000 - ₹ 50000 and (8%) were in income group ₹ 50000 - ₹ 60000

We have categorized occupation in four categories i.e. Service, self-service and student, it was observed that more than half (78%) of respondents were students, (19%) of respondents were doing service and (3%) of them were having self-service. We have also categorized the frequency of shopping online of respondents in same four categories i.e. daily, weekly, monthly and annually. It was observed that (36%) of respondents were having monthly, (46%) of respondents were having weekly, (8%) of them were having annually and (10%) of them were having daily online shopping.

Measures: Reliability and validity assessment

The Cronbach's Alpha statistic was used to check reliability of the scale developed for evaluations statements used in the questionnaire. The alpha coefficient for the 24 statement of questionnaire is .774 suggesting that the items have relatively consistency see table-2.

Exploratory Factor Analysis

KMO and Bartlett test of sphericity sign posted that the data was suitable for exploratory factor analysis. As the KMO measures the sampling adequacy that should be greater than 0.5 and it was 0.805 indicating that the sample was adequate to consider the data suitable for factor analysis.

Table1: Demographic Profile of respondents			
Respondent		Frequency	Percent
Gender	Male	69	69.0
	Female	31	31.0
Age	15 - 20 yrs	65	65.0
	20 - 25 yrs	22	22.0
	25 - 30 yrs	11	11.0

	30 - 45 yrs	2	2.0
Occupation	Techer	11	11.0
	Service	8	8.0
	Self service	3	3.0
	Student	78	78.0
Monthly Income	20000 - 30000	58	58.0
	30000 - 40000	22	22.0
	40000 - 50000	12	12.0
	50000 - 60000	8	8.0
Marital Status	Married	19	19.0
	Unmarried	81	81.0
Frequency of Shopping	Daily	10	10
	Weekly	46	46
	Monthly	36	36
	Yearly	8	8
	Total	100	100
Table-2: Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	
.781	.774	24	
Table 3: KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.805	
Bartlett's Test of Sphericity	Approx. Chi-Square		423.750
	df		55
	Sig.		.000

From the table 3, it can be observed that Bartlett's test of sphericity was 423.750 significant at 0.000 level of significance. It indicates that the correlation matrix was not an identity matrix. The above facts show that the data collected on different attributes of online shopping from respondents were suitable for factor analysis.

The raw scores of 11 items were subjected to Principal Component Analysis (PCA) to identify the underlying factors that affect the consumer's online shopping buying behaviour. After the analysis, it was found that there were seven factors, with 57.189% of cumulative variance explained through the exploratory factor analysis. Following are the details of factors identified through EFA:

Table 4: Rotated Component Matrix^a					
				Component	
	Eigen Value	% of Variance	Communalities	1	2
				Percieved Risk	Percieved Usefulness

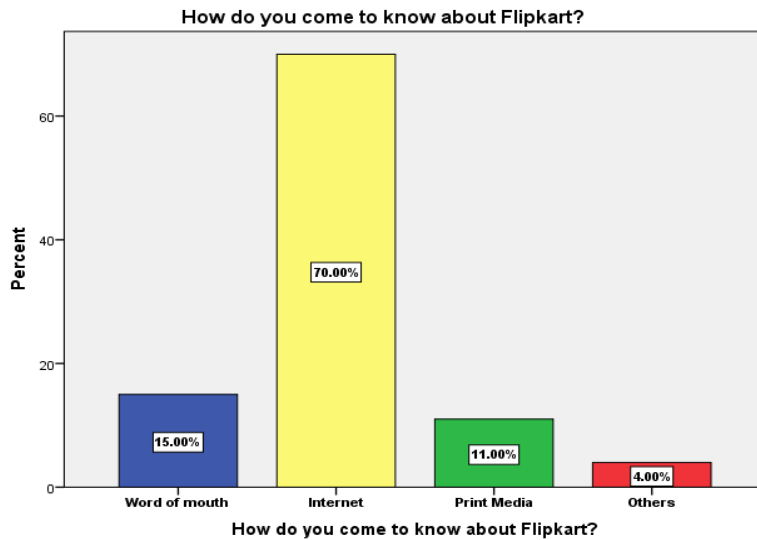
Rate product tracking process provided by Flipkart	3.523	32.031	.374	.870	
Rate the delivery time of Flipkart			.470	.861	
Rate the easy return Policy of Flipkart.			.740	.843	
Rate the Simplicity of purchase process of Flipkart			.758	.826	
Do you think shopping on Flipkart is risky			.741	.572	
Do you think hidden charges cause confusion while purchasing?			.452		
Do you think shopping on Flipkart saves your time?	2.767	25.158	.685		.795
I will prefer Flipkart shopping only if Flipkart prices are lower than compare to other site prices.			.334		.769
Are you fully satisfied with Flipkart?			.631		.710
Do you think Flipkart provide a detailed description & information of product?			.593		.684
I am satisfied with the packaging of Flipkart			.513		.652
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 3 iterations.					

Descriptive Analysis

How the consumers come to know about Flipkart?

		Frequency	Percent
Valid	Word of mouth	15	15.0

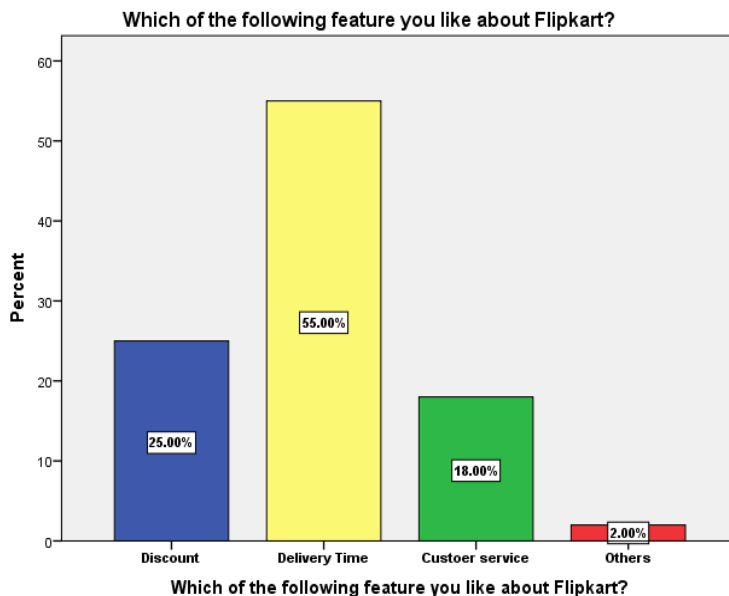
Consumer's Online Shopping Behavior with Reference to The Flipkart



	Internet	70	70.0
	Print Media	11	11.0
	Others	4	4.0
	Total	100	100.0

According to survey, 15% respondents come to know about Flipkart through word of Mouth, 70% through Internet, 11% through Print Media and 4% through other means.

Which feature consumer like about Flipkart?



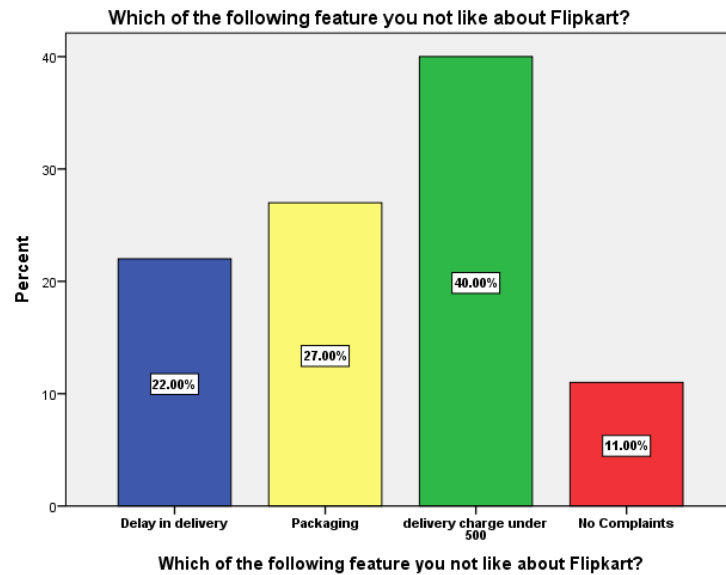
Features Liked	Frequency	Percent
Valid Discount	25	25.0
Delivery Time	55	55.0
Customer service	18	18.0
Others	2	2.0
Total	100	100.0

According to survey, 25% respondents like discounts offered by Flipkart, 55% like Delivery Time, 18% like customer Service, and 2% like other features.

Which feature consumers do not like about Flipkart?

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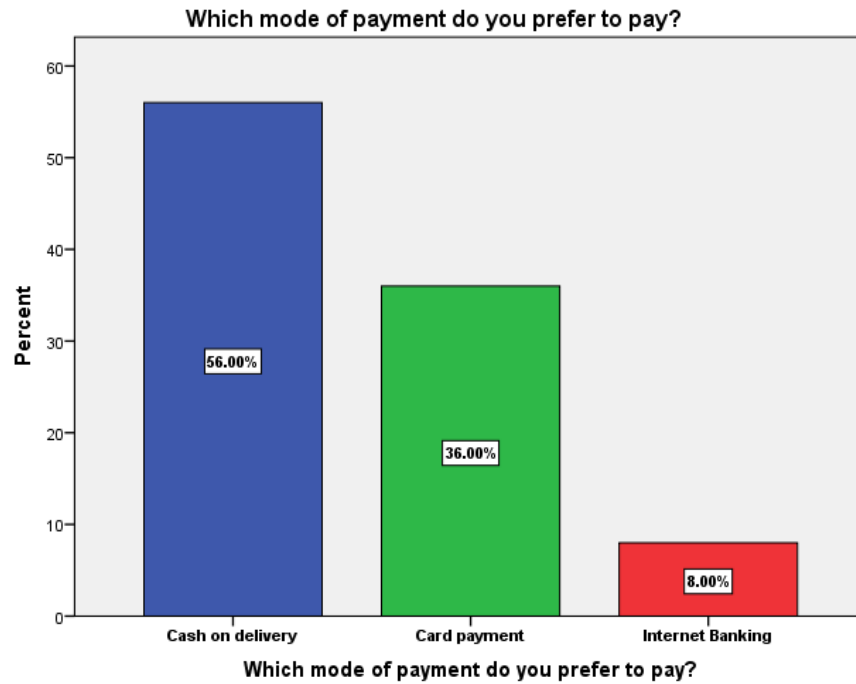
Consumer's Online Shopping Behavior with Reference to The Flipkart



		Frequency	Percent
Valid	Delay in delivery	22	22.0
	Packaging	27	27.0
	delivery charge under 500	40	40.0
	No Complaints	11	11.0
	Total	100	100.0

Which mode of payment do you prefer to pay?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cash on delivery	56	56.0	56.0	56.0
	Card payment	36	36.0	36.0	92.0
	Internet Banking	8	8.0	8.0	100.0
	Total	100	100.0	100.0	

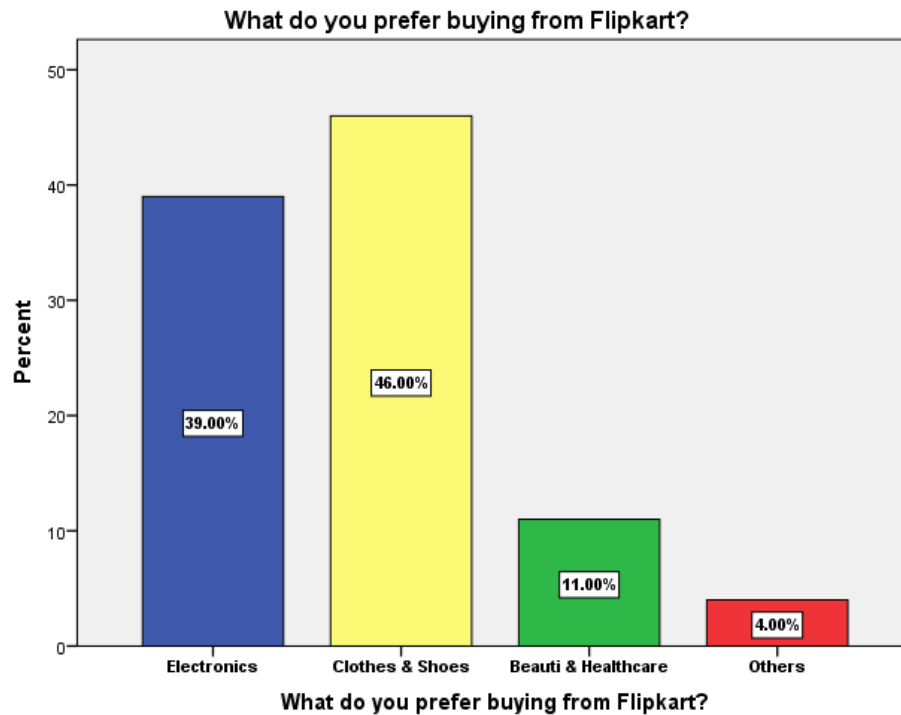
Consumer's Online Shopping Behavior with Reference to The Flipkart



According to survey 27 respondents make payment through Credit cards, 10 Debit cards, 8 Online Bank transfer and 55 payment Cash on delivery.

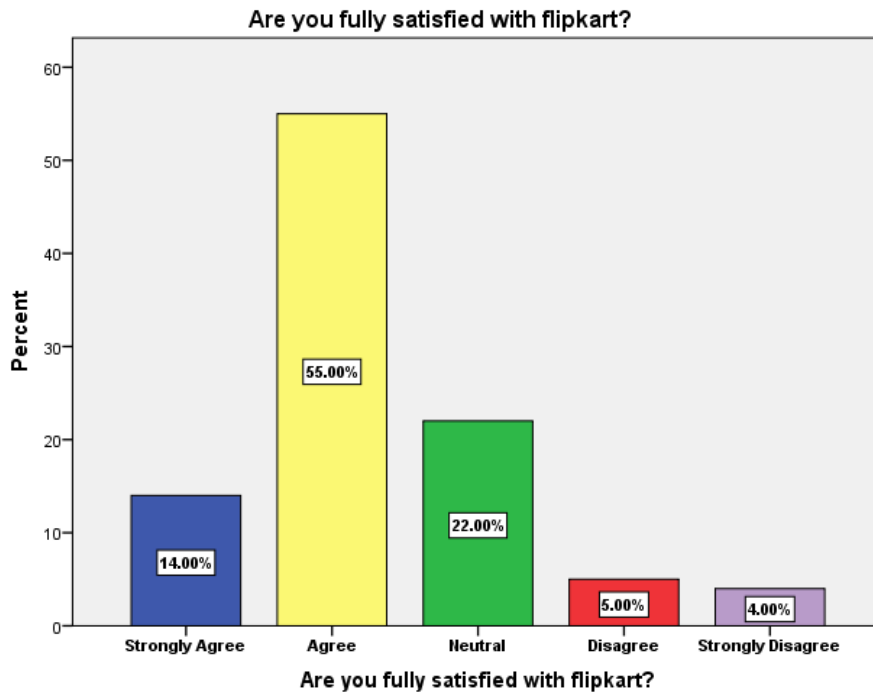
What do you prefer buying from Flipkart?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Electronics	39	39.0	39.0	39.0
	Clothes & Shoes	46	46.0	46.0	85.0
	Beauti & Healthcare	11	11.0	11.0	96.0
	Others	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

Consumer's Online Shopping Behavior with Reference to The Flipkart



According to survey 80% respondent have purchased ticket while 8% preferred clothing. Other like Books 10%, Video games 25%, electronic equipment 18%, Computer & software 12% and music 20%.

Are you fully satisfied with flipkart?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	14	14.0	14.0	14.0
	Agree	55	55.0	55.0	69.0
	Neutral	22	22.0	22.0	91.0
	Disagree	5	5.0	5.0	96.0
	Strongly Disagree	4	4.0	4.0	100.0
	Total	100	100.0	100.0	



Discussion and Conclusions

In this study we found that there are two factors that affect consumer's online shopping buying behaviour. These factors are perceived ease of use and perceived risk.

Limitation and future research

A limitation of this study lies with the sample size and in the age distribution of the sample used in this study. Sample size 100 is small and approximately 87 percent of sample was in the age group of less than 25 years, thus, the results may not be generalized for consumers over age of 30- 35. The geographical area for this study was Kanpur region only.

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Cashless (Less Cash) Economy & Digitization of Indian Economy

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ABSTRACT

This paper studied the views of people on introduction of less cash economy in India. The study was conducted in Dehradun region & data was collected with the help of structured questionnaire and analysed using simple percentage method. Responses from respondents shows that less cash economy will help in curbing black money, counterfeit's fake currency, fighting against terrorism, reduce cash related robbery, helps in improving economic growth of our country. Major challenges that can hinder the implementation of the policy are cyber fraud, High illiteracy rate, attitude of people, lack of transparency & efficiency in digital payment system. The study shows that the introduction of cashless economy in India can be seen as a step-in right direction. It helps in growth and development of economy in India.

Introduction

The government has implemented a major change in economic environment by demonetizing the high value currency notes of – Rs 500 and Rs 1000 from 8th November 2016 and push India towards less cash future. What is less cash economy: A less cash economy is one in which all the transactions are done through electronic channels such as debit/credit cards, Immediate Payment Service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS)? The circulation of physical currency is minimum. The Indian economy continues to be driven by the use of less cash than 5% of all payments happen electronically. Electronic based transaction seeks to drive the development and modernization of India's payment system. The essence of the policy is to shift the economy from a cash based economy to a cashless one. Efficient and modern payment system is a key enabler for driving growth and development. The policy also aims at improving the effectiveness of monetary policy, managing inflation in the economy, maintaining stable pricing system. In India, the ratio of cash to gross domestic product is 10.9 %in GDP; this is one of the highest in the world. It was 9.47% in China or 4 % in Brazil, USA has 11% and Japan has 17%. Further, the number of currency notes in circulation is also far higher than in other large economies, India had 76.47 billion currency notes in circulation in 2012-13 compared with 34.5 billion in US. In 2017-18 the Currency in circulation is 37.0 %. The government is working at various levels to reduce the dependence on cash. PM-Narendra Modi unveiled two schemes – Lucky Grahak Yojna, Digi Dhan Vyapaar Yojna for customers and traders like to promote mobile banking and e-payments. To encourage and strengthen cashless economy it's important to inculcate the habit of making e-payments. Government encourages

cashless transactions like mobile banking, Ru-pay cards, UPI, USSD these are means and methods of digital payments. Less cash economy is in the interest of everyone and it will help in creating a clearer economy in future. Government have also introduced Aadhar based payment system, this is for those people who don't have cards or mobile phones. Reducing Indian economy's dependence on cash is desirable for a variety of reasons. To control counterfeit notes that could be contributing to terrorism and to eliminate the black money; Hawala transfers are not allowed using paper currency, helping curbs illegal activities altogether. A large part of black money is generated in illegal trades like selling drugs, therefore, without cash or with less cash illegal trade might become difficult. RBI has also issued licenses to open new-age small finance banks and payments banks which are expected to give a push to financial inclusion and bring innovative banking solutions. Things are also falling in place in terms of technology for India. The recently launched Unified Payments Interface by National Payments Corporation of India makes digital transactions simple. Even the RBI has also recently unveiled a document, "Payments and Settlement Systems in India: Vision 2018", setting out a plan to encourage electronic payments and to enable India to move towards a less cash society or economy in the medium and long term.

Benefits of less cash Economy

Less Cash economy helps in curbing generation of black money. As a result, it reduces real estate prices because most of black money is invested in Real estate which inflates the prices of Real estate markets.¹ In 7 notes is supposed to be fake, which has a huge negative impact on economy, by going less cash, that can be avoided. An increased use of digital payment instead of cash would enable a more detailed record of all the transactions which take place in the society, allowing more transparency in business operations and money transfers which reduce tax avoidance and money laundering. Less Cash Economy also reduces the cost of banking services. It also improves monetary policy in managing inflation and increases economic growth in our country. Another benefit of cashless economy is that it discourages cash related robberies and other cash-related crimes.

Challenges in making India a less cash economy

Large part of the population is still outside the scope of Net banking like use of credit or debit cards, making transactions using mobile phones, and using the internet to pay bills they are not in a position to reduce its dependence on cash. Second, about 90% of the workforce, which produces nearly half of the output in the country, works in rural sector. It will not be easy for this sector to become cashless. There is a general preference for cash transactions in India. Merchants prefer not to keep records in order to avoid paying taxes and buyers find cash payments more convenient. Although less cash transactions have gone up in recent times, a meaningful transition will depend on a number of things such as awareness, technological developments and government intervention. For instance, mobile wallets have seen notable traction, and it is possible that a large number of Indians will move straight from cash to mobile wallets. The availability and quality of telecom network will play an important role. People face difficulties in making electronic payments even in metro cities because of poor network. Service providers will have to constantly invest in technology in order to improve security and ease of transaction.

People will only shift when it's easier, certain and safe to make cashless transactions. The government will also need to play its part. It will have to find ways to incentivize less cash transactions and discourage cash payments. Difficulties in changing attitudes and perception of people towards moving digital payments. India is dominated by small retailers. They don't have enough resources to invest in electronic payment infrastructure.

Review of Literature

Review of literature paves way for a clear understanding of the areas of research already undertaken and throws a light on the potential areas which are yet to be covered. Keeping this view in mind, an attempt has been made to make a brief survey of the work undertaken on the field of Cashless economy. The reviews of some of the important studies are presented below. Cashless economy is not the complete absence of cash, it is an economic setting in which goods and services are bought and paid for through electronic media. According to Woodford (2003), Cashless economy is defined as one in which there are assumed to be no transactions frictions that can be reduced through the use of money balances, and that accordingly provide a reason for holding such balances even when they earn rate of return. In a cashless economy, how much cash in your wallet is practically irrelevant. You can pay for your purchases by any one of a plethora of credit cards or bank transfer (Roth, 2010) observed that developed countries of the world, to a large extent, are moving away from paper payment instruments toward electronic ones, especially payment cards. Some aspects of the functioning of the cashless economy are enhanced by e-finance, e-money, e-brokering and e-exchanges. These all refer to how transactions and payments are affected in a cashless economy (Moses-Ashike, 2011). Marco and Bandiera (2004) argue that increased usage of cashless banking instruments strengthens monetary policy effectiveness and that the current level of e-money usage does not pose a threat to the stability of the financial system. However, it does conclude that central banks can lose control over monetary policy if the government does not run a responsible fiscal policy. According to a 2015 report by Price Water House Coopers, India's unbanked population was at 233 million. Even for people with access to banking, the ability to use their debit or credit card is limited because there are only about 1.46 million points of sale which accept payments through cards. A study by Boston Consulting Group and Google in July noted that wallet users have already surpassed the number of mobile banking users and are three times the number of credit card users.

Objectives

Objectives of present study are as follows:

1. To study the benefits of cashless economy
2. To assess the preparedness for the implementation of the cashless economy by Indian Government.

Research Methodology

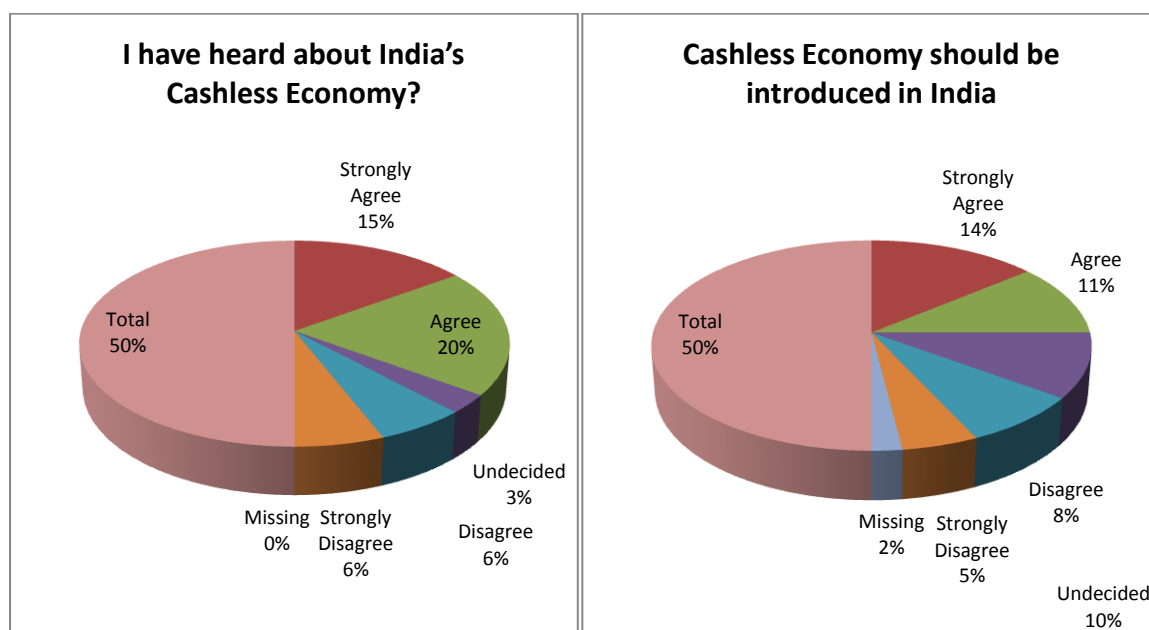
The study is conducted to obtain data on Introduction of Cashless economy in India. The study is conducted in Dehradun region. A sample size of 100 was selected using the convenience sampling procedure out of which 50 copies were retrieved in usable form. This represents a response rate of 50%. The sample includes both literate and illiterate population since they are the ones who give their views on introduction of cashless economy and use of digital payment methods, their response determine the reliability of survey. Survey method is used for collecting data with the help of questionnaire. The responses from the respondents were collected and analysed using the simple percentage method.

Data Analysis & Interpretation

Table 1: Knowledge of Cashless Policy to users Frequency

I have heard about India's Cashless Economy?			Less cash Economy should be introduced in India.		
	F	%		F	%
Strongly Agree	15	30	Strongly Agree	14	28
Agree	20	40	Agree	11	22
Undecided	3	6	Undecided	10	20
Disagree	6	12	Disagree	8	16
Strongly Disagree	6	12	Strongly Disagree	5	10
Missing	0	0	Missing	2	4
Total	50	100	Total	50	100

Graph No 1



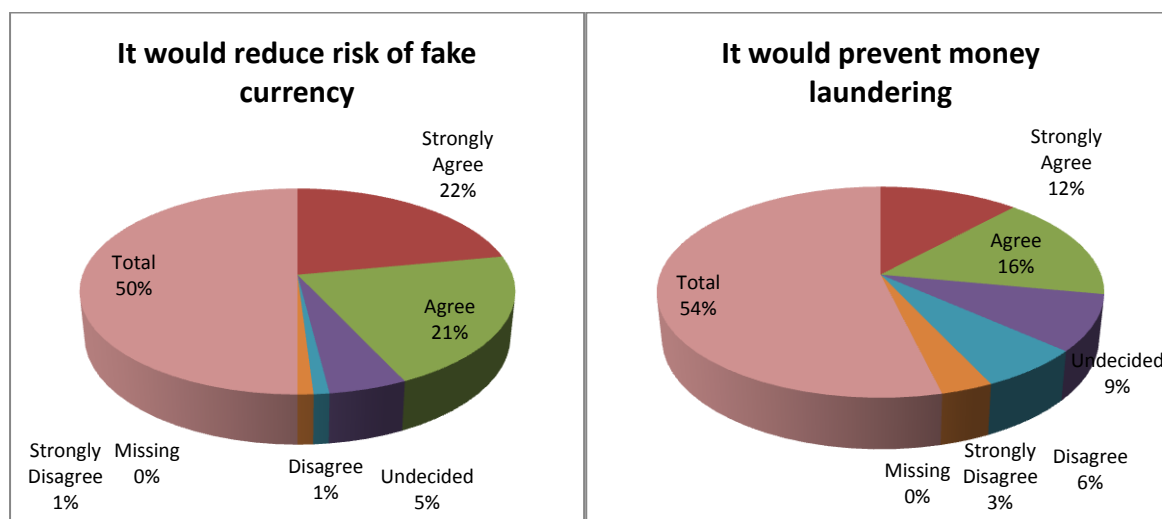
Above Table shows that there is a high degree of awareness among the population about 70% of the respondents are aware of cashless economy in India. The study considered academic community as well as Non-academic community which means,

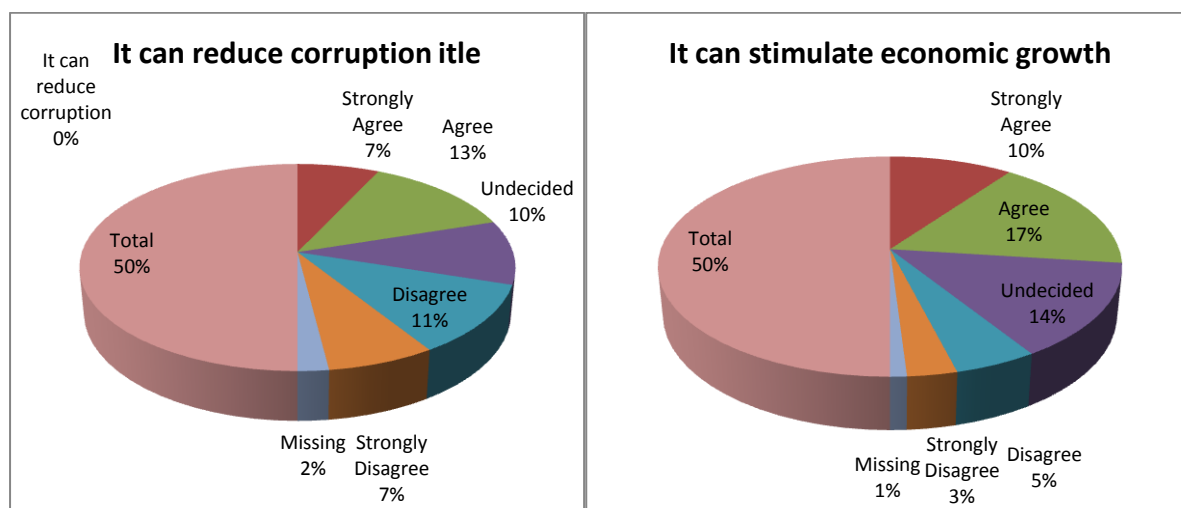
by all standards they are expected to be fairly aware of the happenings in the society. Few respondents however show a strong dislike for the cashless economy. While 50% of the respondents prefer that cashless economy should be introduced in India. The following reasons might have accounted for the low enthusiasm about its immediate introduction, the lack of preparedness for the system, the nation having other problems to solve now, freedom to use cash to any amount, inadequate technology, and that the flow of money will be hampered.

Table 2: Below presents the Perceived Benefits of the cashless economy.

It would reduce risk of fake currency			It would prevent money laundering			It can reduce corruption			It can stimulate economic growth		
	F	%		F	%		F	%		F	%
Strongly Agree	22	44	Strongly Agree	11	22	Strongly Agree	7	14	Strongly Agree	10	20
Agree	21	42	Agree	15	30	Agree	13	26	Agree	17	34
Undecided	5	10	Undecided	8	16	Undecided	10	20	Undecided	14	28
Disagree	1	2	Disagree	6	12	Disagree	11	22	Disagree	5	10
Strongly Disagree	1	2	Strongly Disagree	3	6	Strongly Disagree	7	14	Strongly Disagree	3	6
Missing	0	0	Missing	0	0	Missing	2	4	Missing	1	2
Total	50	100	Total	50	100	Total	50	100	Total	50	100

Graph No. 2



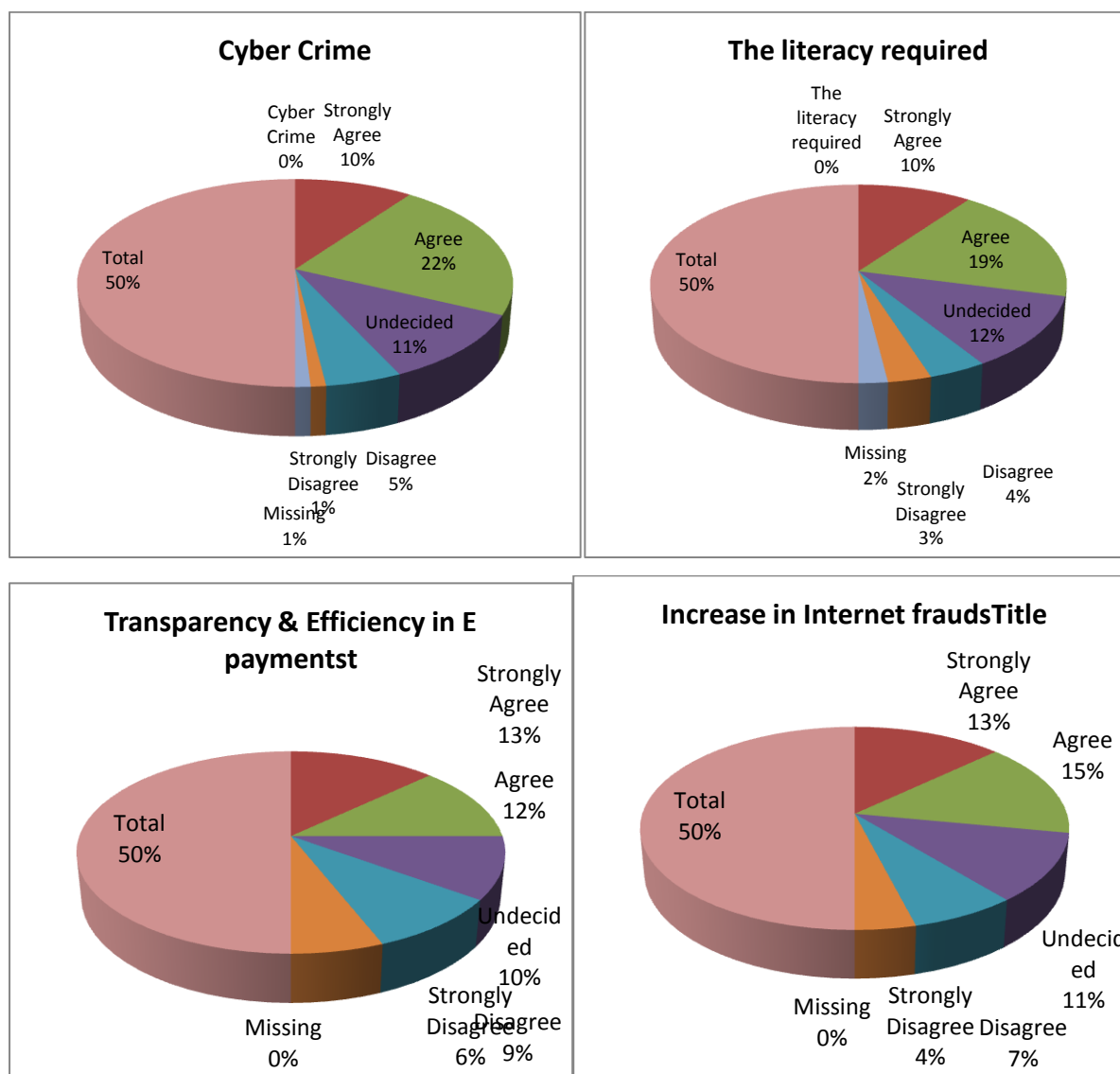


Above Table shows that 82% of the respondents believe that the most significant benefit of the cashless economy is reducing the risk of fake currency. In the same spirit, 52 %the cashless economy will help to fight against money laundering as the money flowing through the system can easily be traced. 40% of the respondents believe that it contributes towards reducing corruption. Another benefit is that it will stimulate economic growth as money hidden in other illegitimate areas will now be freed up. 54% believe that efficient and modern payment system is positively correlated with the economic development and economic growth of country.

Table 3: Below present's perceived challenges with the cashless economy

Cyber Crime			The literacy required			Transparency & Efficiency in E payments			Increase in Internet fraud		
Strongly Agree	10	20	Strongly Agree	10	20	Strongly Agree	13	26	Strongly Agree	13	26
Agree	22	44	Agree	19	38	Agree	12	24	Agree	15	30
Undecided	11	22	Undecided	12	24	Undecided	10	20	Undecided	11	22
Disagree	5	10	Disagree	4	8	Disagree	9	18	Disagree	7	14
Strongly Disagree	1	2	Strongly Disagree	3	6	Strongly Disagree	6	12	Strongly Disagree	4	8
Missing	1	2	Missing	2	4	Missing	0	0	Missing	0	0
Total	50	100	Total	50	100	Total	50	100	Total	50	100

Graph No. 3



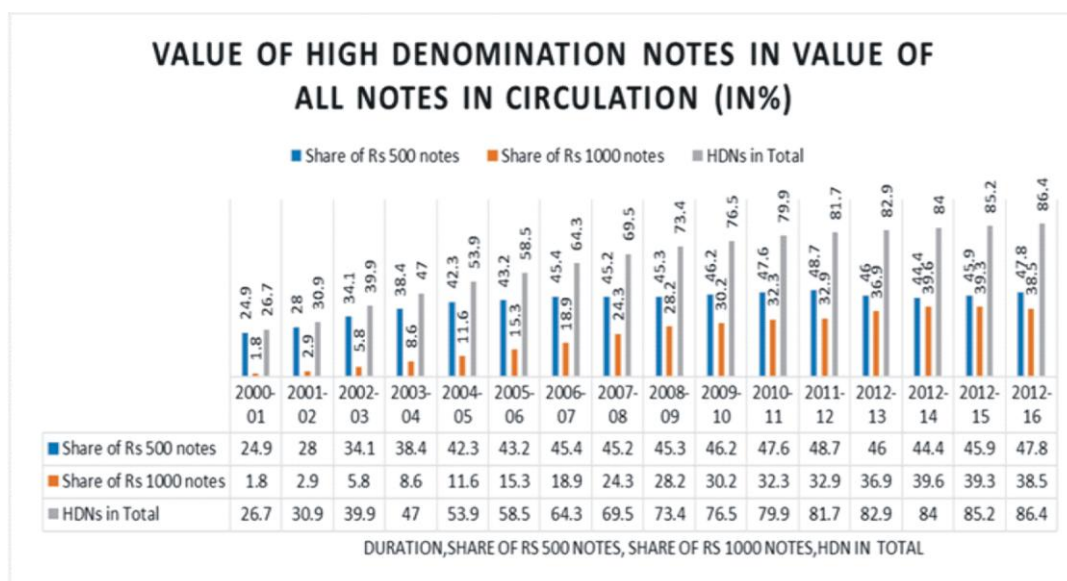
Above Table shows that there are some problems which respondents are facing to come with the cashless economy. Increase number of cybercrimes, 64% believe that cybercrime will hinder the free implementation of cashless economy. 58% population are literate they easily operate digital payment system; operate mobile phones, which will ultimately increase the users of the digital payment methods. 50% of the respondents believe that lack of transparency & efficiency in payment system. Internet fraud is the major problem to be tackled in the cashless economy as 56% of the respondents see exposure to fraudulent activities as a big problem. In a drive against the parallel economy, Mr. Narendra Modi announced that from midnight of November 8 all Rs.500 and Rs. 1000 currency notes would cease to be legal tender. The objective of this announcement to outbreak black money and overthrow counterfeiting of currency. At a single stroke, 86.4 percent of currency in circulation was deprived of its status as legal tender. The immediate effect of it was much of commerce frozen, electronic transactions took place. While campaigning for the 2014 Indian General Elections, the Bharatiya Janata Party (BJP) laid huge emphasis on rampant corruption in the government machinery and promised the Indian public, that if the party would be voted into power, it will solve the problem of black money

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which is the root cause of many problems in India. Modi Government formed Special Investigation Team (SIT) under the leadership of Supreme Court judge M.B. Shah to attack black money and the government of India imputes to make India a less cash economy which will boost the economy and open a new form of payment ways like e-wallet and other option. Based on the secondary data and review has reported on various emerging trends and issues and challenges in demonetisation to the digitization of Indian economy. Various research reports, journal, and newspaper article from eminent writers have been reviewed.

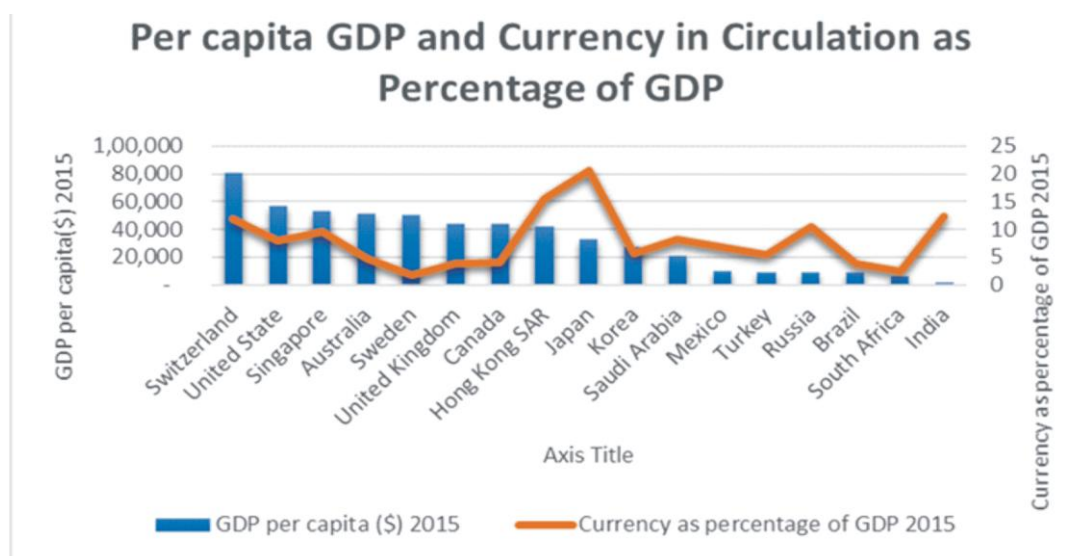
The above figure shows the value of high denomination notes in the value of all notes in circulation before November 8, 2016. This is the largest number in last 16 years because of this nation was facing many problems.

Graph No 4



Value of High Denomination Notes in Value of All Notes in Circulation (in %)

Graph No 5



Per Capita GDP and Currency in Circulation as Percentage of GDP

The above figure shows that India's per capita GDP and currency in circulation as a percentage

of GDP is more than the average i.e. 9%, therefore, transforming the Indian economy to a less cash is a need of the hour.

Table No 4

Country	Year	Measures	Result
United States of America	1969	US President Richard Nixon declared all bills above \$100 null and void in 1969.	Objective achieved. Till date, largest denomination currency in the USA is \$100.
Nigeria	1984	Demonetization of all prevailing currencies.	Results were not encouraging. The then government led by Muhammadu Buhari was out of power in following year.
Zaire	1990	Demonetization drive	Failed. Country recovered after a decade.
Soviet Union	January 1991	Demonetization of 50 & 100 Rubbles.	Resulted in the destabilization of government and significant loss of economy.

The above table shows the history and the outcome of the demonetisation done by various Countries

The Best Five less cash Payment Options in India are as Follows

1) *E-Wallets* – E-wallets have become very much popular nowadays. These e-wallets make use of phone number or the QR code and the transactions will be done in a matter of minutes.

2) *UPI* – Unified Payments Interface is another great way for cashless transactions... Through UPI we can transfer the amount very easily all that we need are two important things, smartphone, and bank account. The recent app developed by National Payment Corporation of India, based on UPI, is BHIM.

3) *Plastic Money* – The debit as well as credit cards which are used for dealings in ATM and in 'Point of Sales' are known as the Plastic money. This plastic money reduces the security risk of carrying the hard cash.

4) *Net Banking* – Almost all banks provide the 'Net Banking' facility to its customers. All that the customers need to do is to enable the e-banking facility for their bank account to go cashless. Net Banking is the most convenient way for the customers to do all their transactions without visiting the branch. Customers can make payment, transfer and receive the amount by ourselves through this e-banking facility.

5) *Aadhaar Card* – By linking the Aadhaar card to our bank account we can make use of Aadhaar card enabled payment system. After linking our Aadhaar card to our bank account, we can do our transactions by means of our fingerprints.

Advantages of less cash Transactions

The cashless transactions provide benefit in long run and it changes the deep-rooted behaviour among the people.

1) Cost Effective to Banks: If a transaction is done manually at the branch of the bank it costs Rs.40 to 45 but if the same transaction is done through online it costs roughly Rs.7 to 8. This reduces the cost of operation for the banks and also makes it convenient for both banker and the customer.

2) Low Time Consumption: Apparently, the cashless transactions reduce the time consumption for the customers and it minimizes the count of customer complaints. The customers, with the help of various options for cashless transactions, transfer or receive the amount in a matter of minutes and saves the time of visiting and carrying out the transactions in the bank branch.

3) Safe and Secure: Cashless transactions provide high-end security by means of availing the facility of fingerprints and One Time Password (OTP) for every transaction.

4) Up-gradation of Technology: The shift from the conventional banking to cashless transactions brings technological advancement. The banks increase their ATMs, PoS machines count and various other features in the e-banking domain periodically.

5) Control of Black Money and Check for Anti-Money Laundering: There is a traceability feature in e-banking unlike the cash transaction so it is easy to check the anti-money laundry and black money circulation in the country. It reduces many financial scams in our country and enhances the proper economic growth.

Findings and Policy Implication

From the above analysis it also appears that many people actually agree with the government on the usefulness of cashless economy as it helps to fight against terrorism, corruption, money laundering but one biggest problem in the working of cashless economy in India is cybercrime and illegal access to primary data. Therefore, it's important to strengthen Internet Security from protection against online fraud. Large number of population is still below literacy rate living in rural areas. For smooth implementation of cash less system in India, the following measures are recommended Government have to bring transparency and efficiency in e-payment system, strategies used by government and RBI to encourage cashless transactions by licensing payment banks, promoting mobile wallets and withdrawing service charge on cards and digital payments. A financial literacy campaign should be conducted by government time to time to make population aware of benefits of electronic payments.

Conclusion

“People who change after change will survive People who change with change will succeed People who cause the change will lead” -Narendra Modi Prime Minister of India

This quote of prime minister is very important in this context. This show the determination and a political will to change the entire structure of the economy and

to build cashless India. Demonetisation may hit the GDP growth of the country for two financial quarters, but the result will be positive in long run.

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Appendix: CURRENT STATISTICS - Payment and Settlement Systems

System	Volume (Million)				Value (` Billion)			
	2017-18	2018			2017-18	2018		
		Jul.	Aug.	Sep.		Jul.	Aug.	Sep.
	1	2	3	4	5	6	7	8
1 RTGS	124.46	10.97	11.01	10.40	1,467,431.	138,628.	138,236.	131,257.
1.1 Customer Transactions	120.71	10.69	10.74	10.14	99	54	20	97
1.2 Interbank Transactions	3.72	0.28	0.27	0.26	1,036,698.7	99,646.35	97,993.5	91,806.8
1.3 Interbank Clearing	0.024	0.002	0.002	0.002	4	12,366.56	3	4
2 CCIL Operated Systems	3.50	0.31	0.30	0.31	130,426.03	26,615.63	11,220.57	12,230.5
2.1 CBLO	0.20	0.02	0.02	0.02	300,307.2	95,221.9	29,022.1	0
2.2 Govt. Securities Clearing	1.12	0.08	0.08	0.09	2	0	1	27,220.6
2.2.1 Outright	0.92	0.06	0.06	0.07	1,074,802	27,040.2	91,744.5	3
2.2.2 Repo	0.199	0.020	0.018	0.017	.02	8	9	93,394.
2.3 Forex Clearing	2.17	0.21	0.20	0.20	283,307.5	29,828.7	24,676.9	77
3.1 Cheque Truncation System (CTS)	1,171.31	95.38	91.13	88.02	8	9	2	25,897.9
3.2 MICR Clearing	1,138.05	94.19	90.07	87.28	370,363.78	6,654.82	29,516.0	5
3.2.1 RBI Centres	—	—	—	—	113,998.80	23,173.97	2	30,728.6
3.2.2 Other Centres	—	—	—	—	256,364.9	38,352.8	7,284.65	7
3.3 Non-MICR Clearing	— 33.27	— 1.19	— 1.06	— 0.74	8	3	22,231.3	7,560.09
4.1 ECS DR	5,467.2	564.9	587.2	552.4	421,130.66	6,833.3	8	23,168.5
4.2 ECS CR (includes NECS)	9	4	0	6	81,934.93	8	37,551.65	8
4.3 EFT/NEFT	1.54	0.04	0.05	0.04	79,451.24	6,749.96	6,428.11	36,768.1
4.4 Immediate Payment Service (IMPS)	6.14	0.57	0.41	0.52	—	—	6,355.16	5
4.5 National Automated Clearing House (NACH)	1,946.36	180.60	193.20	181.01	—	—	—	6,343.6
5.1 Credit Cards	1,009.8	127.38	133.58	135.74	— 2,483.68	— 83.42	—	7
5.1.1 Usage at	0	256.35	259.96	235.15	192,017.9	19,621.3	— 72.95	6,289.79
6.1 ECS DR	2,503.4	1,294.	1,307.	1,300.	8	0	21,071.6	—
6.2 ECS CR	6	92	74	42	9.72	0.28	7	—
6.3 EFT/NEFT	13,358.	145.81	145.04	139.03	118.64	13.90	0.29	— 53.89
6.4 Immediate Payment Service (IMPS)	62	0.80	0.84	0.80	172,228.52	17,321.37	9.73	20,328.
6.5 National Automated Clearing House (NACH)	1,412.97	145.01	144.20	138.23	8,924.98	1,171.67	18,712.45	48
7.1 ECS DR	7.81	1,149.11	1,162.6	1,161.39	10,736.12	1,114.09	1,237.34	0.31
7.2 ECS CR	1,405.16	781.76	9	798.65	38,214.64	3,648.13	1,111.87	10.28
7.3 EFT/NEFT	11,945.6	367.35	805.52	362.75	4,626.33	481.31	3,733.16	18,015.5
7.4 Immediate Payment Service (IMPS)	5	351.80	357.17	357.8	36.68	3.72	483.68	0
7.5 National Automated Clearing House (NACH)	8,602.2	325.18	372.9	6	4,589.65	477.58	3.86	1,256.40
8.1 ECS DR	6	26.62	4	324.16	33,588.31	3,166.82	479.82	1,046.00
8.2 ECS CR	3,343.3	—	340.65	33.70	28,987.61	2,683.76	3,249.48	3,613.73
8.3 EFT/NEFT	9	340.4	32.29	—	4,600.70	483.06	2,759.76	464.72
8.4 Immediate Payment Service (IMPS)	3,459.	9	—	477.57	1,416.34	175.19	489.72	3.72
8.5 National Automated Clearing House (NACH)	05	1,002.	385.8	1,031.	1,086.75	152.02	189.81	461.01
9.1 ECS DR	3,025.9	15	1	55	310.41	23.16	155.73	3,149.01
9.2 ECS CR	8	40.15	1,021.	41.76	19.19	—	34.08	2,690.60
9.3 EFT/NEFT	432.63	962.00	23	989.79	14,738.54	2,091.86	—	458.41
9.4 Immediate Payment Service (IMPS)	0.44	22146	41.03	22149	—	—	2,021.9	177.49
9.5 National Automated Clearing House (NACH)	1,872.2	3	980.20	2	—	—	0	151.02
10.1 ECS DR	6	32688	22108	33933	—	—	—	26.47
10.2 ECS CR	898.56	17	3	96	—	—	—	—
10.3 EFT/NEFT	37.48	2,318.	33324	2,309.	—	—	—	2,074.9
10.4 Immediate Payment Service (IMPS)	861.08	31	84	47	2,555,510.	237,512.	—	5
10.5 National Automated Clearing House (NACH)	222247	—	2,370.	—	68	82	—	—

Cashless (Less Cash) Economy & Digitization of Indian Economy

ATMs	30830		31				232,381.	—
5.1.2 Usage at POS	67						44	—
5.2 Debit Cards	23,584.20							—
5.2.1 Usage at ATMs								227,895.49
5.2.2 Usage at POS								
6 Prepaid Payment Instruments (PPIs)								
6.1 m-Wallet								
6.2 PPI Cards								
6.3 Paper Vouchers								
7 Mobile Banking								
8 Cards Outstanding								
8.1 Credit Card								
8.2 Debit Card								
9 Number of ATMs (in actuals) 10								
Number of POS (in actuals) 11								
Grand Total (1.1+1.2+2+3+4+5+6)								

Note : Data for latest 12 month period is provisional.

Mobile Banking - The data from July 2017 includes only individual payments and corporate payments initiated, processed, and authorised using mobile device.

Other corporate payments which are not initiated, processed, and authorised using mobile device are excluded.

APPENDIX TABLE 4: INFLATION, MONEY AND CREDIT

Inflation									
Consumer Price Index (All India)#	Rural			Urban			Combined		
	2015-16	2016-17	2017-18	2015-16	2016-17	2017-18	2015-16	2016-17	2017-18
1	2	3	4	5	6	7	8	9	10
General Index (All Groups)	5.6	5.0	3.6	4.1	4.0	3.6	4.9	4.5	3.6
Food and beverages	5.4	4.7	2.4	4.6	3.9	1.8	5.1	4.4	2.2
Housing	4.9	5.2	6.5	4.9	5.2	6.5
Fuel and light	6.8	4.6	6.5	2.7	1.0	5.6	5.3	3.3	6.2
Miscellaneous	4.7	5.1	4.3	2.8	3.7	3.1	3.7	4.5	3.8
Excluding Food and Fuel	5.5	5.5	4.7	3.9	4.3	4.6	4.6	4.8	4.6
Other Price Indices	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1. Wholesale Price Index (2011-12=100)*									
All Commodities	3.8	9.6	8.9	7.4	5.2	1.3	-3.7	1.7	2.9
Primary Articles	12.7	17.7	9.8	9.8	9.8	2.2	-0.4	3.4	1.4
of which : Food Articles	15.3	15.6	7.3	9.9	12.3	5.6	2.6	4.0	2.1
Fuel and Power	-2.1	12.3	14.0	10.3	7.1	-6.1	-19.7	-0.3	8.2
Manufactured Products	2.2	5.7	7.3	5.4	3.0	2.6	-1.8	1.3	2.7
Non-Food Manufactured Products	0.2	6.1	7.3	4.9	2.7	2.7	-1.8	-0.1	3.0
2. CPI- Industrial Workers (IW) (2001=100)	12.4	10.4	8.4	10.4	9.7	6.3	5.6	4.1	3.1
of which : CPI-IW Food	15.2	9.9	6.3	11.9	12.3	6.5	6.1	4.4	1.5
3. CPI- Agricultural Labourers (1986-87=100)	13.9	10.0	8.2	10.0	11.6	6.6	4.4	4.2	2.2
4. CPI- Rural Labourers (1986-87=100)	13.8	10.0	8.3	10.2	11.5	6.9	4.6	4.2	2.3
Money and Credit									
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17^	2017-18
Reserve Money (RM)	17.0	19.1	3.6	6.2	14.4	11.3	13.1	-12.9	27.3
Currency in Circulation	15.7	18.8	12.4	11.6	9.2	11.3	14.9	-19.7	37.0
Bankers' Deposits with RBI	21.0	20.2	-15.9	-10.0	34.0	8.3	7.8	8.4	3.9
Currency-GDP Ratio\$	12.3	12.2	12.2	12.0	11.6	11.6	12.1	8.8	10.9
Narrow Money (M1)	18.2	10.0	6.0	9.2	8.5	11.3	13.5	-3.9	21.8
Broad Money (M3)	16.9	16.1	13.5	13.6	13.4	10.9	10.1	6.9	9.2
Currency-Deposit Ratio	15.9	16.3	16.1	15.7	15.1	15.2	16.0	11.0	14.4
Money Multiplier (Ratio)##	4.8	4.7	5.2	5.5	5.5	5.5	5.3	6.7	5.8
GDP-M3 Ratio\$##	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Scheduled Commercial Banks									
Aggregate Deposits	17.2	15.9	13.5	14.2	14.1	10.7	9.3	11.3	6.2
Bank Credit	16.9	21.5	17.0	14.1	13.9	9.0	10.9	4.5	10.0
Non-food Credit	17.1	21.3	16.8	14.0	14.2	9.3	10.9	5.2	10.2
Credit-Deposit Ratio	72.2	75.7	78.0	77.9	77.8	76.6	77.7	72.9	75.5

Cashless (Less Cash) Economy & Digitization of Indian Economy

Credit-GDP Ratio\$	50.1	50.6	52.8	52.9	53.4	52.4	52.7	51.4	51.4
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: Base for Consumer Price Index (All India) is 2012=100; ^ : March 31, 2017 over April 1, 2016 barring RM and its components.

...: CPI Rural for Housing is not compiled. ##: Not expressed in per cent.

*: Base for WPI is 2004-05=100 for the period 2008-09 to 2012-13 and 2011-12=100 for the period 2013-14 to 2017-18.

\$: GDP data from 2011-12 onwards are based on new series *i.e.*, base: 2011-12.

Note: Data refer to y-o-y change in per cent, barring the ratios.

Source: RBI, CSO, Labour Bureau and Ministry of Commerce and Industry.

The Challenges of Women leadership and management in India

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Management

ABSTRACT

Women represent half of the population in world but continuously face the problems of inequality in every field whether it is in government or non-government organizations and particularly face the problems for leadership because men always think that women cannot be a good leader or manager but at the domestic level men agree for the women work because men always think women only good for domestic work. Achieving equality for women in corporations, at all levels, is a long and demanding journey, which requires the implication of the whole company and the strong commitment of the top management. According to the United Nations publications on “women challenges of year 2000,” “women constitute half the world’s population, perform two-thirds of the world’s work, but receive only one tenth of its income and own less than one-hundredth of its property” More than 40 percent of women represent world’s labor force and half of the world’s population. Over the years government tries to make policies and programs to advance women in government enterprises and organizations. In developing countries particular in rural areas women produce more than 55 percent of food grown. Various studies show that women proved to be successful owners of the business and also successful managers (Koshal, M., Koshal, R. K., & Gupta, A. K). The report highlights that women comprise 16 percent at junior management level, 4 percent each at middle and senior levels, and only 1 percent in organizational leadership positions (CEOs) (Women managers in India: Challenges and opportunities (2009) Centre for Social Research p. 2). This paper is based on Secondary data. The paper highlights the challenges of women leadership and management in India.

Introduction

Women have faced discrimination both at home and at the societal level. While gender inequalities in many areas have been on the agenda of social research and activism for decades, gender inequality in organizational leadership has been sadly overlooked.

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Worldwide the number of women in the workforce has increased over the years with a corresponding increase in the number of highly educated women equipped with technical know-how. However, discrimination against women in the workplace has impacted their advancement in jobs that acquire higher societal recognition among men. Gender inequality in the workplace is exhibited in various forms, such as occupational segregation, gender-based wage gap and discrimination. Working women have constantly battled against not only horizontal segregation, but also, the separation of women and men into gender specific jobs. Advancement of women in management jobs has not kept pace with the correspondence increase in the number of working women. Their presence in senior management level is negligible. Women are graduating and entering management positions, yet there is a bottleneck at middle management levels.

According to the United Nations publications on “women challenges of year 2000,” “women constitute half the world’s population, perform two-thirds of the world’s work, but receive only one tenth of its income and own less than one-hundredth of its property” More than 40 percent of women represent world’s labor force and half of the world’s population. Over the years government tries to make policies and programs to advance women in government enterprises and organizations. In developing countries particular in rural areas women produce more than 55 percent of food grown. Various studies show that women proved to be successful owners of the business and also successful managers (Koshal, M., Koshal, R. K., & Gupta, A. K. Indian female Managers: Their Role in Economic Development.) Globally women comprise around 10 percent of senior management positions in Fortune 500 companies. In India their presence is known to range between a high of 5.8 percent (Kulkarni, 2000, p.11) to a low of roughly 3 percent of all administrative positions. According to the study by Koshal, et al (2006), 2 women per 100 economically active men take administrative and managerial positions in India (Koshal, M., Koshal, R. K., & Gupta, A. K).

OBJECTIVES OF THE STUDY

- To examine the extent to which the challenges impose on women managers ‘performances and their progresses to leadership position
- To suggest possible strategies that can be used to enhance women’s participation in leadership position

LITERATURE REVIEW

There are certain factors, which hinder women from pursuing their progress and expansion women ‘s career. These factors are shown-up by different authors and expounded as follows: Burton (1991) and Bierema and Opengart (2002) agree that equal access to career advancement of women remains a problem.

Work family barriers: Lack of support results in conflict with career demands which leads to women delaying their advancement into management or executive positions (Jano, 2000). A recent study on female managers in South Africa found that whilst 93 %

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of their husbands/partners supported their careers, only 27 % of the women had structured arrangements regarding the division of daily household tasks and 10 % of the respondents received no assistance at all from their husbands/partners. These statistics indicate that women in most cases still assume primary responsibility for child and home care (Naidoo & Jano, 2003). As a result of this, Naidoo and May (2005) contend that many women will reassess their personal lives when planning for a lifelong career. The main concerns in the women's perspective were the duration or working time that is required longer than they expected (Mooney and Ryan, 2008). In addition, the When demands of the job increasingly encroach into family life, women experience conflict which affects their career outcomes (Voydanoff, 2005). Lopez- Claros and Zahidi (2005) stated that work-life balance is very difficult for women with young children especially when they try to balance their role as the primary caregiver with additional responsibility in the organization. Where family demands are concerned, ambitious women seldom rely on organizational support for fear of reinforcing the communal stereotype (Broadbridge, 2008). Therefore, many women who are executives and those in elite occupations handle by making discreet choices between their career advancement and family such as "opting out" or postponing their marriage and parenting (Blair-Loy, 2001; Nelson and Burke, 2000). In other circumstances, women also enhance their personal domain resources by relying on spousal support, for example dividing house responsibilities and taking care their children (Brett and Stroh, 2003). However, in certain cases such couple-level adaptive strategies, even though packaged as a couple's collective decision, do not necessarily promote women's work-life balance (Wierda-Boer et al., 2008). According to Keene and Reynolds (2002), because of family and job responsibilities, women managers are at a disadvantage. Since family needs more attention, women managers are forced to avoid overtime. Therefore, this idea is supported that women are not involved in their job as much as their male counterparts. In the highly acclaimed book, work and family :allies or enemies, Freidman and Green house (2000) argue that conflict between work and family has real consequences for women may include serious constraints on career choices ,limited opportunity for career advancement, most studies found that women themselves admitting that domestic factors make it difficult for them to advance to higher jobs(punia2005)The expectation that women should give priority to the family suggests that women managers would experience higher level of parental role-overload than men.(aryee, sriniva S 2005) A very recent study by warenflox (2009) reveals that combining paid work and mother hoods rename a major source of difficulties for women. Women are responsible for domestic labour and childcare (tang and cousins 2005) Ronald burke and mustalakoyuncu,lisa , Fiksenbaun (2002) argued qualified women are entering professional and managerial ranks within organization they continue to have difficulties in advancing their careers.DIGeorgio-lutz(2002) ,about balancing work and family and quoted the words of Hansell lack of supportive environment for combining family and work may the biggest barrier to women's advancement.

Organizational culture: Employers and female professionals agree that family responsibilities and a lack of flexibility in the work place are obstacles to women 's advancement. However, they do not see eye to eye on several other factors According to

recent study, women were more likely than their employers to see an inhospitable organizational culture one that fosters stereotyping and assumptions about women 's roles and abilities as a major obstacle. Such a culture can create many barriers for women seeking senior management positions Myerson (2001) and Bierema and Opengart (2002) agree that when it comes to the structure and culture of the organization, are often not structured to accommodate women 's values. Linehan and Scullion (2005) state that women are typically placed in non-strategic sectors rather than in professional and management jobs, which lead to slow career progression. Eagly and Wood (1991) feel that, this is an explanation of why most women are less attracted to managerial positions, because organizational cultural preferences are more restraining for them than men. For instance, a lack of supportive workplace practices such as mentoring and ample time to make arrangements for child care and other personal responsibilities—can indirectly inhibit their progress. On the other hand, discrimination and harassment are often used to directly impede it. Laff (2006) finds that women are inhibited in the workplace because of their limited access to capable mentors.

Sexual harassment: Sexual harassment has been identified as one of the most pervasive and serious problems female employees experience in the workplace (Fitzgerald & Betz, 1983; Gutek, 1985). It devalues women 's abilities and slows down their progress (Gilbert, Hallett & Eldridge, 1994). According to Nieva and Gutek (1981), sexual harassment impacts on women in both the short and long term. In the short-term women may lose Confidence and resign. In the long-term career progression is affected and gender inequality is maintained in organizations. Stereotypes of women as managers (Bierema and Opengart 2002) are of the same opinion with Burton (1991) that some of the factors, which contribute to the slower career progress of women and fewer opportunities are because of stereotypes against women as managers. This is owing to traditional approaches and models of careers in organizations which were based on the experience of men, thus negative attitudes for women who seek career advancement in the workplaces. Another example is that in 2003 while working in a voluntary job for a particular organization in Lesotho, the researcher 's female supervisor was denied promotion in spite of her outstanding work performance as her boss claimed that she had just lost a husband and had six children as well as other family responsibilities, hence, she would not be able to balance the two (her job and family commitments). Underinvestment in social capital Ryan and Jetten (2009) were of the opinion that women 's networks could be a vehicle for individual strategy in advancing their career, and could as well be a strategy to give the women a voice in an organization and better their lots. Therefore, in order to appreciate the social networking of women, it is paramount to understand the socio-structural context of the society where they live, and more specifically as it affects their organization. Attending social gatherings increases one's visibility (Robbins and DeCenzo, 2007). According to (Aswathappa, 2005) one 's presence at social functions and events provide social interaction and a source of information about career opportunities. To enhance career advancement opportunity, one needs to join a support group to be able to listen to others and develop empathy and other key interpersonal relationships (Zajas, 1995). Vinnicombe and Colwill, (1997) indicate that associations can make women more visible

in society encourage them to contribute and develop. In addition, Dessler (2008) observes that a study on minority working women in the United States showed that 40 percent of the women attributed their lack of career advancement to lack of networking with influential colleagues. All the same, several authors have stated that networks are important for increasing visibility and career advancement (Robbins and Coulter, 1999; Vinnicombe and Singh, 2003; Aycan, 2004; Maxfield, 2005; Ogden et al., 2006). According to Ogden et al., (2006) networking was an important enabler to career development. Robbins and Coulter (1999) state that networks lead to career success. According to Ackah and Heaton (2003) men used networks to obtain promotions. Aycan (2004) states that women who had made it to top *The Journal of Language, Technology & Entrepreneurship in Africa*, Vol. 2. No. 1.2010, ISSN 1998-1279 management in Turks. Maxi-field (2005) contents that women found networking challenging and thus they lacked the important tool of networking. Ackah and Heaton (2003) state that women were excluded from the networks through which they could make themselves known and learn about promotion processes. Studies conducted in Tanzania showed that women who do not network remain vulnerable and liable to being rendered invisible and never remembered when promotions were being discussed (Adler and Izraeli, 1994).

CONCLUSION

This study attempts to look at the association among work family barriers, organization culture, under investment in social capital and career salience with women managers' career progression to leadership positions. The outcome of the analysis and investigation aid the direct negative relationship between work family barriers, organization culture barriers and underinvestment in social capital with women managers' progression. It is interesting to note that career salience was found to be more expressively related to women managers' profession advancement. The direct negative relationship between work family barriers and women managers' progression put forward that women lose out on their careers because of the choices they make to accommodate their family responsibilities. Advocating further, barriers women managers face can be tailed that the inhospitable organization culture and underinvestment in social capital makes women distracted from leadership positions. This all could result in gender biased talent management activities in the organization. Men are selected over women for specific positions, given more challenging assignments that enable them to show their ability and give them high visibility and given high value training and development opportunities that enable the men to obtain skills and competencies which make them eligible for top management/leadership positions. The gender biased talent management activities have a detrimental effect on women managers' progression. To leadership position, the findings of the research are consistent with some earlier studies. Similarly, studies do support the finding that family related variables (Voydanoff, 2005; Blair-Loy, 2001) and negative stereotype (Cabrera et al., 2009; Embry et al., 2008) do influence women managers' career progression to leadership position.

RECOMMENDATIONS

- Hence, promoting gender assortment and leadership variability is of strategic magnitude for companies.
- Corporations need to ensure that their recruitment, appraisal and career management systems are gender-impersonal and performance-focused, and that they do not clutch women back in their professional development.
- A good education, tutoring, family support, effective communication expertise and lifelong learning are essential for Indian women managers.
- Today Employers need programs to help them recognize the benefits women can bring to their business and raising awareness within institutions of the valuable role played by women leaders to counter gender stereotypes.
- Human resource policies and programs ought to form that it should not only assemble entry level simpler for women in management but also expedite in enduring (career advancement).
- Providing women leaders with training and formalized mentoring to carry out their leadership roles and grow in these positions.
- Creating enabling business practices that allow women and men to balance the demands of leadership while also being able to care for their families.

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Female Consumers and Their Leisure Spending in A Digital World

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ABSTRACT

The purpose of this paper is to understand and analyse the female consumers spending on leisure activities in digital world. Research design used for this work is based on exploratory and descriptive research and convenience sampling method is applied for data collection; with the sample size of 50 women's & data is analysed. This paper contributes on a major objective to understand the leisure activities of women consumer and their influencing factor and found that women love to explore the world go to trips, spend time with friends, colleagues and she also love spending on herself and going to physical fitness activities, restaurants movies etc. The study is restricted to Indian women. This paper revolves around understanding and analysing the Indian female consumers spending on leisure activities in digital world and identify the influential factors of women on leisure activities.

Introduction

Leisure means different things to different people. Women looks leisure activity quite differently than the men and it is such a wonderful feeling in male dominant society that women not only think about leisure as an activity but as a source of inspiration and they persue it to make sure that their lives are happy and prosperous. This study is an attempt to analyze the money spent by the women on leisure activities in digital world.

Statement of The Problem

To understand and analyse the female consumers spending on leisure activities in digital world.

Objective of The Study

1. To understand and analyse the female consumers spending on leisure activities in digital world.
2. To analyze the leisure activity of women consumers.

3. To identify the influential factors on leisure activities.

Research Methodology

The researcher has applied exploratory and descriptive research design by constructing the questionnaire and subjected the questionnaire to 50 women consumers who are entertainment freaks in India. Using convenience sampling for data collection. The collected data has been analysed using simple tools such as averages, percentages and measurement scales were used to arrive at desired results.

Literature Review

Fei Wang, Shengdong Lin, and Xue Ke 2015, in their research paper, “Just entertainment: effects of TV series about intrigue on young adults” opines that the potential harmful effects of media violence have been studied systematically and extensively. However, very little attention has been devoted to the intrigue and struggles between people depicted in the mass media. A longitudinal randomized experimental group-control study was conducted to examine the potential effects of this type of TV series on young adults. A typical and popular TV series was selected as a stimulus. By scrutinizing the outline of this TV series and inspired by studies of the effects of media violence, one behavioral observation and five scales were adopted as dependent measures.

Catrinel Dridea, Gina Sztruten a report on “FREE TIME –THE MAJOR FACTOR OF INFLUENCE FOR LEISURE”, states that Nowadays, leisure services determine an increasing new way of tourism development.

Joseph Anthony L. Reyes, 2016, in their research paper, “Exploring leisure time activities and sociodemographic indicators of subjective happiness and self-perceived health among Filipinos” contributed about the relationships of subjective happiness and self-perceived health with leisure time activities and sociodemographic variables among Filipinos. It uses data from the International Social Survey Programme 2007: Leisure Time and Sports (ISSP 2007), and is the first paper that specifically investigates the case of the Philippines. Age was found to have significant negative relationships with leisure time activity engagement, subjective happiness, and self-perceived health. Body Mass Index was found to significantly predict a better self-perceived health. Cultural, TV/music, and social leisure activities were found to be significant predictors only in some of the outcome categories of happiness and health, whereas physical leisure activities were not found to be significant. Notably, subjective happiness and self-perceived health were significantly predicted by subjective socio-economic status, but not by actual family income.

Kirk L. Wakefield, Victoria D. Bush, (1998), in their research paper "Promoting leisure services: economic and emotional aspects of consumer response" highlighted that women get motivated by price deals too whenever she opts for leisure spending.

Anna M Martinson, Nancy Schwartz, Mishra walker, Vaughan, in their research paper “Women’s experiences of leisure” attempted To understand issues involved in designing

entertainment technology for women, they suggest that women might make more use of computer-based technology for leisure if it was designed to fit into existing routines of leisure activity.

Neerja Jaiswal, Anushree Bahedia, in their research paper “A Gender Study on the Leisure Time Activities (LTA) Pursued by the Youth”, worked on time as a quantitative resource as it can be measured easily. Leisure time is one of the aspects of time along with work and rest. Activities engaged in leisure time are pursued for one’s own sake and found that all the male and female respondents ranked social leisure time activity first on the basis of leisure time activities pursued by them. It also revealed that the male and female respondents spent maximum time in pursuing leisure time activities related to “entertainment”. It will be helpful to the youth of the nation, academicians and community in adopting different leisure time activities.

A report on “Young female users of social media and internet addiction on the free time for the entertainment purpose” disclosed that they use list of values scales to profile addictive female users of leading social media sites such as Facebook and Twitter and found that addictive female users of Twitter value personal excitement above all other measures of values. These construct load on actual usage of their respective social media environment and alone yield significant correlation value when trying to assess social media usage.

Eileen Green, Sandra Hebron, Diana Woodward, in their research paper “Women’s leisure today” described that the activities women enjoy and do most frequently in and around the home are not much different from men’s preferred forms of leisure. And, reading books, knitting and sewing were more popular with women, and gardening and do-it-yourself were for men.

Indian Leisure and Entertainment Sector: An Overview

Women's Leisure Activities: A Snapshot

Women need recreation so that they can be stress free and can play a key role not only in house work but also can nurture their careers. Present day women is multitasking and trying to make sure that she is equally enjoying the fun and frolic with the family.

The number of hours spent in recreation is also increasing for a working mother due to changes in societal needs, changes in shopping experiences and reaching the expectations of the family.

Women are taking on much of this responsibility, with younger women also bearing an increasing burden. Leisure time for women could be less than for men because although women are more frequently engaged in part-time work than men, they spend more time completing unpaid work such as household chores and childcare.

Data Analysis and Interpretation

- It is found that most of the women’s spend their time in watching TV followed by facebook, social media, shopping, grazing across the world.

- 80% of the women are awaiting for the chance to visit tours and trips as they want to explore new things in the world.
- Majority of the women spend Rs.500+ on the leisure activities.
- 60% of the women expect the leisure activities or entertainment to be near to their location and 40% of them don't mind moving far away for the leisure activities.
- Women usually love spending their free time with their friends and family.
- Women would involve themselves into leisure activities on Sundays as they are free from all the obligations and responsibilities on Sunday.
- 60% of the women love to spend their leisure indoors and 30% want to move out and 10% based on the situation.
- Women are more comfortable spending time indoors because they have many commitments and they can also do multiple things indoor.
- Whenever women gets an opportunity to spend on outdoor entertainment activities they spend above 500-1000 above.
- Free entries and entertaining locations encourage college going kids to enter local leisure activities and reasonable priced restaurants and rest would prefer going to best places.
- It is found that women usually visit tours with their partners, friends and family.
- Women love to spend with family more and explore new places accompanied with their kids and family.
- Women love visiting beaches, hill stations followed by deserts and historical places.
- It is been found that women usually spend 3days to 1 week time on tours.
- 85% of the women love going for world tour.
- Women spend and give equal importance to family and friends.
- The influencing factor for women is TV, social media, neighbours, friends, colleagues and peer groups.
- Women also spend their leisure activities in clubs, aerobics, gyms and any physical activities too.

Findings

- Women love to explore the world tours and entertainment locations.
- Middle aged women are more comfortable spending their leisure time indoors and in near by premises.
- Women want to spend leisure and move around but she is tied up with responsibilities and obligations.
- Women are getting influenced by their peer groups, friends, colleagues, friends, families and children too.
- Women spend 1000+ on her leisure activities weekly when she go out.
- Given a opportunity they spend 3days – 1 week on tours.
- She love visiting beaches, hill stations, adventurous places in most of the cases.
- They are good manager and manages to give equal importance to both family and friends.
- Young women love hanging out with their friends every weekend.

- Corporate working women are outgoing in nature and love to explore and spend there time out whenever they get leisure.

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Achievements and Challenges of NRHM in Rural health: An evidence from Tribal India

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ABSTRACT

NRHM was launched with the objective to provide accessible, affordable and accountable quality health services to the poorest households in the remotest rural regions and it has been a noble experiment in the direction of improving status of health in the country. This study tried to look at the impact of NRHM on the various health in tribal India over the period of time. The present paper seeks to evaluate the performance of service delivery in rural public health facilities under National Rural Health Mission. Based on available material, achievements and limitations, the concept and working of NRHM has been discussed. The historical development of health services in Indian context has been explained, the problems and challenges being faced in the implementation of this program are highlighted.

"For the wealthiest country in the world...to not have figured out access to basic healthcare as a fundamental right for individuals, I think is a little bit of a national embarrassment."

John Jay Shannon

Introduction

The health of a nation is an essential component of development, vital to the nation's economic growth and internal stability. Access to health is priority area to each country. They invest huge amount of money to provide health facilities to each individual of the nation. However, the availability of medical facilities is uneven in the world. The developing countries of Asia, Africa and Latin America are struggling to reach out the millions of the marginalized and impoverished masses. India also launched many schemes to make health facilities accessible and affordable. The underdevelopment of health and health services in underdeveloped countries is brought about by the same determinants that cause underdevelopment in general - the pattern of control over resources of these countries in which the majority of population has no control over their resources (Navarro, 1981).

Since "health" is an important contributing factor in the utilization of manpower, the Indian Planning commission gave considerable importance to health programmes in the Five Year Plans Shrivastav J.B. (1972). The Bhore Committee recognized the vast rural-urban disparities in the existing health services and hence based its plan with specifically the rural population in mind. After Africa, India is the second country to host a large number of diverse tribal communities. Each community has its own cultural and economic differentiation besides specific ethnic identities. Since more than five decades numerous academicians, administrators and policy-makers have been recommending, evaluating and altering the development policies for the

scheduled tribes and scheduled castes. Yet nothing new happened nor was the exercise abandoned. But, the problem is much more complex than mere formulation of programmes. Suguna Pathy (2003)

The National Rural Health Mission (NRHM) 2005-12 now National Health Mission was launched with the objective to provide accessible, affordable and accountable quality health services to the poorest households in the remotest rural regions. NRHM Report (2013). NRHM was launched in 18 highly focused states of India which had weak health and infrastructure indicators. The states are Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu and Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland, Orissa, Rajasthan, Sikkim, Tripura, Uttarakhand and Uttar Pradesh on April 2005. The duration of NRHM was from 2005 to 2012 and then extended up to 2015. NRHM is a flagship scheme of central government to improve the provision of basic healthcare facilities in rural India by undertaking an architectural correction in the existing healthcare delivery system and by promoting good health through improvements in nutrition, sanitation, hygiene and safe drinking water. It also seeks to revitalize Indian health traditions of Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH), and mainstream them into the healthcare system. (Brig Pal 2011)

Goals to be achieved by 2000-2015

Eradicate Polio and Yaws by 2005	Eliminate Leprosy by 2005
Eliminate Kala Azar by 2010	Eliminate Lymphatic Filariasis by 2015
Achieve Zero level growth of HIV/AIDS by 2007	Reduce Mortality by 50% on account of TB, Malaria& other Vector and Water borne diseases by 2010
Reduce Prevalence of Blindness to 0.5%by 2010	Reduce IMR to 30/1000 & MMR to 100/Lakh by 2010
Increase utilization of public health facilities from current level of less than 20 to more than 75 by 2010	Establish an integrated system of surveillance & National Health Accounts and Health Statistics 2005
Increase health expenditure by Government as a % of GDP from existing 0.9 to 2% by 2010	Increase share of Central grants to Constitute at least 25% of total health spending by 2010
Increase State Sector Health spending from 5.5% to 7% of the budget 2005 investment	Further increase to 8% by 2010

Source: (CSO Report 2015)

The Mission objectives were: (i) reducing child and maternal deaths; (ii) provision of universal access to public services for food and nutrition, sanitation, and hygiene and to public health care services; (iii) prevention and control of communicable and non-communicable diseases; (iv) providing access to integrated comprehensive primary health care; (v) stabilizing the population, ensuring gender and demographic balance; (vi) revitalization of local health traditions and main streaming of the Indian system of medicine; and (vii) promotion of healthy life.

The expected outcomes from the Mission as reflected in statistical data are: a) Reduce IMR to 30/1000 and MMR to 100/100000 live births and TFR reduced to 2.1 by 2012. b)Bring Malaria Mortality Reduction Rate to 50% up to 2010, and 10% by 2012 and Dengue Mortality Reduction Rate - 50% by 2010 and sustaining at that level until 2012. c) Leprosy Prevalence Rate –reduce from 1.8 per 10,000 in 2005 to less than 1 per 10,000 thereafter. d) Upgrading all Community Health Centers to Indian Public Health Standards. e)Increase utilization of First Referral units from

bed occupancy by referred cases of less than 20% to over 75% and Engaging 4,00,000 female Accredited Social Health Activists (ASHAs).

Table 1 Population Criteria for SC, PHC, CHC

Population Norms		
Centre	Plain Area	Hilly/Tribal/Difficult Area
Sub Centre	5000	3000
Primary Health Centre	30000	20000
Community Health Centre	120000	80000

In India, population of tribal increased from 19.1 million in 1951 to 84.3 million in 2001 and 104.28 million in 2011 i.e. 5.29% to 8.2% and 8.6% of total population respectively. The sex ratio which was 978 in 2001 census has improved to 990 in 2011 census (Census 2011). In India 80% of the tribal population live in central India i.e. Maharashtra, Madhya Pradesh, Gujarat, Rajasthan, Chhattisgarh, Bihar, Orissa, West Bengal, and Tripura. Tribal population constitutes a significant part of the total population, so planners have always framed policies for their development.

Table 2 Key health Indicators of ST and India.

Key health indicators		
Indicator	ST	Total
Infant Mortality	62.1	57
Neo-natal Mortality	39.9	39
Pre- natal Mortality	40.6	48.5
Child Mortality	35.8	18.4
Under five Mortality	95.7	74.3
ANC Checkup	70.5	77.1
Percentage Institutional Deliveries	17.7	38.7
Childhood vaccination (full immunization)	31.3	43.5
<i>Source: National Family Health Survey (NFHS) 2005-06</i>		

This study tried to look at the impact of NRHM on the various health indicators Life expectancy, IMR, MMR, Sex Ratio, institutional delivery, in Scheduled Tribe areas and overall impact on health infrastructure number of Sub centres (SC), Primary Health Centre (PHC), Community Health Centres (CHC) in tribal India over the period of time. The present paper seeks to evaluate the performance of service delivery in rural public health facilities under National Rural Health Mission. Based on available material, achievements and limitations, the concept and working of NRHM has been discussed. The historical development of health services in Indian context has been explained the problems and challenges being faced in the implementation of this programme are highlighted.

Literature Review

There are 5.9 million perinatal deaths worldwide, almost all of which occur in developing countries. Stillbirths account for over half of all perinatal deaths (Zupan J

2005) sufficient prenatal care and standards of care for labor, delivery and for the care of the newborn are strong predictors of perinatal mortality (Cruz-Anguiano, Talavera, Vázquez, Antonio, Castellanos, Lezana 2004) Most of the health problems that people suffer from in the rural community and in urban slums are preventable and easily treatable Brij pal et.al. District Level Household and Facility Survey 2007-08 has revealed substantial gaps in availability of qualified service providers, equipment and supplies in primary and secondary level health facilities in India and progress in reducing deaths in perinatal period also depends on other factors like cultural, social and demographic characteristics. These factors also need to be addressed so as to have better impact on perinatal health SK Singh (2012).

After the Acceptance of the recommendations of the Shrivastav Committee, Rural Health Scheme was launched in 1977 wherein training of community health workers, reorientation training of multipurpose workers and linking medical colleges to rural health was initiated. And for community participation, the Community Health Volunteer – Village Health Guide (VHG) scheme was launched in 1977, which selects a volunteer from the village, preferably women who was imparted short term training and small incentive for the work Satihal, K.E.T. Rajarama, (2000). So, it acted like as a link between the community and the Government Health System. The policy aimed to attain the goal of "Health for All by 2000 A.D." emphasized on the preventive, promotive, public health and rehabilitative aspects of health care. The policy viewed health and human development as a vital component of overall integrated socio economic development and it proposed a decentralized system of health care delivery with maximum community participation (Report MHFW 1980) and National Health Policy 1982 was to make architectural corrections in health care system and National Health Policy gave a general exposition of the policies which require recommendation in the circumstances then prevailing in health sector Brig Pal (2011). The draft National Health Policy (2001) recognizes the fact that despite all that may be guaranteed by the Central Government for assisting public health programmes, public health services would actually need to be delivered by the state administration. National Health Policy 2002, seeks to achieve increased access, improved efficiency, affordable cost and high quality' through an array of 20 detailed strategies D. Varatharajan (2003) Persistent malnutrition, high levels of anemia amongst children and women, low age of marriage and at first childbirth, inadequate safe drinking water round the year in many villages, over-crowding of dwelling units, unsatisfactory state of sanitation and disposal of wastes constitute major challenges for the public health system in India. Most of the health problems that people suffer from in the rural community and in urban slums are preventable and easily treatable through promotion of preventive and promotive aspects of health with effective communication strategies. Earlier healthcare organizations were dominated by doctors who paid less importance to the preventive and promotive aspects (Karkar 1987). There has been awesome evidence that by changing people's behavior towards health can have a major impact on some of the largest causes of mortality and morbidity. However, making one's behavior to change is the toughest kind of effort (K. Komolini Devi, 2013) India's poor tribal people have far worse health indicators than the general population. This was achieved by expanding and strengthening facilities on the one hand and by impacting health-seeking behaviour through conditional cash transfer to the family and the facilitator (ASHAs) under the JSY. The upsurge in institutional births was phenomenal (IIPS, 2010)

Data Base and Methodology

The study is based mainly on the analysis of large-scale surveys, Ministerial reports and the Indian Census data. The most prominent among them is the data collected in various surveys by the National Sample Survey Organization (NSSO) 2005 estimates from the National Family Health Surveys (NFHS) 2005-06, Ministry of Tribal Affairs Reports 2014-15, 2015-16, 2016-17 etc. In addition, I have employed the census data of 2001 & 2011. As i will be checking the impact of this NRHM on the health care delivery, so various annual reports of NRHM would be consulted to check the flow of funds/expenditures with the passage of time. Based on available material, achievements and limitations, the concept and working of NRHM has been discussed. The historical development of health services in Indian context has been explained the problems and challenges being faced in the implementation of this programme are highlighted. To meet out the set objectives of the present investigation like impact on various health indicators over a period of time especially after introducing NRHM in 2005 like Life expectancy, IMR, MMR, Sex Ratio, institutional delivery, number of Sub centres (SC), Primary Health Centre (PHC), Community Health Centres (CHC). Descriptive statistical measures like Averages, ratios, percentages etc. and tabular and graphical techniques are employed to compare the figures and to check the impact in various years.

Health Status in Tribal India

“Health is one of the goods of life to which man has a right; wherever this concept prevails the logical sequence is to make all measures for the protection and restoration of health to all, free of charge; medicine like education is then no longer a trade - it becomes a public function of the State”

- Henri Sigerist

India is home to tribal population of about 85 million, with more than 700 groups each with their distinct cultures, social practices, religions, dialects and occupations and are scattered in all States and Union Territories in India. The Tribes, like the Scheduled Castes, is the most socially, economically and educationally disadvantaged, marginalized and excluded groups in our country Xaxa (2001). Despite of considerable gains in health status over the past few decades in terms of increased life expectancy, reductions in mortality and morbidity these still remain as serious challenges to the nation and these challenges vary significantly from state to state and even within states. To improve the prevailing situation, the problem of rural health is to be addressed both at the macro (national and state) and micro level (district and regional), in a holistic way, with genuine efforts to bring the poorest of the population to the centre of the fiscal policies. Ashok Somasundaram & Goyal (2002). Brij pal et.al. The NRHM was successful in impacting health-specific and sensitive indicators by enhancing convergence with other ministries and departments to integrate efforts to impact outcomes (Nagarajan 2015). The Outlay of the NRHM for 2005-06 is in the range of Rs.6700 crores. The Mission envisages an additionality of 30% over existing Annual Budgetary Outlays, every year, to fulfill the mandate of the National Common Minimum Programme to raise the Outlays for Public Health from 0.9% of GDP to 2-3% of GDP. NRHM (2005-12). The scheduled

tribes account for a sizeable proportion of the population of India. They constitute an important segment of the Indian social fabric. These communities belong to different ethno-lingual groups and profess diverse faiths. Living at disparate levels of socio-economic development, they are spread along the entire spectrum of social evolution in India ranging from the industrial workers (Raza and Ahmad, 1990)

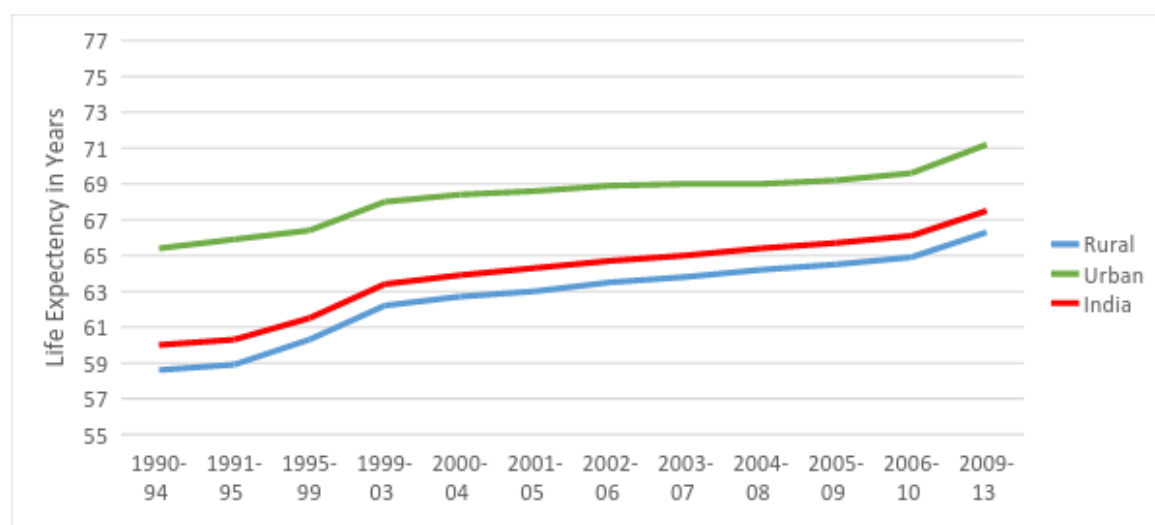
Table 3 State wise ST Population distribution of India (%)

State-wise Share of Scheduled Tribe (ST) Population in ST Population of India (Rural/ Rural+ Urban) (Per Cent) (2001 & 2011)									
States	ST				States	ST			
	Rural		Rural + Urban			Rural		Rural + Urban	
	2001	2011	2001	2011		2001	2011	2001	2011
Andhra Pradesh	6	5.6	6	5.7	Maharashtra	9.7	9.6	10.2	10.1
Arunachal Pradesh	0.8	0.8	0.8	0.9	Manipur	0.9	0.8	0.9	0.9
Assam	4.1	3.9	3.9	3.7	Meghalaya	2.2	2.3	2.4	2.5
Bihar	0.9	1.4	0.9	1.3	Mizoram	0.6	0.5	1	1
Chhattisgarh	8.1	7.7	7.8	7.5	Nagaland	2	1.4	2.1	1.6
Delhi	-	-	-	-	Odisha	10	9.6	9.7	9.2
Goa	0.0002	0.1	0.001	0.1	Punjab	-	-	-	-
Gujarat	8.9	8.6	8.9	8.6	Rajasthan	8.7	9.3	8.4	8.9
Haryana	-	-	-	-	Sikkim	0.1	0.2	0.1	0.2
Himachal Pradesh	0.3	0.4	0.3	0.4	Tamil Nadu	0.7	0.7	0.8	0.8
Jammu & Kashmir	1.4	1.5	1.3	1.4	Tripura	1.3	1.2	1.2	1.1
Jharkhand	8.4	8.4	8.4	8.3	Uttar Pradesh	0.1	1.1	0.1	1.1
Karnataka	3.8	3.7	4.1	4.1	Uttarakhand	0.3	0.3	0.3	0.3
Kerala	0.5	0.5	0.4	0.5	West Bengal	5.3	5.2	5.2	5.1
Madhya Pradesh	14.8	15.2	14.5	14.7	All-India	100	100	100	100

Sources: Census of India, 2001; 2011.

Generally, Scheduled Tribes in India suffer predominantly from A) the diseases of underdevelopment (malnutrition, communicable diseases, maternal and child health problems), B) Diseases particularly common in Scheduled Tribes population (Sickle cell disease, animal bites, accidents) and C) Diseases of modernity (Hypertension, addiction, mental stress). MTA, 2014. India, with a population of more than 1 billion people, has many challenges in improving the health and nutrition of its citizens. Even though there is a steady decline in fertility, maternal, infant and child mortalities and the prevalence of severe manifestations of nutritional deficiencies, the pace is slow and falls short of national and MDG targets S A Lashkar 2014. To achieve this, there are time bound goals / targets that are clearly specified in different National Health Policies and Programmes and also more importantly in Millennium Development Goals BRHS 2010. Due to better medical facilities, the life

expectancy rate has improved over the years from 32 years in 1951 to 65 years in 2001 and 67.5 in 2013.



Source: Office of the Registrar General, India.

Based on data of National Family Health Survey (NFHS)-3, 2005-06 conducted by the Ministry of Health and Family Welfare, DLHS-3 2007-08, CES-2009 and Rapid Survey on Children (RSOC), 2013-14 commissioned by the Ministry of Women and Child Development (M/o WCD), percentage of Institutional Delivery in respect of Scheduled Tribes has increased from 17.7% in 2005-06 to 70.1% in 2013-14. Also, deliveries attended by skilled health personnel have increased significantly from 25.4% to 72.7% during the period 2005-06 to 2013-14. MTA, 2016-17

Source	Institutional Delivery (%)	Deliveries attended by Skilled Health Personnel (%)
NFHS-3 2005-06	17.7	25.4
DLHS-3 2007-08	32.5	37.6
CES-2009	57.0	61.3
RSOC-2013-14	70.1	72.7

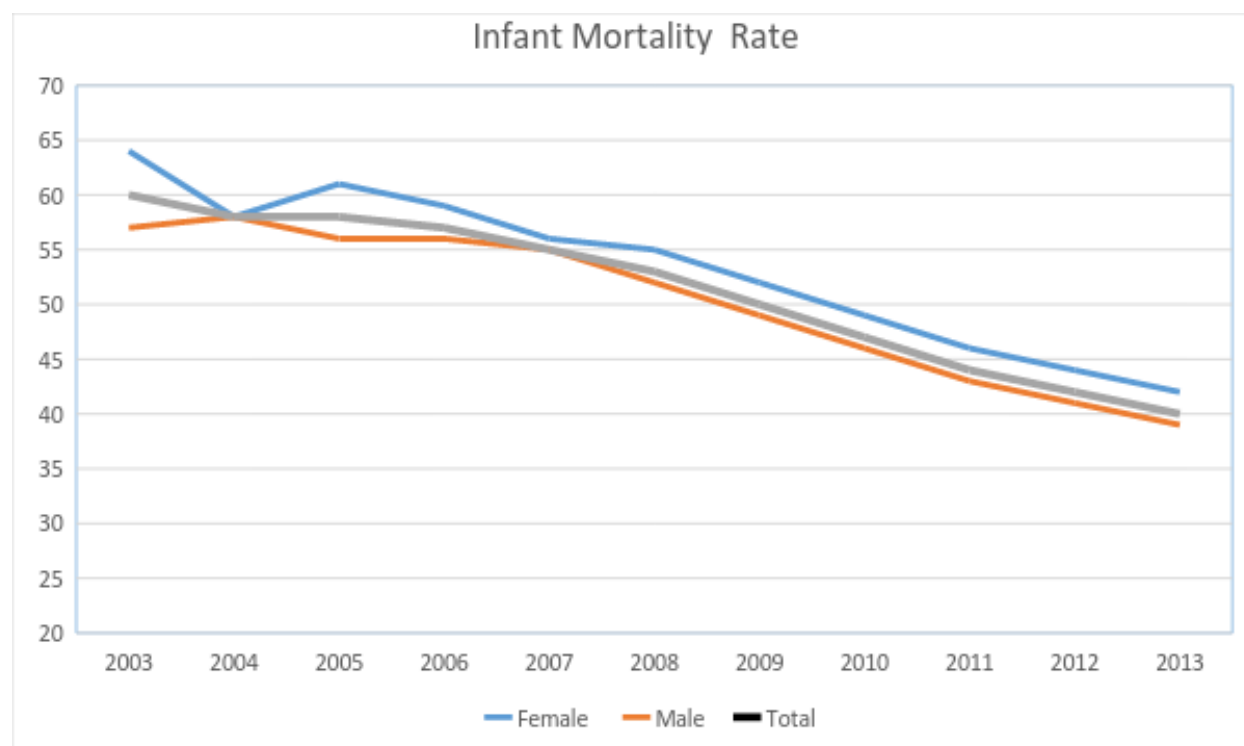
From Census 2001 to Census 2011 there has been an increase from 978 to 990 females per 1000 males. It is found that the Child Sex Ratio (CSR) (Population 0-6 age group) of the Total, General and the Scheduled Tribes Population has been declining since census 1991, 2001 and Census 2011. The CSR of the Scheduled Tribes has been 985 in Census 1991 to 972 in Census 2001 and then to 957 in Census 2011. Child sex ratio in respect of STs in 0-6 age group has declined from 972 in 2001 to 957 in 2011. However, ST Child sex ratio is higher as compared to child sex ratio for general population at 914 girls to 1000 boys. (MTA 2016-17)

Table 4 Gender Composition of Scheduled Tribe Population

State/ Ut	SEX RATIO 2001			SEX RATIO 2011		
	Total	Rural	Urban	Total	Rural	Urban
India	978	981	944	990	991	980
Jammu & Kashmir	910	916	799	924	927	872
Himachal Pradesh	996	1002	809	999	1003	923
Uttarakhand	950	956	867	963	966	938
Rajasthan	944	950	851	948	951	893

Uttar Pradesh	934	945	850	952	959	884
Bihar	929	934	839	958	960	934
Sikkim	957	950	1024	960	942	1042
Arunachal Pradesh	1003	1000	1020	1032	1022	1083
Nagaland	943	942	946	976	964	1014
Manipur	980	977	1040	984	978	1051
Mizoram	984	959	1012	1007	967	1047
Tripura	970	971	921	983	982	1017
Meghalaya	1000	987	1072	1013	996	1104
Assam	972	974	929	985	984	996
West Bengal	982	984	950	999	1000	991
Jharkhand	987	989	965	1003	1003	1007
Odisha	1003	1006	948	1029	1031	991
Chhattisgarh	1013	1017	941	1020	1021	999
Madhya Pradesh	975	979	912	984	986	956
Gujarat	974	978	926	981	984	952
Daman & Diu	947	952	928	977	982	972
Dadra & Nagar Haveli	1028	1032	973	1010	1011	1002
Maharashtra	973	979	931	977	984	942
Telangana	962	965	922	980	982	961
Andhra Pradesh	983	986	957	1009	1014	977
Karnataka	972	975	960	990	990	993
Goa	893	827	928	1046	1026	1076
Lakshadweep	1003	1001	1006	1003	994	1006
Kerala	1021	1020	1053	1035	1031	1070
Tamil Nadu	980	977	997	981	982	980
A & N Islands	948	954	796	937	931	1030
Source:Office of the Registrar General, India						

The tribal population has shown favorable sex ratio as compared to other social groups in the country, with 990 females per 1000 males. The sex ratio of tribal population reflects nearly equal share of males and females as seen in Himachal Pradesh and West Bengal (each with 999/1000 males) or favorable to females as in Goa (1046 females), followed by Kerala (1035 females), Arunachal Pradesh (1032 females), Odisha (1029 females), Chhattisgarh (1020 females) and Meghalaya (1013 females).MTA 2014



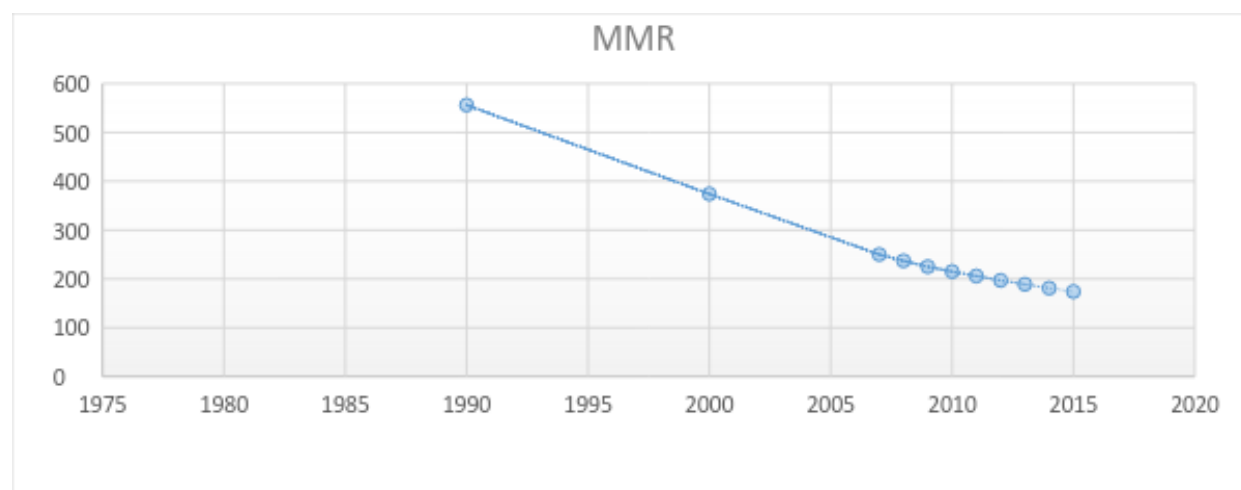
Infant Mortality Rate has shown a steady decline from 129 deaths per 1000 live births in 1971 to 47 in 2010. The rate of decline has been slowing from 9 points in the 1970s to 16 points in the current decade. Currently, the urban IMR is 31 as compared to the rural IMR of 51.82 India is not in an appreciable situation when compared with the countries of the same region. The launch of the NRHM in 2005 marked a turning point in human resource for health. The commitments of the centrally-funded scheme to provide the funds needed to close the human resource gaps between the posts that were sanctioned by the state governments and the posts that were required to meet the new standards, dramatically changed the situation. This led to the appointment of almost 1,06,949 more skilled service providers in the public health system by March 2010, of which 2,460 were specialists, 8,624 were doctors, 7,692 were AYUSH doctors, 26,993 were nurses, 46,990 were ANMs and 14,990 were paramedical BRHS 2010. Data suggests that India had a MMR of 400 in 1997-98 to 301 in 2001-03, declining to 254 deaths per 100000 live births in 2004-2006 and 212 in 2007-09. On the maternal mortality front, South Asian nations except Sri Lanka do worse than India, and South Asia as a region has poor record of maternal mortality in the world, very significantly affecting the global effort to achieve the MDG set for 2015 SRS 2009. There are 27958 Sub Centres (SCs), 3957 Primary Health Centres (PHCs) and 998 Community Health Centres (CHCs) in position as on 31st March 2015. The number of existing Sub Centres has marginally increased by 1.5 percent from March 2013 to March 2015. Number of PHCs has decreased by 78 while as number of CHCs has increased by 18 during the period 2013-2015. MTA (2016-17) At the block level, CHCs, serving as referral units for four PHCs, are manned by four medical specialists (surgeon, physician gynecologist and pediatrician) and provide obstetric care and specialist consultations. NRHM seeks to bring CHCs and PHCs on par with Indian Public Health Standards (IPHS) and makes the provision of adequate funds and powers to enable these committees to reach desired levels. Brij pal et.al.

Available on SSRN-Elsevier

Table 5 Number of SC, PHC CHC

State/ UT	Tribal Population in Rural Areas	Sub Centres			PHCs			CHCs		
		R	P	S	R	P	S	R	P	S
India	93819162	31257	27958	6796	4676	3957	1267	1156	998	309

Tendency to early marriage of girls in rural areas and tribal people mean age of marriage is 15.8 years; 43% girls have their first child before age of 19 years, at time of this study a report shows that counsellor of adolescent centre has found 4 cases of unmarried pregnancy and one girl experiences to go through abortion, but she is not interested about any kind of abortion. Due to awareness of generation of about contraceptive they are to consume emergency contraceptive pill at time of emergency Mathur (2003). The country has the clear vision of achieving good health status with respect to Maternal and Child health, especially the poor and the under privileged. In order to do this, a comprehensive approach is needed that encompasses individual health care, public health, sanitation, clean drinking water, access to food and knowledge of hygiene and feeding practices.



Public health care infrastructure pattern remains same for tribal areas as for the rural areas except for a lower population ratio. Thus, at the village/hamlet level is ASHA and Anganwadi, usually 1 each per 1000 population in the rural area, but at a much relaxed norm in the tribal area where these often are 1 per 300 to 500 population. One health sub centre per 3000 population in tribal areas as against per 5000 population in rural areas, and one Primary Health Centre per 20,000 in tribal against per 30,000 in rural areas. Above this level are a Community Health Centre (CHC) per block, and a district hospital per district. MTA 2014.

Challenges with NRHM

The NRHM has made a significant impact on health care delivery. However, greater political, administrative and financial commitment is required for it to make a substantial impact on health outcomes. The 12th Plan should allocate ring-fenced budgets for specific operations. There is need to develop systems to monitor and audit performance and health indices; this will allow for course corrections K S Jacob (2011). There are several challenges in proper implementation of National Rural

Health Mission (NRHM) and providing health services to people. Apart from accessibility and affordability it is also client's perception about the quality of health care, whether in private or public sector, which motivates for utilization of the healthcare facilities Gulati (2004). The factors that hinder proper implementation of NRHM from the beginning are not addressing existing problems in the health systems before initiating NRHM. Other reasons are lack of systematic coordination and implementation of various programmes and mechanisms by state Governments Brij Pal et.al. Other challenges which are lack of trained staff, Organization of Societies, participation of local bodies, Corruption in Implementation, utilization of funds etc.

Conclusion

National Rural Health Mission (NRHM) has been a noble experiment in the direction of improving status of health in the country. To improve health at the national level requires that the poor are also provided clean water, sanitation, quality employment, education, housing and nutritious diet. Research has shown that equality in both economic and social senses is vital to improvement of life expectancy Wilknsnson, (2005). India is a welfare state and for this sake union government was serious over all those concern. The population control program in the country had already died in the 1970s. The experience with RCH-I in the 1990s was also not chorus and need of a comprehensive package to energize and put confidence into conception of people was highly felt Kaushik (2011). It is imperative that the government focuses on those objectives that are likely to generate more positive influences while keeping under check those strategies that are likely to produce negative impact. D. Varatharajan (2002). In India, there is gap of 10 per cent points between Scheduled Tribes and non-Scheduled Tribes (46 percent versus 55 percent). There are variations across states, but one observation is the coverage is very much dependent on overall performance of the states, as far as Maternal and Child Health services are concerned. Factors such as unfriendly behavior of the staff, language barrier, large distances, poor transport, low literacy and low health care seeking, lead to lower utilization of the existing health care institutions in Scheduled Areas MTA 2014. NRHM aims to undertake architectural correction of the health system to enable into effectively handle increased allocations and promote policies that strengthen public health management and service delivery in the country. It has as its key components provision of a female health activist in each village; a village health plan prepared through a local team headed by the Village Health, Sanitation & Nutrition Committee (VHS&NC) of the Panchayat; strengthening of the rural hospital for effective curative care and made measurable and accountable to the community through Indian Public Health Standards (IPHS); integration of vertical health & family welfare programmes, optimal utilization of funds & infrastructure, and strengthening delivery of primary healthcare Singal (2015) More than three-fourths of Scheduled Tribe population seeks treatment from Government funded health facilities, as compared to only 47 percent of Non-Scheduled Tribes. One-fifth of Scheduled Tribes seeks health care services from private sources. But the majority of Scheduled Tribes sought treatment from public sources. Therefore, public health system needs to be improved as its efficiency can directly affect health of tribes. MTA (2014). So, there is a need for internalization of health programmes by orienting the field worker to emphasize on community health, particularly the supply of drinking water, sanitation, immunization and nutrition. Indeed, in many of the projects,

development of safe drinking water source was considered as an important and effective entry point activity Puja Mandal 2013.

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Do Emotional Intelligence Always Affect Job Satisfaction?

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Emotional Intelligence, Job Satisfaction, Public Sector Employees.

ABSTRACT

The current research studied the impact of Emotional Intelligence on Job Satisfaction among Government Employees specifically Physicians. The model used for regression has good fit as indicates F – value 1.092 which had significant value.298 as it can be seen that it is above the threshold limit of 5 % level of significant. The relationship between Emotional Intelligence as independent variable is indicating by standardized coefficient Beta with a value of.087. The significant of Beta is tested using T-test and value for t is 1.045 which was found to be.298 again far above the threshold limit of 5% level of significance indicating insignificant relationship between Emotional Intelligence and Job Satisfaction. T- Test was applied to evaluate the effect of Gender on both the variables i.e. Emotional Intelligence & Job Satisfaction and the result showed that there is no effect of Gender on Emotional Intelligence & Job Satisfaction. Although the effect of Age on Emotional Intelligence was found to be significant, as F value was 3.828 which was significant at.011 level. Whereas the effect of Age on Job Satisfaction was found to be insignificant. It is utmost important for the top official of Public sector to focus on the other factors that affect the job satisfaction rather than simply focusing on Emotional Intelligence. the study thus confirms the least relationship between Job satisfaction and Emotional Intelligence therefore further the studies can be conducted to investigate the antecedents of Job satisfaction.

Introduction

Job Satisfaction has to be considered as a most important element in all sort of Industries irrespective of its type and size. The Degree to which it affects the productivity may vary but its influence cannot be skipped at any cost. There are numerous antecedents to Job satisfaction, and Emotional Intelligence is considered as one of the major antecedents to the same. The element present in the Job Satisfaction differs as per nature of the task (Astrauskaite et al. 2011), The history of management studies has proved that the satisfaction and performance are interrelated and same relationship is been explored by number of authors (Bakotić, 2016). In line with

Emotional Intelligence, factors like positive beliefs and affective experiences leads to High performance (Kumari and Pandey, 2011) in both public and private sector. A report by Science daily (2017) quoted that Doctors scores higher on Emotional Intelligence as compared to general population. In the same report it was mentioned that keeping all other qualities in mind, it is Emotional Intelligence that is on the top what makes a physician an excellent in his profession. Although the doctors of private hospitals have better emotional Intelligence as compared to doctors from public hospitals (Tomar, 2016, Priya and Kumar, 2017), in addition, out of overall staff, senior doctors in private have high Emotional Intelligence (Khanam, 2017) irrespective of gender (Priya and Kumar, 2017).

Conceptual Background ***Job Satisfaction***

Kassim et al (2017) reviewed the definition of Job satisfaction given by Locke and Nanthan (1976) as “pleasurable or positive emotional state resulting from the appraisal of one`s job or job experience”. Spector (1997) defined as “degree to which People like their jobs”. Job Satisfaction is to a greater extent influenced by how the opportunities are perceived by individual regarding their promotions, how good are their co workers and their work itself (Irani and Scherler, 2002). There are other factors that are part of Job satisfaction other than mentioned by Irani and Scherler. Smith (1969) developed a five-facet scale to measure Job Satisfaction i.e. Pay, promotions and promotion opportunities, coworkers, supervision, and the work itself. Manisera et al. (2006), statistically confirmed the various motivators and Hygiene factors for Job satisfaction. In their study they mentioned that Growth, Independence, Recognition, Variety, and Career promotions (Gambrell et al. 2011) can be considered Job motivators, on the other hand working conditions, salary, company policies, job security, quality of supervision, and relationships as one set and Physical, Benefit, Wage, Hours, Certainty, Superiors, and Colleagues as second set can be considered as hygiene factors. Job Satisfaction survey may not reflect all these factors in every profession, for instance study of Astrauskaite et al (2011), confirmed only three factors i.e. Promotion, supervision and work itself as the components contributing towards Job satisfaction.

In case of Private sector employees ‘promotion chances’ is major element to job satisfaction. Other dissatisfaction factors are Pay, Fringe benefits and contingent rewards while operating condition, coworkers, nature of work and communication are part of satisfaction .Job satisfaction is found to have significant negative association with turnover intention. Pay, Promotion, Fringe benefits and contingent rewards contributes to Turnover (Ali, 2006).

Emotional Intelligence

Salovey and Mayer (1990), defined Emotional intelligence as “a set of skills hypothesized to contribute to the accurate appraisal and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feelings to motivate, plan, and achieve in one's life”. Ahmed (2015) defined Emotional intelligence as “a set of abilities and capabilities that individuals possess in order to feel, control, and manage their emotions”. Goleman (1998) defined emotional intelligence as

“the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships”, Goleman (2004) mentioned self-awareness, self-regulation, motivation, empathy, and social skill as components of emotional intelligence.

Review of Literature

Hassan, Pheng & Yew (2013) conducted research on secondary school teacher. They found that there is a relationship between emotional intelligence & job satisfaction. They found that teachers with emotional intelligence have less control on their emotion when they come touch in others, wants to make satisfactory relationship in their teaching profession. And in the condition of dissatisfaction of their job they are ready to leave their job. In contrast the study of Gill & Ali (2012) explained in a work conduct on FOPI in India with sample of 245 responded on random basis using regression analysis that there is no relationship between emotional intelligence and job satisfaction. A study in Iran bu Jorfi, Yaccob & Shah (2011) wherein they studied different variables (i.e.) age gender, job position (Nair et al 2012), education level and work experience and found out positive relationship with emotional intelligence, in addition marital status also affects the two variable but on a contradiction Job position does not (Ealias & George 2012). Although Emotional Intelligence is positively correlated with Job Satisfaction even at Lower level jobs but not with the commitment levels (Shooshtarian, 2013). In various cases, Leader member exchange plays a mediating role in follower emotional intelligence and both turnover intention and job satisfaction (Jordan and Troth, 2011, Ali, 2008). By using Emotional Intelligence and transformational behaviors, working relationships and strategic outcomes can be improved. Along with this more there is interaction by leader more there is a positive development in the overall culture of the organization (Borkowski, 2012). Even in case of academic staff, in countries like Malaysia Mehard, Hamasan, Redzuan, & Abdullah (2015), Najiba (2015), and teachers (Mousavi, Yarmohammadi, Norsat & Tarasi, 2012), Joshi et al (2015), Mehard, Hamasan, Redzuan, & Abdullah (2015) also mentioned that those who used their emotional intelligence and motivation they feel good towards their job and environment. Ghazawi & Awad (2014) illustrated in their research work on the Suez Canal Authority (SCA) with the sample of 350 employees using T-test, Linear Regression and Correlation emotional intelligence is neither high nor good but it is moderate but the job satisfaction in the SCA is high and good. The study concluded that emotional intelligence and job satisfaction is co-related with each other.

The work is also supported and extend by Shahhosseini, Silong, Uli & Ismi (2012) mentioning positive co-relation between emotional intelligence and job performance. Designation of the Job may not affect the emotional intelligence and job satisfaction but marital status positively has an impact on both (Ealias, 2012). In any case providing facilities and satisfy the need of employees emotional intelligence could be improved and job satisfaction can be increased by training (Mousavi, Yarmohammadi, Norsat & Tarasi, 2012). Another study on 138 teachers conducted by Mustafa, Buntant, Razzaq Daud and Ahad (2014) disclosed positive significant relationship between Emotional Intelligence and Job Satisfaction. It is statistically proven that even demographics do not affect Emotional Intelligence and Job Satisfaction for instance Age (Mustafa,

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Buntant, Razzaq Daud and Ahad, 2014), and Gender (Emdady and Bagheri, 2013), (Mustafa, Buntant, Razzaq Daud and Ahad, 2014), (Mohammadi & Nikbakh, 2014). Although there are studies which says that gender do not affects either variables. Older employees have significant effect of Emotional Intelligence but not on Job satisfaction. Young generation is found to have positive and significant relationship with Emotional Intelligence and job Satisfaction as compared to Older generation (Badawy & Magdy, 2015).

Alike academics wherein Emotional Intelligence and Job Satisfaction carry strong relationship (Najibah, 2015), even at corporate like administration modernization and management planning unit (MAMPU), emotional intelligence has important relationship with job satisfaction towards of information technology professionals (Masrek, Orsman, Khamis & Paiman, 2014) nurses (Tagoe & Quarshie, 2017) lectures (Kassim et al, 2016) Call center employee (Nel and Villiers, 2004, Çekmecelioğlu, 2012, Shamsuddin and Rahman, 2014) telecommunication industry employee (Jurit and Almasafir, 2013), may it be private and public Emotional Intelligence is not only related with job Satisfaction but also with job performance and organizational commitment and also a leading success factor (Hamami et al, 2015), Sapta et al, (2015) and all dimensions of emotional intelligence affect Job Satisfaction (Najiba, 2015). In addition, wellbeing, self-control and emotionality also directly affects job Satisfaction other than Emotional Intelligence (Alnidawy 2015).

Even the satisfaction and performance of subordinate is affected by the Emotional Intelligence of the leader they are working with. Similar study has been conducted by Sitter (2004). He mentioned that the relationship between the level of leader's Emotional Intelligence and its effect of the employees' tendencies to trust him and have Organizational Commitment Behavior, although the study did not confirm the same. Study of Sitter (2004) is supported by Beverly et al (2012), in the field of Information Technology. Beverly has used leaders from IT industry and explored positive relationship between IT leaders' emotional intelligence scores and subordinates' job performance ratings. In addition, Leaders who provide support before pressure are high in their emotional intelligence level as compared to those who provide support after pressure (Li et al., 2016). Although there are industries wherein there is no relationship between emotional Intelligence and motivational behavior and job Satisfaction of the employees and followers (Brown, 2005).

Rationale of The Study

Many studies are carried across the globe on relationship between Emotional Intelligence and Job Satisfaction (Mousavi, Yarmohammadi, Norsat & Tarasi, 2012, Masrek, Orsman, Khamis & Paiman, 2014, Tagoe & Quarshie, 2017, Kassim et al, 2016, Nel and Villiers, 2004, Çekmecelioğlu, 2012, Shamsuddin and Rahman, 2014, Jurit and Almasafir, 2013) and in contrast also studies are present (Brown, 2005, Sitter, 2004). It is important to note that extensive research is carried in India especially in the field of Academics, medical, corporates etc. The results have confirmed that Emotional Intelligence do affects Job Satisfaction significantly. In Indian Context, especially in Semi Urban Cities the topic has not gained much acquaintance. Therefore, the current study will be focusing on the working people residing in semi urban cities of India to

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find out whether what has been already proved in western context, exist in Indian Context or not.

The current study accumulated literature on Emotional Intelligence as Independent Variable and Job Satisfaction as Dependent Variable. It has been identified from the Review done up till now that Emotional Intelligence is one of the antecedents of Job Satisfaction theoretically as well as statistically and even in some studies it has not been found as affecting Job Satisfaction. This study was an attempt to evaluate sensitivity of the employees' psychological state and also identifying employees' perception towards Emotional Intelligence as Independent Variable and Job Satisfaction as Dependent Variable. The present study is done in Public sector to explore a different dimension of Emotional Intelligence.

Objectives of The Study

- To standardize the questionnaires to measure job satisfaction.
- To re-standardize the measure for evaluating emotional intelligence.
- To establish the cause and effect relationship between emotional intelligence and job satisfaction.
- To identify the impact of Gender on emotional intelligence and job satisfaction.
- To identify the impact of Age on emotional intelligence and job satisfaction.

Method Study

The study was causal in nature with survey method was used as a tool for data collection. In the current study the Emotional Intelligence is taken as Independent variable and Job Satisfaction as dependent variable.

Participants

The Population for the study included physicians from semi urban cities form Madhya Pradesh (India), both male and female physicians was included, sample size for the study was of 150 physicians (86 Males and 64 Females). Non-probability sampling technique was used to select sample.

Tools used for data collection

Goleman (1998) has provided a questionnaire for Emotional Intelligence. Same questionnaire has been altered and used. And Job Satisfaction has been measured using a self-design questionnaire. Data is collected based on Likert type scale from 1 to 5 where 1 shows the minimum agreement and 5 indicates maximum agreement. Although the computation of reliability is done to re-standardize the same.

Hypotheses

Based on the above literature review, following hypotheses were set for the study:

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H01: There is no significant effect of emotional intelligence on job satisfaction.

H02: There is no significant effect of Age on Job Satisfaction.

H03: There is no significant effect of Age on Emotional Intelligence

H04: There is no significant effect of gender on Job Satisfaction.

H05: There is no significant effect of gender on Emotional Intelligence.

Results and Discussion

Reliability Measure

Cronbach Alpha method has been applied to calculate reliability of all items in the questionnaire. Reliability test using SPSS software and the reliability test measures are given below:

Table 1. Reliability (Cronbach's Alpha) Analysis

Variable	Cronbach's Alpha	N of Items
Emotional Intelligence	.705	15
Job Satisfaction	.872	22

It is considered that the reliability value more than (.7) is good and it can be seen that in Table 1. The value of Cronbach's alpha for Emotional Intelligence is .705 and for Job Satisfaction .872. therefore reliability value was quite higher than the standard value and the data collected from the tool was highly reliable.

Regression Analysis

Table 2. ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	155.765	1	155.765	1.092	.298 ^a
	Residual	20250.874	142	142.612		
	Total	20406.639	143			

a. Predictors: (Constant), EMOINT

b. Dependent Variable: JOBSAT

Table 3 . Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	72.606	5.871		12.367	.000
	EMOINT	.134	.129	.087	1.045	.298

a. Dependent Variable: JOBSAT

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The model used for regression has good fit as indicates F - value 1.092 (Table 2) which had significant value .298 as it can be seen that it is above the threshold limit of 5 % level of significant. Therefore, indicating a low predictability of model.

The relationship between Emotional Intelligence as independent variable is indicate by standardized coefficient Beta with a value of .087. (Table 3). The significant of Beta is tested using T-test and value for t is 1.045 which was found to be .298 again far above the threshold limit of 5% level of significance indicating insignificant relationship between Emotional Intelligence and Job Satisfaction.

Explanation of Histogram And PPP

The histogram shows the normal distribution of Residual and the PP Plot explain whether the relationship or predication between the variable linear or not. More it is close to the line explains more perfect is the predication. So, we can see here that the relationship between the expected and observed outcome is perfectly predicted.

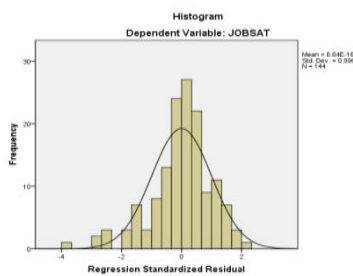


Figure 1 Histogram

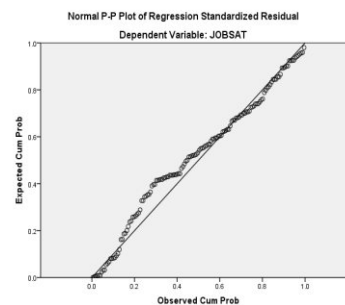


Figure 2 PP Plot

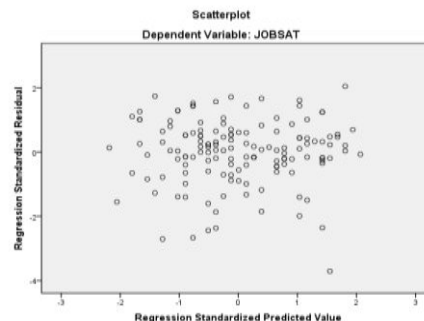


Figure 3 Scatter Plot

ANOVA Based on Regression

The effect of Age was identified using Tukey HSD Test. The effect of Age on Emotional Intelligence was found to be significant, as F value was 3.828 which was significant at .011 level of significance which is within the threshold limit of 5% level of significance. Whereas the effect of Age on Job Satisfaction was found to be insignificant, as F value was 1.792 which was significant at 0.152 level of significance which was not within the threshold limit of 5% level of significance. Therefore, Age had only impact on Emotional Intelligence but not on Job Satisfaction.

Further Post hoc was applied on both the variables i.e. Emotional Intelligence & Job Satisfaction to find out the relationship between the age groups. Four age groups were taken for this purpose. Group one included respondents from Age 20-30 year, Group two from 30-40 years, group three 40-50 years, and Group four 50 and Above year. In case of Emotional Intelligence there was a relationship observed between age group 30-40 and 50 above, as the result of Post Hoc showed significance value of.011 which is within the threshold limit of 5% level of significance through Tukey and the result of Post Hoc showed significance value of.033 which is within the threshold limit of 5% level of significance through Dunett's T3. In case of Job Satisfaction also there was no relationship observed between any age group.

T- Test- Test was applied to evaluate the effect of Gender on both the variables i.e. Emotional Intelligence & Job Satisfaction. As it can be seen in the table 11 that the Levene's Test for Equality of Variances that there is no effect of Gender on Emotional Intelligence & Job Satisfaction, as in case of Emotional Intelligence, the Value of F is 2.10 which is insignificant at.98 which is far above the threshold limit of 5% level of Significance. Similarly, in case of Job Satisfaction the Value of F is 3.06 which is insignificant at.08 which is far above the threshold limit of 5% level of Significance. Therefore, there is no effect of Gender on Emotional Intelligence & Job Satisfaction

Discussion

The study concluded that there is no significant effect of emotional intelligence on job satisfaction. Gill and Ali (2012) also mentioned in their study that emotional intelligence does not affect job satisfaction. Same is supported by Ghoreishi and Zahirrodine (2014) mentioned that emotional intelligence does not affect job satisfaction among Doctors in Kashan Hospital. The Current study also evaluated that is significant effect of Age on Emotional Intelligence also studied by Ghoreishi and Zahirrodine (2014). But there is no significant effect of Age on Job Satisfaction studied by Bernal D, Snyder D and McDeniyal M (1998) Lastly the study concluded that there is no significant effect of Gender on Job Satisfaction and Emotional Intelligence studied by Emdady and Bagheri (2013).

Table 9: Hypotheses Analysis

H₀₁	There is no significant effect of emotional intelligence on job satisfaction.	Supported
H₀₂	There is no significant effect of Age on Job Satisfaction	Supported
H₀₃	There is no significant effect of Age on Emotional Intelligence	Not Supported
H₀₄	There is no significant effect of gender on Job Satisfaction.	Supported
H₀₅	There is no significant effect of gender on Emotional Intelligence.	Supported

Implications of The Study

The current study provides strong conceptual background for the researchers in the field of Emotional Intelligence and Job satisfaction. The finding of the study provides a strapping need to identify the various antecedents of Job satisfaction among public sector employees. It is utmost important for the top official of Public sector to focus on the other factors that affect the job satisfaction rather than simply focusing on Emotional Intelligence. The study thus confirms the least relationship between Job satisfaction and Emotional Intelligence therefore further the studies can be conducted to investigate the antecedents of Job satisfaction.

Suggestion of The Study

The study has been done by taking only a sample of 150 respondents it is suggested to take bigger sample size in order to obtain more accurate results. The study has been done in Gwalior region only so it is suggested to take larger area or other region so that more appropriate results can be obtained. The study confirmed the least relationship between Job satisfaction and Emotional Intelligence among Public Sector Employees. Therefore it can be highlighted that there are some more factors other than Emotional intelligence which are affecting job satisfaction. Therefore, similar kind of study can be done to evaluate the effect of other variable on Job satisfaction. More Important similar kind of study can be conducted taking private sector employees or comparative study can be done to evaluate a clearer picture.

Conclusions

The First Objective was to develop and standardize the questionnaires to measure emotional intelligence for which the reliability was computed and the Cronbach's Alpha value for variables was computed separately and found to be more than 0.7. The Second Objective was to develop and standardize the questionnaires to measure job satisfaction for which the reliability was computed and the Cronbach's Alpha value for variables was computed separately and found to be more than .7. The third object was to identify the impact of Gender on emotional intelligence and job satisfaction which was achieved through T- Test. Fourth Objective was to establish the cause and effect relationship between emotional intelligence and job satisfaction. For this Regression was applied between the variables taking emotional intelligence as Independent Variable and job satisfaction as Dependent Variable. Last objective was to identify the impact of Age on emotional intelligence and job satisfaction for the same ANOVA Test was applied.

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Social Entrepreneurship: An Emerging Trend in India

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ABSTRACT

Today in the era of sustainable development everybody is concern about the society. We take a lot from society. Now the questions arises what we are giving in return. This lead to emergence of social entrepreneurship. Social entrepreneurship is a term that is used to represent the whole picture of the process of social change on a larger and more impressive scale than a traditional non-governmental organization (NGO). It is very significant in the study of voluntary organizations, non-profit organization. Previously, organizations dealing with key social issues had to be idealistic, philanthropic with entrepreneurial traits. Social entrepreneurship in India is emerging mainly because the government is also very interested in its promotion, not only to finance or advice, but also to its licensing. After the compulsion of corporate social responsibility in Companies Act 2013, CSR in the private sector with clearly allocated funds and full-fledged action teams have played an important role in improving the image of social entrepreneurship. The purpose of the paper is to study the growing trends of social entrepreneurship in India and the new initiatives taken by various social entrepreneurs. It also provides a brief idea of the different theories of social entrepreneurship. Efforts are being made to provide information and an exploratory study of social business support activities and social entrepreneurship companies in India.

Introduction

In recent years the concept of "social entrepreneurship" is rapidly emerging in the private, public and non-profit sectors and the interest in social entrepreneurship continues to grow. Currently, the non-profit sector faces increasing demands for greater efficiency and sustainability in light of the decrease in funds from traditional sources and greater competition for these scarce resources. At the same time, the increasing concentration of wealth in the private sector is promoting demands for greater corporate social responsibility and more proactive responses to complex social problems, while governments at all levels are grappling with multiple requests for public funds.

In light of this, social entrepreneurship is emerging as an innovative approach to address complex social needs. With its emphasis on problem solving and social innovation, social entrepreneurial activities blur the traditional boundaries between the

public, private and non-profit sectors and emphasize hybrid patterns of for-profit and non-profit activities. The promotion of collaboration between sectors is implicit in social entrepreneurship, as is the development of new and radical approaches to solving old problems. Social entrepreneurship has a strong intuitive appeal, and some recently documented examples highlight their potential in a variety of contexts.

Social entrepreneurs focus mainly on social problems. Innovation begins by mobilizing the resources available to build social agreements in response to social problems (Bulsara, Chandwani and Gandhi, 2014).

In a recent overview, Hulgård (2010) points at background and driving forces: Research on social entrepreneurship was, in its initial phase, driven in the USA and Europe by practitioners and researchers partly with common approaches and understandings and partly with some major distinctions. As such, the field is composed of a mixture of common trends and backgrounds, on the one hand, and of a considerable amount of variation in the ways social entrepreneurship is emerging, on the other hand; this variation is the result of changing balances and relations between state, market and civil society in the provision of welfare services and work integration in the USA and Europe.

Some believe that social entrepreneurship not only acts as a strong catalyst in society, but also as an agent for change in the social sector. Adopts a mission to create and maintain a social value; recognize and strictly pursue new opportunities, participate in a process of innovation, adaptation and continuous learning. They act courageously without being limited by available resources and show greater responsibility towards the electorate (Dey, P., & Steyaert, C.2010).

India has the second largest labor force in the world, 488 million people, the latest report from the World Bank indicates that about 179.6 million people in India currently live below the poverty line, which means that every third Indian is seen deprived of basic needs such as nutrition, education and health care. The government alone cannot meet basic needs due to the number of challenges such as population growth, inadequate infrastructure, low per capita income, population aging, disease in epidemic proportions and illiteracy. This is the right time for social entrepreneurs who can enter and help alleviate these problems by putting the needy and the less fortunate on a path that is worth living.

What Is Social Entrepreneur?

Thompson et al. (2000) describe " people who understand that there is an opportunity to satisfy some unmet needs that the state welfare system cannot or does not want to meet and that gather the necessary resources (usually people, often volunteers, money and local) and use them to "make the difference".

To add to the confusion of these somewhat different descriptions of social entrepreneurs, many other terms are currently also used to describe similar activities and initiatives, which include, among others: a company with a social purpose; community wealth society; non-profit corporation (Roberts Enterprise Development

Fund, without date); risk of philanthropy; careful capitalism; social enterprise (Cannon, 2000).

Despite the various definitions of social entrepreneurship, a common feature emerges in almost all descriptions: the "problem solving nature" of social entrepreneurship is prominent, and the corresponding emphasis on the development and implementation of initiatives that produce measurable results in the form of results of social change and / or impacts. For example, McLeod (1996) quotes a social entrepreneur who has criticized his organization's previous ineffective approach, noting that initially he was asked "how many people came from the door "rather than" how many people are better to have entered "the door?"

Fowler identifies complementary social entrepreneurship, referring to non-profit organizations that add a for-profit business division that in itself does not generate a social benefit, but whose profits can be used to offset the costs of the social mission without purpose of profit of the organization. Analyzing these three models of social entrepreneurship, Fowler highlights the difference between economic activities that simultaneously provide social benefits and those that do not (as in the third model), and stresses that the former make more complex and rigorous demands for an organization than those that do it. Finally. This argument is also raised by De Leeuw (1999) in a discussion on the complex, changeable and often unpredictable context faced by social entrepreneurs in an attempt to achieve social and economic goals simultaneously.

Characteristics of A Social Entrepreneur

Some features that are very exclusive of Social Entrepreneur are the following:

Social entrepreneurs believe in equality: they firmly believe in the innate abilities of all, regardless of formal education and, therefore, contribute to economic and social development and value. They integrate vulnerable groups, immigrants, marginal groups and new groups of population. Winner of the prestigious Ramon Magsaysay Award, Ms. Ela Bhatt founded the Self Employed Women's Association (SEWA) which positively influenced the lives of thousands of poor women, focusing on economic changes and empowering the lives of vulnerable and marginalized groups in the country.

Social entrepreneurs act as role models: empowering people to change their lives. They take advantage of the inspiration and creativity of the marginalized and misfit. Add value to disadvantaged communities. The Center for Research and Social Assistance (SWRC), widely known as Barefoot College founded by Bunker Roy with the aim of empowering and electrifying women through solar energy to lift the rural population by providing them with adequate education, development of skills, health and consumption of water.

Social entrepreneurs act as agents of change: social entrepreneurs innovate by finding a new service, focus or product for the social problem, combining innovation, ingenuity and opportunities. After retirement, Dr. Venkataswamy in 1976, leading the problem of avoidable blindness.

Twelve million people are blind in India, the vast majority of whom suffer from cataracts, which tend to attack people in India before age 60. Dr. Venkataswamy opened an 11-bed hospital, persuading his siblings to join him in mortgaging their colors, pooling their savings and pledging the jewels to build it. Today, Aravind's eye care system is a network of hospitals, clinics, outreach efforts, factories and research and training institutes in South India that has treated over 32 million patients and made 4 million surgeries surgical. (Analysis of cases of Aravind Eye Hospital, Anti Essays)

Social entrepreneurs work in the politics of disinterest: they work intensely towards the mission explicitly formulated to create and then sustain social value and benefits for society.

Social entrepreneurs are determined people: social entrepreneurs show a great determination to get the job and risk it. Thinlas Chorol is an example of social entrepreneur, who has shown his great determination to work as the first female trekking guide in the field of trekking, mainly male, in northern India. He also started the first female travel company owned and managed in Ladakh, India.

Social entrepreneurs are willing to share their credit: social entrepreneurs are willing to share their work credit. T. K. Patel started the cooperative society. The cooperative society developed and cultivated by dr. Verghese Kurien brought the first three-level cooperative structure in the country that was replicated across the country under the Flood Operation Program, known as "Amul Model".

Current Theories of Social Entrepreneurship

Social entrepreneurship like any other sector cannot be understood only in the economic sense, but must be identified in the light of the social context and the local environment that surrounds it. To understand it, we can try to understand the different theories of social entrepreneurship:

1. Theory of structuring: implies that it is impossible to separate the agent (social entrepreneurs) from the structure (society). (Giddens, 1979, 1984). This theory tries to articulate a thought that treats the structure as a product and a restriction of human action. The best example of structuring theory is the Aravind Eye Hospital in India, which illustrates the example of the agent Dr. Venkataswamy who has altered the socioeconomic context (society). This theory provides an important interaction, thus providing a glance to examine how the context allows the emergence of social entrepreneurship and how social change takes place.

2. Institutional Entrepreneurship: DiMaggio (1988) introduced the notion of institutional entrepreneurship, to explain how institutions increase or change. Institutional actors are those who have a great interest in changing institutional structures or creating new ones. This effort promises to understand the role of social entrepreneurship in the modification or birth of institutions and structures. Highly integrated actors cannot change existing ones. They are the less integrated actors who are more likely to be involved in social entrepreneurship initiatives that change rules and regulations.

3. Social capital: it is based on three dimensions, i.e. structural capital, relational capital and cognitive capital. Structural capital defines the potential of social entrepreneurs for their access to information, resources and support. The best example of relational capital would be the Grameen Bank loan delivery system. Finally, cognitive capital is the degree to which an individual share a common code and systems of treatment within a community (Nahapiet and Ghoshal, 1998).

4. Social movements: the researchers focused their efforts on four key issues, which are:

- Political opportunities and threats;
- Resource mobilization structures and active mobilization of sites for mobilization;
- Collective action frameworks and identification of training;
- Constitution of acts of contention and repertoire of innovation by the challengers and their opponent's members (McAdam, Tarrow & Tilly, 2001).

The social movement is concerned about social transformation. All these theories are very important to a certain extent to discover how social entrepreneurs detect and manage problems and learn from these failures and change accordingly (Mair, Johanna and Marti, Ignasi, 2006).

Social Entrepreneurship in India

Social entrepreneurship has made significant progress in India in the last decade and more and more people are using entrepreneurial skills to create viable and non-profit businesses, according to Deval Sanghvi, Dasva president, an organization which serves as a channel between those who invest in social change and those who drive change (Khanapuri and Khandelwal, 2011).

In India, social entrepreneurship has gained ground in various sectors of the economy with a growing interest of young people in the field, including those of the prestigious Indian Management Institutes (IIM) and the Indian Institute of Technology (IIT) (N. p., n.d. imasocialentrepreneur.com). The orientation of "giving", the need to fulfill one's duty to society (as opposed to satisfying individual needs) is deeply rooted in the social values and identity of India (Chakraborty, 1987).

A study conducted by Srivastava and Tandon (2002) for the Society for Participatory Research in Asia (PRIA) offers some information on the nature and breadth of the proliferation of voluntary non-profit organizations in India. The survey found that:

- There are 1.2 million non-profit organizations in India, involving almost 20 million people as paid or voluntary employees.
- However, 73.4% of these organizations were very small with one or two paid employees; on the contrary, only 8.5% had more than 10 paid employees.
- While 26.5% of these NPOs were religious in nature because of their activities, the rest were lay organizations focused on issues of social development such as education, health, community development.

- The estimated fund revenue from these NPOs was Rs. 179 billion (1999-2000). However, 80% of this comes from local activities, community contributions and donations; among these, 51% were self-produced, while 12.9% came from donations and 7.1% from loans.

Social enterprises directly influence socially responsible business practices, such as corporate philanthropy, fair wages and green operations, or through independent business ventures initiated by non-profit organizations.

India is a key player in the development of social entrepreneurs (Bulsara, Gandhi and Porey, 2013). Social entrepreneurs have existed since human beings began to form social groups. Entrepreneurs are believed to be exceptional expertise and a commitment to leadership and uncontrolled risk. They have the unique quality of cash thinking with the unique determination to bring something new to the company.

Social entrepreneurs play a similar role in the social economy, filling the gaps in the social needs that companies and the government leave behind. Their limited resources do not prevent them from reaching their visions and their mission.

Because of population growth and population aging, etc., Government alone cannot meet the needs of health problems in the country. After having realized this problem, Dr. Venkataswamy had the idea to establish the GOVEL Trust under which the Aravind Eye Hospital was founded. The main objectives of the hospital were to help to a certain extent the problem of avoidable blindness which quickly became a major cause of concern in the Indian health scenario.

Started in 1976, it has become a network of ophthalmological hospitals that have seen a total of 32 million patients in 36 years. Aravind's eye care hospital model has been applauded worldwide. The hospital was named after

Sri Aurobindo, one of the revered spiritual leaders of the last century, who insists on transcendence in a high state of consciousness and on how to become better instruments for the divine power to make it possible, Aravind Eye Hospital 4 (2009). Some of the other social entrepreneurship companies in India are as follows:

Organizations

Amul

It is an Indian dairy cooperative based in Anand, Gujarat, India. It is the biggest food brand in India. It has become the largest vegetarian cheese in the world and the largest brand of milk with a bag. It is available in over 40 countries worldwide, covering the main markets of USA, Africa, neighbors of the SAARC Gulf region, Singapore, the Philippines, Thailand, Japan, China, etc.

Objective: Stimulate the "white revolution" in the country and make India the largest producer of milk and dairy products in the world. Helping to alleviate poverty and allow the female gender a greater voice in the business chain.

Working model: The Amul model is a three-level cooperative structure. This structure consists of a village-level cooperative dairy society affiliated to a district-wide milk union, which in turn becomes a federation of milk at the state level. Milk collection is carried out at the Village Dairy Society, the acquisition and processing of milk in the Milk Union district and the marketing of milk and dairy products in the state Federation.

Selco India

It was founded in 1995 by Dr. Harish Hande, a former IIT Kharagpur student who installed solar lighting systems in 125,000 homes and aims to reach more than 200,000 homes in 2019.

Objective: Increase the quality of life between the marginalized and the private sector by providing reliable and safe electricity with solar energy.

Working model: It is based on a double approach; create customized solar lighting systems based on the specific needs of customers and help them access customized loan packages and loans for the purchase of sustainable lighting.

Ladakhi Women's Travel Company

Founded by Thinlas Chorol in 2009, wrote articles on tourism in Ladakh and other topics, she was the first female guide in that region.

Objective: First company in Ladakh that is owned and managed by women and offers tour guides and porters for excursions and excursions.

Working model: They have a very open business model based on their needs.

Microfinance SKS

It is a non-bank financial company (NBFC), regulated by the Reserve Bank of India, founded by Vikram Akula in 1997. It operates in 19 states in India.

Objective: Its main objective is to eradicate poverty by providing financial services to the poor.

Working model: Follow the model of the Joint Liability Group. These are loans to single women, using groups of 5 members as the maximum guarantor for each member. The situation of group loans due to asymmetric information is better managed due to the fact that asymmetric information is better managed. The social guarantee replaces the asset guarantee.

Digital green

Build and distribute information and communication technologies to amplify the effectiveness of development efforts around the world to influence sustained social change.

Objective: It is dedicated to improving the social, economic and environmental sustainability of small farmers' livelihoods.

Working model: The unique components of digital green are: a participatory content production process, a locally generated digital video database, man-mediated instructions for dissemination and training and regimented sequencing to start a new community and feedback channels.

Global Indian Foundation

It was conceived by a diverse group of professionals including retired officials, service officials, entrepreneurs and academics from all over India.

Objective: Its main objective is to work to reduce risks and vulnerability and promote livelihoods through rejuvenating the resource base through a process of empowerment and empowerment.

Working model: Carry out workshops and road shows by inviting the volunteer service of professionals.

CRY

Founded by Rippan Kapur to restore children's rights in India.

Objective: It focuses on the 4 fundamental rights defined by the UN Convention on the Rights of the Child (CRC): survival, development, protection and participation.

Working Plan: Children are encouraged to participate in various activities and proceeds from product sales, as donations are sent back.

SEWA

Self Employed Women's Association (SEWA) initiated by Ela Bhatt, winner of the prestigious Ramon Magsaysay Prize. It is the organization of poor and autonomous workers. The expansion of SEWA took the form of building an organization at the level that positively influenced the lives of thousands of (poor) women. SEWA has also worked on programs focused on economic changes as well as other initiatives.

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These social entrepreneurs can be interpreted as the second invisible hand of the economic system. Its complementary approach adds value to creation and, therefore, addresses to some extent some of the most urgent problems in the country.

DhanaX

DhanaX is an online / offline platform that allows Indians to borrow and borrow money from other Indians. Take advantage of the power of technology to bring together people of different backgrounds with the common goal of creating wealth and helping each other. It offers different services for different segments of the company. They aspire to be a pioneering model of innovative and successful online social loans. Its main objective is to support and provide easy access to low-cost credit for poor debtors to supplement their income and provide a lucrative and credible investment opportunity for the social investor.

Conclusion

Social entrepreneurship draws the attention of professionals, academics and, increasingly, those responsible for policy formulation. This document gave an idea of the meaning of social entrepreneurship in India along with some examples of social entrepreneurship in India. It also tells us the possible reasons for a gradual change towards social entrepreneurship and how is the road to the future. Some Indian entrepreneurs like Ela Bhatt, Bunker Roy, Parag Gupta, Rajesh Sinha, Harish Hande, etc. They have successfully presented and dealt with and continue to face some of the most complex challenges in the world in India.

These social entrepreneurs aim to contribute to the well-being of human beings in the human community. The different theories of social entrepreneurship are a fruitful topic and this article will bring us one step closer to the inspiration of social entrepreneurship to create social and economic value and as a research field.

We must also identify whether social entrepreneurship is an independent sector or if it is a subcategory of entrepreneurship. The assessment of the social impact will no longer be an alternative to the organizational tool for evaluation, but rather an integrated and essential feature of any product or service analysis. Social entrepreneurs act as creators of changes in society that in turn influence others to contribute to the development of humanity.

Social entrepreneurship in India has adopted a new concept of corporate social responsibility (CSR). Indian entrepreneurs are aware of their social responsibility as an important business segment, but CSR in India has not yet received widespread recognition.

Social entrepreneurship together with CSR deserves considerable attention as a research field. This study can be used more for the future empirical study with the aim of a detailed hypothesis formulation. In light of the new initiative from the private sector and the pure investor sector, towards philanthropic activities with a social cause, resources and skills are available for exploitation.

The media of the new era and the implosion of social networking sites and initiatives in the virtual world need to unite them with the harsh reality of the physical world. The above studies will help to consolidate a symbiotic relationship

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A Study on Financial Inclusion: Need and Challenges in India

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ABSTRACT

Financial sector has a key part of an economy for development of the society as well as developing nation. So the main emphasis has to be on growth of financial system as well as growth of financial positions of all the citizens of the country for the inclusive and sustainable development. Thus the financial inclusion aims to recognize the challenge of poor access of financial products to rural as well as urban masses in India. Therefore, through financial inclusion we can achieve inclusive growth of the country. Financial inclusion helps for delivery of appropriate financial services at an affordable cost to groups such as low income and weaker section who lack access to this basic services. Through with this, attempt has been made to understand the need as well as challenges in way of achieving the financial inclusion in a nation. Government of India has been playing a key role towards improving the level of financial inclusion and for this numerous effort have been undertaken by the government. now the new term has introduced in this sector that is called digital financial inclusion and it aimed to catalyze government actions to drive financial inclusion through a focus on digital technologies. Digital technologies also offer affordable and convenient ways for individuals, households and businesses to save, make payments, access credit and obtain insurance. Through this paper, we also focus on role of digital technologies in a way to achieving the goal of financial inclusion, on this basis of analysis, it can be concluded that financial inclusion is in progressive stage in but many more things has to be done in future also.

Introduction

India is upcoming fastest growing economies of the world, although it is growing at a rapid pace but the growth is not evenly distributed which results in lopsided development of an economy. It has been come to know that Over 25% of Indians still lives in below poverty line, which indicates that need of Inclusive growth has become prominent national policy objective of the Union Government of India.

Although financial inclusive system helps in promoting the economic growth of any country but is a challenge for developing countries. A country like India there is a consensus on the importance of financial inclusion for the country. The Indian

authorities have been putting a focus on financial inclusion for several years, with an acceleration of their efforts over the last 6-7 years. Many initiatives and schemes have been implemented by government of India. This paper aims to facilitate the understanding of the need and challenges towards financial inclusion in India.

The process of economic growth must touch all sections of society. Lack of access and information to financial services for lower income group, poor farmers and weaker sections of the society (specially women) has been recognized as a serious threat and hazards in the economic progress specially in the developing countries. The recent developments in banking sector has resulted in positive impact on financial inclusion process like the facilities of automated teller machines (ATM), credit/debit cards, online money transaction, internet banking, etc. the government of India has been promoting digital financial services as a priority to drive development of inclusive financial systems, including through coordinated national strategies and action plans. It emphasizes the need for policy leadership and coordination across the public and private sectors as critical for expanding financial inclusion. India has made extensive efforts to expand its digital infrastructure to expand access to financial services, including through the UIDAI scheme and the Digital India program. The main thing, however, is that access to such digitalization is restricted only to certain segments of the society. Many of research reports and surveys clearly show that large numbers of population does not have an access to basic banking and financial services not only in India but also whole world. This is termed “financial exclusion”. These people, particularly, those living on low incomes, cannot be access mainstream financial services and products such as bank accounts which are used for making payments and keeping money, remittances, affordable credit, insurance and other financial services and products.

Measuring Financial Inclusion

Financial Inclusion Index is one of the term used to measures the level of financial services. The basic dimensions of an inclusive financial system through which one can be able to know the extent of financial inclusion is banking penetration, availability of the banking services and usage of the banking system. Banking penetration is definitely the most critical parameter for measuring the depth financial inclusion and is measured as a ratio of bank accounts to the total population.

Importance of Financial Inclusion

Financial inclusion has been a efficient tool of high priority which helps in socio economic development of a country like India which is still a developing country. It helps in reducing poverty, financial exclusion and making awareness among people to how to utilize their savings. It is a key for socio-economic development. thereby it can be said that for enhancing inclusive growth of a country financial inclusion is in essential process that's reason why financial inclusion is important for any country for its growth. However, if a customer is well educated financially, he can make better choices regarding various financial services and products that can fulfil his individual needs. This will result in overall growth of the country as access to financial services at affordable cost will improve life of the poor.

Objectives of Study

1. To understand the financial inclusion and its importance.

2. To find out the implications of financial inclusion.
3. To study the need and role of financial inclusion in inclusive growth.
4. To study the various challenges in a way of achieving financial inclusion.

Financial Inclusion in Indian Context

- Financial inclusion has covered a larger part in India over the past few years as by the survey done by World Bank Global Findex database. The survey was done in between 2011 and 2014 and came to a conclusion that 53% of the adult are reported to have a bank account which is an increment of 18% compared to 2011, which has reported 35% only. The banking penetration has drastically increased in rural areas between 2011 and 2014 with 50% in 2014 against 33% in 2011.
- Although there is a sharp increase in the uses of bank account among the people but it still has some implication regarding the poorest section of the society. Among the 40% poorest population, 56% of the adults are unbanked, compared to 41% of the adults belonging to the “richest 60%”. Usage of bank accounts is also an issue that deserves more attention. 43% of account holders did not make any deposits or withdrawals in their bank accounts in the past year. 67% of account holders reported of not making a single deposit in any typical month.
- From 2010 to 2013 the government of India had initiated the swabhimaan program and after that a new scheme, called Pradhan mantri Jan-dhan yojna has been launched and aims to ensure access to various financial services like basic savings account, need based credit, remittances facility, insurance and pension to the lower-income groups. According to result obtained by government of India the scheme swabhimaan plan did not worked well in their first phase while banks had achieved their targets regarding opening of account but it had limited reach and impact. The scheme Pradhan mantri jan-dhan yojna, accounts opened under this scheme reached to 255 million at the end of November 2016 and the amount deposits rose to Rs380.47 billion by April, 2016.
- The government has also initiated a scheme called Micro Units Development Refinance Agency (MUDRA) Bank for the fuelling the financial inclusion process. The Bank will start as a department of the Small Industries Development Bank of India (SIDBI), and is conceived to facilitate the adoption of responsible finance principles by all lenders and in-turn help prevent issues of overleveraging of borrowers, and become a prominent source of funding and liquidity to Non-Banking Finance Companies-Microfinance Institutions (NBFC-MFIs) and other players in the sector. The micro-finance institutions also plays an key role in initiating the development of financial inclusion process in India.
- RBI recent initiatives in favour of financial inclusion is given below

RBI

REGULATORY APPROACH	PRODUCT APPROACH	PRIVATE SECTOR APPROACH	TECHNOLOGY APPROACH	FINANCIAL LITERACY APPROACH

The regulatory approach included simplified KYC forms, simplified branch authorization, simplified savings account opening, other rural intermediaries, regional languages and self regulators for MFI while the product approach have mainly focussed on No frills account/ BSBDAs, kisan credit card, general purpose credit card and overdraft facility. The private sector approach included Business Facilitator/ Business Correspondents. The technology approach contained the mobile banking- mobile wallet and it is also supported to government of India technology initiatives: USSD platform and mobile banking services, micro ATM, Rupay debit cards, and APES etc. The Financial literacy approach has mainly aimed on financial literacy centres and financial stability development council.

Need of Financial Inclusion in India

Financial inclusion helps inculcating habit of saving among a large segment which includes rural section as well urban section of society. Further, by provision of financial services to low income groups helps them to protect their financial wealth and use it in any insistent circumstances. Easy access to formal credit will promote the poor section of society towards the investment habit as well as protect them from informal and unorganised money lender who charges exorbitant interest from rural people. The main objectives of Financial Inclusion in India are enumerated below.

- Providing formal credit channels: the major population of country like India mainly depends on family friends and money lender to fulfil their financial needs who charges high interest on the money lent. Formal banking channels will enable people from lower income groups to stabilize their livelihood and will in improving their standards of living.
- Inculcating the habit of saving money: financial inclusion process helps in inculcating the habit of saving the money and it also helps in increase the financial resource base through motivating all individuals to have a bank account.
- Providing direct transfer of subsidies and welfare programme: A major issue faced by Government is that the sum of money allotted for rural people under several schemes does not reach them in reality. If every individual residing in rural areas will be literate and as well as have a bank account, the disbursement of cash will be directly transferred in the account of beneficiary thereby removing the middle man who mugged up the money in between.
- Need for Inclusive Growth- in order to attain inclusive growth, india need rapid and disciplined growth. It is important to have an inclusive growth for balanced distribution of wealth and prosperity as well as to have a sustainable

development. Achieving inclusive growth is important and is one of the biggest challenges for India. The challenge is the growth level at the every level of all section of the society and to all parts of the country. Rapid growth in the rural economy, sustainable urban growth, infrastructure development, reforms in education, health, ensuring future energy needs, a healthy public-private partnership, intent to secure inclusivity, making all sections of society equal stakeholders in growth, and above all good governance will ensure that India achieves what it deserves. The main thrust areas for need of inclusive growth can be summarized as below:

- Removal of poverty and unemployment
- Removal of income inequalities
- Agricultural Development
- Reduction in regional disparity
- For social sector development
- Protecting environment

However, for attaining the objectives of inclusive growth there is a need for resources, and for resource generation and mobilization financial inclusion is required. It plays a very crucial role in the process of economic growth. Financial inclusion through appropriate financial services can solve the problem of resource availability, mobilization and allocation particularly for those who do not have any access to such resources.

Challenges in A Way to Achieving Financial Inclusion

The various challenges involved in financial inclusion are given below.

- *Socio-economic factors*- These factors are major hurdles which include illiteracy, low income, low savings, unavailability of identification documents, and generally low level of awareness. In the absence of these factors an people are not able to access the financial services and products.
- *Geographical factors*-According to Rangarajan committee, it has been observed that financial exclusion is mostly found in household in the north-eastern, eastern and central areas of country due to illiteracy, poor infrastructure and unawareness among the population regarding financial services.
- *High operational and maintenance costs*-The maintenance of financial products and services for low income family involves high transaction cost and operational cost which also a big barrier regarding financial services.
- *Limited availability of appropriate technology*- there is lack of application of innovative,stable and reliable information and communication technology which is essential for wide spread of financial inclusion.
- *Financial inclusion and banks business plan*-the hurdles like lack of infrastructure ,cost effective technology and high cost discourages banks from providing financial services to low income individual.
- Agent and vendor risk. 2. Consumption oriented expenditure patterns. 3. Dormant accounts. 4. Inadequate awareness levels. 5. Low literacy rates. 6. Measuring actual extent of financial exclusion. 7. Poor saving habits. 8. Recovery related issues. 9. Small ticket transactions. 10. Sustainability factor. 11. Varied local conditions.

- The other challenges towards financial inclusion are how to create awareness and educate consumers on access to financial services, availability of various types of products and their features, create attitudes to translate knowledge into behaviour, make consumers understand their rights and responsibilities as clients of financial services.

Literature Review

Paramjit sujlan and chhavikiran(2018) studied that there is a dire need to provide quality financial services in rural areas for economic growth as it will help rural households to found the growth of their livelihoods. according to them financial inclusion initiatives are in progressive stage.

Dr. Anupama rawat and Dr. tanima dutta(2016) highlighted that there are many constraints that lead to the exclusion of women like illiteracy, lack of awareness regarding programs, unfamiliarity with technology, predominant male society and several other reasons, how ever in recent times the government and the society are emancipating women.

Sonu garg and Dr. parul Agarwal (2014) studied that even though enough efforts are being made by all stake holders viz Regulator, Government, Financial Institutions and others, the efforts are not yielding the kind of result expected. Regulatory bodies, banks and Government should intensively work on create awareness by educating people about finance. Thus, Innovative products, out of the box service models, effective regulatory norms and leveraging technology together could change the landscape of the current progress of the much needed and wanted, Financial Inclusion Program.

Mehta L, Jindal S and Singh K (2015) studied that setting up financial literacy centres and financial literacy campaign are necessary for smooth running of financial inclusion program.

Aurelie Larquemin(2015) highlighted that Indian authorities and financial inclusion actors lack measurement and knowledge of the outcomes and impact of the past and actual initiatives toward financial inclusion. It is commonly acknowledging than the shift in the financial inclusion eff orts, as summarized in the Pradhan Mantri Jan-Dhan Yojana (PMJDY) policy and recent schemes like the DBT program, are a move in the right direction. However, evidence are lacking to establish correlation or causality between specific policies and the financial situation in India, and to design the next phases of the financial inclusion eff orts. An ambitious program of evaluation of these policies would highlight success and failures and help shape the next steps of financial inclusion support.

Supravat bagli and papita dutta(2012) studied that In our society generally the marginalized groups of population are financially excluded. In most of the cases their livelihoods are not monetized and they are deprived of the financial inclusion. Besides, they are not well aware of the available banking services; on the other hand, banking officials are not also well aware of the needs and capacity of the people under this section. As a result, banks cannot bring them under the umbrella of financial inclusion. Therefore, the mass financial literacy and awareness among the marginalized sections of people are absolutely necessary to achieve financial inclusion.

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Akhil Damodaram(2013) studied that Financial inclusion is still a long road ahead. Innovations in the field of branchless banking and banking business model are making their way towards this goal. Recent exploration suggests that product plays a very important role in creating a financially inclusive ecosystem.

Sachindra GR (2013) studied that the key issue now is to ensure that rural credit from institutional sources achieves wider coverage and expands financial inclusion. For achieving the current policy stance of “inclusive growth” the focus on financial inclusion is not only essential but a pre-requisite. And for achieving comprehensive financial inclusion, the first step is to achieve credit inclusion for the disadvantaged and vulnerable sections of our society. The state has to play an important role in financial markets.

Research Methodology

The study is mainly descriptive in nature. The data is mainly collected from secondary sources like research papers, book of references, case studies, magazines, internet websites, journals etc. various studies on this subject have also been referred in this study.

Suggestions and Conclusion

These suggestions should be implemented in India for enhancing the Financial Inclusion process-

- Government should increase number of low cost banks branches in rural and remote areas in order to promote financial inclusion programs.
- Banks should focus more on products which should be simple, affordable, low cost in maintaining that products and services and which should be easily understood by the rural people. India has the need to develop low bank branch model possibly similar to post office.
- Banks should do regular surveys at an stipulated interval in rural and remote areas to know the financial needs of the people as well as receive feedback from the customers about the financial services and products.
- R B I should allow service providers to provide better mobile banking services at low cost price.
- Micro Finance Organisations/ Non Banking Financial organisations may be given authorization to do some financial services in remote areas.
- Opening of Bank Accounts without minimum balance condition should be allowed at all branches and places specially in remote and unbanked areas.
- Telecom Service providers and Banks should together work and implement a new plan for Mobile Banking operations with low cost too.
- Mobile Banking should be encouraged as a smart way of sending and depositing money in Rural areas and remote areas.
- Training should be provided to rural and remote areas people regarding use of smart phone applications related to financial services and products.
- Low income families to be served aggressively through financial inclusion: They should not only serve aggressively but also ways should be shown to improve the lifestyle of the poor people of society and around the world.

Financial inclusion helps in increasing the richness of the economy. It will increase the standard of living of the people of the country and also ensure a rapid growth. It will also reduce the gap between the haves and have not. Financial inclusion

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enhances the economy. The availability of banking facilities and strong bank network in rural areas act as a fuel in development and expansionary activities. A financial system, which is inherently strong, functionally diverse and displays efficiency and flexibility, is critical to productive and competitive economy. Traditional and conventional banking solutions may not be the answer to address the problem of financial inclusion in India. Banks need to introduce new technologies in an innovative ways and create financially effective models to carry forward the process of financial inclusion in an effective and efficient manner. There is a urgent need to provide high quality financial services in rural areas for economic growth as it will help rural households to accumulate wealth for their overall growth. Government of India has taken many initiative and schemes like Pradhan mantri jan-dhan yojna to connect rural people with the banking services, but still there are some segment of the nation which is untouched from the financial inclusion initiatives and programs. The positive thing is that financial inclusion initiatives are in progressive stage. Rapidly developing technology has also played a vital role in bridging the financial divide of the nation. Financial Inclusion will help the poor in bringing them to the mainstream of progressive growth and would also provide the financial institutions an opportunity to be partners in inclusive growth. Financial inclusion is the essence of sustainable and equitable economic growth and development in a nation like India. The government should take initiatives to form a training centres and financial literacy campaigns to provide information and literacy among people about the financial services and products of the banking centres in order to promoting financial inclusion process. Challenges of financial exclusion are faced by most of the states of the country and in order to solve it states have to develop its own customized solutions drawing upon its own experiences and features.

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Green HRM –People Management Commitment to Environmental Sustainability

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ABSTRACT

The subject of ecological maintainability is attracting enhanced attention among researchers. In spite of its significance to supervisors, representatives, clients, and different partners, however, there are not very many researches which consider the significance of human force management systems to attain ecological sustainability. There is in this manner a developing the requirement for the integration of natural resource management. Green HR is the utilization of HRM approaches to advance the feasible utilization of assets inside business associations and, more generally, promotes the cause for natural sustainability. Green activities inside HRM shape some portion of more extensive projects of corporate social obligation. Green HR includes two fundamental components: Environmental friendly HR practices and the protection of Knowledge capital. The target of this paper is to detail a procedural model of the HR processes engaged with green HRM based on accessible literature on green HR. The literature has been ordered based on entry-to-exit processes in HRM (from recruitment to exit), uncovering the job that HR processes play in making green HR approaches into the application. The paper likewise analyzes the nature and degree of Green HR activities embraced by organizations in general.

Introduction

Manageable improvement is worried about gathering the requirements of individuals today without trading off the capacity of future ages to address their very own issues. Organizations now understand that they need to build up a ground-breaking social inner voice and green awareness of other's expectations where corporate obligation isn't a selfless decent to have, but a business basic. The HR capacity will turn into the driver of natural manageability inside the association by adjusting its practices and approaches to manageability objectives mirroring an eco-center. The HR procedure must reflect and move the desire of the HR group and different workers, lining up with the company's procedure, qualities and culture, convey maintainable comes back to financial specialists, address client needs, recognize and react to developing societal patterns,

react to legislative and administrative desires, and impact general society strategy motivation. More or less making a green World where shoppers and representatives drive change. HR capacity can be renamed as "Individuals and Society".

Green human resource

Green HR allude to utilizing each representative toward advance maintainable practices and increment representative mindfulness and duties on the issues of supportability. It includes undertaking condition agreeable HR activities bringing about more prominent efficiencies, bring down expenses and better representative commitment and maintenance which thusly, encourage associations to diminish worker carbon impressions by any semblance of electronic documenting, vehicle sharing, work sharing, remotely coordinating what's more, virtual meetings, reusing, working from home, on the web preparing, vitality effective office spaces and so on.

Objective

The paper has two targets:

- To detail a model of HR forms associated with Green HRM.
- To look at the nature and degree of green HR activities embraced by organization constrained.

This paper starts with the survey of writing on the HR parts of ecological administration, at that point looks at the HR job, and proposes a procedure model of HR issues included in green HRM.

Research Methodology

Right off the bat, the paper receives a writing survey approach starting with showing critical takes a shot at Green HRM examine, coordinating ecological administration and HRM furthermore, characterizing the writing in a procedure demonstrate arrangement of HRM. Writing audit is embraced as it empowers to structure examine and to manufacture a dependable learning base in this field. The accompanying HR forms to be specific enlistment; execution the executives and evaluation; preparing and improvement; work relations; remuneration; and exit are secured (passage to exit). Also the paper receives a case philosophy approach looking at the green HR activities.

Literature Review Recruitment

New people apparently is expected to guarantee they comprehend and approach their corporate natural culture in a genuine way. In this way maintainable advancement issues must be coordinated into the enrollment procedure. This includes checking the long haul competency necessities for the organization, giving new workers data about maintainable advancement approaches and duties, utilizing enlistment methods which bolster the fair portrayal of candidates and enlists as far as sex, age, racial and ethnic

gatherings, sexual introduction, debilitated individuals and other pertinent gatherings. For this the company's sets of responsibilities ought to mirror the supportability plan and the company's site and other research instruments accessible for competitor get to plainly layout its greening tries. At last the inquiries questions ought to be custom fitted to substance out potential similarity with the organization's green objectives. The normal areas of sets of expectations can be utilized to determine a number of ecological viewpoints. The activity title and chain of direction must incorporate ecological announcing jobs and wellbeing and security errands, which staff are presented to unsafe substances/potential outflows (and their degree), Job reason must contain a reference to supportability, the elements of the activity list the essential obligations related with the position and feature the explicit eco-parts of the activity what's more, coordinating individual credits to required natural capabilities, i.e. purchasing in authority capabilities by means of new contracts or putting resources into preparing. These then ought to be clarified in the company's need advertisements mirroring the organization's responsibility to practical improvement and ask that all resumes contain proof that the prospects have contributed to triple-main concern upgrade in earlier positions. A few online sites incorporate green dream employments, GreenBiz.com giving green employments. Review information in the United Kingdom (U.K.) demonstrate that high achieving graduates judge the natural execution what's more, notoriety of an organization as a paradigm for decision making while applying for jobs. An overview by the British Carbon Trust appears over 75% of 1,018 representatives considering working for a firm considers it to be imperative that they have a functioning strategy to decrease carbon emissions. Truth be told turning into a green boss may enhance business marking what's more, be a helpful method to pull in potential representatives. The most recent CIPD/KPMG study of 1,000 respondents expresses that 47% of HR experts feel that representatives would lean toward working for firms that have a solid green methodology and 46% expressing that having one would help draw in potential recruits. Generally speaking, being a green boss may increment worker inspiration and commitment (through a mutual set of qualities), make upper hand from the openings exhibited by evolving markets, with the craving to gain from clients, customers, providers and partners, lessen work turnover (in light of the fact that the association is one in which individuals need to work), and enhance the wellbeing of the workforce (for instance, by urging cycling to work, vehicle sharing, open transport).

The term 'GREEN HR' is frequently used to allude to the commitment of HR arrangements and practices towards the more extensive corporate ecological motivation of insurance and conservation of normal assets. When we discuss Green HR, two fundamental components must be considered: naturally inviting HR rehearses and the safeguarding of information capital. The effect of our day by day exercises on the earth and the craving to practice environmental awareness has extended from only people to associations. More associations are volunteering to work in an all the more ecologically capable way. The Green Human Resources Management depends on green development identified with Protection of Environment and spares the planet Earth from future fiascos caused by the associations with the end goal to accomplish their sole target of benefit boost. The Green Human Resource Management will assume an essential job in Industry to advance nature related issues by embracing it, in the executive's rationality, HR arrangements and works on, preparing individuals and usage of laws identified with

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Environment Protection. Green HRM will likewise encourage the businesses and the association in building a decent corporate picture and brand in the market by entirely executing the ISO 26000, natural review, pondering waste administration and contamination. Indeed, even the new Companies Act 2013 make it compulsory for the organizations having a total assets of in excess of 500 corers and yearly turnover of 1000 corers or more to contribute towards the advancement of society. On account of the abundance utilization of common assets as a crude material by the businesses and other business association there is enormous weight on the normal assets of planet Earth which has prompt dialogs on subjects, for example, natural irregular characteristics and bio assorted variety. Numerous organizations are embracing green HR which helps in decreasing carbon impression through less printing of paper, video conferencing and interviews, and so forth.

In this green world the green HR or individuals the board work has maintainability at its center as a component of its kin the executives and ability the board center and associations draw in with the general public by adjusting their plans to it. Networks, clients and temporary workers all turned out to be equivalent partners alongside workers and investors

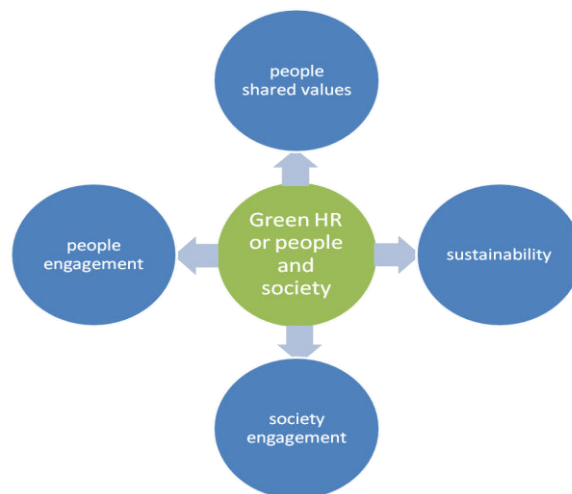


Figure 1: Important Terms used

GREEN HRM

The term 'GREEN HR' is frequently used to allude to the commitment of HR arrangements and practices towards the more extensive corporate ecological motivation of insurance and conservation of normal assets. When we discuss Green HR , two fundamental components must be considered: naturally inviting HR rehearses and the safeguarding of information capital. The effect of our day by day exercises on the earth and the craving to practice environmental awareness has extended from only people to associations. More associations are volunteering to work in an all the more ecologically capable way. The Green Human Resources Management depends on green development identified with Protection of Environment and spare the planet Earth from future fiascos caused by the associations with the end goal to accomplish their sole target of

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Society Engagement

Strategy is to provide the Foundation with a framework for both empowering and engaging society and achieve its ultimate outcome of more effective, responsive and accountable governance in the Commonwealth with society participation.

Employee engagement and commitment

A workplace approach resulting in the right conditions for all members of an organization to give of their best each day, committed to their organization's goals and values, motivated to contribute to organizational success, with an enhanced sense of their own well-being.

Shared values Shared values are the values which shared between the people with same opinion to each other who works in the organization .

Performance Management System (PMS):

Utilizing execution the board (PM) in ecological the board (EM) shows the difficulties of how to gauge ecological execution guidelines crosswise over various units of the firm, and increasing valuable information on the natural execution of directors. Firms like Tata Group of Organizations have introduced far reaching natural execution gauges (which cover nearby utilize, squander the executives, ecological reviews, and the decrease of squander) to quantify ecological execution gauges, furthermore, creating green data frameworks and reviews (to increase valuable information on administrative ecological execution). One manner by which PM frameworks can be effectively started in an association is by binds the execution assessments to the sets of expectations referencing the explicit green objectives and undertakings. For eg., Performance Appraisal (PA) can cover such themes as ecological episodes, use of natural duties, lessening carbon emanations and the correspondence of ecological concerns and policy1. HR frameworks, for example, e-HR can be acquainted with have the capacity to encourage the board and workers track their very own carbon emissions. Issues engaged with natural PA's concern the requirement for supervisors to be considered responsible,

with the goal that they acquaint themselves with consistence issues. There is too a need to connect any distinctions in corporate talk and activity, and create HR frameworks in PA and reward so that ecological administration activities are not seen basically as an administration. It is proposed that if natural criteria are incorporated into the procedure of staff examination (by composing such obligations into all staff activity designs), at that point a learning society in EM can be empowered. Additionally the supervisors can request that workers bring explicit green thoughts relating to their individual employments to their execution assessment gatherings. These thoughts can be conceptualized together to incorporate them into the destinations for the forthcoming year. Achieving these targets would be the premise of execution assessment.

Training and Development

Representative preparing and improvement projects ought to incorporate social and ecological issues at all dimensions, from specialized wellbeing and wellbeing contemplations on the shop floor, to key maintainability issues at official administration and board level. They should cover the full scope of social, natural and financial dangers and openings included with the business and the way to distinguish them. The attention ought to be on creating abilities for diverse business capacities and distinctive dimensions of status. Green introduction programs for the recently procured workers ought to be an essential piece of the preparation and advancement process. They ought to advise the representatives about the green methodology and strategies including the vision/mission explanation of the organization, the supportability situated benefits, vast activities like lessening nursery gases, making green items and so forth. Preparing is a key intercession to oversee squander (as far as both aversion and decrease), and happens through associations preparing groups of forefront representatives to create a waste investigation of their work zones. Such representatives are viewed as perfect staff to spot and diminish squander as they are nearest to it, however they should be learned on step by step instructions to gather the applicable information. Instances of best organization practice in preparing and improvement in Environmental Management in the U.S. originates from Allied Signal Inc., who incorporates a Total Waste Minimization (TWM) segment into their preparation. Preparing techniques like Job pivot gives a valuable method to train green administrators or future board individuals in Environment Management, and is seen as a pivotal piece of fruitful ecological programmers. At GENERAL ELECTRICAL COMPANY, such preparing continues in three stages, of preparing substance, for example, ecological enactment, BS7750 and the ecological administration framework (EMS) (for ecological supervisors); issues like waste the executives, transport and air outflows; and a dialog of treating waste and ground water, interchanges, mindfulness raising and hazard the executives.

Various advances might be utilized to build up a natural preparing framework, for example, a review of existing preparing framework assets and exercises, framing a corporate natural board (with HR agents, natural experts/ advisors and different officials on it), an occupation examination creating an expected set of responsibilities, and ecological mindfulness as some portion of acceptance/introduction preparing particularly for new workers (as done at the Body Shop in the U.K.), or to utilize an execution the executives framework to screen and survey execution on efficiency,

quality, wastage and mischance's. This might be trailed via preparing to carry out the activity, and an appraisal of the mentalities, learning and aptitudes staff may requirement for future jobs. The planning or sequencing of preparing at that point should be surveyed, as it may be the case that the firm can incorporate it with their current arrangement (as wellbeing and security preparing could incorporate a natural component, or the board advancement projects could incorporate natural activities), with associations expecting to assess and survey the achievement of the preparation they have provided. It is recommended that 'green teams' can be built up in each office, delivering general mindfulness and explicit preparing in EM intended to expand individual possession and move staff to making individual move. Some different thoughts incorporate getting general intrigue speakers like neighborhood temporary workers who take a shot at green structures, reusing organizers or specialists on elective transportation, diminishing nursery gases, making green items and so forth. Likewise the organization can buy in to mainstream industry based supportability diaries to refresh the representatives about most recent supportability patterns. One individual in the workplace can be assigned to answer every day supportability addresses like what can be reused, green office supplies, utilizing two sided printing and so on. Likewise, to survey the preparation required in ecological administration, a preparing needs examination (TNA) should be possible as far as surveying what ecological information and abilities staff need.

Employee Involvement (EI) and Participation (EP)

An vital manner by which worker contribution and support can be empowered inside the association is to look for business visionaries inside the organization who are socially or environmentally arranged known as eco-business visionaries. They have the capacity to compose existing money related, human and normal assets in a way that increases the value of the company's items or on the other hand benefits where it didn't exist already. Aside from this representative inclusion (EI) groups in EM can cut waste (as representatives are believed to have the most information of the work procedures and items included); can oversee such mind boggling function admirably; and utilizing them helps fabricate worker pride and responsibility in their work. EI groups can not just achieve an adjustment in how function forms are performed, yet in addition enhance laborer wellbeing and security as well. American Airlines guarantee their flight orderlies reuse more than 616,000 pounds of aluminum jars, winning at any rate \$40,000 to them in one year, and Dow Chemical's Waste Reduction (WRAP) program was set up as a challenge for all workers to connect with, and from which Dow guarantee a 173 percent Rate of return (ROI) from their first year of operation. Eco-activities happen from innovative thoughts from all workers, and henceforth systems should be made to include workers in it – which incorporate giving a job for administrators in giving workers freedom to produce innovative answers for take care of issues (which energizes their natural administration concern), and make best utilization of applying their abilities. An EI approach in EM inspires the laborer, enables them to distinguish issues like spillages in the procedure of creation, and that designating duties to specialists depends on group learning of the reasons for waste and how to diminish them as observed in EI in waste decrease at Kodak, DuPont, and Procter and Gamble¹¹. The two key increases from presenting Green EI activities are seen to be enhancements

in natural and specialist wellbeing and wellbeing, and the advancement of more proficient representatives and supervisors. The discoveries propose that representatives should be associated with defining ecological methodology, with the goal that they can make what's more, extend the learning expected to showcase „green“ products. Associations are urging representatives to consider thoughts to diminish carbon emanations and spare vitality. A ongoing HSBC activity in the U.K. discovered advantages in carbon sparing apparently coming from representative activities, counting one where staffs at first direct can get refuse from home and reuse it at work. The utilization of Employee Cooperation (EP) in EM has been noted to help anticipate contamination from workplaces. EP makes a commitment to enhancing ecological execution as workers have learning and abilities that administrators lack. There are two manners by which the laborers can take an interest on natural ventures: a proposal program and critical thinking circles wherein the authority staff is more associated with venture inception while line level laborers are bound to take part in task usage. Different manners by which representatives can be urged are to seek after green driving propensities like permitting adaptable work weeks, setting up a vehicle pool-program, offering free or limited free transportation passes, including vehicle sharing as a representative advantage and setting up transportation investment funds account. One of the real changes in the HR strategy has been the development of working from home or e-work a course of action whereby laborers perform undertakings for their managers by means of a media transmission interface at their home which diminishes the cost of driving both in rupees or dollars and emanations.

Grievance and Discipline

When all is said in done terms, complaint and discipline in EM has seen few firms following the lead of the English firm National Westminster Bank in empowering inner whistle blowing with respect to ecological breaks. The need to bring complaints is seen up in high hazard activities (for their wellbeing record), and in such cases disciplinary techniques are connected to natural standards and obligations where rebelliousness occurs. In reality, master lawful conclusion is that a few firms may in the long run move to guarantee that ecological commitments are anchored by including provisos in staff contracts to do as such, i.e. that ecologically threatening conduct may comprise a rupture of agreement and consequently conceivable reason for expulsion.

Green Jobs

Green organizations have additionally been developing at a rate of about 5% every year amid the most recent three years. Two especially developing regions are worldwide carbon credit exchanging, what's more, development and administrations related with "green structures" that meet industry guidelines. The other territory is the inexhaustible area like breeze vitality and ethanol creation. Green business increases might be produced using utilizing bio-mass as it builds the quantity of cultivating employments, and work in the petrochemical industry for changing over and blending forms. Reusing is another territory where the waste administration industry may make numerous employments. It is evaluated that up to 35,000 individuals will work in green employments in Britain by 2020, particularly in the vitality business (an expansion from 8,000), in wind and sunlight based power, hydrogen, bio-fuels, and coal-to-fluid

innovation, and furthermore from existing standard associations wishing to spare vitality

Compensation: Pay and Reward Systems

Fulfillment of explicit feasible activities ought to be consolidated into the pay framework by offering workers an advantage bundle that rewards representatives for evolving practices. A variable pay component can be added to the remuneration framework by connecting the compensation to eco-execution. Work associations can profit by compensating waste decrease rehearses that groups create. For instance, when actualizing a green recommendation a segment of the reserve funds that accumulated from its outcomes can be returned back to the group or the representative who recommended the thought. DuPont has an Ecological Respect Awards program which perceives representative natural accomplishments, and both Nordstrom what's more, 3M offer prizes for proposals that singular staff make to encourage nature and increment firm profitability. Reward bundles are identified with procuring assigned aptitudes and abilities (and not only for execution), as they are believed to be vital factors in execution over the long haul, a model being that information of ecological enactment or science may counteract genuine mishaps or illicit emanations occurring. By and large, such associations are believed to need to create compensate frameworks to create attractive practices in EM, and doing as such requires viable work of the two motivating forces what's more, disincentives. Disincentives incorporate negative fortifications like suspensions, reactions and alerts and might be expected to motivate workers to make ecological enhancements, e.g. in the event that workers take part in slips in the treatment of perilous waste. Associations may wish to take part in giving workers positive rewards as far as verbal criticism from directors, in that capacity casual verbal furthermore, composed criticism which may help persuade representatives towards ecological improvements.

Performance-Related Pay (PRP):

Money related based ecological reward frameworks have been produced, where for instance, a vital extent of month to month administrative rewards are needy upon execution results in EM, furthermore, organization practice in the U.S., Europe and Britain has inspected the Greening of Performance-Related Pay (PRP). In the United States, organizations, for example, Du Pont base their official remuneration and reward framework for center administrators and senior officers to a limited extent on ecological stewardship rehearses, where rewards can be more than 10 percent in the event that they build up an ecologically kindhearted pesticide for farming or a non-contaminating item 9, 20. Notwithstanding advance green item deals the commission structure of the deals officials can be rebuilt with the goal that they get the most commission cash for pushing green items. While a few firms have begun to incorporate EM issues into their PRP frameworks, as an additional execution measure or as a pattern standard to be met to fit the bill for PRP, it is vital to consider the fruitful connecting of unexpected compensation for senior supervisors and the higher execution created in natural administration, and the fruitful utilization of open acknowledgment frameworks that incorporate monetary remuneration for workers.

Green employee relations

Representative relations are that part of HRM which is worried about building up neighborly employer– worker relationship. The relationship encourages inspiration and resolve of the workers and additionally, expands the profitability. Essentially, worker relations include representative support and strengthening exercises. It additionally counteracts and resolve issues emerged at working environment that may influence the work. Truth be told, positive worker relations are an elusive and continuing resource and a wellspring of upper hand for any association. Worker interest in Green activities builds the odds of better green administration as it adjusts representatives' objectives, abilities, inspirations, and observations with green administration practices and frameworks. Including representatives in EM has been accounted for as enhancing EM frameworks, for example, productive asset utilization; diminishing waste and decreasing contamination from work environments. A few laborers in their examination inferred that singular strengthening decidedly impacts profitability and execution, and encourages poise, singular reasoning, and critical thinking aptitudes. The extent of worker relations ought to be widened by starting a recommendation plot inside the association, wherein every single representative from best most to the least dimension gets a chance to add to the plan. This training will help in making more noteworthy mindfulness on green issues moreover, new thoughts for eco-accommodating practices may manifest from various sources. Different advantages of representative association are enhancement in worker and hierarchical wellbeing and security, and also advancement of eco-accommodating staff. We recommend that keeping the strategies set up, long haul trust among the administration and representatives will be assembled which will give a chance to the workers to express their own thoughts at work environment and help to make atmosphere helpful for green administration practices and frameworks.

Recognition and Awards

Acknowledgment based prizes for model in the U.S. what's more, U.K. incorporate senior chiefs at displaying grants out in the open gatherings, and by means of news articles. Acknowledgment based rewards in EM can be offered at various levels inside organizations, for instance by CEO's every year for individual, group, and divisional commitments to squander decrease, expansive group brilliance grants at Xerox, also, in non-customary structures like paying their workers for performing network administration, and giving them chances to go like Federal Express are putting forth representatives vacations which empower them to take up to 3 months paid leave like clockwork to take a shot at together concurred undertakings with the firm. Other creative non-financial prizes that are being utilized by U.S. firms incorporate paid excursions, time off, favored stopping, and blessing declarations – with them all observed to empower representatives on ecological performance, though in Europe, the utilization of ecological prizes and acknowledgment (like day by day acclaim and friends grants) are seen to significantly affect worker eagerness to create eco-initiatives. Worker commemorations can be celebrated with eco-accommodating blessings like blessing declarations to neighborhood common nourishment store, free transport pass and so forth. In Britain, organizations are enabling representatives to develop focuses for

positive practices with respect to discharges decrease on a "carbon credit card" to procure additional benefits. There are numerous manners by which motivating forces can be given in a naturally agreeable way. For instance, vehicle mileage for organization autos can be reached out to bike voyages and credits, staff can be advertised money related substitutes for vehicle recompenses, vehicle pooling/sharing arrangements can be empowered, and friends vehicles can be restricted to ventures past open transport only or representatives can be compensated green focuses through a collected point framework for utilizing elective transportation. They can at that point reclaim these focuses for e.g., for on location rubs, organization stock, gift vouchers to neighborhood shops or open transportation passes. Associations can likewise put money related motivating forces into their reward procedures, as duty motivators or for grasping vitality effective vehicles like the Bank of America improves the situation representatives who buy crossover autos or Google that gives money to purchase autos that get forceful mileage. Motivations can likewise be given to representatives who convey green practices at home for eg., utilizing water sunlight based warmers at home, scaling back the family vehicle, expressly reusing, expanding home vitality productivity and so forth. As far as staff exits, where expulsion happens, it might be that any ,general questioning ought to incorporate a natural measurement, and on the off chance that staff leave, HR chiefs need to find why, or that shriek blowing green representatives (who feature awful rehearses), are viewed as in danger, as there is no legitimate insurance for them, implying that they could be expelled for rupture of confidentiality.

The HR Role

It has been seen all in all that the individual qualities that workers exhibit to EM have not been misused completely towards accomplishing corporate natural activities, despite the fact that they hope to have constructive outcomes for chiefs. To be sure, numerous associations are receiving a coordinated way to deal with actualize EM programs. In any case, accomplishing this joining of HR and EM includes critically changing the methodology of some HR staff themselves to green issues and additionally changing the unsustainable practices that all dimensions of staff may have learned over decades. A key job for HR ecological administrators could be to rule directors as far as increasing full staff co-task towards actualizing ecological arrangements which implies HR needs to support supporters and make systems of issue solvers willing to act to change the present the present state of affairs. This can just occur in the event that the organization builds up formal and casual correspondence systems with their workers featuring the company's green endeavors for eg., in the organization pamphlet and site. Some different ways could be to share inquire about, show green conduct, working with inside promoting staff to flow enlightening and rousing articles, sections and other materials to representatives all the time. HR foci as learning the executives, EI, EP, business screening, preparing, repetition, lessening status differentials, and the executives style can be coordinated together to create ecological upgrades for the firm. What's more, HR can produce an ecological report that incorporates a strategy proclamation, targets, advance measures, by and large effect which will Drawing on the examinations inspected in the writing audit over, the paper condenses the enlistment to-leave HR forms associated with Green HRM. In expansion to the conceivable jobs for HR staff and associations, there is scope for every one of the representatives in the

associations to take part in the exercises in Green HRM at the work environment level. Energize line administrators and workers to take pride in manageability activities

Green initiatives for HR

Associations by and large compose HR rehearses into frameworks that are predictable with their way of life and business procedure. We can state that green activities incorporated into HRM pronouncement is a piece of corporate social duty over the long haul. Today, associations are executing and incorporating green activities in their motivation with the assistance of their human asset. Directors ensure that their HR is using green human asset rehearses in fitting way. As an addendum to the announcement, a few creators have recommended that it is essential to advance a lot of specialized and the executives abilities among all representatives of the association with the end goal to actualize a powerful corporate green administration framework in organizations. Associations over the world are joining and moving in the direction of actualizing GHRM practices to increase upper hands among the corporate world. Finish selection and reconciliation of GHRM in business isn't unimaginable however requires a changed methodology toward the current HR rehearses on part of both the administration and representatives at the same time. A key job for HR ecological administrators could be to rule supervisors regarding increasing full staff co-task toward executing natural strategies which implies HR needs to sustain supporters and make systems of issue solvers willing to act to change the present business as usual. There are various issues identified with GHRM that will be considered by HR office before actualizing green activities and, every one of them can be not contained inside a solitary report. Inferable from as far as possible the accompanying area of the paper quickly endless supply of the real green activities for HR divisions. A few Initiatives organizations can take to make strides toward environmental friendliness are-

- Conducting a vitality review Most nearby utilities offer organizations free nearby meetings on how they can lessen utilization and set aside extra cash.
- Going paperless – Encourage messaging.
- Recycle – Recycle glass, paper, plastic, metal junk and assembling waste materials.
- Reducing business travel – Teleconference as opposed to voyaging.
- Buying green – Tell providers that organization is occupied with practical items and set explicit objectives for purchasing reused, refurbished items.
- Implement green assembling forms – Use vitality productive hardware, and streamline procedures to utilize less advances and less materials and bundling.

Advantages of Green HR Initiatives

Green HR activities enable organizations to discover elective approaches to cut expense without losing their best ability. Green HR alludes to the commitment of individuals the executives approaches and exercises towards this more extensive plan. It's a vital issue for HR since it is plainly an imperative issue for all representatives, and in addition clients and different partners. It's likewise one in which HR can have a major effect

without causing much use, great natural administration can enhance deals and lessen costs, giving financing to green advantages to keep staff locked in.

Green building

The associations round the globe are extensively settling on green working as their work environment and workplaces as an option in contrast to conventional workplaces. The marvel is very pattern setting as Green structures satisfy certain rule for diminishing the misuse of characteristic assets that are used in their development. Moreover, green structures incorporate some improved highlights identified with green practices, for example, vitality productivity, sustainable power source, and tempest water the board. Ongoing years have seen an incredible upsurge in reception of green structures by associations at a quick pace. The business world has turned out to be progressively mindful of the huge pretended by green structures while managing ecological issues. Green structures likewise fill in as a stage for money related reserve funds for associations as their development and designing include ease. Business monsters like Ford, Pepsico, and so on are focused on maintainability and have included green building structure standards into their structures. Fortune 1000 organizations are receiving expansive maintainability approaches that have expanded the interest for work space in Green or reasonable structures.

Paperless office

A large portion of the work in the workplace is overseen on paper in any case, with presentation of IT, the utilization of paper has been lessened. Today E-business and learning have changed the strategies and systems at workplaces changing over them into paperless workplaces. Paperless office is a work put where the utilization of paper is either confined or killed by changing over essential authority reports and different papers into robotized work processes. The training significantly diminish the utilization of paper, the expenses of paper-related activities including replicating, printing, and putting away, and furthermore spare the time utilized for looking paper reports. Jamie Garratt began Idea Rebel, a Vancouver-based advanced office in 2008, which is a total paperless office (Borzykowski, 2013). At Idea Rebel, pay stubs are messaged to workers and notes are gone up against tablet gadgets and whiteboards. Fashioners are permitted to get a stack of paper yet they need to take the cushion to their home toward the finish of every day. At last, we declare that by diminishing the utilization of paper, we can specifically moderate common assets, avoid contamination, and lessen wastage of water and vitality.

Conservation of energy

Preservation of vitality in the workplace has the potential for an incredible ecological effect. With an end goal to give more productive and eco-accommodating administrations, workplaces around the globe have actualized a few vitality preservation activities to lessen the natural effect. The HR office at the UK arm of Sky has begun a crusade where the representatives are requested to kill PCs, TVs, and lights when leaving, to utilize 100% sustainable power source, and presented sun powered lighting (Davies and Smith, 2007), Whereas the HR bureau of other British associations is underlining upon their movement approach which advances vehicle sharing and the

expanded utilization of open transport (Simms, 2007). Moreover, HR frameworks, for example, e-HR are believed to have the capacity to encourage the board and representatives track their very own carbon emanations (Beechinor, 2007). Associations are likewise advancing the broad utilization of vitality star-evaluated lights and installations which without a doubt expends somewhere around 66% less vitality than ordinary ones.

Recycling and waste disposal

Reusing is the philosophy of preparing spent materials (squander) into new and helpful items. Reusing lessens the utilization of crude materials that would have been generally used to create new items. Therefore, this training spares vitality and diminishes the measure of waste that is tossed into the dustbins, consequently making the earth cleaner and the air fresher. As a piece of their green activities, a few associations are executing reusing project to build the measure of reused items and abatement the measure of waste. As far back as the associations grasped the idea of setting aside some cash, concentrating at the same time on the earth and maintainability, a few human asset experts were relegated the undertaking of making organization reusing projects and checking office indoor regulators. All the while, numerous HR experts found out that green activities were a fundamental part of by and large corporate social duty. At present, the entire corporate world is discussing the old mantra of three Rs—Reduce, Reuse, and Recycle to spare nature.

Conclusion

The emphasis on enhancing the operational efficiencies joined with up-degree of innovation have driven organizations on the planet, of its size and assorted variety, to accomplish the achievements of being carbon positive, water positive and accomplishing relatively 100% strong waste reusing. The "Three Leaves" rating granted by Center for Science what's more, Environment, Green Tech Environment Excellence grant, "Brilliant Peacock" grant and "Strong Waste Recycling Positive' Superb Water Efficient Unit' grants to name a couple are declarations to these endeavors and accomplishment. The eventual fate of Green HRM seems promising for all the partners of HRM. The businesses and professionals can set up the helpfulness of connecting worker contribution and participation in natural administration projects to enhanced authoritative natural execution, as with an explicit spotlight on waste administration reusing, making green items. Associations and workers can help managers to receive Green HRM arrangements and practices that encourage protect and upgrade specialist wellbeing and prosperity. The academicians can contribute via conveying further research around there uncovering extra information that can construct a information base on Green Management as a rule.

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Causes of School Dropouts in Jammu and Kashmir with Special Reference to District Pulwama

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ABSTRACT

Providing right type of education to the right people at right time is the key to human resource formation. Dropout is defined as the children proportion ceasing to continue enrolled in the school. The present study examines the various causes that are responsible for the middle school dropouts in Jammu and Kashmir with special reference to district Pulwama. The study is purely based on primary data collected from 240 respondents by using stratified random sampling. The study finds that there are three types of causes; school related causes, family related causes and personal causes. As far as school related causes are concerned poor accommodation is the main cause. In the category of family related causes, the most important cause is that the parents feel that girls are only meant for household activities. The third category is the personal causes. Most important cause in this category is the reluctance of parents.

Introduction

Education is a basic human right and fosters economic growth and human development. Providing right type of education to the right people at right time is the key to human resource formation. Primary and upper primary educations are the most vital stages of education because these stages form the base of education standard. If at this stage right type of education will be imparted to the students, the problem of school dropouts will definitely be solved.

Dropout is defined as the children proportion ceasing to continue enrolled in the school. Social scientists and analysts across the world have broadly investigated the reasons of dropouts. This is in the light of the fact that dropout problem has turned out to be a concern worldwide for the policy makers of school education system. At the global level, we classify the reasons for school dropouts into three kinds that is to say problems related to family, problems related to school and personal problems. Some main family related problems are found related to the poor socio-economic position, deprived groups, low level of parental education and solo parent families. Furthermore, a few school related problems are identified in the forms of the attendance, grades, academic accomplishment, interest in school and school work. When it comes to personal reasons of dropout they are found mainly in the forms of problems related to discipline and extenuating problems comprising marriage etc. (Laxmaiah and Kachoor, 2016).

The problem of dropout has been continually troubling the primary education system not only in India but also in other developing countries. Dropout does not mean mere rejection of school by children. It leads to wastage of the funds invested in school buildings, teacher's salaries, equipment, textbooks and so on (IIE, 2004). Poverty, availability and accessibility are the three reasons why children dropout of primary school (Sampath, 2016).

While India has made significant progress in raising enrolment rates, for primary education schools have been less successful at preventing dropouts during this critical learning phase. According to data put out by MHRD, the national dropout rate at the primary level was 4.34% in 2014-15 and it was much higher at the secondary level at 17.86%. Indeed, while Karnataka has a dropout rate of 2.3% which is below the national level, Rajasthan's at 8.31% is double the national average and Manipur's is four times at 18%.

As far as dropout rate in primary schools in Jammu and Kashmir is concerned, it stood at 5.66% in 2014-15 as compared to 6.24% in 2013-14 while the figures for upper primary schools were 4.18% in 2014-15 as compared to 5.25% in 2013-14 (Akhter, 2016). The figures show that the dropout rate in J and K is much higher than national level. This is a cause of concern and it needs some sort of attention to find the causes of this dropout in the state and to find the remedial measures to tackle this problem.

Previous contribution

(Kotwal and Neelima2007) proved that the main causes of dropout girls from school in rural areas were reluctance of parents. Another major reason was problem financial constraints. The parent's educational status was poor and they did not give much importance to the education of girls as they did to their sons. (Khan, Azhar and Shah 2011) studied that the main reasons for school dropouts were low economic status of the parents which restricts both parents and girls for continuing primary education. Other compelling reasons were the parents and child's interest in primary education, parent's death, involvement in household chores and economic activities. (Basumatary2012) finds that on average, poverty level and rural population percentage have greater impact upon the school dropout rates. These two variables were found statistically significant in all the three models. Standardized coefficients are also found much higher for these two variables. (Bashir and Khan 2014) studied the main factors which lead to dropping out were poor attendance, poor academic performance in class, low interest in studies and other factors like personal, social, home and school lead to dropping out of school going girls. (Satish and Shekhar2014) observed that parental characteristics play a significant role in determining school dropouts. The dropouts among the children belonging to illiterate parents were four times higher than that of the literate parents. It was also observed that if parents were not working, the possibility of dropout among their children was relatively high. The multivariate analysis indicated that the household size, number of living children, and parental education were the most important predictors of school dropouts in India.

Research methodology

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The study is purely based on primary data obtained from the school dropouts (age group 10-14), parents and teachers in district Pulwama of Jammu and Kashmir. For the selection of sample, stratified random sampling was used. District Pulwama is divided into 8 Educational Zones. For this study, 4 educational zones namely Pulwama, Tahab, Kakapora and Shadimarg were selected randomly. From each zone 5 schools were selected randomly and from each school 12 respondents (5 dropouts, 5 parents of these dropouts and 2 teachers) were selected. Hence a total of 240 respondents from 20 schools were selected. The data was collected through an interview schedule that was introduced among the respondents to get the required information.

Objective of the study

- To study the causes of school dropouts in district Pulwama of Jammu and Kashmir.

Result and discussion

School dropouts are the children proportion ceasing to continue enrolled in the school. We classify the reasons for school dropouts into three kinds; problems related to school, problems related to family and personal problems.

Table1. School Related Causes

S. No.	Reasons	Views	Percentage
1	Poor accommodation	132	55
2	Poor seating arrangement in the class	53	22.08
3	Schools far away from home	77	32.08
4	No provision of mid-day meals, books and uniform	10	4.1
5	Teacher not teaching regularly and properly	120	50
6	Teachers who used to beat	60	25
7	Defective system of examination	120	50

Source: Compilation based on field data

Table 1 reveals that as far as school atmosphere related causes of dropouts are concerned, 55% respondents feel that poor accommodation in the school is the main cause followed by teachers not teaching regularly and properly and defective system of examination with a joint percentage of 50%. Govt. should take notice of it and make the school infrastructure well developed and the separate class rooms for each class should be built. Appointment of teachers should be fair. Those teachers who are irregular in the school should be kicked out. Examination system should be reviewed and it should be made student friendly. The third important cause is that the schools are far away from the homes of the children with over 32% respondents feel like that. 25% respondents also feel that teacher used to beat is another important cause. 22% respondents also thought that poor seating arrangement in the class is also an important cause. The

minimum percentage of slightly over 4 feel that no provision of free meals in the form of mid-day meals, no free books and free uniforms are there for the students which is another cause of the school dropouts.

Figure1. Percentage of School Related Causes

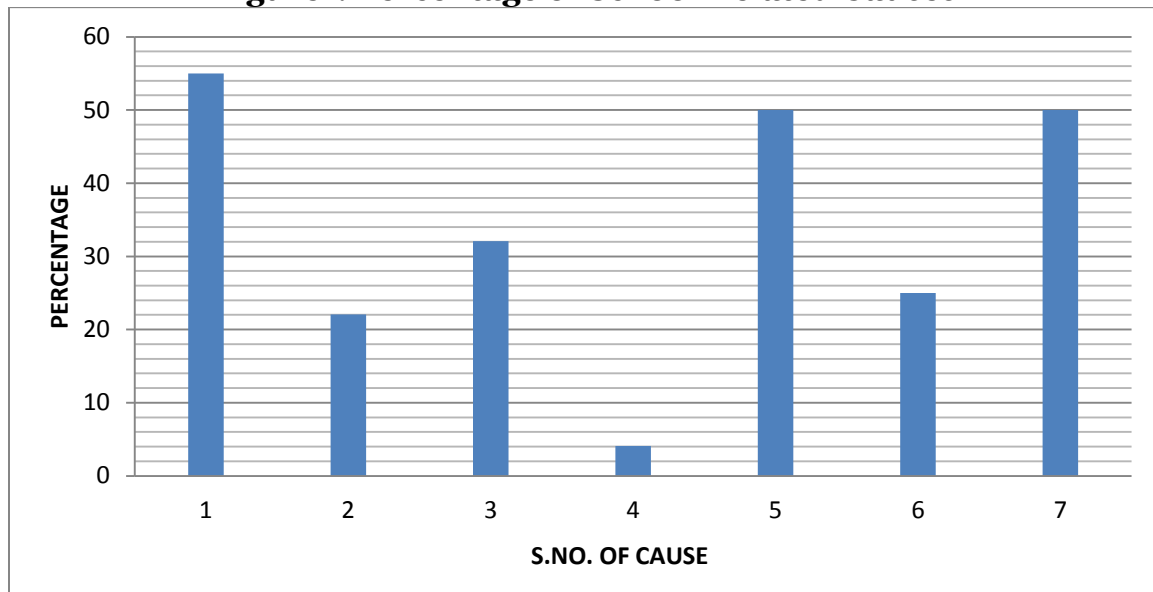


Table2. Family Related Causes

S. No	Reasons	Views	Percentage
1	Parents not interested in child's studies	156	65
2	Education is useless for children	132	55
3	No immediate gain from education	96	40
4	Illiterate parents	176	73.3
5	Parents don't know the value of education	96	40
6	Poor social condition	108	45
7	Single parent families	48	20
8	Parents did not understand the need of children	66	27.5
9	Not able to go on time	72	30
10	Need of girls in household activities	183	76.25

Source: Compilation based on field data

As far as family related causes of school dropouts are concerned the table shows that three main causes are need of girls in household activities, illiterate parents and parents are not interested in their child's education with 76.25%, 73.3% and 65% respectively. Another important cause felt by 55% respondents is that education is useless for children. Poor social condition is another cause that felt by 45% respondents. After that there comes another two important causes i, e. no immediate gain from education and parents don't know the value of education being felt by 40% respondents. Not able to go

on time is felt by 30% respondents; parents did not understand the need of children by 27.5% and single parent families by 20% respondents. Now the need of the hour is to counsel and guide the parents particularly those parents who are illiterate because almost all the above causes of school dropouts revolve round that one because that is illiterate parents.

Figure2. Percentage of Family Related Causes

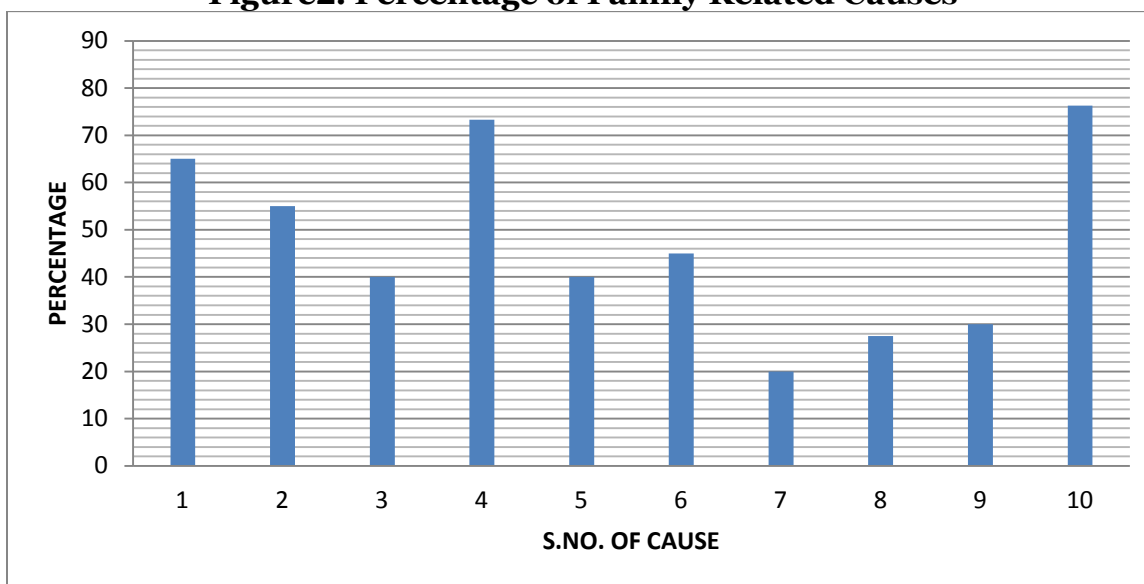


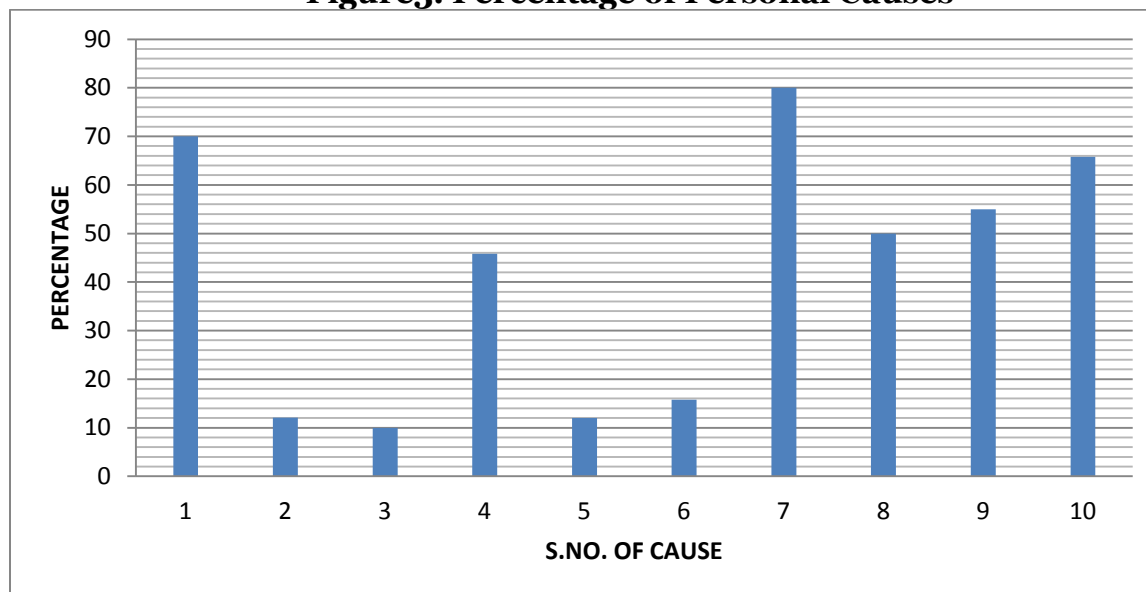
Table3. Personal Causes

S. No	Reasons	Views	Percentage
1	Not interested in studies	168	70
2	Early marriage	29	12.08
3	Physically handicapped	24	10
4	Poor academic performance in the class	110	45.8
5	Illness of parents	36	12
6	Teacher's unfair behavior	38	15.8
7	Reluctance of parents	192	80
8	Poor family income	120	50
9	Scare of getting punishment	132	55
10	Household chores	158	65.8

Source: Compilation based on field data

Table 3 reveals that among the personal reasons reluctance of parents is the most important cause of school dropouts as expressed by 80% of the respondents. Second most important cause is that the students are not interested in education as felt by 70% respondents. 65% felt that household chores, 55% felt that scare of getting punishment, 50% felt that poor family income are the main causes of school dropouts. Poor academic performance in the class is another cause expressed by over 45% respondents. Teacher's unfair behavior, early marriage, illness of parents and physical handicappedness are other causes that contribute to the school dropouts in district Pulwama.

Figure3. Percentage of Personal Causes



Conclusion

Middle school dropout is a major problem of our education system. In general Poverty, Availability and Accessibility are the three reasons why children dropout of schools but in particular there are various causes which were discussed above. There are three types of causes; school related causes, family related causes and personal causes. As far as school related causes are concerned poor accommodation is the main cause followed by teachers not teaching regularly and properly and defective system of examination. Schools are far away from homes of children which raise safety concerns for girl students. Poor seating arrangement in the class is another cause of school dropouts in the state. In the category of family related causes first and the foremost cause is that the parents feel that girls are only meant for household activities. Another most important cause is that parents are illiterate. They don't know the value of education for their children. It can also be seen from the above discussion that all other causes revolve around this cause that parents are illiterate. The third category is the personal causes. First cause in this category is the reluctance of parents followed by disinterest of students in their studies and students are engaged in the household activities which they don't want to do but has to do as they belong to poor families. The need of the hour is that the parents should be made aware about the importance of education.

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Introduction to Machine Learning and Its Basic Application in Python

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ABSTRACT

Artificial Intelligence, Machine Learning and Deep Learning are the buzzwords that have been able to grasp the interest of many researchers since various numbers of years. Enabling computers to think, decide and act like humans has been one of the most significant and noteworthy developments in the field of computer science. Various algorithms have been designed over time to make machines impersonate the human brain and many programming languages have been used to implement those algorithms. Python is one such programming language that provides a rich library of modules and packages for use in scientific computing and machine learning. This paper aims at exploring the basic concepts related to machine learning and attempts to implement a few of its applications using python. This paper majorly used Scikit-Learn library of Python for implementing the applications developed for the purpose of research.

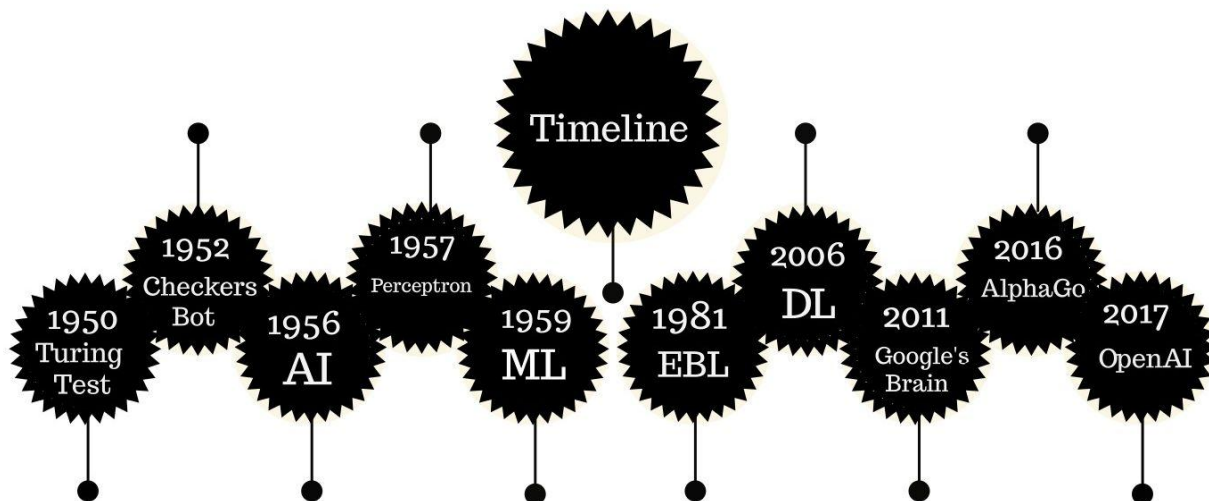
Introduction

“Computers are able to see, hear and learn. Welcome to the future”- Dave Waters.

Artificial Intelligence and Machine Learning and Deep Learning are the concepts that have been around for quite a few decades now and have been implemented or thought to be implemented many times, to make the machines do possibly everything that the humans can do without being explicitly instructed. Haffner (2016) very appropriately wrote that Machine Learning is composed of algorithms that educate computers to carry out tasks that are performed naturally and effortlessly by humans on a daily basis. For example, reading, deciding and marking an email as spam; or simply looking at the weather and deciding if an umbrella would be required when going out; or merely recognizing the features of a given fruit and identifying whether it is an apple or an orange. Extending this thought, in her article, Priyadharshini (2017) mentioned that

machine learning enables computers to find intuitive information by using algorithms that repeatedly learn from data instead of being explicitly programmed about where exactly to look for a piece of information.

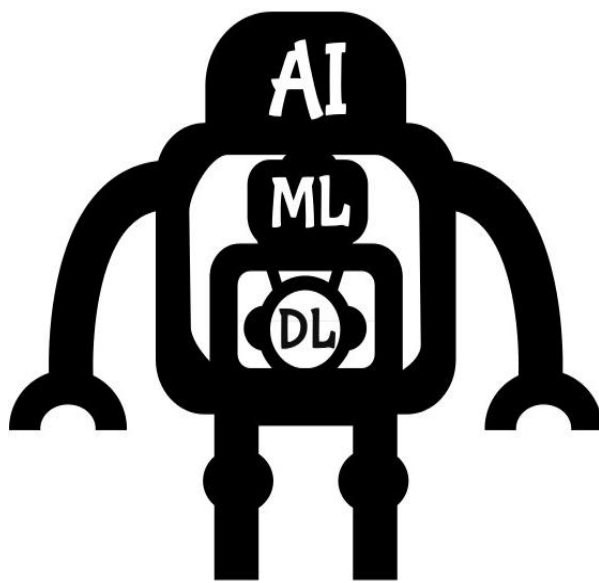
How did it all begin?



Machine Learning is not a very recent concept according to Haffner (2016) and its history dates to over sixty years back. Marr (2016) and Pacheco (2016) also wrote that it all started in 1950 when Alan Turing came up with the idea of “Turing Test” to analyze if computer has true intellect or not. Subsequently in 1952, Arthur Samuel developed the first computer program that could play checkers and was capable of learning new strategies with each new game it played. Frank Rosenblatt, in 1957, designed perceptron (the first computer neural network) to mimic the thinking process of a human brain. Next, in the year 1967, an algorithm named “nearest neighbor” was designed to make the computer capable of identifying very basic patterns like mapping a route in a city. Further in 1979, a mobile robot named “Stanford Cart” that was able to navigate itself through obstacles in a room was developed by the students of Stanford University. As a major step forward, the concept of Explanation Based Learning (EBL) was introduced in 1981 by Gerald Dejong whereby a computer could analyze and discard irrelevant data out of the given training data. Eventually, by 1990s, the approach towards machine learning became more data-driven instead of the traditional knowledge-driven, where programs were developed to analyze and extract conclusions from massive amounts of data. Since then there have been many technological advancements in the field of machine learning that include introduction of deep neural networks (DNN) for image processing, development of “deep face algorithm” by Facebook based on DNN, and many other neural networks. In the last decade, the world of machine learning and artificial intelligence have witnessed tremendous achievements as compared to their earlier years, visible through the victory of IBM’s Watson at Jeopardy and development

of Google's Brain in 2011, launch of machine learning platform by Amazon and creation of distributed machine learning toolkit by Microsoft in 2015 and triumph of Google's AI (AlphaGo) in the world's most complex Chinese board game Go, against Lee Sedol (a professional Go player) winning five times in a row in 2016. According to some proficient Go players, AlphaGo was capable of making millions of ingenious moves than they had ever witnessed before. 2017 also witnessed the introduction to a bot by OpenAI (founded by Elon Musk) that defeated the world's best player in a competitive eSport, Dota 2.

AI, ML and Deep Learning, How Do They Relate?



Web articles by Priyadharshini and Tagliaferri (2017) define Machine learning (ML) as an associate or core sub-area of artificial intelligence (AI) that permits computers to follow a self-learning approach without being programmed explicitly. John McCarthy coined the term “Artificial Intelligence” in 1956 for a new research field in the computer science domain which focused on making machines mimic human cognitive functions. An article by Puget (2016) quoted that the term “Machine Learning” was coined by Arthur Samuel in 1959, who defined it as “a field of study that gives computers the ability to learn without being explicitly programmed”. According

to a research report by Samuel (1959) it is possible to program a digital computer to learn in exactly the same way as humans or animals could learn from real experiences which would eventually reduce the need for detailed programming effort. Progressing further, in 2006, Geoffrey Hinton came up with the phrase “Deep Learning” that, as explained by Brownlee (2016) is a subfield of machine learning that uses neural networks to imitate human like decision making, wherein Neural Networks or Artificial Neural Networks are the algorithms inspired by the function and structure of the human brain.

Why Machine Learning?

As pointed out by Brownlee (2015), Machine Learning facilitates the computers to program themselves. This very basic idea behind the concept of machine learning describes its importance in today's computing.

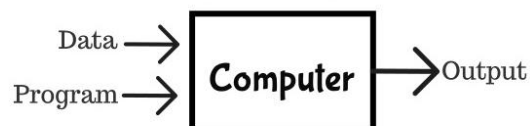
As compared to conventional programming that simply represents automation, machine learning is characterized by automating the process of automation. Data and program

Available on SSRN-Elsevier

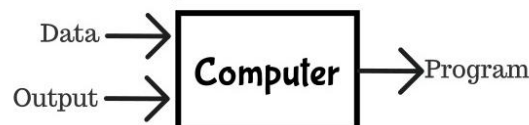
are provided as input to computer during traditional programming to produce a certain output whereas machine learning intakes data and output to create a program itself. As explained by Prof. Mostafa (2012) in one of his lectures on The Learning Problem, conventional programming would only be successful when some mathematical formula could be derived upon for solving a problem but

machine learning does the opposite by breaking this convention and working even if it isn't possible to pin down a mathematical principle, by repeatedly recognizing patterns and developing its own algorithms as and when the data changes. Prof. Mostafa further proved this by citing an example of predicting how a viewer would rate a movie, as there exists a pattern but it is not possible to pin down a mathematical model for the same because the way a person would rate a movie is not related to how they would rate other movies or how other people would rate the same movie.

Conventional Programming:



Machine Learning:



Malhotra (2016), a machine learning researcher at TCS Research stated that data availability and computation power are two of the interesting features that have lead to an extensive use of machine learning. Based on these two key factors, machine learning models are able to dig out patterns from gigantic quantities of data which is not possible for humans because a human brain cannot retain everything for long and also cannot carry out redundant computations continuously for hours and days to arrive at interesting patterns.

Types of Problems Solved Using Machine Learning

Chen (2017), editor of The Eliza Effect mentioned five types of problems that can be solve by applying machine learning:

- **Classification:** used to identify the category to which an object belongs. For example, is it spam? Or is it cancerous?
- **Regression:** used to predict a continuous numeric-valued aspect associated with an object. For example, the probability that a user would click on an ad or stock price prediction.

- **Similarity/ Anomaly:** used to retrieve similar objects or to find anomalies in behavior. For example, searching for similar images or detecting deception in user behavior.
- **Ranking:** used to sort relevant data according to a particular input. For example, Google Page Rank
- **Sequence Prediction:** used to predict the next element in a series of data. For example, predicting the next word in a sentence.
- However, similar objects can also be grouped into sets using Clustering as explained by Gupta, Negi, Vishwakarma, Rawat, & Badhani (2017)

Types of Machine Learning Algorithms

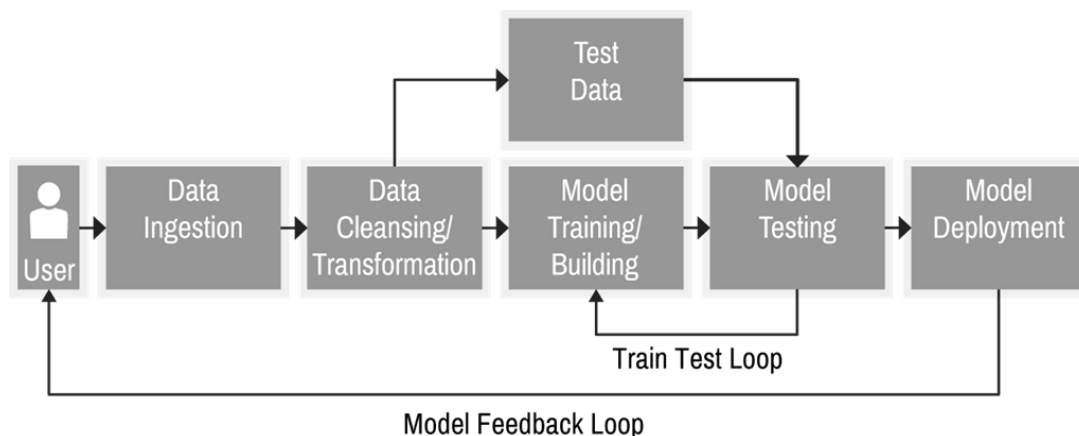
There are three major categories of Machine Learning algorithms:

- **Supervised Learning:** whereby the machine is provided with labeled data for both input as well as expected output during its training and the supervised learning algorithm generates a mapping function that can identify the expected output for a given input. The training process continues till the algorithm reaches the preferred level of accuracy. One of the standardized goals of supervised learning is to make the computer learn a classification system; therefore, it is commonly used to solve classification problems. For example, the machine could be trained to classify a spam e-mail from a valid e-mail, already being used by Google for Gmail spam filtering. Nearest neighbor, Naïve Bayes, Decision Trees, Linear Regression, Support Vector Machines and Neural Networks are a few of the most common algorithms that are included under this category.
- **Unsupervised Learning:** whereby the machine is provided with unlabeled and unclassified input dataset and the unsupervised learning algorithm generates a function to identify hidden structures in the given dataset as per the patterns, similarities and differences that exist among data without any former training. There is no assessment of the level of accuracy of the structure identified by the machine. One of the major focuses of unsupervised learning algorithms could be clustering and association problems. A few of the commonly used unsupervised learning algorithms are k-means algorithm for clustering and Apriori algorithm for association problems.
- **Reinforcement Learning:** the machine is exposed to an environment where it takes decisions on a trial and error basis and learns from its own actions and past experiences. For every correct decision the machine receives a reward feedback from the environment that acts like a reinforcement signal and the information about the rewarded state-action pair is stored. Later on the machine iterates the rewarded behavior whenever faced with a similar situation. Reinforcement learning algorithms have their usage in domains where strategic decision making is the key to success like Self Driving Cars. Few of the most commonly used

reinforcement learning algorithms are Q-Learning and Markov Decision processes.

Machine Learning Workflow

A presentation created by Dimitrov (2017) depicted the Machine Learning workflow in the following diagram:



The sequence of workflow starts with data ingestion that is followed by data preprocessing where the valid and clean data is transformed into a format that is best suited to the requirements of machine learning model used. According to Puget (2016) the training part of the workflow involves the use of a machine learning algorithm that generates a trained model. The trained model is then iteratively tested for accuracy against some test data which ideally must be a different set of data each time the model is tested. After meeting the desired accuracy the model is then deployed so that the application can use the model.

Why Python?

“Python is like a swiss army knife of machine learning” - Thia Kai Xin (Data Scientist, TUM)

Priyadharshini (2017) has cited in her article that although the machine learning models have been known and studied for a long period of time but the ability to apply intricate mathematical computations to big data automatically, iteratively and rapidly has gained impetus over the most recent years.

There are a large number of reasons for python to be considered as a popular language for machine learning. As stated by Harrington (2012) Python is a simple and elegant language with clear syntax having extremely easy text manipulation and processing capabilities and a rich community of developers leading to availability of ample documentation. Python also comes with an interactive shell that allows the programmers to examine and view elements of a program simultaneously while writing the code. Python has been equipped with high-level data types like lists, queues, tuples, dictionaries, etc. that make it easy to implement abstract concepts and do not need to be programmed explicitly by the programmer.

Machine learning could also be easily implemented using other high level languages like MATLAB that provides a number of built-in features for performing matrix mathematics but it is not an open source language. Moving towards languages like C and Java, matrix math libraries are available for them as well but it requires a lot of code to perform simple things in these languages. These limitations have been overcome by python that is an open source, clean, brief and easy to read language with an availability of large number of libraries and packages makes python more popular in various domains including scientific and financial communities. Moreover, python does not require expert programming skills to catch up with its code, even non programmers could easily learn and code in python.

Basic Applications of Machine Learning Using Python

A few basic applications of machine learning have been explored and implemented with respect to this research using python programming language. The names of the applications are as follows:

- Spam Filter
- Sentiment Analysis
- Voice Chat-Bot
- Image Classifier
- Stock Market Prediction

The following specifications have been used to implement and code the above mentioned applications:

Version Used: Python 3.6

Libraries Used: Scikit-learn (majorly used), NumPy, SciPy, NLTK, Pandas, Keras, Matplotlib, PIL, ChatterBot and TextBlob

Packages Used: pyttsx,

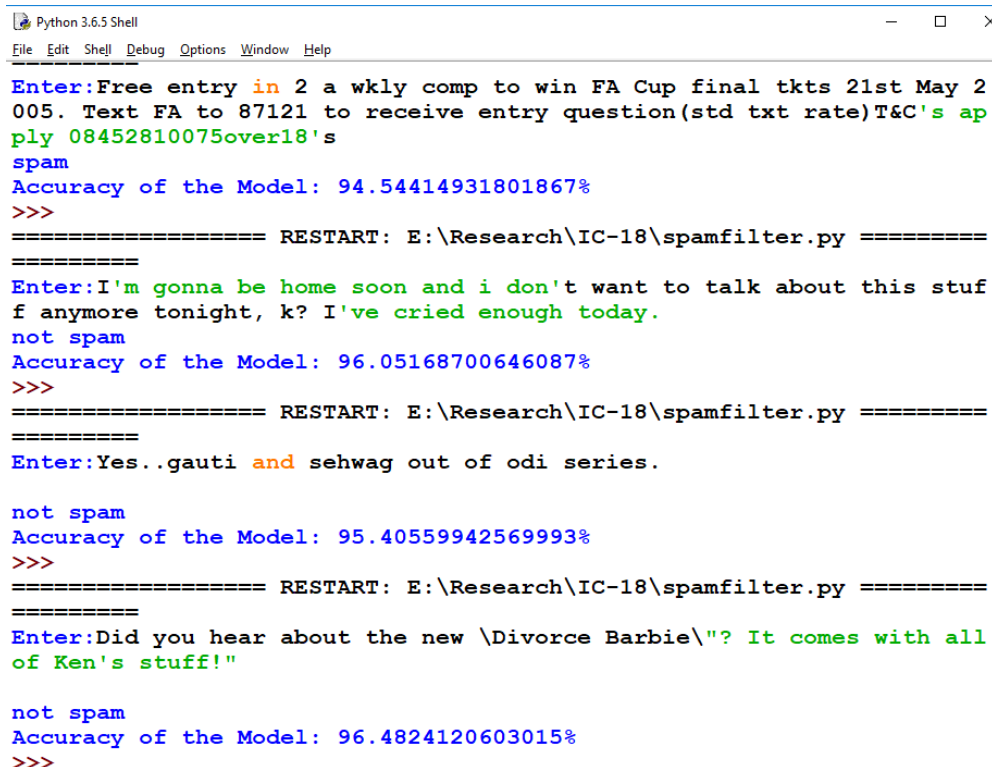
API Used: speech recognition by Google

According to official python documentation, Scikit-Learn is a simple, efficient and powerful tool that provides various machine learning algorithms for classification, clustering, regression, model selection, etc. It is an open source library easily accessible to anybody and usable in many contexts. In order to work with Scikit-Learn, NumPy must be installed along with SciPy and Matplotlib. NumPy is used to work with arrays; Matplotlib is used to plot graphs, Keras for Preprocessing image, NLTK for word net, Pandas for reading CSV data file, Pyttsx for text to speech, Textblob for sentiment analysis, chatterbot for chatting application and PIL for image manipulation.

▪ **Spam Filter**

- What? A machine learning application built in python to filter spam messages.
- Why? As the name suggests, this application detects and filters unsolicited and unwanted messages received by user.
- Where? This application is currently being used by Google for Gmail spam filtering.
- Implementation using Python? Pandas library was used for reading the CSV data file, then the data was labeled for converting it from word to a vector containing two columns, Status and Message, where the Status was labeled as 1 indicating ham and 0 indicating spam. The labeled data was then given to the model for training. In order to check whether the message input by the user is spam or not, it was first converted from word to vector and then given to the model for prediction.
- Model Used: Multinomial NaiveBayes (NB) from sklearn
- Code Snippet:
 - `tf= TfidfVectorizer ()`
 - `mnb= MultinomialNB ()`
 - `test= input("Enter:")`
 - `test_data= []`
 - `test_data.append(test)`
 - `df= pd.read_csv('SMSSpamCollection', sep= '\t', names= ['Status', 'Message'])`
 - `df.loc[df['Status']== 'ham', "Status"]=1`

- `df.loc[df['Status'] == 'spam', "Status"] = 0`
 - `df_x=df['Message']`
 - `df_y=df['Status']`
 - `x_train=tf.fit_transform(df_x).toarray()`
 - `y_train= df_y.astype('int')`
 - `x_train,x_test,y_train,y_test = train_test_split(x_train,y_train)`
 - `X = tf.transform(test_data).toarray()`
 - `mnf.fit(x_train, y_train)`
 - `pred= mnf.predict(X)`
 - `if pred==1:`
 - `print ("not spam")`
 - `else:`
 - `print("spam")`
 - `pred = mnf.predict(x_test)`
 - `sc = accuracy_score(y_test,pred)`
 - `print ("Accuracy of the Model: { } %"format (sc*100))`
- Results:



```

Python 3.6.5 Shell
File Edit Shell Debug Options Window Help

Enter:Free entry in 2 a wkly comp to win FA Cup final tkts 21st May 2
005. Text FA to 87121 to receive entry question(std txt rate)T&C's ap
ply 08452810075over18's
spam
Accuracy of the Model: 94.54414931801867%
>>>
===== RESTART: E:\Research\IC-18\spamfilter.py =====
Enter:I'm gonna be home soon and i don't want to talk about this stuf
f anymore tonight, k? I've cried enough today.
not spam
Accuracy of the Model: 96.05168700646087%
>>>
===== RESTART: E:\Research\IC-18\spamfilter.py =====
Enter:Yes..gauti and sehwaq out of odi series.

not spam
Accuracy of the Model: 95.40559942569993%
>>>
===== RESTART: E:\Research\IC-18\spamfilter.py =====
Enter:Did you hear about the new \Divorce Barbie\"? It comes with all
of Ken's stuff!
not spam
Accuracy of the Model: 96.4824120603015%
>>>

```

- Interpretation: The spam filter model was trained on a separate predefined training dataset and also tested on a predefined dataset which was different from training dataset. Both the datasets were labeled to identify spam from not spam. The results show that the model was able to distinguish between

“spam” and “not spam” with an accuracy of about 94% to 96% approximately. However, the accuracy of this model could be further increased by adjusting its parameters.

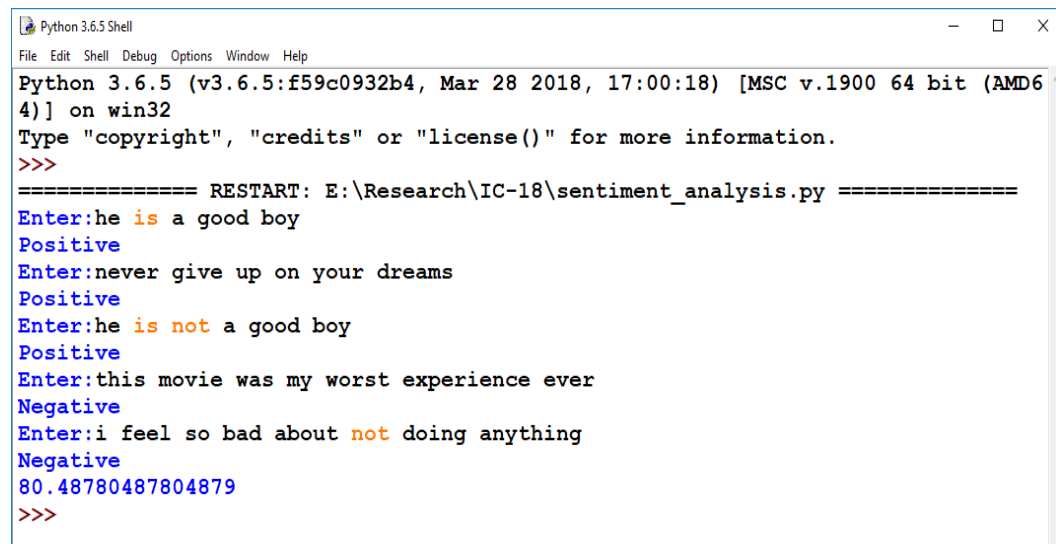
- ***Sentiment Analysis***

- What? A machine learning application built in python to check polarity of given piece of text.
- Why? As the name suggests, this application is used for computationally identifying and categorizing opinions expressed in a piece of text.
- Where? This application is currently being used by Twitter (Twitter Sentiment Analysis) for analyzing the polarity of a particular tweet.
- Implementation using Python? TextBlob library was used for importing the required model; NLTK was used for word-net which provided the initial training data. The new data was labeled and stored in a list by the researchers. This list was then given to the model as new training data. Then the message provided as input by the user was given to the model for predicting whether it was positive or negative.
- Model Used: NaiveBayes Classifier from TextBlob, accuracy_score from sklearn

- Code Snippet:

```
from customdata import data
da=data ()
te = test ()
cl = NaiveBayesClassifier(da)
predicted = []
label = []
inp = input("Enter:")
result = (cl.classify(inp))
if result== "pos":
    print("Positive")
else:
    print("Negative")
for i in te:
    pred = cl.classify(i[o])
    predicted.append(pred)
    label.append(i[1])
sc = accuracy_score(label,predicted)
print(sc*100)
```

- Results:



```
Python 3.6.5 Shell
File Edit Shell Debug Options Window Help
Python 3.6.5 (v3.6.5:f59c0932b4, Mar 28 2018, 17:00:18) [MSC v.1900 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\Research\IC-18\sentiment_analysis.py =====
Enter:he is a good boy
Positive
Enter:never give up on your dreams
Positive
Enter:he is not a good boy
Positive
Enter:this movie was my worst experience ever
Negative
Enter:i feel so bad about not doing anything
Negative
80.48780487804879
>>>
```

- **Interpretation:** The model was provided with a previously defined, customized and preprocessed dataset of approximately 3000 positive and negative sentences and then the model was asked to classify between the two of them. The inputs were then arbitrarily given to the model and the outputs were as per expectations around 80% of the times. The accuracy of this model could be improved by increasing the amount of good quality data for its training.

▪ **Voice Chat-Bot**

- **What?** A machine learning application built in python for interacting with an AI.
- **Why?** As the name suggests, this application is used for voice chatting with an AI bot.
- **Where?** A more advanced version of this application is currently being used by Google as Google Assistant, by Microsoft as Cortana, by Apple as Siri and by Amazon as Alexa.
- **Implementation using Python?** Chatterbot library was used for importing the model required, speech recognition API by Google was used for recognizing the user's voice, pyttsx was used to convert text to speech. The model was trained over the data provided by word-net from NLTK. Speech recognizer and microphone was made active by writing a line of code along with setting the output voice property. Then a voice input was provided by the user and the model responded to it accordingly.
- **Model Used:** Chatbot from chatterbot
- **Code Snippet:**

```
import os
```

```

import pyttsx
import speech_recognition as sr
from chatterbot import ChatBot
chatbot = ChatBot('Ron Obvious',
trainer='chatterbot.trainers.ChatterBotCorpusTrainer')
chatbot.train("chatterbot.corpus.english")
r = sr.Recognizer()
m = sr.Microphone()
e= pyttsx.init()
voices =e.getProperty('voices')
e.setProperty ('voice',voices[1])
def my_form ():
    try:
        print ("A moment of silence, please...")
        with m as source: r.adjust_for_ambient_noise(source)
        print ("Set minimum energy threshold to {}".
format(r.energy_threshold))
        r.energy_threshold=400
        for i in range (10):
            print ("Say something!")
            r.dynamic_energy_threshold = False
            with m as source: audio = r.listen(source)
            print ("Got it! Now to recognize it.")
            try:
                #recognize speech using Google Speech Recognition
                value = r.recognize_google(audio)
                x=str(value)
                print ("User: ", x)
                pp=chatbot.get_response(x)
                print ("Bot: ", pp)
                e.say(pp)
                e.runAndWait()
            except:
                print ("sorry")
        except KeyboardInterrupt:
            pass
if __name__=="__main__":
    my_form ()

```

- Results:

```
A moment of silence, please...
Set minimum energy threshold to 407.12393085101485
Say something!
Got it! Now to recognize it..
User:  it's getting late in the evening
Bot:  That's not a very nice thing to say.
Say something!
Got it! Now to recognize it..
sorry
Say something!
Got it! Now to recognize it..
User:  I am very tired
Bot:  Why?
Say something!
Got it! Now to recognize it..
User:  because I had to work for late
Bot:  me working harder is an oxymoron.
Say something!
Got it! Now to recognize it..
sorry
Say something!
Got it! Now to recognize it..
sorry
Say something!
Got it! Now to recognize it..
User:  don't say sorry
Bot:  People worry about things all the time.
Say something!
Got it! Now to recognize it..
```

- Interpretation: The chat bot was trained on a complete corpus of dialog data in English language and then users could converse with it just like any other human being. The bot was able to recognize the words being said to it and respond accordingly as visible in the output screen.

▪ ***Image Classifier***

- What? A machine learning application built in python for image classification.
- Why? As the name suggests, this application is used for categorizing images into groups.
- Where? This application is currently being used in object detection algorithms.
- Implementation using Python? Scikit-learn library was used for importing the required model. The labeled training data was manipulated, resized, reshaped and transposed using PIL and NumPy. This image data was then converted into an array using KERAS library. The model was trained over this data. In order to classify the image given by the user, it was first manipulated, resized, reshaped and transposed and converted to an array of

same size as training data then further the category of given image was predicted by the model.

- Model Used: Multi-Layer Perceptron (MLP Classifier) from scikit-learn
- Code Snippet:

```
dpath= r'E:\Research\IC-18\cat-and-dog\training_set\dogs'
cpath= r'E:\Research\IC-18\cat-and-dog\training_set\cats'
def convert(path):
    label = []
    ad = []
    c=0
    for file in os.listdir(path):
        label.append(file.split('.')[0])
        f=os.path.join(path,file)
        im= Image.open(f)
        im= im.convert(mode='RGB')
        imrs= im.resize((100,100))
        imrs= img_to_array(imrs)/255
        #imrs.transpose((2, 0, 3, 1)).reshape(4,4)
        imrs= imrs.reshape(100*100*3)
        ad.append(imrs)
        c+=1
    print("done")
    return ad,label

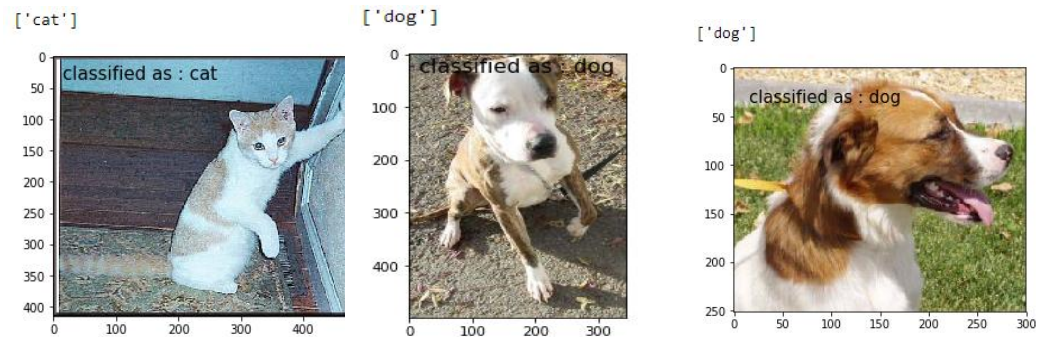
mlp= MLPClassifier (activation= 'logistic', solver= 'sgd')
cat_data,cat_label = convert(cpath)
dog_data,dog_label = convert(dpath)
main_data = cat_data+dog_data
main_label = cat_label+dog_label
main_data = np.asarray(main_data)
main_label = np.asarray(main_label)
main_label= main_label.reshape(len(main_label), -1)
print(main_data.shape)
print("started")

mlp.fit(main_data, main_label)

t_data = []
t = r'E:\Research\IC-18\cat-and-dog\test_set\cats\cat.4001.jpg'
te = Image.open(t)
tes = te.convert(mode="RGB")
test = tes.resize((100,100))
test = img_to_array(test)/255
ta = test
testa = test.reshape(3*100*100)
t_data.append(testa)
```

```
t_data = np.asarray(t_data)
pred= mlp.predict(t_data)
image = mpimg.imread(t)
print(pred)
tr= ("classified as: {}".format(str(pred[0])))
plt.text (15, 35, tr, fontsize=15)
plt.imshow(image)
plt.show()
```

■ **Results:**



- **Interpretation:** The dataset containing around 8000 images of cats and dogs was used to train the image classifier model and for testing a separate dataset was used containing approximately 2000 images of cats and dogs. The model was executed three times during testing with different image paths. The results show that the model was fairly able to recognize cats and dogs separately. If the size of dataset was reduced, as an experiment by the researchers, the accuracy of the model was affected in a negative way.

■ ***Stock Market Opening Price Prediction***

- **What?** A machine learning application built in python for predicting opening prices of a stock in the stock market.
- **Why?** As the name suggests, this application is used for predicting prices of shares of a particular company listed in the stock market based on past data of one year and ten months
- **Where?** This application is currently not being used anywhere. For testing purposes, the authors tried in this research paper to design and implement such a model using python, and with accurate data this model can be used for predicting opening prices of a particular stock in the stock market.
- **Implementation using Python?** Scikit-learn library was used for importing the model required. Matplotlib was used for making graphs and pandas library was used for reading data from CSV file. Then the dates and adjusted closing prices column from given dataset were parsed and reshaped into desired format and the model was trained over this data. Then as per the

requirements, this model was used to predict approximate opening prices of stocks for the next month, with an aim of achieving maximum accuracy.

- Model Used: DecisionTreeRegressor from scikit-learn, numpy, pandas
- Code Snippet:

```

dates = []
prices= []
adjacent_close = []
with open ('rel22train.csv', 'r') as csvfile:
    csvFileReader = csv.reader(csvfile)
    next(csvFileReader)
    for row in csvFileReader:
        if row [1] == "null":
            continue
        dates.append(''.join(row[0].split('-')))
        prices.append(float(row[1]))
        adjacent_close.append(float(row[5]))

new_data = []
common= []
new_prices= []
for i in range(len(dates)-1):
    new_data.append([dates[i],adjacent_close[i]])
    new_prices.append(prices[i+1])
new_data = np.asarray(new_data,dtype='float32')
new_data = np.reshape(new_data,(len(new_data), 2))
new_prices = np.asarray(new_prices,dtype='float32')
new_prices = np.reshape(new_prices,(len(new_prices), 1))

dtr= DecisionTreeRegressor()
dtr.fit(new_data,new_prices)
test_dates = []
test_prices = []
test_adj = []
actual_date = []
t = 0
with open ('reltestapril.csv', 'r') as csvfile:
    csvFileReader = csv.reader(csvfile)
    next(csvFileReader)
    for row in csvFileReader:
        if row [1] == "null":
            continue
        if t>0:
            actual_date.append(row[0])
            test_dates.append(''.join(row[0].split('-')))
            test_prices.append(float(row[1]))

```

```

        test_adj.append(float(row[5]))
        t+=1
    test_new_data = []
    test_new_prices = []
    for i in range(len(test_dates)-1):
        test_new_data.append([test_dates[i],test_adj[i]])
        test_new_prices.append(test_prices[i+1])
    test_new_data=np.asarray(test_new_data,dtype='float32')
    test_new_data = np.reshape(test_new_data,(len(test_new_data), 2))
    test_new_prices = np.reshape(test_new_prices,(len(test_new_prices), 1))
    pred = dtr.predict(test_new_data)
    data = [i for i in zip(actual_date,test_new_prices,pred)]
    df = pd.DataFrame(data,columns=['Date','Actual','Predicted'])
    print(df)
    ac = dtr.score(test_new_data,test_new_prices)
    print ("Accuracy: ", ac*100,"%")

```

■ Results:

April	>>>		
	===== RESTART: E:\Research\IC-1		
	\stockprediction1.py =====		
	Date	Actual	Predicted
	0 2018-04-03	[891.0]	893.950012
	1 2018-04-04	[904.700012]	895.799988
	2 2018-04-05	[905.099976]	893.950012
	3 2018-04-06	[908.0]	890.599976
	4 2018-04-09	[912.549988]	909.250000
	5 2018-04-10	[918.400024]	923.000000
	6 2018-04-11	[921.799988]	923.000000
	7 2018-04-12	[929.849976]	931.900024
	8 2018-04-13	[932.700012]	928.150024
	9 2018-04-16	[934.450012]	939.000000
	10 2018-04-17	[940.0]	939.000000
	11 2018-04-18	[945.25]	939.000000
	12 2018-04-19	[939.099976]	939.000000
	13 2018-04-20	[938.0]	939.000000
	14 2018-04-23	[930.0]	928.150024
	15 2018-04-24	[935.799988]	928.799988
	16 2018-04-25	[973.650024]	981.750000
	17 2018-04-26	[973.0]	981.750000
	18 2018-04-27	[989.799988]	981.750000
	19 2018-04-30	[982.0]	981.750000
	Accuracy: 93.51395499643739 %		

May	>>>
	===== RESTART: E:\Research\IC-18
	DateActualPredicted
	02018-05-03[977.900024]975.000000
	12018-05-04[962.849976]963.250000
	22018-05-07[958.849976]943.000000
	32018-05-08[977.5]975.000000
	42018-05-09[965.900024]963.250000
	52018-05-10[980.0]975.000000
	62018-05-11[981.25]981.750000
	72018-05-14[991.950012]981.750000
	82018-05-15[983.049988]981.750000
	92018-05-16[974.0]981.750000
	102018-05-17[959.349976]943.000000
	112018-05-18[945.599976]939.000000
	122018-05-21[930.75]928.799988
	132018-05-22[933.150024]928.799988
	142018-05-23[926.0]925.000000
	152018-05-24[914.0]909.000000
	162018-05-25[916.0]923.000000
	172018-05-28[924.900024]921.799988
	182018-05-29[921.5]921.799988
	192018-05-30[914.849976]923.000000
	202018-05-31[921.0]923.000000
Accuracy: 93.49089719386347 %	
June	>>>
	===== RESTART: E:\Research\IC-18
	DateActualPredicted
	02018-06-04[933.400024]931.900024
	12018-06-05[942.799988]939.000000
	22018-06-06[947.0]943.000000
	32018-06-07[954.900024]943.000000
	42018-06-08[966.349976]975.000000
	52018-06-11[987.099976]981.750000
	62018-06-12[983.400024]981.750000
	72018-06-13[1000.0]981.750000
	82018-06-14[997.450012]981.750000
	92018-06-15[1006.0]981.750000
	102018-06-18[1008.799988]981.750000
	112018-06-19[1013.900024]981.750000
	122018-06-20[996.0]981.750000
	132018-06-21[1023.450012]981.750000
	142018-06-22[1028.400024]981.750000
	152018-06-25[1011.400024]981.750000
	162018-06-26[1006.0]981.750000
	172018-06-27[978.5]981.750000
	182018-06-28[962.0]975.000000
	192018-06-29[949.099976]943.000000
	Accuracy: 43.12324988768421 %

July	>>>		
	===== RESTART: E:\Research\IC-18		
	Date	Actual	Predicted
	0 2018-07-03	[965.0]	967.900024
	1 2018-07-04	[971.799988]	975.000000
	2 2018-07-05	[997.0]	981.750000
	3 2018-07-06	[964.75]	975.000000
	4 2018-07-09	[987.099976]	981.750000
	5 2018-07-10	[1002.75]	981.750000
	6 2018-07-11	[1025.0]	981.750000
	7 2018-07-12	[1044.349976]	981.750000
	8 2018-07-13	[1080.5]	981.750000
	9 2018-07-16	[1099.800049]	981.750000
	10 2018-07-17	[1078.300049]	981.750000
	11 2018-07-18	[1098.400024]	981.750000
	12 2018-07-19	[1093.300049]	981.750000
	13 2018-07-20	[1113.400024]	981.750000
	14 2018-07-23	[1129.800049]	981.750000
	15 2018-07-24	[1122.0]	981.750000
	16 2018-07-25	[1110.0]	981.750000
	17 2018-07-26	[1110.099976]	981.750000
	18 2018-07-27	[1119.5]	981.750000
	19 2018-07-30	[1130.0]	981.750000
	20 2018-07-31	[1151.0]	981.750000
	Accuracy: -193.90237668445502 %		

- Interpretation: The model was given a large dataset (CSV file) containing the stock market data of Reliance Industries Ltd. (listed on NSE) for the past twenty two and a half years, ranging from January 1, 1996 to March 31, 2018, downloaded from Yahoo! Finance. The model was then trained to recognize patterns between adjusted closing price of the stock on previous day and the opening stock price for the next day with respect to all the dates in the data and then it was tested to predict the value of stock for each date of the month of April, 2018 first, following the same for the months of May, June, and July 2018 as well. The output depicted the date, predicted value of stock and actual value of stock as shown in the results. As visible from the results, the accuracy of the model was maximum when it was used to predict data for the consecutive months that occurred immediately after the training data ended i.e., for April and May, 2018, it was most accurate with an accuracy rate of 93% approximately, and then it decreased to 43% approximately, and even went towards a highly negative level of -193% as the gap between time periods of training and testing datasets was increased.

Conclusion

The concept of Machine Learning is being adopted and implemented in a wide variety of applications in this new tech savvy age of technocrats. Its understanding and use has accomplished the unthinkable. People can literally talk to their smart devices and get an answer in their own language. They are being used to distinguish between objects and also identify various objects based on their features. The machine has already started behaving like a human being. This plethora of opportunities was the actual motivation behind conducting this study.

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In this research paper, the researchers tried to establish an elementary understanding of supervised machine learning algorithms and related concepts by building a few fundamental applications using python. Coding these algorithms in Python for this research became simple because of Python's vast set of APIs and modules that came as a handy tool for a programmer and helped to focus more on creating logic. Moreover, Python's syntax was also very easy to code and implement. Thus, Python was chosen as a preferable development platform.

Four of the developed models i.e., Spam Filter, Chat bot, Image Classifier and Sentiment Analyzer were found to be accurate enough to be deployed in real world applications. Moreover, their accuracy could be improved further by training them on more amounts of data and adjusting their parameters accordingly for example, learning rate, optimizers, etc.

Fifth model of the study i.e., the Stock Market Opening Price Prediction produced high levels of accuracy when trained upon a raw dataset of adjusted closing prices and opening stock prices of Reliance Industries Ltd. and tested on the data of immediate consecutive months but its accuracy decreased drastically as the gap between the time period of training and test dataset was increased. This model was developed out of curiosity and willingness of learning, only for the purpose of this research and wasn't found suitable as a solution for the real world problem of predicting accurate stock prices for better returns on investments, for the sole reason that stock prices are multidimensional in nature and get affected by various micro and macro economic factors as well as other factors which were not explored in this research. Therefore, the researchers do not recommend using this model in the real world as it was only meant to be for experimentation purposes and did not take into account all the factors and adjustments that actually need to be considered while predicting stock market opening prices. These factors could be explored and used in future researches in the same dimension to gain more accuracy and develop a model that could be actually implemented in real life to predict stock market functioning.

To conclude, while conducting and learning from this research, the authors came to a common consensus that, "Right amount of data in the Right Format given to the Right Algorithm by using Right Parameters is the key to Success rate of Machine Learning...!"

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Impact of Facebook Usage On Students' Involvement in Studies

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academics

ABSTRACT

The research mainly focuses to examine the impact of Facebook usage on student involvement in studies. It focuses that how usage of Facebook gives the effect on student involvement in studies and lowers down their academics which ultimate lead to the destruction of their career. The determination of the paper was based on single fold that is: To find out the impact of Facebook usage on student involvement in the studies. The research is based on a sample of 200 students from different colleges in Gwalior or nearby places. Findings indicated that the data is reliable in nature with different values as reported by Cronbach's Alpha test. The results show that the students use Facebook for various factors like entertainment, relaxing, passing time but not for knowledge enhancement. Due to their time spent on Facebook, it has got a negative impact on the student academics and this affect their career. The results provide clear insights that over usage of Facebook will ultimately affect student involvement in academics. The results will also be helpful for parents, Educationists and student themselves to take appropriate measures to control the excessive usage of Facebook and further using Facebook as a learning tool.

Introduction

In the present scenario social networking sites are communally used the big amount of people for communication among them youngster and student are most prominent Facebook user (Experian, 2011; Lenhart, Purcell, Smith, & Zickuhr, 2010). According to (Smith, 2013) student also use Facebook during study or class they also distract by using Facebook because they couldn't focus on the study. Some of research say that Facebook usage impact the academic performance of the students.

Social networking is a tool which is broadly used by the people they use social networking site for communication (Aghazamani, 2010). At the present world young people are mostly using social networking site for example Facebook, LinkedIn, Available on SSRN-Elsevier

Instagram, Google Plus etc. but Facebook is commonly used by the youngster and students (Experian, 2011; Lenhart, Purcell, Smith, & Zickuhr, 2010). According to Smith (2013) "Facebook has over 1.15 billion active users and 699 million members log in daily with 8.3 hours average time spent per day."

Many research have been conducted by the many author to identify the reasons the about the Facebook usage (Hargittai, 2007; Sheldon, 2008; Stern & Taylor, 2007) while many research was also focused on other social networking issues such as online disclosure (Kolek & Saunders, 2008; Peluchette & Karl, 2008) online and offline communication (Ellison, Steinfield & Lampe, 2007)

The impact of Facebook usage can't be overemphasized. Students do not attend important study related activities, classes and Facebook effect their involvement in studies and achievement (Jones, 2007). Karipinski and Duberstein (2009) said that if student spend much time on Facebook if effect their task performance. When students use Facebook for long hour then its decrease their study time (O'Brien, 2011, Karpinski & Duberstein, 2009). Another possible effects of Facebook are: "clamor for addiction (Debatin, Lovejoy, Horn, & Hughes, 2009) and inculcating a culture of procrastination among the learners thus affecting study time (O'Brien, 2011) and hence academic performance." Many research also have shown that student cannot leave Facebook because it is the easy way to connect to friends, family members, and peers (Facebook, 2010).

Literature Review

Ravizza, Hambrick & Fenn (2014) concluded that student use Facebook during study which adversely affect the student's academic performance they also found that non-Facebook users spend more time in the study then Facebook users (Alloway, Horton & Dawson, 2013). Exam scores directly connected with internet usage in the class (Ravizza, 2014).

Kirschner & Karpinski (2013) examined that Facebook usage impact the academic performance. According to Junco (2012) "frequently checking updates on Facebook is negatively associated with their engagement in educationally relevant activities." Alloway (2013) established that non-Facebook user take higher marks than Facebook users. Students' academic achievements impacted by the Facebook usage (Rouis, 2012).

Rouis, Limayem & Esmail (2011) studied that there is 15% impact of Facebook usage, satisfaction with life and performance goal orientations on educational attainment.

Gonzalez (2011) said that Facebook is 2nd most used website on the internet and 606 million people use Facebook. Ryan & Xenos (2011) concluded that there is no positive relationship between Facebook addiction and academic achievement. Kirschner and Karpinski (2010) said that there is not any positive relationship between Facebook usage and academic performance. A number of students accept that they use Facebook at least once in a day (Boogart, 2006, Canales, 2009 & Junco, 2012).

Facebook can negative impact on the student's task performance (Canales, 2009, Karpinski & Duberstein, 2009). Long time Facebook usage is declining student's

academic performance. Students use Facebook for 30 to 35 minutes in a day (Schulten, 2009).

Student's giving the attention to Facebook usage delay their study and its impact their Academic Performance (Rouietal, 2011). Boogart (2006) examined negative affiliation between Facebook usage and academic involvement. "The higher the Facebook usage intensity, the lower the students' academic performance. Steinfield (2008) constructed the result that "the higher the Facebook usage, the batter the academic performance". According to Kolek & Saunders (2008) there is not any relationship between Facebook usage and Academic Performance of students of American university.

According the Jones (2007), if student use Facebook in class or between the lecture and discussion its affect their grades. Karpinski and Duberstein (2009) studies demonstrated that "long hours spent on Facebook seem to decrease students' study time".

Bedassa (2014) conducted a study and findings of study shows that time spent on Facebook and addiction have harmfully and significantly impact the academic performance of the students. Moghavvemi & Sulaiman, Aziz & Wai (2017) constructed that if students spend time on Facebook its positive impact on academic performance, which indicated that Facebook did not affect education.

Shah, Subramanian, Rouis & Limayem (2012) study results showed that Facebook usage increase the academic performance and extensive presence. Facebook also develops the student's social capital in terms of number and quality of connections, relationship and interactions.

Ozer, Atik, Şad, & Kiş (2015) studied in Turkey by using the 1840 faculty of Inonu University. The result of the study indicated that female undergraduate's students highly engage with study then male undergraduate's students. The result also indicate that students' trust in professors is a factor which effect the student engagement in studies.

Singh, Malik & Singh (2016) conducted a study to identify the factors which influence the student academic performance in this research study data was collected through management students. The findings indicated that learning facilities, communication skills and proper guidance from parents significantly and positively impact the academic performance of students.

Hossain (2016) studied in Comilla University by using responses of 190 students for detecting the advantages, disadvantages and effects of social networking site in students' daily life. The study confirmed that female students have less attraction in Facebook than male students. The study found that most of student use social networking site for getting information and remaining attached with their friends.

Pornsakulvanich (2018) established that high self-monitors are addition addict to Facebook than low self-monitors. The study also said that students use Facebook because his friends use Facebook. Capua (2012) found in his study that mostly Facebook user use Facebook for keeping connected with other people not for knowing others profile. The study also said that Facebook user influenced towards Facebook because of peers and experience.

We found that there is no significant association in academic performance among Facebook users with different frequency. Here is no significant association for ownership of GPRS phone and use of Facebook. Essays (2013) found in his study that “there is no significant association in academic performance among Facebook users with different frequency.” The study also suggest that “there is no significant association for ownership of GPRS phone and use of Facebook.”

Objective of the Study

- To find out the impact of Facebook usage on student involvement in the studies.

Research Methodology

In this study we have focused on the usage of Facebook and its impact on students' involvement in studies. It is an empirical study conducted on under graduate and post graduate students from the different institute, to analyze the use of Facebook and its impact on students' involvement in studies.

▪ Data Collection

Data is collected using a questionnaire that is completed by under graduate and post graduate students from the institute. The data is collected with the help of standardized questionnaires Kashif M. (2013) for the variables. For obtaining data for impact of Facebook usage on students' involvement in studies. A total sample size of 200 respondents is taken for the study on the basis of non-probability sampling technique.

▪ Data Analysis Techniques

- Cronbach's Alpha
This was run to investigate the internal reliability of the instrument. The value of Cronbach's Alpha was 0.7 which is above the standard value suggested by Nunnally (1978) of 0.70. It means that our instrument is reliable and we can apply different statistical tests and interpret the results with confidence.
- Regression analysis
A statistical tool for approving the associations amongst variables. Moreover , regression analysis helps one understand how the specific value of the dependent variables when any one of the independent variables is varied, while the other independent variables re constant – that is, the average value of the dependent variable when the independent variables are fixed. Linear regression is used as the tool for analysis.

Results

Reliability Analysis

Reliability of all the two variable Facebook usage and student involvement in studies was computed using PASW 18 software. Cronbach's alpha reliability coefficient was computed to calculate reliability of all items in the questionnaire. Reliability measures are given below in the tables

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.831	.831	14

In the given table questionnaire of Facebook Usage have 14 items and Cronbach's Alpha Standardized value is .831 which is above form .7. It is showing that all the items of the questionnaire are reliable.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.735	.736	6

In the given table questionnaire of Student Involvement in Studies have 6 items and Cronbach's Alpha Standardized value is .736 which is above form .7. It is showing that all the items of the questionnaire are reliable.

Regression Analysis

The regression was calculated by taking the total of Facebook Usage of students and their Involvement in Studies. In this analysis Facebook Usage is independent variable and Student Involvement in Studies is dependent variable. Therefore regression is calculated taking dependent and independent variable.

Ho= There is no significant impact of Facebook Usage on Student Involvement in Studies.

Model Summary^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.157 ^a	.025	.020	4.86302

a. Predictors: (Constant), Facebook Usage

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.157 ^a	.025	.020	4.86302

a. Predictors: (Constant), Facebook Usage

b. Dependent Variable: Student Involvement

In the above table the value of R square was found to be .025, indicating that Facebook Usage as independent variable explained 2.5% variance on Student Involvement in Studies as dependent variable.

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	139.224	1	139.224	5.887	.016 ^a
	Residual	5510.197	233	23.649		
	Total	5649.421	234			

a. Predictors: (Constant), Facebook Usage

b. Dependent Variable: Student Involvement

The goodness fit for the model was tested using ANOVA Table and the F value was found to be 5.887 which was significant at 0.016 level of significance, indicating that the model has a good fit.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.500	1.206		14.508	.000
	FacebookUsage	.072	.030	.157	2.426	.016

a. Dependent Variable: Student Involvement

$$Y = a + bX$$

$$Y = 15.277$$

X = Facebook Usage (Independent Variable)

Y = Student Involvement in Studies (Dependent Variable)

The result of coefficient table indicated the contribution of independent variable on dependent variable through the beta value which is .157 t-value was found to be 2.426 which was found to be significant at .016 level of significance. Hence, the hypothesis stating that there is no significant impact of Facebook Usage on Student Involvement in Studies is rejected.

Discussion

Our study suggested that if student use Facebook then its impact their involvement in studies. Its means that there is significant impact of Facebook usage on students' involvement in studies. In the study Facebook impact the 2.5% on students' involvement in studies. It is a surprising result because was assuming that Facebook more influence the student involvement in studies. Student use Facebook during the class and spend time on Facebook then study (Ravizza, Hambrick & Fenn, 2014; Alloway, Horton & Dawason, 2013).

In present time we also find that students spend more time on InstaGram and Whatsapp then Facebook. There are many of social networking site which is arising and student are more interested in these sites then Facebook because these sites have more features then Facebook. We also find that all the schools and colleges students have their Facebook account and many of students do not use Facebook every day. We found that Facebook connect students to their friends because many of students do not use other social networking sites but all the student use Facebook.

Conclusion

In this research project "Impact of Facebook Usage on students' involvement in studies". Facebook is very popular social networking site which is used mostly by the student of every age and gender and different degree program. Students' involvement in studies is affected by the social networking sites (Facebook). We start the research on the impact of Facebook usage on students' involvement in studies. We take responses from students of different degree and program. In this research project we find that there is Facebook usage 2.5% impact on students' involvement in studies. Therefore, H_0 is rejected and result it there is no significant impact of Facebook usage on students' involvement in studies.

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Effect of Store Location, Product Variety and Quality on Customer Loyalty towards Fruits & Vegetables Stores

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ABSTRACT

Since fruit and vegetables stores are gaining significance in organized sector, it is required to study the reasons behind their success. Various factors affect the growth of these stores such as their store location, product variety, product quality, etc. This study attempted to find whether there is any relationship between store location, product variety and product quality towards customers being loyal or not. Findings of the study suggested that there is a strong positive effect of store location and product quality on loyalty of customers. However, no such relationship was observed between product variety and loyalty. Also, there was no observed difference across gender for loyalty of customers.

Introduction

Awareness of recommendations for fruit and vegetable consumption has increased substantially over the last few years. Traditionally, companies have relied only on differentiation of products and services to retain their customers and also to satisfy the consumers. However, times have changed, due to fierce competition from new players entering the market, they are forced to adapt differentiated and customer oriented strategies in order to enable them to stand out in the competition and gain a competitive edge.

Store Location

Martínez-Ruiz et al (2010) suggest that once a location is near to the home then transaction costs associated with purchase such as transport costs and time spent are likely to be reduced. Craig et al (1984) used the central place theory to explain how people living far away are attracted to larger stores which are centrally located in larger shopping malls offering more collection of goods and services than those stores within their own vicinity offering less goods and services. Choudhary and Sharma (2009) identified that size of retail stores and their location played a significant role in measuring the operational efficiency of retail stores.

Product Quality

Parasurman et. al. (1990) defined quality as the interaction between the customer and the service provider, since the customer sees the service quality through comparing his

expectations of this service with the actual performance. Hoffman and Bateson (2011) defined quality as a standard of correspondence between the actual performance of the service with the customers' expectations or the difference between the customers' expectations and their realization of the service's actual performance.

Product Variety

Product variety is a merchandising strategy in which a retailer stocks a large number of different products. Product variety is the number of different versions of a product offered by a firm at a single point in time. A wide variety is used to draw in customers looking for an array of goods, but does not mean that the retailer will offer many different iterations of a specific product. For example, a convenience store may offer a wide variety of products, but a limited number of choices within a particular product range. When a firm anticipates that its inventory or capacity may not be fully utilized, product variety can reduce its expected costs of excess capacity. When the firm offers a continuum of product varieties, the highest quality product has the highest profit margins but the lowest percentage margin, while the lowest quality product has the highest percentage margin but the lowest absolute margin.

Customer Loyalty

Abu (2004) agrees with the importance of personal interaction between vendors and customers which eventually develops customer loyalty. Customers are more loyal to a store which offers warm and friendly service. Vendors in traditional markets often give feedback to customers who are looking for quality products. Personal relationships built between retailers and consumers developed trust for both groups. Zinkhan et al. (1999) stated that the respondents who often visit the street market know each other by name and often engage in social conversation. Goldman and Hino (2004) reported a similar result as people prefer to buy fresh meat from a known and trusted source. This ensures customer loyalty as consumers continue to purchase from the same retailer.

Literature Review

Flynn et al. (1994) found that quality is a critical component in the design and manufacture of products which are considered superior to those of competitors. Companies reportedly pursue product quality on the presumption that it will improve their competitive position, business success, and differentiate their products. Daniel and Reitsperger (1994) indicated that a strategic focus on quality has been widely considered as a fundamental aspect of manufacturing strategy in many firms, and is likely to result in improvements in product demand thereby facilitating the building and maintenance of a competitive position. Hitt and Hoskisson (1997) suggested that customers increasingly expect products to be of high quality. Hence, Benson et al. (1991); Judge and Douglas (1998) indicated product quality is often considered to contribute to the development of a firm's competitive advantage.

Erdem, Oumlil & Tuncalp (1999) observed that retailing business is greatly affected by the patronage behavioral orientations of shoppers. Understanding these orientations can assist retailers in developing appropriate marketing strategies toward meeting the needs and wants of consumers.

Ali, Kapoor and Janakiraman (2010) analyzed a marketing strategy for a modern Food and Grocery market based on consumer preferences and behavior.

Objectives of The Study

- To measure the effect of Store location on customer loyalty.
- To measures the effect of product variety on customer loyalty.
- To measures the effect of product quality on customer loyalty.
- To measures the effect of gender on customer loyalty.
- To open new avenues for further research

Research Methodology

The Study was causal in nature with survey method being used to collect the data. The population of the study includes individual customers of Indore and Gwalior region. Non probability purposive sampling technique was used to collect the data from 150 individual customers. Self designed questionnaire were used to collect the data for all the variables of the study, using Likert type scale. Analysis of data was performed through Cronbach's Alpha, Multiple regression and T-Test.

Hypotheses

- Ho (1): There is no effect of Store location on customer loyalty.
- Ho (2): There is no effect of product variety on customer loyalty.
- Ho (3): There is no effect of product quality on customer loyalty.
- Ho (4): There is no effect of gender on customer loyalty.

Result and Discussion

Reliability

Nunnally (1978) recommended that instruments used in basic research should have reliability of 0.7 or higher. Reliability coefficient, Cronbach's Alpha was computed using PASW 18 Software and results came out as:

	Cronbach's Alpha	N of Items
Store Location	.711	5
Product Variety	.708	5
Product Quality	.715	5
Customer Loyalty	.766	4

It was observed from the above table that the reliability coefficient Cronbach's alpha value for all the four variables was greater than 0.7 indicating that the reliability of all the measures was high and therefore the measure have been used for the further study.

Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.571 ^a	.213	.203	2.7407

a. Predictors: (Constant), Store Location, Product Variety, Product Quality

b. Dependent Variable: Customer Loyalty

The multiple regression coefficient adjusted R² is 0.203 indicating that independent variables store location, product variety and product quality contributes 20.3% variance in the dependent variable customer loyalty, in other words independent variables contribute 20.3% to customer loyalty.

Anova ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	128.250	3	42.053	31.293	.003 ^a
	Residual	1713.153	147	14.983		
	Total	1821.413	149			

a. Predictors: (Constant), Store Location, Product Variety, Product Quality

b. Dependent Variable: Customer Loyalty

The ANOVA table evaluates whether the regressions model is good fit to the data. The value of F was 31.293 which is significant at 0.003% level of significance indicating high predictability of model.

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	15.017	2.326		5.519	.000
Store Location	.069	.067	.078	1.017	.008
Product variety	.042	.083	.037	.390	.291
Product Quality	.231	.078	.218	2.756	.004

The significance of beta is tested using T-test and values in model are 1.017 for store location which was significant at .008 indicating strong positive relationship between store location and customer loyalty. T-test values are .390 for product variety which was insignificant at .291 indicating there is no relationship between product variety and customer loyalty. T-test values are 2.756 for product quality which was significant

at .004 indicating strong positive relationship between product quality and customer loyalty.

T-TEST

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Customer Loyalty	Equal variance assumed	.835	.363	-.023	148	.982	-.01538	.67607	-1.35311	1.32234
	Equal variance not assumed			-.023	147.226	.982	-.01538	.67607	-1.35318	1.32241

For customer loyalty the value of F was .835 with $p = .363$ which was significant so the second hypothesis indicating "Equal variance not assumed" was considered. Then the t value -.023 is insignificant at .982, resulting into conclusion that there is no difference in customer loyalty on the basis of gender.

Conclusion

The study resulted in establishing positive relationship between store location and product quality with customer loyalty, where as it failed to establish any significant relationship between product variety and customer loyalty. Further the study also concludes that gender does not affect whether they are loyal customers or not. Thus in order to attain more loyalty from their customer's, these stores should give due consideration for appropriate location for them. They must also focus more on the quality of products they are offering.

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Current Scenario of social Media Marketing

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ABSTRACT

Social Media marketing has been growing rapidly. Statista (2016) reported that spending social media marketing in the United States totaled approximately \$7.52 billion and is expected to increase by almost \$10 billion to \$ 17.34 billion. Social media marketing has been defined as a form of Internet marketing utilizing social networking sites (SNS) as marketing tools, thereby gaining traffic, brand exposure, and interaction with customers through social media (Dodson, 2016). Most of the companies are increasing the allocation of budget for social media marketing. Marketing managers understand that consumers trust the content created by the users rather than the firm. Social media marketing has been studied by various researchers since 2000. Specific journals like Journal of Interactive Marketing covering the areas of digital and social media marketing has been launched. Thus, substantial body of research on social media marketing has been published in the marketing journals. Academicians have published review studies on the given subject and covered the topic till 2015.

The present article is an attempt to review the current scenario of social media marketing. It should be noted that the purpose is not to provide a comprehensive literature or to cite every article in this domain. The present article offers a macro-level and thematic discussion of social media marketing topics between 2016 and 2018. Thus, our contribution lies in helping the researchers understand the current scenario of social media marketing and developing the new research directions to advance the literature.

Introduction

Social Media marketing has been growing rapidly. Statista (2016) reported that spending social media marketing in the United States totaled approximately \$7.52 billion and is expected to increase by almost \$10 billion to \$ 17.34 billion. Social media marketing has been defined as a form of Internet marketing utilizing social networking sites (SNS) as marketing tools, thereby gaining traffic, brand exposure, and interaction with customers through social media (Dodson, 2016). Most of the companies are increasing the allocation of budget for social media marketing. Marketing managers understand that consumers trust the content created by the users rather than the firm.

Social media marketing has been studied by various researchers since 2000. Specific journals like Journal of Interactive Marketing covering the areas of digital and social media marketing has been launched. Thus substantial body of research on social media marketing has been published in the marketing journals. Academicians have published review studies on the given subject and covered the topic till 2015.

The present article is an attempt to review the current scenario of social media marketing. It should be noted that the purpose is not to provide a comprehensive literature or to cite every article in this domain. The present article offers a macro-level and thematic discussion of social media marketing topics between 2016 and 2018. Thus, our contribution lies in helping the researchers understand the current scenario of social media marketing and developing the new research directions to advance the literature.

Methodology

We searched on the topic of social media marketing in the EBSCO database to find the relevant articles. Initially the EBSCO database showed us 6088 articles. On applying the filter of time-period (2016 to 2018), the database restricted the number to 1830 articles. Further on applying the filters like full text, scholarly journals and English language, EBSCO turned up with only 26 articles. Researchers studied all the 26 articles thoroughly and shortlisted 17 articles based on relevance (table 1). The shortlisted articles on social media marketing covered themes related to branding, social media channels and use of the concept in different industries. Two articles have shared their experiences of the live assignments and pedagogy used for enhancing the skills of digital and social media marketing among the students. The papers were published in reputed and well-known journals like Journal of Marketing, International Journal of Consumer Studies, Journal of Advertising, and Journal of Management Information System.

Discussion

Researchers examined all the articles and identified the various themes from 2016-2018. Researchers explored that the researchers had published papers to understand the impact of social media marketing on branding, promotion, customer relationship management (CRM) and the business performance. Two research papers had shared the experience of the professors in improving the skills of social media marketing among their students.

Social media was considered an effective tool of marketing by a study conducted in the US forest products industry (Gazal et.al 2016). Companies need to understand that the social media is two-way channel of communication and tailor content to promote

interaction and conversation with the audience (Cleave et.al 2017). Most of the studies conducted during this time-period revolved around understanding the relationship between social media marketing and branding. Creating content for social media pages (firm generated content), motivating users for generating content (user generated content), e-WOM (word of mouth), developing & supporting online brand communities and engaging the customer are the major activities involved in the social media marketing. Framework developed by a review study proposed positive relationship among the social media marketing and various aspects of brand equity such as brand awareness, brand loyalty, brand trust, brand image, perceived quality and brand association (Zahoor & Qureshi, 2017). One of the landmark studies by Yang et al (2016) clarified the relationship between the brand engagement efforts on social media and search engine advertising. The study concluded that the three types of brand engagement on social media i.e. affiliation, conversation, responsiveness increased click-through rate and conversion rate of search engine advertisements. Brand engagement on social media strengthened the relationship between the advertisement rank and search engine advertising effectiveness. A study in the film industry, in which films function as composite products and actors represent partner brands, analyzed the partner's brand social media power potential (size and activity of the social media network), social media power exertion (different exerting behavior and posts) and their interaction (Kupfer, Holte, Kubler, & Henning-Thurau, 2018). The study concluded that the partner brand's social media power potential, power exertion and their interaction could lead to higher composite sales. Another study captured the perspectives of municipal practitioners of Ontario, Canada, presented the contradictory finding that social media is being used as a tool to promote local services and political information rather than communicate a brand position (Cleave et.al 2017). A review study specifically focused on eWOM (Mishra & M, 2016) considered it as an extension of WOM on the internet platform. Consumers directly or indirectly use eWOM before making the final purchase by reading reviews and during the post-purchase process by sharing their product experience. Marketers can utilize eWOM for enhancing product awareness, sales, brand value and customer loyalty. eWOM can help the companies in improving the product deliveries and addressing the consumer grievances.

Social media is being used by various industries for building the customer relations. Social media as CRM tool can help in improving customer relations, engagement and satisfaction. Customers can reach and interact with the company directly through the social media pages. Companies can respond to the queries and complaints of the customers instantly. The adoption of social media for CRM (SCRM) is limited in the building and construction industry due to lack of perceived trustworthiness, perceived risk of defamation and lack of control over social media (Swarts et.al 2016).

Few research studies focused their attention towards the effectiveness of social media marketing. These studies analyzed the relationship among social media marketing activities on various channels and the business performance of the company. A study by

(LI & ji, 2018) established the positive relationship among the digital engagement and the financial performance of the company. Digital engagement volume was measured in terms of the number of comments received on the Facebook page of company. The study concluded that the digital engagement volume had significant and positive effect on revenue. A Chinese study (Gong, Zhang, Zhao, & Jiang, 2017) confirmed that both the tweets by a global media company and retweets by influencers increased their TV show viewing. Company tweets directly boosted the TV show viewing whereas influential retweets increased the viewing only if the show tweet is informative. Moreover, influential tweets were considered as more effective than company tweets. A study (Kumar, Bezawada, Rishika, Janakiraman, & Kannan, 2016) concluded that the firm-generated content (FGC) in social media had positive and significant effect on customer behavior. Further, the effect of FGC is greater for more experienced, tech-savvy and social-media prone customers.

Bacon & Stewart (2006) recommended that marketing courses should include the content relevant in their first jobs. One of the major challenges in teaching digital and social media marketing is the rapid innovation and evolution of the concepts and tools in the field. Leading professors in reputed institutions understood the skills required by new job entrants in digital marketing domain and adopted innovative pedagogical tools for making the students ready for the industry. Staton (2016) developed the skills of the students for digital and social media marketing by including third-party certifications offered by the leading companies such as Google, Hubspot, Hootsuite. Using the certification programs improved the course organization and increased the success rate of students in the job market. Cowley (2017) prepared the students for social media marketing with the help of a live project known as buzzfeed marketing challenge. Students gained real-world social media marketing experience. Students were required to create, publish and promote an article to the target market on entertainment publisher BuzzFeed.com. The live project resulted in the positive learning outcomes.

Conclusion

Social media marketing represents the mainstream subfield within marketing for academic research. This article provides insights about the way domain is developed in the current scenario. Social media marketing activities lead to positive impact on brand equity. Further, social media marketing efforts enhanced the effectiveness of search engine advertising. Social media marketing improved the customer relations, customer behavior and business performance. Social CRM is the new emerging area and further research can be conducted in this area. Challenges in teaching social media marketing and innovative pedagogical tools like live project and third-party certifications were discussed by the professors. Further experiments in inculcating the skills demanded by the industry related to social media marketing and effects of the same can be researched and published.

Table 1 – List of studies reviewed

S.No	Research Study	Variables	Key Findings	Type of Review
1	Lamberton et al. (2016)	Digital, social Media and Mobile Marketing	this study represents the development in social media marketing from 2000-2015 specially focus on mobile marketing, digital marketing, Facebook, twitter, search advertising etc	Review paper
2	Vries et al. (2017)	Traditional Advertising, Brand, Social Media	Traditional advertising messages are very effective in building the brand awareness and increase in consideration and social messages leads to increase in customer acquisitions.	Empirical paper
3	Cleave et al. (2017)	Social Media, Municipalities, Place Branding, Place Marketing	Social media is best tool for promote local services and political information rather than communicate a brand position.	Empirical paper
4	Zahoor et al. (2017)	Social Media Marketing, Brand Equity	There is a positive relationship between social media marketing and brand equity and effect on brand awareness, brand loyalty, and perceived quality.	Empirical paper
5	Staton et al. (2016)	Digital Marketing Certification Programs, Students Placement, student Assessment	Digital marketing program, inbound marketing covered various areas like content creation search engine optimization social media strategy, e-mail marketing. It can increase the value of educator and also improve their students learning outcomes and job prospects.	Empirical paper
6	Kumar et al. (2016)	Firm-Generated Content, Social Media, Customer	FGC has positive effect with television advertising and e-mail marketing on consumer spending and cross buying and consumer behavior.	Empirical paper

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		Behavior		
7	Cowley et al. (2017)	BuzzFeed, Social Media, Marketing Education	BMC brings a scalable real -world integrative experience to the marketing classroom in a way that empower marketing students to directly engage with a target market through the product development and promotions processes and equipped with skills and tools for effective and ethical marketing careers.	Empirical Paper
8	Amezcuca et al. (2016)	eWOM, Social Media	current knowledge about consumers' negative electronic word of mouth, identifying three forms of cynical consumer communication style in response to corporate campaigns on SNSs skeptical , passive-aggressive and warrior eWOM.	Empirical paper
9	Yoon et al. (2018)	Facebook, Financial performance of company	The Facebook comments on company 's Facebook post has positive impact on revenue.	Empirical paper
10	Mishra et al. (2016)	eWOM, Blogs, E-Retailers, Social Media	The eWOM play an important role in consumers purchase decision process, brand strength, consumer loyalty, information diffusion, and also help marketers to handle unwanted spam and hoaxes effectively.	Review paper
11	Gong et al. (2017)	Twitter, Social Media, TV Industry	Tweeting is used a marketing tool and tweet also improve the business performance, increase demand of the company product, bring new followers to the company and also encourages new business.	Empirical paper
12	Nelmapius et al. (2016)	Social Media, User Acceptance	The internet self-efficacy, psychological risk, perceived enjoyment perceived usefulness and dispositional trust influence the individual to use Facebook in the future and also encourage to use the social media sites for e-commerce purpose.	Empirical paper

13	Gazal et al. (2016)	Social Media, Forest Industry	Most of the US forest companies use some form of social media tool in their business and there are so many opportunities for growth and adopting new marketing strategies.	Empirical paper
14	Kupfer et al. (2018)	Brand, Social Media, Brand Alliances	there is a positive link between the partners brand 's social media power and economic success of the brand alliance.	Empirical paper
15	Yang et al. (2016)	Brand, Social Media,	the brand engagement on social media strengthens the relation between advertisement rank and search engine advertising effectiveness and brand engagement on social media is also increases the business performance	Empirical paper
16	John et al. (2017)	Brand, Social Media, Facebook, eWOM	Liking a brand causes consumer to become part of that brand and a positive change in consumer behavior and also spreading positive word of mouth	Empirical paper
17	Swarts et al. (2016)	Customer Relationship Management, Social Media	social media has to be helpful in effective customer relationship tool in building industry and also helps to move from legal -centric relationship to closer interpersonal relationships	Empirical paper

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Antecedents to Purchase Intention – A Perceptual study about “YouTube” videos

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ABSTRACT

Companies in the world are constantly seeking for new ways to reach consumers. Recently, there are numerous social media platforms through which people are connected. Companies are using social media to influence customer Purchase Intention. YouTube is one of the new social media platforms used by the companies for advertisement of their products. The increasing focus on social media shaped state of the art advertising and shifted the way companies interact with their target groups. The main objective of this research is to identify the factors that affect purchase intention of customer who watch product related YouTube videos. This study is one of the rare studies that combine YouTube videos and their effects on purchase intention. Number of Views, Likes, Comments and Replies (NVLCR), Perceived Credibility (PC), Perceived Usefulness (PU), Perceived Video Characteristics (PVC), Attitude towards Purchase (ATP) are various factors studied in association with purchase intention. In this study, a Video was shown to the respondents and Online Questionnaire based on video was filled by respondents. Multiple Regression Test was applied to the relationships between variables.

Introduction

“Social network marketing is one of the best and popular marketing attempts that brought the customer as participants instead of observers. This approach facilitates a two-way communication instead of the traditional one-way communication, in which brands and consumers are connected without any limitation in time, location (Kim & Ko, 2012).” The evolution of social media is benefited for both the consumer and the marketers, it helps the consumer by saving their time and energy, they can get the information about the product in detail on social media and they can cross check with another user. A consumer can also share their own experience about the product, which can help others for purchasing the particular product. For marketers, social media is a platform through which they can make their marketing strategies and can make consumer to purchase that particular product. They can directly communicate with the consumer and tell them about the product, the benefits of the products. And they also ask feedback from the consumer about the product what are the changes they want, so it become a two-way communication, in which consumer

can give suggestion about some changes in the product and the marketer use these suggestions to improve their products, which increase in the revenue of the marketers.

To make the consumer aware about the product, the marketers have to advertise their product, which result in increase their expenses, and the duration of advertisement is small, which doesn't give the consumer detailed information about the product to the consumer. So, social media provide the platform to the user on which the marketers can advertise their product and also ask for the reviews from the consumer about the product, which is not possible at the time of advertisement.

The platform that social media provide to the marketers is YouTube. YouTube is the mostly used social website by the user. So, it helps the marketers to upload their product videos on the YouTube, and consumer watch videos and comment on the videos. On YouTube consumer can freely comment about the product, what are the changes they want in the product, or many more. Consumer who uses that particular product can share their positive or negative experience by commenting about the product, which help others for making purchase decisions.

The main objective of this study is to identify the factors which affect consumer purchase intention.

Purchase Intention

Sometimes purchase intention is used to describe customer loyalty. And this purchase intention depends on a complex set of factors such as quality, value, and satisfaction, which can directly influence behavioral intention Warshaw & Davis (1985); Qun et al., (2012).

NVLCR (Number of Views, Likes, Comment, Replies)

Number of Views, Likes, Comments and Replies tells us how many times the video is watched by others and how many users liked the video and what comment they made about the product and replies on the comments by the marketers of the product. “Consumer perceptions about content can be influenced by interactions of other users (Lee, 2009).” If the number of views, likes, comment, replies on a video is increasing it affect the purchase intention of the consumer.

Perceived Usefulness of Information

Perceived Usefulness of the information from websites as the belief that that information will enhance efficiency in obtaining product information (Pavlou and Fygenson, 2006).

Attitude toward Purchase

Attitude is a way of thinking and feeling about something. It is a state of thought which is totally dependent on the condition of the event or situation. It can be measure positively and negatively.

Perceived video characteristics (PVC)

Purchase Intention of the consumer is also affected by the features of the YouTube videos. Features like the quality of the video like the video is of high quality or low quality which affects the user engagement; another is length of the video, too lengthy video affect user engagement.

Perceived credibility of the information (PC)

“Perceived credibility is the trust dimension that affects the adoption of a message in a positive or negative way and it can bring changes in consumers’ attitudes (Bouhlef et al., 2010)”. “

Literature Review

According to Porter (1974) “purchase intention is a behavior of a person that what comes in his mind first about it. And how he thinks of any particular product and what would he think or do when he purchases the same product of the same brand. Reasons like purchasing any brand and encouraging its purchase always helps increasing the intention of the customer towards it. There may be and can be negative and positive impacts on that particular product”. When it comes to intentions to buy a particular brand, “Arnould and Thompson (2005) stated that a consumer’s intention towards any brand or product to purchase it is not only because of his attitude towards that brand but also because of his liking towards other choices of brands”. “The purchase intention has a positive reaction on a consumer’s behavior (Ajzen and Driver, 1992; Pierre et al., 2005; Schlosser et al., 2006). Additionally, antecedents of luxury brand purchase intention have been explained and explored (Berthon et al., 2009; Tsai, 2005 and Vigneron and Johnson, 2004)”.

“Before making any purchase, consumers evaluate products on different criteria to decide whether to buy it or not (Blackwell et al., 2001)”. The researchers further state that consumers will go through the process of recognizing the product to purchase; they gather information about the product, evaluate, purchase and provide feedback. “Therefore, they will purchase a product after making research in advance so that they purchase right product that meet their needs and wants. The behaviour of consumers to purchase depends upon the characteristics such as brand name, price, quality, recreation and innovation awareness, mixed up with other choices as well as impulsiveness (Leo et al., 2005)”. “Traditionally, the term intention is defined as the antecedents that stimulate and drive consumers’ purchases of products and services (Hawkins & Mothersbaugh, 2010)”. “According to (Fandos & Flavian (2006); Halim & Hameed (2005)) purchase intention is the implied promise to one’s self to buy the product again whenever one makes next trip to the market. Purchase Intention of the consumer is influenced by the functions of brands. In Marketing Literature, Purchase Intention is one of the main concepts”.

According to Gogoi (2013) “purchase intention may be changed under the influence of price or perceived quality and value. In addition, consumers are affected by internal or external motivations during the buying process”. “According to Hsu and Tsou (2011) Purchase Behavior of the consumer is predicted by the Purchase Intention”.

Hypotheses

- There is no significant relationship between NVLCR and Purchase Intention.
- There is no significant relationship between Perceived usefulness of the information and Purchase Intention.
- There is no significant relationship between Attitude toward Purchase and Purchase Intention.
- There is no significant relationship between Perceived Video Characteristics and Purchase Intention.
- There is no significant relationship between Perceived Credibility and Purchase Intention.

Research Methodology

The Study & Procedure: The study is experimental in nature where ‘After Only Design’, a method of quasi experimental designs has been used. The respondents were shown a video and then they were asked to fill the questionnaires. Since the video is shown to those who use ‘You Tube’ for watching videos, the Population included YouTube users only. The data has been collected from 230 respondents.

Instrumentation: Standardized questionnaire has been used for data collection. Where 1 stand for highly disagree and 5 for highly agree. The scale from Hale Fulya Yuksel (2016) was used for NVLCR (Number of Views, Likes, Comment, Replies), Perceived Usefulness, Attitude toward Purchase, Perceived Video Characteristics, Perceived Credibility, Purchase Intention.

Analysis

The data were analyzed using PASW 18 for calculating reliability. Regression was used to evaluate the impact of independent variables on dependent variables.

The purpose of this study was to identify the factors which affect the consumer purchase intention. Additionally, the six variables are measured separately to know their relationship and their impact on each other. This chapter presents the descriptive statistics of the sample and the results of the analyses for each research question. The final section briefly summarizes the results obtained from this study

Reliability Test

By using PASW 18 Reliability test is applied to all the variables Independent or Dependent. The reliability test is applied to find out that these data are reliable for further analysis. The reliability of all the items of NVLCR (Number of Views, Likes, Comment, and Replies) is high as the Cronbach’s Alpha coefficient value is above 0.7 and reported as .706 for 4 items. For PC (Perceived Credibility), after removal of item

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5, the reliability of all the variables is high as the Cronbach's Alpha coefficient value is above 0.7 and reported as .725 for 4 items. For PU (Perceived Usefulness), the reliability of all the variables is high as the Cronbach's Alpha coefficient value is above 0.7 and reported as .773 for 5 items. For PVC (Perceived Video Characteristics), the reliability of all the variables is high as the Cronbach's Alpha coefficient value is above 0.7 and reported as .708 for 4 items. For ATP (Attitude toward Purchase), The reliability of all the variables is high as the Cronbach's Alpha coefficient value is above 0.7 and reported as .776 for 4 items. For PI (Purchase Intention), The reliability of all the variables is high as the Cronbach's Alpha coefficient value is above 0.7 and reported as .810 for 5 items.

Regression

By using PASW 18 Regression Test is applied to check the relationship between the variables. It is used to find out the impact of independent variable on dependent variable. The relationship between the variable is said to be effective only when the p value in the Coefficients table is less than .05. For NVLCR ($\beta=.156$, $p=.002$), PC ($\beta=.119$, $P=.046$), PVC ($\beta=.186$, $p=.001$) and ATP ($\beta=.404$, $P=.000$) values are significant hence, variable NVLCR (Number of Views, Likes, Comment, and Replies), PVC (Perceived Video Characteristics), ATP (Attitude toward Purchase) (Independent variable) affect Purchase Intention (Dependent Variable). However, PU (Perceived Usefulness) was not found to be significantly related to purchase intention.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.104	.937		2.246	.026
	Total_NVLCR	.183	.057	.156	3.177	.002
	Total_PC	.136	.068	.119	2.010	.046
	Total_PU	.099	.061	.095	1.615	.108
	Total_PVC	.232	.070	.186	3.337	.001
	Total_ATP	.451	.069	.404	6.558	.000
a. Dependent Variable: Total_PI						

Discussion & Conclusion

Considering all the results we found that the product related video on YouTube affects the purchase intention of the consumer significantly. The main focus of this study was on product related YouTube videos and with the objective to identify the factors which affects consumer purchase intention. Although previous study have shown that NVLCR has no effect on consumer purchase intention (Hale Fulya YUKSEL, 2016) but in this study, we found that NVLCR (Number of Views, Likes, Available on SSRN-Elsevier

Comment and Replies) has significant positive impact on consumer purchase intention. This indicated that if videos have many views, likes, comments and replies then it affect the consumer purchase intention. Another factor which affects the consumer purchase intention is PVC (Perceived Video Characteristics), which shows that the quality and length of the videos affect the consumer purchase intention. “We also found that the product related videos on YouTube affect the attitude of the consumer, it shows that consumer’ thoughts, feelings and beliefs are affected by product related YouTube videos (Hale Fulya YUKSEL, 2016)”.

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The Relationship between Trust, Learning Capability and Affective Organizational Commitment

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ABSTRACT

Organizational Commitment has become a matter of concern for every organization as the tendency of employees to switch the organization is growing. The management is continuously experimenting with the employees to increase the organizational commitment. They would like to do many things to increase this positive outcome. The concept has been associated with many organizational variables and studied by several researchers in the past. The purpose of this paper is to examine relationship of organization commitment with trust and learning capabilities. The study was conducted among the employees of manufacturing sector in the Gwalior region. The sample was collected by using non-purposive sample technique on standardized scales. The data was checked for reliability & validity. The interaction effect was analyzed by using the ancova test. The result of the study explained the positive effect of Trust and Learning Capability on Organizational Commitment.

Introduction

An organization is an instrument for achieving organizational goals. Every organization has its own structure which defines authority and responsibility to accomplish the objective of the organization. When organization decides to terminate workers, downsize and restructure, such events can result in negative organizational outcomes including employee distrust, dissatisfaction and even counterproductive work behaviors. Organizations are open systems they affect the environment and get affected by the environment. All organizations operate according to overall values, or priorities in the nature of how they carry out their activities. These values are the personality, or culture of the organization. Organizational commitment become crucial part as it's the bond employees experience with their organization. It creates understanding the goals of the organization among the employees.

The organizations should create trust among the employees to increase the organizational commitment. This is one of the important aspects of the organization. It

can be increase by fairness and consistency. As a consequence, building organizational commitment is source of competitive advantage to firms. This study impetus that one-way organization reduce turnover intension and increase affective employee commitment to build learning capability and become a learning organization. Learning organization retains and transfer knowledge within an organization.

Organizational Trust

Trust is multi-dimensional concept that includes individuals in an organization as well as the nature of outcomes and the consequences of those outcomes trust in leadership is not a clearly defined attribute of the individual leader. We know that both non-profit and for-profit organizations experience more success, if they have high trust profiles. Conversely, distrust comes at a high cost (Braun, 1997). Research suggests that in order to build trust, it is useful to examine the trust framework developed by Mayer et al. (1995). This model is a widely accepted explanation of the process by which one party develops trust towards another. In regards to this study, this framework proposes a process that employees go through in deciding whether or not to trust their employer).

Organizational Learning

Learning as a process that enables an entity to increase its range of potential behavior through its process of information. organizational learning is defined as occurring when any of an organization unit acquires knowledge that the unit recognize as potentially useful to the organization (Huber (1991)).

The term organizational learning encompasses a broad range of phenomena. It is not limited to desired process of individual development and organizational adaptation. Organizational learning is more than the sum of the information held by the employees. it requires systematic integration and collective interpretation of new knowledge. As such, Garvin's (1993) conceptualization of a learning organization as one that is "skilled at creating, acquiring and transferring knowledge and at modifying its behaviour to reflect new knowledge" [Garvin, (1993), [p.80] is a relevant perspective to this study.

DiBella (1995) The literature on organizational learning has developed different orientations in how learning can be built. In discussing this issue has identified what he calls the normative perspective of a learning organization. This perspective best describes the orientation of our research and this paper, that is, learning is a collective activity that takes place under certain conditions or circumstances. Therefore, organizations need to create the necessary conditions to foster and allow learning to take place.

The work of Senge (1990) and Garvin (1993) suggests that organizations modify their behaviour by means of systematic problem solving, experimentation, learning from experience, and efficient knowledge dissemination to achieve a competitive advantage.

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Organizational Commitment

Peter F. Drucker rightly said “Unless commitment is made, there are only promises and hopes but no plans”. Organizational commitment is an individual's psychological attachment to the organization. It predicts work variables such as turnover, organizational citizenship behavior, and job performance. Some factors such as role stress, empowerment, job insecurity, employability and distribution of leadership have been shown to be connected to a worker's sense of organizational commitment.

Mowday et al (1982) has defined organizational commitment as “An identification with the goal's and values of the organization, a desire to belong to the organization and a willingness to display effort on behalf of the organization”. Organizational Commitment is highly valuable. It has a great impact on the successful performance of an organization.

Mowday, Steers, and Porter (1979) defined commitment as "the relative strength of an individual's identification with and involvement in a particular organization" Becker (1960) originally described continuance commitment as one associated with "side-bets" or investments that a person accrues over time while working for an organization. In his words, "Commitments come into being when a person, by making a 'side-bet', links extraneous interest with a consistent line of activity" (p.33). Accordingly, commitment is the tendency to remain a member of the organization because of the perceived costs of doing otherwise. While Becker's focus was primarily on material costs (non-vested retirement benefits, job security, accrued vacation), Salancik (1977) drew attention to "costs" associated with contradicting or reversing a previously expressed position. Organizational commitment refers to an employee's belief in the organization's goals and values, desire to remain a member of the organization and loyal towards the organization (Mowday et al. 1982; Hackett et al. 2001). With the increasing speed and scale of change in organizations, managers are constantly seeking ways to generate employee commitment, which translates to competitive advantage and improved work attitudes such as job satisfaction, performance, absenteeism, and reduce turnover intentions (Lok and Crawford 2001).

Literature Review

Fu Q. (2004) conducted a study on “Trust, Social Capital, and Organizational Effectiveness” they found that the Social researchers are increasingly using trust to explain various levels of cooperation evidenced in differing social and political environments.

Calantone et al., (2002) did a study where they have explained that “commitment to learning can be achieved with the support of management”. Management should

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encourage the employees to understand and should cope with new challenges by leading the process of change. Hence commitment to learning can diffuse to the whole organization. Gomez et al., (2005) conducted a study on “Commitment to learning can diffuse to the whole organization”. Learning behaviour increased organisational citizenship behaviours, job performance, job satisfaction, organisational commitment, belief in information, goal commitment, satisfaction with the leader, and decreased intentions to quit.

Bijlsma and Koopman, (2003) conducted a study on The Research also shows that trust promotes employees within the organisation to work towards a common mission or vision and may form the basis for a social context that is conducive to experimentation, innovation, and transparency organisational.

Shipton, (2006) argued in his study that in order to build and sustain a learning organisation, there must be an underlying element of trust that weaves the goals and agendas of each employee into one common organisational fabric.

Mosadegh Rad et al, (2008) conducted a study on the fact that being updated and consistent with social, economic and cultural developments are among the main concerns of today's organizations. Organizational learning is one of the main variables in the process of developing and updating the organization. Also, considering the importance of organizational commitment as a variable associated with organizations and organizational goals. Organizational learning and creating a learning organization seems to affect the staff organizational commitment considerably.

Che Rose et al (2009) found out that organizational learning is significantly associated with the organizational commitment and staff performance and there is a significant relationship between organizational commitment and some variables such as age, experience, education and gender.

Bodlayi et al in (2010) conducted a study on “organizational learning and trust”, they found that by investigating mediator loops between psychological empowerment and organizational learning in administration of Bank staffs found that there is a significant relationship between organizational commitment and organizational learning.

Amin Bidokhti et al in (2013) conducted a study on “the moderating role of organizational commitment in relationship between organizational learning and succession management (Case study: selected universities of Tehran), found that organizational learning and its components have effect on organizational commitment.

Mohammad kamali, Shabnam Asadollahi and Mahnaz Afshari (2017) conducted their study on “The relationship Between Organizational Learning And Organizational Commitment Of Staff Of Well-Being Organization In Yazd Province”. This study states that there was positive and direct relationship between organizational learning and organizational commitment of staff. Organizational learning and organizational commitment were averagely low in the organization. They applied pearson correlation and linear regression test.

Hillary O Odor, (2018), defined that that organizational learning and learning organization are two different concepts. To develop effective learning there is a need for organizational leaders to appreciate the value of learning as a panacea for organizational sustainability.

Objectives of the Study

- To identify the underlying factors of Learning Capability and affective Organizational Commitment.
- To evaluate the cause & effect relationship among Trust, Learning Capability and affective Organizational Commitment.
- To evaluate the demographic effect of Gender, Service Tenure, Designation and Nature of Job in affective Organizational Commitment.

Research Methodology

The study was causal in nature with survey method being used to complete the study. Population was employees of manufacturing sector in Gwalior region. An individual employee was used as sampling element. Non-Probability purposive sampling technique was used to select the sample respondent. Total sample size was 200 respondents. Robinson (1996), Baron and Kenny (1986)'s standardized questionnaire were used for evaluation of Trust, Learning capability and Affective Organizational Commitment. Data was collected on a Likert type scale, where 1 indicates for minimum agreement and 5 indicates for maximum agreement. Item to total correlation was applied to check the internal consistency of the questionnaire. The measure was standardized through computation of reliability. Factor analysis was applied to identify the under lying factors of Learning Capability and affective Organizational Commitment. Ancova test was used identifying effect between trust, Learning Capability and Effective Organizational Commitment while using demographic variables.

Result and Discussion

Reliability

The reliability of all the measures viz. Trust, learning Capability and Organizational commitment were computed by using SPSS. Cronbach's alpha reliability coefficients were computed to calculate the reliability of all items in the questionnaire.

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Reliability test using SPSS software and the reliability test measures is given below

Measures	Cronbach Alpha value	Number of Items
Trust	0.783	7
Learning Capability	0.884	14
Organisational commitment	0.766	6

It is visible that all reliability values are greater than the standard value that is 0.7. It is considered that reliability of all measures is adequate. So, the statement in the questionnaire was treated as reliable statements.

Face Validity Test

The questionnaires were reviewed by the panel of experts and it was found valid for the conduction of this study.

Exploratory Factor Analysis

Learning Capability

Table 2: Kaiser-Meyer–Olkin measure of sampling adequacy and Barlett's test for Learning Capability

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.907
Bartlett's Test of Sphericity	Approx. Chi-Square	904.198
	Df	91
	Sig.	.000

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy Value was 0.907 indicating that the sample was adequate to consider the data as normally distributed. The Bartlett, s Test of Sphericity was tested through Chi-Square value 904.198 significant at.000 level of significance indicating that the data has low sphericity and is therefore suitable for factor analysis.

The raw scores of 14 items were subjected to factor analysis to find out the factors that contribute towards learning capability. After factor analysis 2 factors were identified.

Factor Name	Eigen value		Variable convergence	Loading value
	Total	%age Of Variance		
Training	5.612	40.086	People here often venture into unknown territory.	.798
			When presenting new ideas people receive support and encouragement.	.718
			People are encouraged to take risks in this organization.	.560
			What is going on outside the company work of all staff to collect bring back and report information.	.523
			By the view of employees policies are significantly influenced.	.516
			To generate new ideas often receives favourable response.	.508
			Outside the company there is a receiving collecting and sharing information.	.470
			Managers facilitate communication.	.458
Employee Engagement	1.020	7.285	Managers in this organization frequently involve employees in important decision.	.753
			We are encouraged to interact with the competitors, customers, technological institutes, suppliers.	.709
			My work group free and open communication.	.682
			Cross-functional teamwork is a common practice here.	.753
			Employees are encouraged to communicate.	.475
			People feel involved in main company decision.	.437

Factor Analysis of Organizational Commitment

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.781
Bartlett's Test of Sphericity	Approx. Chi-Square	281.440
	Df	15
	Sig.	.000

The KMO value of the sample more than 0.5 is considered as good and the table is showing that the value is 0.781 which means that the sample that we have taken for factor analysis is adequate. The chi square value is also significant at 0.000 level of significance.

Factor Name	Eigen value		Variable convergence	Loading value
	Total	%age Of Variance		
Emotional Involvement	2.776	46.266	In this organization I do not feel like part of the family.	.830
			In this organization I do not feel emotionally attached.	.821
			In this organization I do not feel strong sense of belonging.	.699
Belongingness	1.067	17.791	In this I would be happy to spend rest of my career.	.839
			I really feel as if this organizations problem is my own.	.750
			This organization has a great deal of personal meaning for me.	.637

Univariate Analysis

The ANCOVA test was applied to evaluate the effect of Independent variable (trust, learning capability) as covariate variable with demographics variable (Gender, Service Tenure, Designation, and Nature of Job) on dependent variable (affective organization commitment).

levene's test of equality of error variances ^a			
Dependent Variable: Affective Org Commitment			
F	df1	df2	Sig.
3.334	139	60	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

Design: Intercept + Gender + Service Tenure + Designation + Nature_of_Job + Trust + Learning Capability + Trust * Learning Capability.

The Relationship between Trust, Learning Capability and Affective Organizational Commitment

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3414.183 ^a	143	23.875	5.353	.000	.932
Intercept	450.103	1	450.103	100.915	.000	.643
Gender	28.369	1	28.369	6.361	.015	.102
Service_Tenure	.006	1	.006	.001	.970	.000
Designation	3.155	1	3.155	.707	.404	.012
Nature_of_Job	.000	1	.000	.000	.992	.000
Trust	518.577	17	30.505	6.839	.000	.675
Learning_Capability	672.880	30	22.429	5.029	.000	.729
Trust Learning_Capability *	954.744	90	10.608	2.378	.000	.793
Error	249.772	56	4.460			
Total	102543.000	200				
Corrected Total	3663.955	199				
a. R Squared = .932 (Adjusted R Squared = .758)						

To select appropriate Post Hoc test Levene's test of equality of error variances was applied. The null hypothesis that the error variance of the dependent variable (Affective Organization Commitment) is equal across groups was tested using 'F' test. The value of 'F' was found to be 3.334. Which is significant at .000% level of significance, indicating that Null hypothesis is not rejected at 5% level of significance. Since the no of groups for the dependent variable are very large (2*2*3*5), the error variance of the dependent variable was in any case likely to be unequal and post hoc tests that are available and are suitable for equal variances among groups were used.

The Univariate ANCOVA model fit is indicated by Adjusted R square which has the value of .758 for the current model. Corrected model has been tested for best fit using 'F' test having value of 5.353 which is significant at 0.000% level of significance indicating that the model with independent variable (trust, learning capability) with demographics variables (Gender, Service Tenure, Designation, Nature of Job) as fixed factor on (Affective Organization Commitment) dependent variable as has high fit.

H01: There is no interaction of Gender as Independent Variable on Affective Organization Commitment.

The interaction of gender as covariate factor is tested through F value ANCOVA test. F value was to be found in the current study 6.361 at.015% level of significance which is significant at

5% level of significance. Therefore, the null hypothesis is rejected that indicating that there is effect of gender as covariate factor on affective organization commitment.

H02: There is no interaction of service tenure as Independent Variable on Affective Organization Commitment.

The interaction of service tenure as covariate factor is tested through F value Ancova test. F value was to be found in the current study.001 at.970% level of significance which is insignificant at 5% level of significance. Therefore, the null hypothesis is not rejected that indicating that there is no effect of service tenure as covariate factor on affective organization commitment.

H03: There is no interaction of designation as Independent Variable on Affective Organization Commitment.

The interaction of designation as covariate factor is tested through F value ANCOVA test. F value was to be found in the current study.707 at.404% level of significance which is insignificant at 5% level of significance. Therefore, the null hypothesis is not rejected that indicating that there is no effect of designation as covariate factor on affective organization commitment.

H04: There is no interaction of nature of job as Independent Variable on Affective Organization Commitment.

The interaction of nature of job as covariate factor is tested through F value ANCOVA test. F value was to be found in the current study.000 at.992% level of significance which is insignificant at 5% level of significance. Therefore, the null hypothesis is not rejected that indicating that there is no effect of nature of job as covariate factor on affective organization commitment.

H05: There is no interaction of trust as Independent Variable on Affective Organization Commitment.

The interaction of trust as covariate factor is tested through F value ANCOVA test. F value was to be found in the current study 6.839 at.000% level of significance which is significant at 5% level of significance. Therefore, the null hypothesis is rejected that indicating that there is an effect of trust as covariate factor on affective organization commitment.

H06: There is no interaction of learning capability as Independent Variable on Affective Organization Commitment.

The interaction of learning capability as covariate factor is tested through F value ANCOVA test. F value was to be found in the current study 5.029 at.000% level of significance which is significant at 5% level of significance. Therefore, the null hypothesis is rejected that indicating that there is effect of learning capability as covariate factor on affective organization commitment.

H07: There is no effect of combination of two factors trust and learning capability as a fixed factor on affective organization commitment.

The effect of trust and learning capability as a fixed factor is tested through F value was to be found in the current study 2.37 at.000% significance level which is significant as at 5% level of significance. Therefore, null hypothesis is rejected that indicating that there is significant effect of combination of trust and learning capability as a fixed factor on affective organization commitment.

Discussion

The result of the study; supported by the previous literature. The similar findings were also reported by Che Rose et al (2009). They found out that organizational learning is significantly associated with the organizational commitment and staff performance and there is a significant relationship between organizational commitment and some variables such as age, experience, education and gender. Metin Atak and Ramazan Erturgut (2010) conducted a study on “An empirical analysis on the relation between learning organization and organizational commitment”. This research determines the relationship between learning organization and organization commitment. It contributes to the improvement of literature in the field. Better scale can be developed when learning organization and organizational commitment used together. This indicates that these commitment levels are parallel to the conditions desired for organization. The similar results were also identified by Najaf Aghaie et al. (2012) in the study titled "The relationship between organizational learning and organizational commitment" among staff members of sports organizations. They found out that there is a significant relationship between organizational learning and also organizational commitment. Organizational learning correlates more significantly with two aspects of commitment namely normative and continuous commitment. Andrew Tirelli and Sweet C. Goh (2015) conducted a study on the topic “The relationship between trust, learning capability, affective organizational commitment and turnover intentions”. They found that organizational trust significantly correlated with organizational learning.

Implication

- This study is a useful contribution for the various Organizations to evaluate the Employee Trust, Learning Capability and Affective Organization Commitment.
- This study can be used by different researchers to evaluate the different perspective in different context.

- The study can be useful for the other Organization so that they can concentrate on the factors, which have adverse Trust and Learning Capability.
- This study is being beneficial for further research.

Conclusion

This study was attempted to found the relationship between Trust, Learning Capability & Organizational commitment. It was found that independent variable and dependent variable have a significant relationship hence we found that trust and learning capability have significant effect on affective organization commitment. The Individual effect of Affective organization Commitment on Trust and Learning Capability was found significant. It may have the reason that Affective Organization commitment helps the Employee to understand his Trust and Learning Capability so as to develop himself into a better performance in future. The Univariate ANCOVA test was applied to evaluate the effect of Independent variable (Gender, Service Tenure, Designation, Nature of Job, Trust, Learning Capability, Trust * Learning Capability). The study found the demographic effect of gender on affective organizational commitment but no demographic effect of Tenure of Service, Nature of Job and designation on Affective Organizational Commitment. The study also indicated a positive significant effect of Trust and Learning on affective organizational commitment as single variable. It was also found that there is significant effect of combination of trust and learning capability as a fixed factor on affective organization commitment. So, the overall result of the study shows that there is a positive relationship between trust, learning capability and affective organization commitment.

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Impact of Job Satisfaction on Organizational Citizenship Behavior

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ABSTRACT

job satisfaction at workplace is very important aspects of employee's life. An employee is more comfortable when he is satisfied with his job. This satisfaction may result in positive commitment among the employees. This paper is an attempt to find out the relationship between impact of job satisfaction on organizational citizenship behavior among the employees of manufacturing and service sector. Also, the gender difference on job satisfaction and OCB is also attempted to be found out. The data was collected on Likert scale from the employees working in Gwalior (India). The data was validated through reliability. The research also tried to find out the underlying factors of job satisfaction and organizational citizenship behavior. The result of the study was indicated a positive linear relationship between job satisfaction and organizational citizenship behavior. The finding also supported that there is no difference between males and females on job satisfaction and organizational citizenship behavior.

Introduction

Job satisfaction has been defined differently by different researchers. Some believe that Job satisfaction simply refers to how content an individual is, with his or her job. While the others believe that it is not as simple as this definition suggests and instead it refers to that multidimensional psychological response in which one is involved with his job.

According to Robbins (2002), "Job satisfaction is a general attitude towards one's work; it is the difference between the amount of reward received by a worker and the amount they expected to receive".

While according to Cherrington (1994), "job satisfaction refers basically to how much employees like their jobs."

Locke (1976) defined job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience".

Hoppock (1932) define job satisfaction as any combination of psychological, physiological, and environmental circumstances that causes a person truthfully to say that I am satisfied from my job.

Springer (2011) proposed in his research work that the managers can improve employees' job performance by applying managerial strategies to increase job motivation and job satisfaction.

Factors Affecting Job Satisfaction

Many researchers have proved that an employee's overall satisfaction with his job is the result of a combination of factors various factor that influences his/her behavior.

These factors include:

1. Good Working Conditions
2. Opportunity for career Advancement
3. Financial Rewards
4. Optimum workload and stress-free working environment

Organizational citizenship behavior

Organizational citizenship behavior has been studied since the late 1970s. Over the past three decades, interest in these behaviors has increased substantially. Organizational behaviour has been linked to overall organizational effectiveness, and therefore these types of employee behaviours have important consequences in the workplace.

Organ (1988) defines OCB as "Individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization".

According to Lvankevich et al. (2006), in industrial and organizational psychology organisational citizenship behavior (OCB) is a person's voluntary commitment within an organization or company that is not part of his or her contractual tasks.

Jex (2002) defined organizational citizenship as the behavior demonstrated by an employee which is not formally part of the job description. These include overt behavior, that are not formally rewarded by the organization.

Organ (1977, 1994) stated that organizational citizenship could be categorized into five dimensions, including:

“Altruism”, which is to reflect the willingness of people volunteering to help with a specific task or problem relevant to the workplace.

The “courtesy”, which manifests itself in the attitude of attention, respect and basic considerations to other.

The “chivalry” expressed as kindness or tolerance’ which is the attitude of avoiding complaints, grievances and tolerate the inevitable inconveniences at work;

“Awareness”, which is defined as the conduct of the employee optimistic towards work, where the person is sensibly of the rules and procedures of the company

“Civic virtue (or CSR)” defined as responsible participation in the organizational activities as, for example participation in charitable events sponsored by the organization.

Review of Literature

Ikonne and Chinyere N. (2015), established the perceptions of library employees on Organizational citizenship Behavior (OCB) and job satisfaction (JS). In the job satisfaction, the study evaluated the opinions of the respondents on the intrinsic and extrinsic facets of job satisfaction. In the organizational citizenship behaviours, the views of the respondents were considered based on the five dimensions of organizational citizenship behaviour namely, altruism, conscientiousness, sportsmanship, courtesy or gesture, civic virtues. In relation to organizational citizenship behaviour, the respondents displayed a high agreement on altruism, conscientiousness, sportsmanship, courtesy or gestures and in civic virtues. They also discovered that there is a positive connection between Organizational Citizenship Behaviour job satisfactions.

Uludağ, Khan et. al. (2011), in their study found that there is an effect of job satisfaction and affective organizational commitment on organizational citizenship behavior and turnover intentions amongst the employees in an organization. The study also examined the effects of organizational citizenship behaviour on turnover intentions.

Also, in a study conducted by Schappe (1998), it had been found that there is an influence of job satisfaction, organizational commitment and fairness perceptions on organizational citizenship behavior. The study revealed that there is a significant correlation between job satisfaction and organizational commitment as well as between job satisfaction and the structural dimension of procedural justice also.

In another study conducted by Mohammad et al. (2011), it was found that intrinsic and extrinsic factors of Job Satisfaction are essential in predicting Organizational Citizenship Behaviour. Intaraprasong et al. (2012), also showed a positive relationship between the Job Satisfaction and Organizational Citizenship Behaviour. WanneeSaepung, Sukimo, SununtaSiengthai (2011) in a study on the Retail employees in Jogjakarta, Indonesia found that some demographic factors such as age and education influence employees' satisfaction and ocb levels, for instance, the higher the education background, the higher satisfaction and OCB level. It was found that job satisfaction and OCB is positively related.

AmnaArif, and Aisha Chohan (2012), The found a positive relationship between job satisfaction dimensions and OCB dimensions, as well as the Job satisfaction and OCB relationship themselves that showed 57.25%.

Ren-Tao Miao (2011), found that there is a positive significant relationship between job satisfaction and Organizational Citizenship Behavior, as well as between perceived organizational support and OCB, and task performance, also job satisfaction and task performance.

Budiman, Anantadjaya, andPrasetyawati (2014), Job satisfaction has an insignificant relationship with OCB, and nature of work is the strongest factor in job satisfaction.

P.Vaijayanthi, K.A. Shreenivasan and Reena Roy (2014), found that only the extrinsic job satisfaction has a strong relationship with OCB, not the intrinsic job satisfaction.

Swaminathanand Jawahar (2013), Positive Relationship between OCB and Job Satisfaction.

Intaraprasong et al., (2012), found a positive Relationship between OCB and Job Satisfaction.

Mohammad et al, (2011), Intrinsic and extrinsic factors of job Satisfaction are essential in predicting OCB.

Objective of the Study

- To Restandardize the instrument to measure and evaluate the Job Satisfaction and Organizational Citizenship Behavior.
- To find out the underlying factors of Job Satisfaction and Organizational Citizenship Behavior.
- To identify the gender difference on Job Satisfaction and Organizational Citizenship Behavior.
- To study the impact of Job Satisfaction on Organizational Citizenship Behavior.
- To open new vista for further research.

Research Methodology

The study was causal in nature where survey method was used to collect the data. The population for the study included the employees working in different manufacturing and service sectors. A total sample size of 400 respondents was taken for the study on the basis of non-probability and purposive sampling
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technique. The data was collected with the help of standardized questionnaires for both the variables, where, Standardized questionnaire for measuring Job Satisfaction has been taken from the study of Scott Macdonald Peter MacIntyre (1997) and Organizational Citizenship Behavior has been taken from May Chiun Lo and T. Ramayah (2009).

Cronbach's alpha reliability test was applied to test the reliability of the questionnaire, Principal component factor analysis with varimax rotation was applied to identify the underlying factors of the questionnaires. Linear regression method was used to find out the causal relationship between job satisfaction and organizational citizenship behavior and independent sample T- test was applied to identify the gender differences in job satisfaction and OCB.

Result and Discussion

Reliability analysis: Reliability of both the factors viz. job security and organizational citizenship behavior was computed using PASW 18 software. Cronbach's alpha reliability coefficient was computed to calculate reliability of all items in the questionnaire. Reliability measures are given below in the table 1.

Table 1: Cronbach Alpha Reliability statistics

Measures of reliability	Cronbach Alpha value
Job Satisfaction	.812
OCB	.818

On the basis of the above table it can be seen that the Cronbach Alpha value for each variable is higher than the standardized value of .7, indicating that the reliability of all measures are adequate.

Factor analysis: Principle component factor analysis with varimax rotation was applied on both the variables i.e job satisfaction and OCB. KMO (Kaiser-Meyer-Olkin measure of sampling adequacy) and Barlett's test of sphericity was used to ascertain if the data is appropriate for factor analysis and its details are given in table 2, and 4. Also the details about factors, the factor name, Eigen value, Variable convergence, Loadings, Variance% and cumulative% are given in the table number 3 and 5.

A. Job Satisfaction

Table 2: Kaiser-Meyer-Olkin measure of sampling adequacy and Barlett's test for Job Satisfaction

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.852
Bartlett's Test of Sphericity	Approx. Chi-Square	919.158
	df	45
	Sig.	.000

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy Value was 0.852 indicating that the sample was adequate to consider the data as normally distributed. The Bartlett's Test of Sphericity was tested through Chi-Square value 919.158 significant at 0% level of significance indicating that the data has low sphericity and is therefore suitable for factor analysis.

Table 3: Factor analysis of Job Satisfaction

Factor name	Eigen value	%of variance explained	Items	Items loading
Job security	3.734	37.345	2. I feel close to people at work	.796
			3. I feel good about working at this company	.756
			1. I receive recognition for a job well done	.634
			4. I feel secure about my job	.615
			10. I feel good about my job	.557
Positive leadership	1.165	11.652	8. All the talents and skills are used at work	.726
			6. Overall, I believe work is good for my physical health.	.678
			9. I get along with my supervisors	.673
			5. I believe management is concern about me	.552
			7. My wages are good	.545

B. Organizational Citizenship Behaviour**Table 4: Kaiser-Meyer–Olkin measure of sampling adequacy and Bartlett's test for Organizational Citizenship Behaviour**

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.870
Bartlett's Test of Sphericity	Approx. Chi-Square	1168.492
	df	91
	Sig.	.000

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy Value was 0.870 indicating that the sample was adequate to consider the data as normally distributed. The Bartlett's Test of Sphericity was tested through Chi-Square value 1168.492 significant at 0% level of significance indicating that the data has low sphericity and is therefore suitable for factor analysis.

Table 5: Factor analysis of Organizational Citizenship Behaviour

Factor Name	Eigen Value	%of Variance Explained	Items	Item loading
Employee Corporation	4.295	30.676	9. I am willing to cover work assignment for colleagues when needed	.706
			4. I do not mind taking on new challenging assignments	.671
			10. I am willing to help colleagues solve work related problems	.616
			5. I am willing to coordinate and communicate with colleagues	.549
			8. I am willing to assist new colleagues to adjust to the work environment	.538
Interpersonal relationship	1.356	9.685	13. I do not initiate actions before consulting with others that might be affected	.750
			12. I try to avoid creating problems for colleagues	.675
			11. I avoid taking actions that hurts others	.603
Conscientiousness	1.050	7.502	2. I am willing to stand up to protect the reputation of the company	.656
			7. I often arrive early and start to work immediately	.629
			6. takes one's job seriously and rarely makes mistakes	.616
			14. I comply with company rules and procedures even when nobody watches, and no evidence can be traced	.580
			3. I actively attend company meeting	.452
			1. I eager to tell outsiders good news about the company	.435

Regression Analysis

Regression is not just one technique but a family of techniques which helps to explore the impact between one continuous dependent variable and a number of independent variables.

Impact of Job Satisfaction on Organizational Citizenship Behavior

Ho: There is no significant impact of Job Satisfaction on Organizational Citizenship Behavior.

Linear regression test was applied between Job Satisfaction on Organizational Citizenship Behavior. Where job satisfaction was taken as independent variable and OCB was treated as dependent variable.

Table6: Model Summary^b										
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Durbin - Watson
						R Square Change	F Change	df1	df2	
dimensiono	1. a	.659	.434	.433	5.49603	.434	302.328	1	394	.000
a. Predictors: (Constant), JS										

b. Dependent Variable: OCB

In the above table the value of R square was found to be .434, indicating that workplace bullying as independent variable explained 43.4% variance on Job Insecurity as dependent variable.

Table 7: ANOVA^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9132.239	1	9132.239	302.328	.000 ^a
	Residual	11901.304	394	30.206		
	Total	21033.543	395			
a. Predictors: (Constant), JS						
b. Dependent Variable: OCB						
The goodness fit for the model was tested using ANOVA Table and the F value was found 302.328 which was significant at 0.000 level of significance, indicating that the model has a good fit.						
Table 8: Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.053	1.961		10.734	.000
	JS	.874	.050	.659	17.388	.000
a. Dependent Variable: OCB						

$$Y = a + b x + \text{error}$$

$$Y = 14.732 + .198x + \text{error}$$

Y= Job Insecurity (dependent variable)

X= workplace bullying (independent variable)

The result of coefficient table indicated the contribution of independent variable on dependent variable through the beta value which is .659. T-value was found to be 17.388 which was found to be significant at .000 level of significance. Hence, the hypothesis stating that there is no significant impact of job satisfaction on OCB is rejected.

Independent sample T- test

H₀: There is no significance difference between male and female on Job satisfaction.

Table 9: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
						95% Confidence Interval of the Difference		

									Lower	Upper
JS	Equal variances assumed	6.417	.012	1.097	394	.273	.61602	.56156	-.48801	1.72006
	Equal variances not assumed			1.133	382.203	.258	.61602	.54379	-.45318	1.68523

Levene's test for Equality of Variances with F value 6.417 came out to be significant at .012 indicating equal variances are assumed and the F value came out to be significant at 1.097 indicating that there is significant difference between both the genders on Job satisfaction and therefore the Null hypothesis is accepted.

H₀: There is no significance difference between male and female on Organizational Citizenship Behaviour.

Table 10: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
OCB	Equal variances assumed	4.286	.039	-.476	394	.634	-.35501	.74586	-1.82138	1.11136
	Equal variances not assumed			-.494	385.142	.622	-.35501	.71935	-1.76936	1.05933

Levene's test for Equality of Variances with F value 4.286 came out to be significant at .039 indicating equal variances are assumed and the F value came out to be significant at -.476 indicating that there is significant difference between both the genders on OCB and therefore the Null hypothesis is accepted.

Discussion

The results obtained in this study are in line with the results obtained by Mohamed (2016) who in their study concluded that there is a positive and significant relationship between Job satisfaction and organizational citizenship behaviour, which is similar to the results obtained in study. Also Habib Alias et. al (2011) said that Job satisfaction is

positively and significantly correlated with organizational citizenship behaviour, which is also similar to results of this study.

Conclusion

This piece of research was conducted to find out the impact of job satisfaction on Organizational citizenship behaviour. For this, a sample of 400 manufacturing and service sector employees of Gwalior were taken as the sample and, simple linear regression was applied on job satisfaction and OCB where job satisfaction was taken as an independent variable while OCB was taken as dependent variable. On the basis of the results obtained in the study, it has been found that there is a significant impact of job satisfaction on OCB. Also independent sample t- test was applied on job satisfaction and OCB was applied to identify the gender differences on both the variables and it was found that there is no significance difference between male and female on Job satisfaction and organizational citizenship behavior.

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An Empirical Study on Options Trading Strategy Using 'Commodity Channel Index' For NSE's Nifty Options in India

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ABSTRACT

Though volume of option trading, specifically in NSE'S NIFTY Index contract, rise significantly over a period of time, it is considered as comparatively complicated due to complexities involve in option. pricing. Volatility in prices play very critical role in option pricing. With help of momentum indicators of technical analysis, one can identify point of expected high amount of volatility in prices. This lead to very high amount movement in optin prices. Commodity Channel Index (CCI) is one of the tools of technical analysis which helps in assessing momentum and give hint about future volatility in prices. The present study aims to trace significant (atleast double) rise in option price with minimum risk using CCI. For this purpose, historical data of NSE's NIFTY index was tested on stipulated rules of CCI indicating strong momentum and accordingly creating long position in corresponding in The Money option contracts. The risk and return of using this trading mechanism in NIFTY option was calculated using Return, Maximum Loss Zone, Average Gain to Average Loss Ratio, Strike Rate (Success rate) and its significance. The results are found positive about CCI based trading in option as per stipulated in rules for aggressive traders with time frame of two weeks.

Introduction

The fundamental theory of macroeconomics subscribes the fact that investment is considered as lifeblood for economic system while financial market is considered as blood-vessel. Any organized economy provides different alternatives for prospective investors to invest their saving in monetary form. These alternatives of investment are classified into following two categories viz. Risk free investment alternatives & Risky investment alternatives.

Investment & Speculation in equity shares of different company through stock exchanges, popularly known as investment and trading in stock market is a prominent and widely acceptable alternative in the category of risky investment avenues. Significant proportion of national savings is invested in stock market at global level. In case of India, this proportion is much higher than other developed countries. Indian stock market has witnessed marvellous growth and development of derivative market in last decade in line with increase in market depth and volume in equity market. In Indian derivative market, derivative instruments are available in forms of future and options contracts for different indices and stocks and are available to trade mainly on platform of NSE and BSE. However, it is observed that

trading in NSE NIFTY's derivative contracts, both future and options are significantly higher in terms of volume and participants compared with other instruments.

Derivative Market & Option Trading in India

In derivative segment, option trading in contracts is considered as comparatively complicated and complex task for any traders. This is due to several dynamic factors affecting option price with different intensity of the option contracts. Moreover, amid volatility or price fluctuation in option contracts is frequently observed. Therefore, it will be difficult for any option trader to establish specific trend unlike in case of stock price in cash segment or future contracts. However, option trading is becoming popular day by day as its awareness and education increases. Further, traders prefer to create long (buy) position in option (either call or put) as it gives leverage position with very small amount of investment. It also actually enables traders to earn large amount of profit with known (limited) loss and with definite exit time.

However, it should be noted that speculation in derivative segment always remains highly risky option in stock market, specifically in option contracts where volatility is significantly higher. Therefore, traders have to follow the scientific approach of security analysis which is part of investment management process. Therefore, prediction of prices for future time frame with expected risk and return is the key to be successful trader in trading with future in stock market. However, predictions about prices in stock market are always challenging as stock prices are fluctuating every second and there are many factors which influence these fluctuations. Therefore, share price prediction always remains as an area of interest amongst investors and researchers. There are different approaches of security analysis for prediction. In real life situation, fundamental analysis and technical analysis are two popular approaches to prediction of share prices. The fundamental analysis mainly answers as to which stocks should be bought or sold for long period of time. It is based on fundamental factors related with economy, industry and company affecting share price movement. Technical analysis mainly deals with the price at which one should enter into the trade and exit the trade with stop loss based on statistical analysis of historical data of share price and its charting pattern.

Technical Analysis & Stochastic Momentum Indicator (CCI)

Technical analysis, though highly criticized by academic approach based on ground of efficient market hypothesis, it remains extremely popular techniques amongst traders and research houses for predicting future prices, specifically for derivative market for last so many years. There are hundreds of indicators in technical analysis which can be used as per their risk and return expectations, their time frame and the investment amount and other trading traits of the investors. However, in this research CCI on NIFTY index is taken into consideration for developing optimum trading system for NSE Nifty options in India. CCI is a lower technical indicator developed by Donald Lambert in 1980 mainly for identifying cycling trend in commodities. However, due to its success in predicting trend, it not only used in commodity but also in equity and forex market widely. It is mainly indicating

momentum in stock price with high volatility and its trend. Many times, it also gives an advance indication of trend reversal.

The calculation of CCI is as follow:

$$CCI = (TP - N \text{ Period SMA of TP}) - (0.015 \times MD)$$

Where,

TP = (High + Low + Close Prices)/3

N = Look Back Period

SMA = Simple Moving Average

MD = Mean Deviation of TP

It should be noted that CCI is typically calculated over 20 days Look Back Period. The value more than 100 signifies overbought situation and less than -100 signifies oversold situation in the security under study. Overbought refers to the price trading near the top of the 20-day range, while oversold refers to the bottom of the range. Overbought and oversold periods can be lengthy, should the price continue to rise or fall.

There are different ways of taking call for buying or selling a security based on this indicator. As per common practice, when CCI goes above 100, a purchase signal is generated. Similarly, when CCI falls below -100, a sell signal is generated. The following figure 1 shows way interpreting CCI in technical chart of NIFTY.



[Figure – I: Interpretation of CCI in Technical Chart]

About Trading System in Options using Technical Analysis

In a very simple term the trading system is a 'set of pre-defined' rules mainly based on indicator(s) of technical analysis on the basis of which trading in either call or put option is carried out. The term 'predefined' suggests that trading will be planned for well in advance and hence will not be arbitrary or subjective. Similarly, the term 'rules' suggest that the work to be done will be done keeping strictly in mind the parameters laid down as rules. Thus, it is a set of instructions which advise entry and exit position in option contracts positions based on the results of selected indicator(s) technical analysis.

A trading system allows excluding randomness in the trading process. Strict adherence to the system permits to rule out the emotional factor in the trade. For this reason, one must follow all recommendations of the system strictly even if for all that a potentially profitable position will not be opened. Apart from it, any trading system for option contracts includes trading in both the trend i.e. upward and downward.

Review of Literature

Though technical analysis is a very popular tool for taking trading decisions in equity market, not frequently used in creating long option positions. Further, there are very less amount of literatures found which presents empirical evidences of use of technical analysis for trading in option contracts.

Moving Average is found very popular indicator in technical analysis for developing trading strategy in option. Baja V and Aghav J (2016) also investigates on developing trading system in options of India's NSE NIFTY by using technical indicators viz. Moving Average and Average True Range jointly and individually for the period of 2012-15. They found strike rate of 40% and AGAL with around 4.5 times. However, they have not calculated statistical significance about their system as well as consistency in their return. N M Rao (2013) for NIFTY and selected stock in India but he used Exponential Moving Average as a primary technical indicator for testing bull and bear spread strategies in in India with historical data of 3 years. Further, Chao-Hui Yeh (2012) investigates cross-sectional profitability of technical analysis with special reference to use of moving average in option market of Taiwan. His study shows almost 90% success rate in option positions. In the same line Paul Brittain and Carley Gamer (2006) came out with 8 simple option strategies in which they suggested the trading methods which are based on spreads. But they used trend line method of technical analysis identify support and resistance level for framing option strategies. Charlebois and Sapp (2007) also test Moving Average strategies on daily data on the currency pair of Dollar-Deutsche Mark to take position in either call or put option.

There are few studies which reported use other technical indicators like Bollinger Band and Velocity Index for trading in option. A Kalkova (2016) propose a trading system to trader in currency option by using Bollinger Band to trade in Binary Option. Young Hoon Ko (2011) presented an empirical study on developing straddles

in options by use of velocity measurement index – an indicator of technical analysis. His study is proposing return of around 1% per trade.

However, no study was found in which Commodity Channel Index (CCI) is used to evaluate trading in options. But, studies show that CCI is very good indicators in spot and future segment of not only equity but also in commodities and forex market. Lakkol S and Meghana A. (2017) investigate use of technical indicators viz. CCI along with KAMA, Moving Average and Bollinger Band for trading in companies who are part of NSE NIFTY index. They found that strict implementation of trading rule of above technical indicators helps trader in generating over performing return from trading with technical indicators. Mahesh M. and Anju M. (2017) investigates on implementing various technical indicators and its ranking for selected companies in Steel Industries in India. Based on historical data of 1 year they found that CCI is amongst top 3 technical indicators who helps investor to gain return higher than market return. Maitah M. et al. (2016) found that swing trading in CCI generate excellent return which outperform normal return by more than 2 time in agricultural commodities (mainly COCO and Coffee) in Czech Republic. Revathi Bala and Deepak Sundar (2014) studied use of CCI in trading of MCX Crude Oil future contract and found that CCI facilitates in better manner to the commodity trader in to take position in crude oil future. They also noted that CCI is more accurate in predicting downward fall in prices. In similar line P Natarajan and E Nirupama (2014) also concluded that with help of CCI a trader can get abnormal return which outperform normal return in currency market (MCX-SX USD/INR). Ekarin V (2012) uses CCI along with other technical indicators and found around 70% strike rate in selected securities in stock market of Thailand.

So, from literature it can be concluded that there are very few research papers which actually investigates role of technical analysis, specifically CCI, in option trading. However, literature shows that prudent use of technical analysis definitely helps trader in enhancing their return and risk in option as well other segment of market and CCI is also one of the best indicators of technical analysis which generate profitable trades.

Rationale of Study

The present study is in area of utilizing technical analysis for option trading. It was found from literature that the evidences are meagre in numbers. Even there are very few published research paper with empirical study which actually describe utility of technical analysis, though technical analysis is most acceptable tool by industry professionals to practice trading in stock market. Moreover, empirical studies on option trading strategy are also very few which actually suggest profit making strategy to option traders, though it always remains point of interest by industry professionals to execute profitable strategies in option trading with minimum investment. Moreover, option trading is perceived as a bit complicated area of study due to complexities in its pricing and very high volatility. Therefore, the present study is an attempt to fulfill this gap by exploring utility of technical analysis for option trading, mainly in creating long position in call and put option, where option trader can generate substantial amount of profit at very calculated risk.

Research Methodology

The research methodology followed for the research is described as follow:

Aim

The aim of study is to come out with technical trading system based on CCI – An indicator of Technical Analysis for option traders willing to take long positions in NSE NIFTY's call and put options.

Objectives

The objectives of the study are:

- To find out the net return in Option trading as per pre-defined rule of trading system on CCI
- To access the risk zone and possibility of Loss in Option trading as per pre-defined rule of trading system on CCI.
- To evaluate efficiently of trading system based CCI for option trading
- To compare in return Option trading as per pre-defined rule of trading system on CCI with standard return
- To check the consistency in return as per pre-defined rule of trading system on CCI over a period of time

Research Design

The design adopted for the research is descriptive in nature.

Data Collection

The data collected are secondary in nature. The historical data from October 2008 to September 2018 (10 Years) for NSE NIFTY in the money option contracts (on the commencement of month) is collected from official website of National Stock Exchange.

Sampling

The population for study is historical data of NSE NIFTY since its commencement i.e. 2001. However, judgmental sampling is used take data from August 2008 as it was a time when active volume option contract started in the market. Moreover, this time frame includes all the phases of market i.e. bullish trend, bearish trend and a phase of consolidation.

Further, option contract of NSE NIFTY is selected keeping in mind fact that more than two third of the volume in option contracts in India are reported on in this NIFTY index.

As the data collected through official website of national stock exchange, it is found to be reliable and valid for study.

Hypothesis

Following null hypothesis were framed for the study.

Ho1 = The pay-off (profit/loss from trades) of proposed trading system in NIFTY Option based in CCI is random in nature.

Ho2 = There is no significant difference in average profit and average loss occurred in proposed trading system in NIFTY Option based in CCI.

Ho3 = There is no significant difference between average annual return occurred in proposed trading system in NIFTY Option based in CCI with benchmarked return of 100% per annum.

Ho4 = There is no significant difference between return from option trades over a period of time

Trading rule

The technical trading system proposed for this study is based on CCI for creating long (Buy) position in call and put NSE NIFTY option contracts. The trading rules are as follow:

Rules of Entry in Option contract

- An option trader long most nearer In-The-Money call option at highest price (In-The-Money call option with nearest strike price) only if all the following condition satisfied
 - Long (Buy) Call option on or between 3rd and 15th day of the respective month with same month expiry date
 - Value of CCI goes above -100.
 - Trade will be done on the day on which the spot NIFTY price will break high of the day on which above "b" indicator generated
- An option trader long most nearer In-The-Money put option at highest price (In-The-Money put option with nearest strike price) only if all the following condition satisfied
 - Long (Buy) Put option on or between 3rd and 15th day of the respective month with same month expiry date
 - Value of CCI goes below 100.
 - Trade will be done on the day on which the spot NIFTY price will break low of the day on which above "b" indicator generated

Rules of Exit from Options contract

A long position in either Call or Put can be squared off (exit) when either of following conditions is satisfied.

- Option price rise by 100% i.e. when gross profit is doubled, or,
- Option price fall by 50% i.e. when gross loss is half, or,

- On closing price of second last day of expiry date of the respective option contract (if a or b is not achieved)

Assumptions

The assumption of research which are based on general observation during trading in NIFTY Future as follow:

- Lot size for Option contract is 50
- The amount of brokerage is Rs. 100 with all the taxes.
- The slippage cost of trading is 10%

Tools and Techniques used

The mathematical and statistical tools used during study are as follow:

- Commodity Channel Index
- Strike Rate i.e. how much out of total trading signals is profitable.
- Average Gain to Average Loss Ratio (AGAL) i.e. how many times successful trade generate profit against a loss making trade.
- Chi-Square Test to check significance of strike rate.
- Two sample independent T test to check the significance of AGAL.
- One Sample T Test for comparing return with benchmarked return.
- Analysis of Variance for checking consistency in return over a period of time.

MS Excel 2010 and IBM SPSS 20 were used for above calculation. For Willim %R levels, technical charts from <http://economictimes.indiatimes.com/markets/technical-charts> are used.

Data Analysis

To develop a systematic approach for trading in option contracts of NIFTY based on CCI historical data from 1st October 2008 to 30th September 2018 were collected as per trading rules laid down. As per stipulated rule of entry and exit for creating long position of option contracts, there are 68 trades which are generated in last 10-year time frame. Out of these 68 trades, 42 positions for long put options and 26 positions for long call options.

For every trade net profit / loss are calculated after considering lot size of 50, brokerage & taxes worth Rs. 100 and slippage cost @ 10%. Moreover, time frame for each of the trades is also calculated by taking difference between entry date and exit date into the respective trade.

The Table - I (Enclosed as Annexure - A) presents the payoff of trades with consisting of entry date, entry price, types of options, strike price of nearest ITM options, gross and net profit/loss and time frame for every trade.

The efficiency of the present option trading system is measured based on its Return, Strike Rate, Average Gain to Average Loss Ratio, Average time frame of Trade, maximum loss zone and annual return of the system. The following Table – II presents the highlights of the same.

Table: II
Option Trading Summary based on Technical Trading System of CCI

Sr. No.	Particular	Value/Nos.
1	Time Frame	10 Years
2	Total Trades	68
3	Average Frequency of Trade	Every 1.76 Month (53 Days)
4	Range of Annual Trade	5 (Min) - 11 (Max.)
5	Overall Profit (Net)	Rs. 1,45,362/-
6	Average Annual Profit (Net)	Rs. 14,536/-
7	Average Investment	Rs. 6,261/-
8	Range of Investment	Rs. 2740/- (Min) – Rs. 15,490 (Max)
9	Average RoI	232.16 % Per Annum
10	Total Profitable Trades	43 out of total 68 trades
11	Average Profit/Gain	Rs. 5150/-
12	Average Profit/Gain in Percentage	81.83%
13	Range of Profit	Rs. 305/- (Min) – Rs. 13841/- (Max)
14	Total Loss making Trades	25 out of total 68 trades
15	Average Loss	Rs. 3043 / -
16	Average Loss in Percentage	51.87%
17	Range of Loss	Rs. 430/- (Min) – Rs. 5738 (Max)
18	Strike Rate	63.25%
19	Average Gain to Average Loss Ratio (AGAL)	1.69 times
20	Consecutive number of profitable trades	4 times
21	Consecutive number of loss making trades	2 times
22	Average Holding Period	9 Days
23	Range of Holding period	1 Day (Min) – 23 Days (Max)

From Table – II, it was found that the system is generating profit of Rs. 1,45,362/- against average investment of Rs. 6261/-. Thus, it can give around 232.16% of profit annually. The strike rate is 63.25% with Average Gain to Average Loss ratio of 1.69 times. It shows that out of every 100 trades around 63 trades are profitable and the profitable trade gives 1.69 times more return than every loss making trade. It was also found that this system will generate trades at an interval of 53 days (1.7 Months) and 4 to 11 trades in a year and there is possibility of 4 consecutive profitable are profitable as well 2 loss making trade.

To check the statistical significance of efficiency of trading system, given hypothesis are tested. To check significance Strike Rate chi-square test is performed to check association between actual profitable trades (i.e. 42/68) & loss making trades (i.e. 25/68) against its random behavior (i.e. 34/68). The following Table – III shows result of chi-square Test.

Table: III - Chi-Square Test

	Observed	Expected	Test Statistics	Df	p value
Profitable Trades	43 (63.25%)	34 (50%)	4.765	1	0.029
Loss Making Trades	25 (36.75%)	34 (50%)			
Total	80 (100%)	68 (100%)			

p value is significant at 0.05 (5%)

From above table, it is observed that the test result is found statistically significant with p value of 0.029 for chi-square test statistics 4.765 for degree of freedom 1. Thus, the null hypothesis (H₀₁) i.e. "The pay-off (profit/loss from trades) of proposed trading system in NIFTY Option based in CCI is random in nature" is rejected. Therefore, it is inferred that the strike rate of trading system is not random and hence it is significant.

Further, to check statistical significance of Average Gain to Average Loss Ratio, two sample independent T test is carried out to compare Average Net Profit/Gain (After deducting brokerage, tax and slippage cost from Gross Profit) i.e. Rs. 5150/- and Average Net Loss (After adding brokerage, tax and slippage cost in Gross Loss) i.e. Rs. 3043/-. The following Table – IV shows result of two sample independent T Test.

Table: IV – Two Sample Independent T Test

	Mean Value	Test Statistics	Df	p value
Profit per Trade	5150 (81.83%)	29.660	66	<0.001
Loss per Trade	3043 (51.87%)			

p value is significant at 0.05 (5%)

From above table it is found that the test result is found statistically significant with p value of <0.001 for Independent T test statistics 29.660 for degree of freedom 66. Thus, the null hypothesis (H₀₂) i.e. "There is no significant difference in average profit and average loss occurred in proposed trading system in NIFTY Option based in CCI." is rejected. Therefore, it is inferred that the AGAL (Average Gain to Average Loss) Ratio is also statistically significant.

Moreover, the annual return of trading system is also compared with benchmarked return of derivative segment i.e. 100% per annum using one sample T Test. The following Table – V shows result of one sample T Test.

Table: V – One Sample T Test

	Value	Test Statistics	Df	p value
Benchmarked Return per Annum	100%	2.165	68	0.034
System Return per Annum	232.16%			

p value is significant at 0.05 (5%)

From above table it is found that the test result is found statistically significant with p value of 0.034 for One Sample T test statistics 2.165 for degree of freedom 68. Thus, the null hypothesis (H₀₃) i.e. “There is no significant difference between average annual return occurred in proposed trading system in NIFTY Option based in CCI with benchmarked return of 100% per annum.” is rejected. Therefore, it is inferred that the return of proposed trading system is significantly higher than benchmarked return.

Furthermore, to check efficiency of this trading system over a period of time, its return (net profit) is compared within time lags of one year in last 10 years.

Lag I: 3 Equal Lags (Lag of 40 Months each)

Lag II: 5 Equal Lags i.e. an interval of 2 years

Lag III: 10 Equal Lags i.e. an interval of a year.

The consistency in return is compared using One Way Analysis of Variance (ANOVA) for each of the lags. The following Table – VI shows result of one-way ANOVA

Table: VI – One Way Analysis of Variance (ANOVA)

	F Test Statistics	p value
Lag – I	0.121	0.948
Lag – II	0.559	0.731
Lag – III	0.594	0.797

p value is significant at 0.05 (5%)

From above table, it is observed that the tests results are found statistically insignificant with p value of more than 0.05 for F test statistics in case of all three time lags. Thus, the null hypothesis (H₀₄) i.e. “There is no significant difference between return from option trades over a period of time” is failed to reject. Therefore, it is inferred that the return of proposed trading system is consistent over a period of time.

Findings

From the analysis and interpretation of historical data of 10 years, it was found out that the technical trading system based CCI produce consistent acceptable results in doing trading in option by creating long positions in both the trend i.e. bullish and bearish. It gives almost 232% return per annum which is significantly higher than benchmarked return of 100% per annum. The Strike rate is found out at 63.25% which is also statistically significant. The AGAL ratio is 1.69 times in which average profit is significantly higher than average loss per trade. Thus, trading system is found to be very efficient and hence recommended for practice.

It should be noted that the maximum risk is around 58.65% of initial investment and there is possibility of 2 consecutive loss making trade. So, an option trader must have provision to bear loss of 117.30% at a time in worst situation. Thus, if investment in trade is Rs. 100, he/she must have Rs. 217.30 in trading account to meet worst situation of loss. Moreover, it is also found that this system is giving call almost 9 – 10 times in year with holding period of 9 days.

Conclusion

Option trading is always remaining challenging task due to complexities involve in its valuations and very high volatility in its price. The technical analysis is a tool of security analysis which assists in price perdition, trend identifications and identifying momentum in price fluctuations. CCI is one of the widely used indicators to determine momentum for volatility in prices. In this research, an attempt is made to explore this highly untouched area of option trading using technical analysis by developing a trading system for Option traders with long positions based CCI. The result of this trading mechanism is found very attractive and can be implemented by traders and investment advisors to trade in option with calculated risk and return with known time frame and with comparatively small amount of investment. This research also opens up a door in doing similar type of study for other stocks and with different technical indicators.

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Annexure – A: Pay Off

Table – I: Pay Off of Trading System based on CCI in NSE Nifty Options Contract (Long Positions)
(From 1st October 2008 to 30th September, 2018: 10 Years)

Trade No.	Date of Entry in Trade	Nifty Spot Price	Option Type	Strike Price	Expiry Date of Option	Entry Price	Lot Size	Investment	Date of Exit from Trade	Exit Price	Gross Profit / Loss	Slippage Cost @ 10%	Brokerage + Tax	Net Profit / Loss	Trade Duration
1	04-Sep-18	11582	Put	11550	27-Sep-18	141.55	50	7077.50	19-Sep-18	283.1	7077.50	707.75	100.00	6269.75	15
2	14-Jun-18	10808	Put	10800	28-Jun-18	108.00	50	5400.00	22-Jun-18	54.00	-2700.00	270.00	100.00	-3070.00	8
3	14-May-18	10801	Put	10800	31-May-18	126.00	50	6300.00	21-May-18	252.00	6300.00	630.00	100.00	5570.00	7
4	03-Apr-18	10245	Call	10250	26-Apr-18	182.35	50	9117.50	23-Apr-18	364.70	9117.50	911.75	100.00	8105.75	20
5	07-Dec-17	10167	Call	10150	28-Dec-17	110.90	50	5545.00	18-Dec-17	221.80	5545.00	554.50	100.00	4890.50	11
6	07-Nov-17	10350	Put	10350	30-Nov-17	103.55	50	5177.50	15-Nov-17	207.10	5177.50	517.75	100.00	4559.75	8
7	03-Oct-17	9860	Call	9850	26-Oct-17	141.60	50	7080.00	13-Oct-17	283.20	7080.00	708.00	100.00	6272.00	10
8	03-Aug-17	10014	Put	10000	31-Aug-17	102.40	50	5120.00	10-Aug-17	204.80	5120.00	512.00	100.00	4508.00	7
9	04-Jul-17	9614	Call	9600	27-Jul-17	121.00	50	6050.00	11-Jul-17	242.00	6050.00	605.00	100.00	5345.00	7
10	07-Jun-17	9664	Put	9650	29-Jun-17	88.00	50	4400.00	19-Jun-17	44.00	-2200.00	220.00	100.00	-2520.00	12
11	06-Apr-17	9261	Put	9250	27-Apr-17	103.00	50	5150.00	24-Apr-17	51.50	-2575.00	257.50	100.00	-2932.50	18
12	12-Dec-16	8170	Put	8200	29-Dec-16	120.75	50	6037.50	23-Dec-16	241.50	6037.50	603.75	100.00	5333.75	11
13	03-Oct-16	8738	Call	8700	27-Oct-16	178.00	50	8900.00	13-Oct-16	89.00	-4450.00	445.00	100.00	-4995.00	10
14	09-Sep-16	8867	Put	8900	29-Sep-16	100.00	50	5000.00	11-Sep-16	200.00	5000.00	500.00	100.00	4400.00	2
15	10-Aug-16	8575	Put	8600	25-Aug-16	97.40	50	4870.00	16-Aug-16	48.70	-2435.00	243.50	100.00	-2778.50	6
16	08-Jun-16	8273	Put	8300	30-Jun-16	127.00	50	6350.00	24-Jun-16	254.00	6350.00	635.00	100.00	5615.00	16
17	05-Apr-16	7603	Put	7600	28-Apr-16	123.00	50	6150.00	11-Apr-16	61.50	-3075.00	307.50	100.00	-3482.50	6
18	04-Jan-16	7791	Put	7800	28-Jan-16	135.00	50	6750.00	11-Jan-16	270.00	6750.00	675.00	100.00	5975.00	7
19	15-Dec-15	7701	Call	7700	31-Dec-15	114.00	50	5700.00	29-Dec-15	228.00	5700.00	570.00	100.00	5030.00	14
20	13-Oct-15	8132	Put	8150	29-Oct-15	136.00	50	6800.00	16-Oct-15	68.00	-3400.00	340.00	100.00	-3840.00	3

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Trade No.	Date of Entry in Trade	Nifty Spot Price	Option Type	Strike Price	Expiry Date of Option	Entry Price	Lot Size	Inverst-ment	Date of Exit from Trade	Exit Price	Gross Profit / Loss	Slippage Cost @ 10%	Brokera-ge + Tax	Net Profit / Loss	Trade Duration
21	08-Sep-15	7688	Call	7650	24-Sep-15	209.00	50	10450.00	23-Sep-15	203.00	-300.00	30.00	100.00	-430.00	15
22	15-Jun-15	8014	Call	8000	25-Jun-15	128.40	50	6420.00	22-Jun-15	256.80	6420.00	642.00	100.00	5678.00	7
23	08-May-15	8191	Call	8200	28-May-15	162.40	50	8120.00	27-May-15	131.00	-1570.00	157.00	100.00	-1827.00	19
24	15-Apr-15	8750	Put	8750	30-Apr-15	93.70	50	4685.00	20-Apr-15	187.40	4685.00	468.50	100.00	4116.50	5
25	05-Mar-15	8938	Put	8950	26-Mar-15	151.95	50	7597.50	13-Mar-15	303.90	7597.50	759.75	100.00	6737.75	8
26	08-Jan-15	8235	Call	8200	29-Jan-15	155.80	50	7790.00	15-Jan-15	311.60	7790.00	779.00	100.00	6911.00	7
27	08-Dec-14	8538	Put	8550	24-Dec-14	113.75	50	5687.50	12-Dec-14	227.50	5687.50	568.75	100.00	5018.75	4
28	10-Sep-14	8094	Put	8100	25-Sep-14	76.90	50	3845.00	16-Sep-14	153.80	3845.00	384.50	100.00	3360.50	6
29	15-Jul-14	7527	Call	7500	31-Jul-14	110.45	50	5522.50	24-Jul-14	220.90	5522.50	552.25	100.00	4870.25	9
30	08-Jul-14	7623	Put	7650	31-Jul-14	162.90	50	8145.00	11-Jul-14	81.45	-4072.50	407.25	100.00	-4579.75	3
31	13-Jun-14	7542	Put	7550	26-Jun-14	86.75	50	4337.50	17-Jun-14	43.38	-2168.75	216.88	100.00	-2485.63	4
32	09-May-14	6858	Call	6850	29-May-14	309.80	50	15490.00	26-May-14	619.60	15490.00	1549.00	100.00	13841.00	17
33	07-Feb-14	6063	Call	6050	26-Feb-14	125.00	50	6250.00	13-Feb-14	62.50	-3125.00	312.50	100.00	-3537.50	6
34	12-Dec-13	6237	Put	6250	26-Dec-13	74.35	50	3717.50	20-Dec-13	37.15	-1860.00	186.00	100.00	-2146.00	8
35	05-Nov-13	6253	Put	6250	28-Nov-13	98.75	50	4937.50	12-Nov-13	197.50	4937.50	493.75	100.00	4343.75	7
36	12-Aug-13	5612	Call	5600	29-Aug-12	123.00	50	6150.00	16-Aug-13	61.50	-3075.00	307.50	100.00	-3482.50	4
37	11-Apr-13	5594	Call	5600	25-Apr-13	79.40	50	3970.00	18-Apr-13	158.80	3970.00	397.00	100.00	3473.00	7
38	05-Mar-13	5784	Call	5700	28-Mar-13	137.00	50	6850.00	8-Mar-13	274.00	6850.00	685.00	100.00	6065.00	3
39	09-Jan-13	5972	Put	6000	31-Jan-13	78.00	50	3900.00	14-Jan-13	39.00	-1950.00	195.00	100.00	-2245.00	5
40	11-Dec-12	5899	Put	5900	27-Dec-12	64.00	50	3200.00	18-Dec-12	32.00	-1600.00	160.00	100.00	-1860.00	7
41	09-Nov-12	5686	Put	5700	29-Nov-12	63.30	50	3165.00	16-Nov-12	126.60	3165.00	316.50	100.00	2748.50	7
42	05-Oct-12	5746	Put	5800	25-Oct-12	120.65	50	6032.50	23-Oct-12	102.50	-907.50	90.75	100.00	-1098.25	18
43	07-Sep-12	5342	Call	5300	27-Sep-12	103.00	50	5150.00	14-Sep-12	206.00	5150.00	515.00	100.00	4535.00	7
44	11-Jul-12	5306	Put	5300	26-Jul-12	62.95	50	3147.50	18-Jul-12	125.90	3147.50	314.75	100.00	2732.75	7
45	05-Jun-12	4863	Call	4800	28-Jun-12	160.20	50	8010.00	11-Jun-12	320.40	8010.00	801.00	100.00	7109.00	6

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Trade No.	Date of Entry in Trade	Nifty Spot Price	Option Type	Strike Price	Expiry Date of Option	Entry Price	Lot Size	Inverst-ment	Date of Exit from Trade	Exit Price	Gross Profit / Loss	Slippage Cost @ 10%	Brokera-ge + Tax	Net Profit / Loss	Trade Duration
46	09-Mar-12	5333	Call	5300	29-Mar-12	165.00	50	8250.00	19-Mar-12	330.00	8250.00	825.00	100.00	7325.00	10
47	08-Nov-11	5289	Put	5300	24-Nov-12	114.00	50	5700.00	15-Nov-11	228.00	5700.00	570.00	100.00	5030.00	7
48	07-Oct-11	4888	Call	4900	25-Oct-12	150.80	50	7540.00	24-Oct-11	202.00	2560.00	256.00	100.00	2204.00	17
49	08-Jul-11	5660	Put	5700	28-Jul-12	108.00	50	5400.00	25-Jul-11	54.00	-2700.00	270.00	100.00	-3070.00	17
50	03-Jun-11	5516	Put	5500	30-Jun-12	94.40	50	4720.00	20-Jun-11	188.80	4720.00	472.00	100.00	4148.00	17
51	08-Apr-11	5842	Put	5900	28-Apr-12	130.70	50	6535.00	13-Apr-11	65.35	-3267.50	326.75	100.00	-3694.25	5
52	14-Feb-11	5456	Call	5400	24-Feb-11	103.60	50	5180.00	21-Feb-11	51.80	-2590.00	259.00	100.00	-2949.00	7
53	05-Jan-11	6080	Put	6100	27-Jan-11	105.65	50	5282.50	7-Jan-11	211.30	5282.50	528.25	100.00	4654.25	2
54	13-Dec-10	5944	Call	5900	27-Dec-10	126.35	50	6317.50	29-Dec-10	164.45	1905.00	190.50	100.00	1614.50	16
55	12-Nov-10	6194	Put	6200	25-Nov-10	163.00	50	8150.00	19-Nov-10	326.00	8150.00	815.00	100.00	7235.00	7
56	08-Oct-10	6103	Put	6100	28-Oct-10	109.40	50	5470.00	13-Oct-10	54.70	-2735.00	273.50	100.00	-3108.50	5
57	10-Aug-10	5461	Put	5500	26-Aug-10	54.80	50	2740.00	18-Aug-10	27.40	-1370.00	137.00	100.00	-1607.00	8
58	12-Apr-10	5340	Put	5400	29-Apr-10	126.50	50	6325.00	28-Apr-10	171.00	2225.00	222.50	100.00	1902.50	16
59	08-Feb-10	4760	Call	4700	25-Feb-10	170.00	50	8500.00	24-Feb-10	179.00	450.00	45.00	100.00	305.00	16
60	11-Jan-10	5249	Put	5300	28-Jan-10	119.00	50	5950.00	22-Jan-10	238.00	5950.00	595.00	100.00	5255.00	11
61	06-Nov-09	4796	Call	4800	26-Nov-09	134.00	50	6700.00	16-Nov-09	268.00	6700.00	670.00	100.00	5930.00	10
62	05-Oct-09	5003	Put	5000	29-Oct-09	140.00	50	7000.00	14-Oct-09	70.00	-3500.00	350.00	100.00	-3950.00	9
63	05-Aug-09	4694	Put	4700	27-Aug-09	205.00	50	10250.00	28-Aug-09	102.50	-5125.00	512.50	100.00	-5737.50	23
64	14-Jul-09	4111	Call	4100	30-Jul-09	130.45	50	6522.50	17-Jul-09	260.90	6522.50	652.25	100.00	5770.25	3
65	12-Jun-09	4583	Put	4600	25-Jun-09	143.00	50	7150.00	17-Jun-09	286.00	7150.00	715.00	100.00	6335.00	5
66	13-Mar-09	2719	Call	2700	26-Mar-09	76.90	50	3845.00	18-Mar-09	143.90	3350.00	335.00	100.00	2915.00	5
67	07-Jan-09	2920	Put	2900	29-Jan-09	166.00	50	8300.00	28-Jan-09	83.00	-4150.00	415.00	100.00	-4665.00	21
68	12-Nov-08	2938	Put	3000	27-Nov-08	167.00	50	8350.00	20-Nov-08	334.00	8350.00	835.00	100.00	7415.00	8

Impact of E-Recruitment and Job Seekers' perception: A Study in Gwalior Region

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ABSTRACT

In present era technology and information cannot be separated they intermingle in a manner that they have become complimentary to each other. The information technology is part and parcel of every field of activity whether it is daily activity of individual or commercial activity of any big business house. The field of human resource management is not apart from this. To create a center of attention and get talent is one of the biggest challenges for Human Resource Department. The companies for purpose of talent acquisition are technology. E recruitment has become a noteworthy tool for Human Resource Department. E-recruitment is very effectual in terms of saving the cost of recruitment and selection.

The study provides an inside of E recruitment. The objective of this study was to know the Impact of e-recruitment on perception of job seekers and the data was collected from 145 respondents, those respondents are looking for job. The data is checked using regression analysis.

Introduction

E-recruitment has been a concern of interest more than the past ten years. Internet is well thought-out as the most recent tool in hiring. It is a genuine revolution scattering over the world of job hunting and hiring. The expression online recruitment, E-recruitment, or imply the formal sourcing of job information online. The foremost references to E-recruitment emerge in articles of the mid-1980s. At the same time as efficient reference to E-recruitment in the HR journals begins approximately two decades soon after, in the mid-1990s, whilst IT companies and universities begin to use the online expansively. The ultimate of 20th century has specified rise to an enormous deliberate concerning the rejoinder of Human Resources Management to the changing peripheral and internal surroundings of the firm. Internet job search and recruitment commotion have immensely expanded since the year 2000. This was the era for the duration of which a really distinct online recruitment standard emerged and first attained a level of significant mass. However, in spite of its popularity, the research in

the vicinity has not as nevertheless become as overriding as was predicted by many researchers as well as practitioners. If the company advertises its vacant positions on other website that concentrate in recruitment such as - naukri.com, timesjob.com, monster.com, etc., the companies would be adopting commercial job board for recruitment. Firms usually implement a recruitment process that suit their dimension and resources for recruitment. Additional, the dimension and personality of the portion that applies for an organization's vacancies will be exaggerated by how (and to whom) the association communicates its vacancies.

Now a day's internet plays an incredible role in each segment to recruit manpower, each sector, each job, each function. The internet is an imperative part of each organization. In current scenario most of the organizations are using internet for the recruiting potential candidates, by put into practice by using technology and in meticulous Internet-based.

LITERATURE REVIEW

Human resource management is considered as one the most important function of management now a days as it is the human resource of any organization that provide an extra edge to the company and contribute largely to organizational strategies and success. The organization incur huge expenses in recruitment and selection of right candidate for the right job. These expenses are considered as investment as right investment can bring profits to the organization and wrong investment can result into losses. . When we look at the other aspect of study then According to Internet World Statistics (2010) approximately 1.85 million communities are via the online mode in Pakistan which is 10.4% of the totality populace; unquestionably, adolescent creation ratio is maximum usage of internet.

Fister's study establish that e-recruitment is an effectual way for job seekers as well as employers hence is a key to continue aggressive edge in the job market as job seekers be able to apply for proliferate jobs in less point in time (Fister, 1999) with low cost (Maurer and Liu, 2007) along with employer can augment their possibility of possible candidates. Frost (1997) recommended that internet has probable to bring rapid changes in recruiting procedure and formulate it easier for employer. Furthermore, e-recruitment plays a decisive role in attractive organizational endurance and accomplishment (Parbudyal and Dale, 2003)

E-recruitment has been accepted at universal level to date, as compared to just 29% in 1998 (Greenspan, 2003) 94% of universal 500 companies are using E-Recruitment as and when this particular research was conducted. As Bush and Gilbert (2002) stated that the activation of the Web as an intermediate by organizations has been more rapidly than any other standard in history.

Dhamija (2012), studied that E-Recruitment refers to posting vacancies on the corporate website or on an online recruitment vendors' website. It allows applicants to send their resumes electronically through an email or in some other electronic format. The e-

recruitment methods and systems have helped to reduce much of the routine administrative tasks involved in recruitment

Khan, Awang, Ghouri (2013), The findings of the study showed that internet is the most preferred source to search the job among other recruitment sources. Furthermore, it is also suggested that the effectiveness of e-recruitment depends upon the placement of advertisement and salary is the most influential motivator to find interest in the job applied

Rani (2016) Job seekers can find the advertisement easily on websites, job boards & portals. It is a time saving & cost effective method for job seekers.

Ahmed et.al (2014) concluded that cost and time issues play important role in e – recruitment. These are the key benefits which job seekers find while searching and applying for a job using internet, Alsultanny and Alotaibi (2015) found that demographics do not play any significant role in differentiating the perception of job seekers and e recruitment

Karim et.al (2015) says that the effectiveness of e recruitment increases with perceived usefulness of such sources increases.

In Asia E-Recruitment consequence has moreover been conventional and emergent countries of Asia are adopting the E-Recruitment procedure at sturdy pace. Executives of Malaysia deem that E-Recruitment be capable of escort them to a new aggressive position in district labor markets due to the consequence of knowledge employees and resource-based antagonism (Poorangi et al., 2011)

Pakistani employers moreover authenticate this disputation and know the considerable impact of E-Recruitment on their business processes (Khan et al., 2011).

The study aimed at finding out the perception of job seekers towards e recruitment. The study also tried to find out the how trust worthy job seekers considers the e recruitment or online recruitment Practice.

RESEARCH METHODOLOGY

An empirical study was carried out, using a questionnaire Primary data is used from the job seekers by self designed questionnaires and owned developed questionnaire, likert type scale of 1 to 5 where 1 stand for highly disagreement and 5 for highly agreement.

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The responses of the sampled jobseeker were evaluated using SPSS software. The sampling method in choosing the participants for this study was a non probability sampling. In addition, in this study, samples of 145 job-seekers were selected across the Region.

The collected data was tested with the help of reliability analysis to check the reliability of questionnaire as the questionnaire was self designed the reliability was checked twice. first after pilot testing and then after the collection of data from the sample. Regression analysis was done to evaluate the relationship between dependent variable i.e. perception of job seekers and independent variable was e recruitment.

Results and discussion

The table no.1 is showing the reliability values of the questionnaires. Reliability of individual questionnaire was checked. The reliability test revealed Cronbach's Alpha value which is more than the standardized value (.7). It is considered that reliability of all measures were adequate. So the statement in the questionnaire was treated as reliable statements

Table no. 1.1 : Reliability Statistics

Variable name	Cronbach's	N of Items
E recruitment	.734	14
Job seekers' perception	.719	13

1.2 Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.226 ^a	.451	.390	4.89220

Table 1.2 gives the model summary of regression analysis of the two variables that is e recruitment and job seekers perception about the job. The r value explains the correlation coefficient between two variables. the value of r square helps in predicting the explained variance in dependent variable (job seekers perception) with the help of e recruitment. The tables show that 45.1% variance in perception of job seekers can be explained with the help of e recruitment.

Table 1.3 ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	127.799	1	127.799	5.340	.023 ^a
	Residual	2369.428	99	23.934		
	Total	2497.228	100			

The value of F is 5.340 and which is significant at 0.023 level of significance, this signifies that the model of the study is a good fit.

Table 1.4 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.517	2.923		6.335	.000
	E recruitment	.553	.061	.599	9.102	.000

The table 1.4 explains that overall impact of e-recruitment on perception of job seekers. The beta value is 0.599 and t value is 9.102 at 0.000 % level of significance. Hence, we can conclude that E-recruitment has significant impact on the perception of job seekers and hence the null hypothesis is rejected that there is no impact of e-recruitment practices on perception of job seekers.

CONCLUSION

This study establish that e-recruitment is an successful mode for employers and job seekers consequently it is a key to sustain competitive edge in the job market as job seekers can submit an application for multiply jobs in less time (Fister, 1999) with minimum cost (Maurer and Liu, 2007) and employer can get a great chance of potential candidates. As this study found that internet is widely used by job seekers, therefore companies should invest to establishment the erecruitment infrastructure which is definitely economical as compare to traditional sources. E-recruitment is a field which is having a worldwide option which is considered as an effective tool in Human Resources and it will transform the scope of it, in particular. In conclusion we can say that there is a impact of e-recrutement on jobseekers therefore internet has been acknowledged as a most suitable & enhanced tool to find the jobs.

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Study of Relationship between Job Stress and Job Satisfaction in Print Media

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ABSTRACT

The purpose of this paper was to assess the relationship between job stress and job satisfaction in print media. In order to test and discuss this relationship, some perception from past and relevant researches and texts are required. This paper also describes the core and practical concept of job stress and job satisfaction. The literature review provides better understanding of the concept. Results also describe the negative relationship between job stress and job satisfaction. Further job satisfaction does not vary in English and Hindi newspaper employees.

Introduction

Entered the liberalization phase, India offers a promising market for the print media industry. The bright future and the immense scope of the Indian print media have also aroused the need for implementing effective human resource practices, such as Job Stress, Job satisfaction, Quality of work life, team empowerment, techniques to reduce Occupational stress etc.

This research is an attempt to improve the impact of Job Stress on job satisfaction of print media employees. Globalization has compelled print media to function in a cut throat competitive business environment.

Job Stress

Stress is a universal element and persons from nearly every walk of life have to face stress. Stress can have negative impacts on both the employees and the organization. The different types of occupational stress variables are work overload, role authority, role conflict, lack of senior level support and lack of management support etc.

Occupational stress is becoming increasingly globalized and affects all countries, all professions and all categories of workers, as well as families and society in general (Ahmad and Ahmad, 1992). Beehr and Newman (1978) define occupational stress as "A condition arising from the

interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning."

Work stress thought to affect organization by: increasing absenteeism, decreasing commitment to work, increasing staff turn-over, increasing complaints from clients and customers, increasing unsafe working practice, adversely affect staff recruitment, damaging the organization image both among its workers and externally (Leka, 2003;)

The possibilities for job development are important buffers against current stress, with under promotion, lack of promotion, lack of training and job insecurity being stressful. There are two other sources of stress or buffers against stress: relationship at work, and the organizational culture. Managers who are critical, demanding, unsupportive create stress, whereas a positive social dimension of work and good team working reduces it (Causes and Management of Stress At work, Michie, 2002).

Job Satisfaction

According to Webster's Dictionary (1986), job satisfaction refers to how well a job provides fulfillment of a need or want, or how well it serves as a source or means of enjoyment. The term, 'job satisfaction' refers to a psychological feeling that an employee experiences while performing a job. When he derives pleasure from it, he can be said to Have job satisfaction. This also means that he does the job without any murmuring or grumbling. In the words of Keith Davies (1983), "job satisfaction is the favorableness or unfavorableness with which Employees view their work. It results when there is a fit between job characteristics and the wants of employees. It expresses the amount of congruence between one's expectations of the job and the rewards that the job provides". Lock E.A., (1970) has given a comprehensive definition of job satisfaction. He states it is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience".

In the words of Luthens (2002). "Job satisfaction is a result of employees' perception of how well their job provides those things that are viewed as important." Job satisfaction is a feeling that is a function of the perceived relationship between all that one wants from one's job – life and all that one perceives as being offered by the job". Job satisfaction thus refers to a positive eling that motivates an employee to work with enthusiasm. It is a combined outcome of varied facets of a job and job related elements. When an employee has job satisfaction it only indicates that he has as much liking for the job as he would have while enjoying his leisure.

According to Locke (1976), job satisfaction is an emotional reaction that "results from the perception that one's job fulfills or allows the fulfillment of one's important job values, providing and to the degree that those values are congruent with one's needs". Human needs keeps on changing consistently with the changes in environment but job values tend to remain stable. Someone who is satisfied with his/her job may not experience the same emotion if there is a change in his/her needs Most authors state job

satisfaction as resulting from the fulfillment of needs through the activities one performs at one's job and from the context in which the work is performed. It is very hard to fulfill one's need as it keeps changing quite often. Ilgen (1971) and McFarlin and Rice (1992), conceive of job satisfaction as resulting from the size of the discrepancy that one perceived, if any, between what he expects to receive from his work and what he perceives he is receiving.

Literature review

Job stress

French, Caplan and Harrison (1982) explained person-environment fit theory as an assumption that people vary in their needs and abilities just as jobs vary in their incentives and demands. It identifies 8 dimensions in correlation to stress. They are job complexity, role ambiguity, responsibility for person, workload, overtime, income, length of service and education. Additionally, Landy and Trumbo (1976) found the following dimensions of stress: job insecurity, excessive competition, hazardous working conditions, and task demands, long or unusual working hours. Mc Grath (1976) lists the following six sources of stress: task, role, behavior setting, physical environment, social environment and characteristics which the person brings with him into the job. Lazarus, (1971) has emphasized that stress is also a result of a person's perception of the situation, his 'cognitive appraisal', which define it as stressful. Appley (1962) uses the term "threat perception" to designate this, the most important, link between objective circumstances and the human experience of stress.

Factors intrinsic to job are the foremost focus of researchers on stress. Stress can be because by too much or too little work, time pressures and deadlines and having to make too many decisions (e.g. Sofer 1970). There has been a great deal of work linking working conditions of a particular job to physical and mental health. Mc Murray (1973) noted that over-promoted managers are grossly overworking to keep the job and at the same time hide his insecurity. In addition, the technological change in the society means company hiring young and technological savvy personnel to fill such position. Unless the manager keeps up with such changes or he or she will be obsolete in the organization.

Kornhauser, (1960) found that poor mental health was related to unpleasant work conditions, the necessity to work fast and to expend a lot of physical effort and to excessive inconvenient hours. Further, it must be noted that the more important stressors for managers than working conditions is work overload. Another major source of stress is associated with a person's role at work. A great deal of research is on role ambiguity and role conflict. Role ambiguity is a result of employee's uncertainties and lack of information about job role, expectation and responsibilities. Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) found in their studies that men who suffered from role ambiguity experienced lower job satisfaction, high job-related tension, greater futility and lower self esteem. On the other hand, role conflicts exist when the demand of the job differs from what he or she thinks of the job role and specifications. Wardwell, Hyman

and Bahnson (1964) found that responsibility to people lead to higher symptoms of stress.

Job Satisfaction

Allen Port (2004) in his article, "The ego in contemporary psychology" argues that money incentive alone does not bring about the desired motivation. Employees in an industry are no 'economic man' so much they are 'Ego man', what they want above anything else, is credit for work done, Interesting task, appreciation approval and congenial relation with their employees and fellow workers. It is the satisfaction which the employees needed than higher wages. Jacob Thomas and K. Sasi Kumar (2000) in their article, "Human resource management practices in Kerala state Co-operative Bank Ltd.", indicated the level of satisfaction and dissatisfaction of managers in different aspects of their employment in Kerala State Cooperative Bank Ltd., and found that higher level managers were more satisfied than the lower level managers. Green (2000) in his study on "Motivational Management" has revealed that the organizational factors have significant relationship with job satisfaction. The organizational factors include management leadership, teamwork, supervision, recognition, pay and benefits and security.

Viswanath Kumar Chand (2000) in his book "Industrial Relations" observed that job satisfaction is a re-integration of efforts and attitudes produced by individual's perception of fulfillment of his needs in relation to this work and the situation surrounding it. McAfee R. Bruce et al., (1998), in their article, "Job satisfaction – It's the little things that count", analyzed the various factors affecting the job satisfaction of employee. They emphasized that the level of job satisfaction among employees, there must be an alignment of employees' wants, expectations and needs with what actually received from their job. Antony Joseph (1996) in his article, "Job satisfaction among transport employees", concluded that most of the employees feel tension during working time. In the case of both public and private sector transport employees, lack of rest pauses in between schedules has given rise to dissatisfaction. This difficulty can be reduced by increasing the period of rest between schedules. In the case of long route services, the change of crew will be an advisable and welcome change. A study entitled "A comparison of job satisfaction between public and private sector managers" by Schneider et al., (1993) found a significant difference between pay satisfaction of public and private sector employees. Gomathi (1998) in her study titled, "A study of job satisfaction of clerical employees and official employees of private sector Banks in Tirunelveli Town", has analysed the theme of job satisfaction. She has found that the employees of public sector are highly satisfied than those in private sectors. Sumita Raj et al. (2002) after analyzing the response of 26 managers of nationalized bank discovered the importance of job delight which was found to be positively associated with self-esteem individual effectiveness criteria and effective dealing with individual. According to caudro (2001) there is no assurance that one would stay on the job merely

because of his satisfaction with one's job. In a booming economy employee have enough option to find better jobs and if they start thinking that they can do better jobs at other companies. Their job dissatisfaction arises. Srinivasta (2005) has suggested that challenges in work and service condition have been positive resulting in great job satisfaction than before. Mira Singh (1990) concluded from this study that employee provided greater participative opportunity shows higher job satisfaction. Narasimha Rao (2001) Views that job satisfaction increases as fit between the values of individual and values of organization increase. Wilt.I and Nyel (1992) in their study has found that greater job satisfaction is the result of employee perception that promotion decision is made in a fair. He has found a direct relationship between fair promotion and job satisfaction.

Objectives of the study

Present study analyse the effect of Job Stress on Job Satisfaction in Print Media. To fulfill this objective few more objectives were formed:

1. To design, develop and standardize the Job Stress and job satisfaction questionnaires in Indian context (Print media).
2. To identify the underlying factors of Job Stress and Job Satisfaction.
3. To analyse the relationship between Job Stress and job satisfaction.
4. To compare the job satisfaction of English and Hindi newspaper employees.
5. To open new vistas for further research.

Hypothesis

In order to fulfill these objectives following hypotheses are formed –

H₀₁: There is no relationship between Job Stress and job satisfaction.

H₀₂: There is no difference between Job satisfaction of employees of Hindi and English newspaper.

Research methodology

The study was exploratory in nature as data was collected with the help of questionnaires; which is a method of survey data collection. This study was conducted on Hindi and English newspapers employees of selected newspapers in northern India. The sample included 301 individual newspapers employees as respondents. For the purpose of this study non-probability (judgmental) sampling technique was used. The final data was collected on 1 to 5 Likert type scale. The survey instrument was based on validated measures of Job Stress, and job satisfaction but some items were changed or customized to suit the targeted print media employees. The data collected for the

purpose of research is hence analysed using different test like reliability, factor analysis, regression analysis, and t-test.

Result and discussion

Reliability

To measure reliability of the variables Cronbach's alpha reliability is calculated using SPSS software. Cronbach's α (alpha) is a statistic. It is commonly used as a measure of internal consistency or reliability of a psychometric test score for a sample of examinees. The table below shows reliability of the variables.

Reliability Values

Sl No.	Variable	No. of Items	Cronbach's Alpha Reliability
1	Job satisfaction	14	0.923
2	Job Stress	11	0.879

Factor analysis of Job Stress

All items of occupational stress were converted into two factors. The first factor-Roles in the organization consist of 6 items and the second factor Job qualities consist of 5 items.

The Kaiser-Mayer-Olkin value for this scale was 0.895, which was above the recommended value of 0.6 (Field, 2005). The Bartlett's Test of sphericity was statistically significant ($p = .000$). The sample size is greater than the recommended 150 respondents ($n = 301$). The data was therefore considered suitable for a factor analysis.

KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.895
Bartlett's Test of Sphericity	Approx. Chi-Square	1.270E3
	Df	55
	Sig.	.000

Factor Analysis Occupational Stress

FACTOR NAME	EIGEN VALUE	%OF VARIANCE EXPLAINED	ITEM	FACTOR LOADING
1.Organisational roles	5.016	45.596	8.Having conflicting demands on your time.	.827
			7.Feeling you are poorly paid for the job you do.	.809
			9.Dealing with the threat of being sued for malpractise.	.695
			10. Having to comply with increasing bureaucratic and regulatory procedures.	.684
			1.Disruption of your home life as a result of being on call.	.556
			11.Overall,how stressful do you find your work.	.462
2.Job qualities	1.074	9.760	2. Having adequate facilities to do your job properly.	.793
			3. Keeping up to date with current environmental happenings	.661

			4.Encountering difficulties in relationship with outsiders.	.609
			6.Being responsible for the quality of work of other staff.	.572
			5.Feeling under pressure to meet deadlines.	.539

Description of the factor of job stress

1.Organizational roles : This is the first factor of occupational stress having total of 5.016 and % variance of 45.596 the items of this factor were- Disruption of your home life as a result of being on call, Feeling you are poorly paid for the job you do, Having conflicting demands on your time, Dealing with the threat of being sued for malpractice, Having to comply with increasing bureaucratic and regulatory procedures, Overall how stressful do you find your work. French, Caplan and Harrison (1982) define person-environment fit theory as an assumption that people vary in their needs and abilities just as jobs vary in their incentives and demands. It identifies 8 dimensions in correlation to stress. They are job complexity, role ambiguity, responsibility for person, workload, overtime, income, length of service and education. Mc Grath (1970) defines stress as a perceived substantial imbalance between demand and response capability, under conditions where failure to meet demand has important perceived consequences. It is also the closest to the popular person environment fit' formulation by French (1974). Kornhauser, 1960 found that poor mental health was related to unpleasant work conditions, the necessity to work fast and to expend a lot of physical effort and to excessive an inconvenient hours. Lazarus 1966 proposed that stress can also be caused by lack of social support in difficult situations. Margolis, Kroes, & Quinn found that non-participation at work is most consistent and significant predictor of strain and jobs related stress.

2. Job Qualities: This is the second factor of occupational stress having total of 1.074 and % variance of 9.760. This factor includes-Having adequate facilities to do your work properly, Keeping up to date with current environmental happenings, Encountering difficulties in relationship with outsiders, Feeling under pressure to meet deadlines, Being responsible for the quality of work of other staff. Mc Grath (1976) lists the

following six sources of stress: task, role, behavior setting, physical environment, social environment and characteristics which the person brings with him into the job. Sofer (1970) found Factors intrinsic to job are the foremost focus of researchers on stress. Stress can because by too much or too little work, time pressures and deadlines and having to make too many decisions. Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) found in their studies that men who suffered from role ambiguity experienced lower job satisfaction, high job-related tension, greater futility and lower self esteem. Buck (1972) focused its study on the relationship of workers and managers. It found that lack of considerate behaviors of supervisor appears to have contributed significantly to feelings of job pressure.

Factor analysis of job satisfaction

The Kaiser-Mayer-Oklin value for this scale was 0.932, which was above the recommended value of 0.6 (Field, 2005). The Bartlett's Test of Sphericity was statistically significant ($p = .000$). The sample size is greater than the recommended 150 respondents ($n = 301$). The data was therefore considered suitable for a factor analysis. All items of job satisfaction were subjected to factor analysis in that all 14 factors were extracted in which all 14 items were under one factor Job content.

KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.932
Bartlett's Test of Sphericity	Approx. Chi-Square	2.138E3
	Df	91
	Sig.	.000

Factor Analysis of Job Satisfaction

Factor Name	Eigen Value	%of Variance Explained	Item Converted	Factor Load
Job satisfaction	7.026	50.182	1.Organization ethical standards	7.026
			2.Organization's goal/mission/vision	.975
			3.Job security	.830
			4.Level of challenge in work	.799

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			5. Personal qualification you feel for doing your job	.724
			6. Quality of newspaper produced	.568
			7. Opportunity to be Creative	.516
			8. Relationship with co-workers	.476
			9. Salary	.448
			10. Work environment or work culture	.427
			11. Respect by upper management	.351
			12. Flexibility to do your work and how much you like	.328
			13. Ability to balance work and the rest of your life	.302
			14. Level of technology employed at the company	.230

Description of the factor of job satisfaction

Job satisfaction: This came out as the only factor of job satisfaction. It is having total of 7.026 and % variance of 50.182 in this factor total 14 items were converged- Organization ethical standards, Organization's goal/mission/vision, Job security, Level of challenge in work, Personal qualification you feel for doing your job, Quality of newspaper produced, Opportunity to be Creative, Relationship with co-workers, Salary, Work environment or work culture, Respect by upper management, Flexibility to do your work and how much you like, Ability to balance work and the rest of your life, Level

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of technology employed at the company. Bolarin, 1993; Gemenxhenandez, Max, Kosier, Paradiso and Robinson, 1997 also included the items are the availability of power and status, pay satisfaction, promotion opportunities, and task clarity. St. Lifer (1994) reports the results of a survey of librarians' perceptions of their jobs. These include compensation and benefits, advancement opportunities, and technological challenges. The result showed that salaries and benefits are related to job satisfaction.

Regression analysis

H_{01} : There is no significant relationship between Job Stress and Job satisfaction.

The results from multiple regression are given below. It shows that job stress explains 11.0 % variance in the Occupational stress R^2 0.110, $F(1, 299) = 37.012$, $p = 0.000$ which found Occupational stress to be significantly related to Job satisfaction. Therefore, null hypothesis is rejected. Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) found in their studies that men who suffered from role ambiguity experienced lower job satisfaction, high job-related tension, greater futility and lower self esteem.

Coefficients Table

Predictor	Beta	t	Sig.
1Occupational Stress	0.394	6.084	0.000

df (1,299) $F = 37.012$ Sig. $F = 0.000$ $R^2 = 0.110$

T- test

An independent sample t-test was performed to compare the Job Satisfaction level of two groups that is Employee of Hindi and English newspaper. The Levene's test for equality of variances was performed for Job satisfaction to test whether the variance of scores for the two groups is similar.

H_{02} : There is no difference between Job satisfaction of Hindi and English newspaper employees.

The results suggest that the value of levene's test was insignificant so hypothesis indicating "EQUAL VARIANCES ASSUMED" was considered.

The value of t statistics indicates that null hypothesis there is no statistically significant difference in the Job Satisfaction level between the employee of Hindi and English news papers is (not rejected). $t(299) = 0.70$, $p = 0.485$). Hence job satisfaction does not vary in English and Hindi newspaper employees.

Group Statistics for t-test					
	Language	N	Mean	Std. Deviation	Std. Error Mean
JOB	Hindi	189	51.4815	10.20200	.74209

SATISFACTIONTOTAL	English	112	50.5893	11.46758	1.08358					
Independent Samples Test										
		Levene's Test for Equality of Variance		t-test for Equality of Means						
						Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	T	df				Lower	Upper
JOB SATISFACTIONTOTAL	Equal variances assumed	1.914	.168	.700	299	.485	.89220	1.27466	-1.61624	3.40063
	Equal variances not assumed			.679	212.003	.498	.89220	1.31333	-1.69667	3.48106

Conclusion

The results of the study were up to an extent in confirmation with the previous researches. The data, which is collected from a representative population provide an insight of relationship among variables. The Occupational stress also has negative impact on Job satisfaction of employees. The combination of the fluctuating work environment with competing job and family commitments has negatively affected employees in the form of lowered morale and motivation, reduced productivity, and increased burnout and turnover. Moreover the inability of employees to balance the equally challenging demands of their work and personal life has contributed to the escalating stress and conflict of today's workforce. This in turn leads to significant rise in stress related health problem, which translates to financial cost both to the employer as well as the government.

From the above discussion it can be concluded that media has the ability to act as a whistle blower of the society in order to keep the government in check. Increasing circulation trend of newspapers in India shows that it wins to star in the stiff competition faced from the electronic media. The basic reason for the golden days to the print media is due to the steadily expanding literacy, better publishing power, aggressive publishing and political excitement which is not in case of electronic media.

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Effectiveness of Options Strategy introduced by National Stock Exchange for highest Market Capitalization of India

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ABSTRACT

National stock exchange has introduced 22 stock and index option strategies for investor. In which investors can trade and book profit or loss. These 22 strategies are divided in bull and bearish strategies. 12 strategies are bull and 10 are bearish strategies. But these strategies are not defining how to enter in bull or bear strategies. This study will help how to define bull and bear strategies, and checking the strategies return, whether the return in the strategies are according to said result in strategy or not. The strategies define by national stock exchange are in predefine environment. If bear market, then invest in bear strategies and bull market then invest in bull strategies. Investing in option strategies required technical and investment experience. There are approximately 250 stock and 5 index in which investors can invest. But how to invest and when to invest in stock option is not define.

Introduction

NSE has declared so many instruments for investor to invest and to hedge also. But all the instrument now not trading with that perspectives. More than 85% of the volume on NSE and BSE comes from derivatives segments. It is implied that these all instrument are now converting to speculate. As investors speculate it may give return either positive or negative. Which is very risky. So options introduced, with the unique features like safety option. Maximum profit and maximum loss features were added too. They some strategy was also intruded in options. There are 11 strategies for bull and 11 for bear. Just need to understand bull or bear market and take the position. In this research the study focuses on which option strategy of more fruitful for which company.

Derivatives Defined: In the Indian context the Securities Contracts Regulation Act, 1956 [SCRA defines “derivative’ to include”-

A security derived from a debt instrument, share, and loan whether secured or unsecured, risk instrument or contract for differences or any other form of security.

A contract, which derives its value from the prices, or index of prices, of underlying securities.

Derivatives are securities under the SCRA and hence the regulatory framework under the SCRA governs the trading of derivatives.

Options: Options are of two types call and puts. Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

Strategies introduce by National Stock Exchange for investors

Strategies	Bullish Strategies	Bearish Strategies
Strategy 1: Long Call	Strategy 1: Long Call	Strategy 1: Short Call
Strategy 2: Short Call	Strategy 2: Synthetic Long Call	Strategy 2: Long Put
Strategy 3: Synthetic Long Call	Strategy 3: Short Put	Strategy 3: Protective Call
Strategy 4: Long Put	Strategy 4: Covered Call	Strategy 4: Covered Put
Strategy 5: Short Put	Strategy 5: Long Combo	Strategy 5: Short Straddle
Strategy 6: Covered Call	Strategy 6: Long Straddle	Strategy 6: Short Strangle
Strategy 7: Long Combo	Strategy 7: Long Strangle	Strategy 7: Bull Put Spread Strategy
Strategy 8: Protective Call	Strategy 8: Collar	Strategy 8: Bear Call Spread Strategy
Strategy 9: Covered Put	Strategy 9: Bull Call Spread Strategy	Strategy 9: Bear Put Spread Strategy
Strategy 10: Long Straddle	Strategy 10: Bull Put Spread Strategy	Strategy 10: Long Call Butterfly
Strategy 11: Short Straddle	Strategy 11: Short Call Butterfly	Strategy 11: Long Call Condor
Strategy 12: Long Strangle	Strategy 12: Short Call Condor	
Strategy 13: Short Strangle		
Strategy 14: Collar		
Strategy 15: Bull Call Spread Strategy		
Strategy 16: Bull Put Spread Strategy		
Strategy 17: Bear Call Spread Strategy		
Strategy 18: Bear Put Spread Strategy		

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Strategy 19: Long Call Butterfly		
Strategy 20: Short Call Butterfly		
Strategy 21: Long Call Condor		
Strategy 22: Short Call Condor		

Problem statement

The main research question to be studied here is “Effectiveness of options strategy introduced by National Stock Exchange for highest market capitalization of India” There are 22 different strategies with the combination of bull and bear period of the market. But strategy hadn't defined which strategy will be effective for which company. This study will help those investors who trade in option but don't know in which company which strategy should implement.

Literature review

Adam and Maurer (1999) suggest that the non-linear pay off characteristics of options requires the use of dynamic portfolio rebalancing. However, from practical point of view, dynamic portfolio rebalancing is often neither feasible nor desirable, instead, investors prefer to implement a buy-and- hold strategy over specific period of time.

Therefore, the present study has used buy-and-hold strategies involving future & options and a combination their-off, like Naked Future, Covered Call, Straddle and Strangle

In an attempt to make appropriate investment decisions in particular under risk the portfolio manager must be able to compare the hedging effectiveness of the strategies involving the use of options under covered call and the pure option strategies like straddle and strangle. The study also examines the risk and return associated to taking of future position as buy-and-hold strategy vis-à-vis cash position.

Shafiqur Rahman (2001) examined the impact of trading in the Dow Jones Industrial Average (DJIA) index futures on the conditional volatility of component stocks. He investigated the contention that the introduction of futures on the DJIA could increase volatility in the 30 stocks comprising the DJIA. Using data from April through June 1997 (pre-futures period) and April through June 1998 (for post-futures period), the conditional volatility of intraday returns for each stock was estimated with the Generalized Autoregressive Conditional Heteroscedasticity (GARCH) model and then compared to determine if the estimated parameters have changed significantly after the introduction of the various derivatives. The results

suggested that the introduction of index futures on the DJIA has produced no structural changes in the conditional volatility of component stocks.

Thiripalraju. M & Prabhakar R. Patil (2002) investigated non-linear volatility with the help of ARCH model to find out volatility changes due to introduction of index futures in S&P CNX NIFTY and its underlying stocks. Using data from June 22, 1999 to May 31, 2001, he concluded that the volatility is non-linear and there is a reduction in volatility both in the cash index and in its underlying stocks after the introduction of trading on index futures in the Indian stock market.

Premalatha Shenbagaraman (2003) examined the impact of introduction of NSE NIFTY index futures on NIFTY index. Using an event study over the period from October 1995 to December 2002, she tested for changes in the volatility before and after the introduction. Using GARCH techniques to model the time series, she concluded that futures trading have not led to a change in the volatility of the underlying stock index but the structure of volatility seemed to have changed in post-futures period.

Nagaraj KS and Kotha Kiran Kumar (2004) studied the impact of Index futures trading on spot market volatility using the data from June 12, 2000 to Feb. 27, 2003 of S&P CNX NIFTY. Using ARMA-GARCH Model, the study also examined the effect of the Sept. 11 terrorist attack on the NIFTY spot-futures relation. The study found that the post Sept. 11 attack, the relation between futures trading activity and spot volatility has strengthened, implying that the market has become more efficient in assimilating the information into its prices.

Research design

Type of research: - explorative: This study is basically an explorative study as it will take a good amount of time to explore the effectiveness of the strategy. In this research we will check whether the strategy practically applicable or not. So after completion of the research an investor will come to know what ever is there in the book is practically true or not.

Data collection methods: Data collection is the most important factor and a heart of the project as without it no study can be done. In this paper data has been collected from NSEINDIA.COM web site. The most authenticated source.

Secondary data

Secondary data comes from the national stock exchange website. And from their NCFM departments option module and some data from the study magazines and different websites also. All the option strategy has been given in for the purpose of guidelines by national stock exchange. And for the same there are so many books available for this strategy also. Some data has been collected from research article of national stock exchange and Indian institute of management.

Period of Study: The study has been done for the period (April, May and June 2018)

The main objectives of the study are:

Effectiveness of Options Strategy introduced by National Stock Exchange for highest Market Capitalization of India

1. Practically examine the option strategies introduced by “National Stock Exchange”
2. Effectiveness of strategy for highest market capitalization stock of Indian companies listed on national stock exchange.
3. To identify various strategies that are formed using options. Checking which strategy is best for different stocks.

Advantages

1. This study will help those investors who invest or want to invest in options segment
2. This study will focus on the part where investor can take strategy according to market condition.
3. This study will also focus on liquidity part of the option segment
4. This study will also help investors to hedging strategy.
5. Stock specific option can be also taken by this study

Stocks consider for data collections and strategy implementations

<i>Company Name</i>	<i>Market Cap (Rs. cr)</i>
TCS	805,187.65
Reliance	665,444.73
HDFC Bank	533,340.93
ITC	339,284.67
HUL	337,566.18
Infosys	315,331.73
HDFC	291,662.94
SBI	230,075.87
Maruti Suzuki	208,223.79
Kotak Mahindra	200,874.28

Bases of stock for option strategies (Bull and Bear terminology)

<i>Symbol</i>	<i>price on 28/6/2018</i>	<i>Daily Moving Average</i>	<i>bull/bear</i>	<i>result</i>
TCS	1843	50 day moving average = 1765	Bull	Bull
		150 day moving average = 1545	Bull	
		200 day moving average = 1480	Bull	
RIL	972	50 day moving average = 965	Bull	Bull
		150 day moving average = 938	Bull	
		200 day moving average = 923	Bull	
HDFC BANK	2108	50 day moving average = 2022	Bull	Bull
		150 day moving average = 1930	Bull	
		200 day moving average = 1904	Bull	
ITC	260	50 day moving average = 274	Bull	Bear
		150 day moving average = 267	Bear	
		200 day moving average = 267	Bear	
HINDUNILEVER	1641	50 day moving average = 1557	Bull	Bull
		150 day moving average = 1413	Bull	
		200 day moving average = 1374	Bull	
INFOSYS	1290	50 day moving average = 1087	Bull	Bull
		150 day moving average = 1093	Bull	
		200 day moving average = 1124	Bull	
HDFC LTD	1908	50 day moving average = 1862	Bull	Bull
		150 day moving average = 1814	Bull	
		200 day moving average = 1795	Bull	
SBI	260	50 day moving average = 259	Bull	Bear
		150 day moving average = 278	Bear	
		200 day moving average = 280	Bear	

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MARUTI SUZUKI	8820	50 day moving average = 8790	Bull	Bull
		150 day moving average = 8980	Bear	
		200 day moving average = 8749	Bull	
KOTAK MAHINDRA BANK	1343	50 day moving average = 1279	Bull	Bull
		150 day moving average = 1130	Bull	
		200 day moving average = 1105	Bull	

Taking strategies:

<i>Name Of The Stock</i>	<i>Bull Or Bear</i>
TCS	SBI
RIL	ITC
HDFC BANK	
HINDUNILEVER	
INFOSYS	
HDFC LTD	
MARUTI SUZUKI	
KOTAK MAHINDRA BANK	

Implementation of bullish strategies

Bullish strategy 1. Long call: - buy a call

<i>Scrip</i>	<i>Strike price</i>	<i>Buy price</i>	<i>Lot size</i>	<i>Costing</i>
TCS	1850	46.85	500	23425
RIL	1000	16.95	1000	16950
HDFC BANK	2120	36.5	500	18250
HINDUNILEVER	1700	15.15	600	9900
INFOSYS	1300	44.55	1000	44550
HDFC LTD	1940	20	500	10000
MARUTI SUZUKI	8900	166	75	12450
KOTAK MAHINDRA BANK	1400	12	800	9600

Bullish strategy 2. Synthetic long call: - buy stock + buy put.

<i>Scrip</i>	<i>stock buy</i>	<i>Put strike</i>	<i>Lot</i>	<i>Put buy</i>	<i>Costing of</i>
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Effectiveness of Options Strategy introduced by National Stock Exchange for highest Market Capitalization of India

TCS	1843	1850	500	44.15	22075
RIL	972	980	1000	29.25	29250
HDFC BANK	2108	2080	500	29.05	14525
HINDUNILEVER	1641	1600	600	17	10200
INFOSYS	1290	1260	1000	23	23000
HDFC LTD	1908	1880	500	30	15000
MARUTI SUZUKI	8820	8700	75	263	19725
KOTAKMAHINDRABANK	1343	1300	800	16.45	13160

Bullish strategy 3. Short put

<i>Scrip</i>	<i>Strike</i>	<i>Short</i>	<i>Lot size</i>	<i>Costing</i>
TCS	1850	44.15	500	22075
RIL	980	29.25	1000	29250
HDFC BANK	2120	47.65	500	23825
HINDUNILEVER	1640	32	600	19200
INFOSYS	1300	39	1000	39000
HDFC LTD	1940	84	500	42000
MARUTI SUZUKI	8900	205	75	15375
KOTAK MAHINDRA BANK	1400	60	800	48000

Bullish strategy 4. Covered calls: - buy stock + sell call option

<i>Scrip</i>	<i>Instrument buy price</i>	<i>Call strike price</i>	<i>Lot size</i>	<i>Call sell rate</i>	<i>Receives amount of premium</i>
TCS	1843	1900	500	28	14000
RIL	972	1000	1000	16.95	16950
HDFC BANK	2108	2120	500	28.2	14100
HINDUNILEVER	1641	1700	600	15	9000
INFOSYS	1290	1300	1000	44.6	44600
HDFC LTD	1908	1940	500	20	10000
MARUTI SUZUKI	8820	8900	75	88	6600
K M BANK	1343	1400	800	10	8000

Bullish strategy 5: Long combo: - sell a put and buy a call

<i>Scrip</i>	<i>Put short</i>	<i>Put sell rate</i>	<i>Buy call strike</i>	<i>Call buy</i>	<i>Lot size</i>	<i>Net payment</i>
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Effectiveness of Options Strategy introduced by National Stock Exchange for highest Market Capitalization of India

TCS	1800	23.35	1900	28	500	-2325
RIL	960	19.65	1000	16.95	1000	2700
HDFC BANK	2080	29.05	2140	60.5	500	-15725
HINDUNILEVER	1600	17	1680	21	600	-2400
INFOSYS	1300	39	1360	21.35	1000	17250
HDFC LTD	1940	84	1980	10	500	-4916
MARUTI SUZUKI	8900	205	9000	125.3	75	-9192.5
KOTAK M BANK	1400	60	1440	6.6	800	-5220

Bullish strategy 6: Long straddle: - buy put + buy call

<i>Scrip</i>	<i>Put buy strike rate</i>	<i>Put buy rate</i>	<i>Buy call strike rate</i>	<i>Call buy rate</i>	<i>Lot size</i>	<i>Net payment</i>
TCS	1800	23.35	1900	28	500	25675
RIL	960	19.65	1000	16.95	1000	36600
HDFC BANK	2080	29.05	2140	60.5	500	44775
HINDUNILEVER	1600	17	1700	15	600	19200
INFOSYS	1260	23	1360	21	1000	44000
HDFC LTD	1880	30	1980	10	500	20000
MARUTI SUZUKI	8700	115	8900	166	75	21075
KOTAK M BANK	1300	17	1400	13	800	24000

Bullish strategy 7: Long strangle: - buy OTM put + buy OTM call

<i>Scrip</i>	<i>Put buy strike rate</i>	<i>Put buy rate</i>	<i>Buy call strike rate</i>	<i>Call buy rate</i>	<i>Lot size</i>	<i>Net payment</i>
TCS	1900	74.85	1800	77.3	500	76075
RIL	1000	41.1	960	19.65	1000	60750
HDFC BANK	2140	60.5	2080	57.6	500	59050
HINDUNILEVER	1700	66	1600	63	600	77400
INFOSYS	1300	39	1200	115	1000	154000
HDFC LTD	1940	84	1840	93	500	88500
MARUTI SUZUKI	8900	205	8800	214	75	31425
KOTAK M BANK	1400	60	1300	65	800	100000

Bullish strategy 8: Collars: - buy stock + buy put + sell call

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<i>Scrip</i>	<i>Stock buy at cash</i>	<i>Put buy rate</i>	<i>Put strike rate</i>	<i>Sell call rate</i>	<i>Sell price</i>	<i>Lot size</i>	<i>Net payment</i>
TCS	1843	23.35	1800	1900	28	500	-2325
RIL	972	19.65	960	1000	16.95	1000	2700
HDFC BANK	2108	2080	29.05	2140	60.5	500	-15725
HINDUNILEVER	1641	1600	17	1700	15	600	1200
INFOSYS	1290	1260	23	1360	21	1000	2000
HDFC LTD	1908	1880	30	1940	20	500	5000
MARUTISUZUKI	8820	138	8700	8900	185	75	-3525
KOTAK M BANK	1343	48	1300	1400	49	800	-800

Bullish strategy 9: Bull call spread strategy: - buy ITM call + sell OTM call

<i>Scrip</i>	<i>Call buy strike rate</i>	<i>Call buy rate</i>	<i>Sell call strike rate</i>	<i>Call sell rate</i>	<i>Lot size</i>	<i>Net payment Of premium</i>
TCS	1900	28	1800	77.3	500	24650
RIL	1000	16.95	960	34.65	1000	17700
HDFC BANK	2140	60.5	2080	57.6	500	-1450
HINDUNILEVER	1700	15	1600	63	600	28800
INFOSYS	1360	21	1260	68	1000	47000
HDFC LTD	1940	20	1840	93	500	36500
MARUTI SUZUKI	8900	185	8800	214	75	2175
KOTAK M BANK	1400	49	1300	65	800	12800

Bullish strategy 10: Bull put spread strategy: - sell put + buy put

<i>Scrip</i>	<i>Put sell strike rate</i>	<i>Put sell rate</i>	<i>Buy put strike rate</i>	<i>Put buy rate</i>	<i>Lot size</i>	<i>Net receives of premium</i>
TCS	1900	74.85	1800	23.35	500	25750
RIL	1000	41.1	960	19.65	1000	21450
HDFC BANK	2140	60.5	2080	29.05	500	15725
HINDUNILEVER	1700	66	1600	17	600	29400
INFOSYS	1360	81	1260	23	1000	58000
HDFC LTD	1940	84	1840	15	500	34500
MARUTI SUZUKI	8900	205	8800	185	75	1500
KOTAK M BANK	1400	48	1300	29	800	15200

Bullish strategy 11: Long call condor: LONG CALL CONDOR: BUY 1 ITM CALL OPTION (LOWER STRIKE), SELL 1 ITM CALL OPTION (LOWER MIDDLE), SELL 1 OTM CALL OPTION (HIGHER MIDDLE), BUY 1 OTM CALL OPTION (HIGHER STRIKE)

Scrip	ITM call strike rate	Call buy rate	Sell ITM call strike rate	Sell call rate	Sell OTM call strike rate	Call Sell Rate	Buy OTM call strike rate	Buy call rate	Net receives of premium
TCS	1750	164	1800	77.3	1850	46.8	1900	28	37.4
RIL	940	47.1	960	34.6	980	24.5	1000	16.95	-5.2
HDFC BANK	2020	100	2060	67	2100	46.0	2140	28.2	-5.8
HINDUNILEVER	1560	83	1580	83	1640	38	1660	29	-54
INFOSYS	1240	83	1280	56	1340	28	1380	16	-13
HDFC LTD	1820	108	1860	57	1900	34	1960	17	11
MARUTI SUZUKI	8600	330	8800	214	9000	125	9200	67	-31
KOTAK M BANK	1200	150	1300	65	1400	12.5	1500	2.5	22.5

Bullish strategy 12: Short call condor: sell ITM call + buy ITM call + sell OTM call + buy OTM call

Scrip	ITM call strike rate	Call sell rate	Buy ITM call strike rate	Buy call rate	Buy OTM call strike rate	Call Buy Rate	Sell OTM call strike rate	Sell call rate	Net payment of premium
TCS	1750	164	1800	77.3	1850	46.8	1900	28	67.85
RIL	940	47.1	960	34.6	980	24.5	1000	16.9	4.95
HDFC BANK	2020	100	2060	67	2100	46.0	2140	28.2	15.15
HINDUNILEVER	1560	83	1580	83	1640	38	1660	29	-9
INFOSYS	1240	83	1280	56	1340	28	1380	16	15
HDFC LTD	1820	108	1860	57	1900	34	1960	17	34
MARUTI SUZUKI	8600	330	8800	214	9000	125	9200	67	58
KOTAK M BANK	1200	150	1300	65	1400	12.5	1500	2.5	75

Implementation of bearish strategies

Strategy number: 1 short call

<i>Scrip</i>	<i>Strike price</i>	<i>Buy price</i>	<i>Lot size</i>	<i>Breakeven point</i>
ITC	280	9	2400	21600
SBIN	280	8.6	3000	25800

Strategy number: 2 buy put

<i>Scrip</i>	<i>Strike price</i>	<i>Buy price</i>	<i>Lot size</i>	<i>Costing</i>
ITC	240	0.35	2400	840
SBIN	240	2	3000	6000

Strategy number: 3 Protective call / synthetic long put = short stock + buy call

<i>Scrip</i>	<i>Instrument short price</i>	<i>Call strike price</i>	<i>Lot size</i>	<i>Call buy rate</i>	<i>Costing of</i>
ITC	260	260	2400	9	21600
SBIN	260	260	3000	9	27100

Strategy number: 4 Covered put = short stock + short put

<i>Scrip</i>	<i>Instrument short price</i>	<i>Put strike price</i>	<i>Lot size</i>	<i>Put sell rate</i>	<i>Premium received</i>
ITC	260	280	2400	15	36000
SBIN	260	280	3000	21	63000

Strategy number: 5 Short straddle = sell put + sell call

<i>Scrip</i>	<i>Lot size</i>	<i>Strike price</i>	<i>Sell put rate</i>	<i>Sell call rate</i>	<i>Total premium</i>
ITC	2400	280	15	1.55	3735
SBIN	3000	280	21	2.4	7221

Strategy number: 6 Short strangle = sell out of money put + sell out of money call

<i>Scrip</i>	<i>Lot size</i>	<i>Short put strike price</i>	<i>Short call strike price</i>	<i>Short put rate</i>	<i>Short call</i>	<i>Total premium</i>
ITC	2400	240	280	0.35	1.55	4560
SBIN	3000	240	280	2.00	2.4	13200

Strategy number: 7: Bear call spread strategy = sell a call with a lower strike (in the money) + buy a call with higher strike (out of money)

<i>Scrip</i>	<i>Lot size</i>	<i>Sell itm call strike price</i>	<i>Buy otm call strike price</i>	<i>Sell price</i>	<i>Buy price</i>	<i>Net premium received</i>
ITC	2400	280	240	27	1.55	61080
SBIN	3000	280	240	25	2.4	67800

Strategy number: 8: Bear put spread strategy = buy a put with higher strike (in the money) + sell a put with a lower strike (out of money)

<i>Scrip</i>	<i>Lot size</i>	<i>Buy itm put strike price</i>	<i>Sell otm put strike price</i>	<i>Buy price</i>	<i>Sell price</i>	<i>Net premium paid</i>
ITC	2400	280	240	15	0.35	35160
SBIN	3000	280	240	21.35	1.95	58200

Strategy number: 9: Long call butterfly = sell 2 at the money call + buy 1 in the money call + buy 1 out of money call

<i>Scrip</i>	<i>Lot size</i>	<i>Atm strike price</i>	<i>Itm strike price</i>	<i>Otm strike price</i>	<i>Call sell price(2)</i>	<i>Buy itm call price</i>	<i>Buy otm call price</i>	<i>Net pay out or</i>
ITC	2400	260	300	220	8.95	0.30	47.4	-
SBIN	3000	260	300	220	8.6	0.70	40.7	-

Strategy number: 10: Short call butterfly = buy 2 at the money call + sell 1 in the money call + sell 1 out of money call

<i>Scrip</i>	<i>Lot size</i>	<i>Atm strike price</i>	<i>Itm strike price</i>	<i>Otm strike price</i>	<i>Call buy price(2)</i>	<i>Sell itm call price</i>	<i>Sell otm call price</i>	<i>Net pay out or</i>
ITC	2400	260	300	220	8.95	0.30	47.4	2370
SBIN	3000	260	300	220	8.6	0.70	40.7	2976

Values of the strategies on last Thursday of July 2018 (26/07/2018)

Bullish strategy 1. Long call: - buy a call

<i>Scrip</i>	<i>Strike price</i>	<i>Buy price</i>	<i>Lot size</i>	<i>Costing</i>
TCS	114	46.85	500	23425

Effectiveness of Options Strategy introduced by National Stock Exchange for highest Market Capitalization of India

RIL	110	16.95	1000	16950
HDFC BANK	70	36.5	500	18250
HINDUNILEVER	0.1	15.15	600	9900
INFOSYS	72.5	44.55	1000	44550
HDFC LTD	75	20	500	10000
MARUTI SUZUKI	482	166	75	12450
KOTAK MAHINDRA BANK	0.05	12	800	9600

Bullish strategy 2. Synthetic long call: - buy stock + buy put.

<i>Scrip</i>	<i>stock buy</i>	<i>Put strike</i>	<i>Lot</i>	<i>Put buy</i>	<i>Costing of</i>
TCS	1843 (1965)	0.05	500	44.15	22075
RIL	972-1110.65	0.05	1000	29.25	29250
HDFC BANK	2108-2193	.10	500	29.05	14525
HINDUNILEVER	1641-1670	0.05	600	17	10200
INFOSYS	1290-1373	0.05	1000	23	23000
HDFC LTD	1908-2023	0.05	500	30	15000
MARUTI SUZUKI	8820-9400	0.1	75	263	19725
KOTAK MAHINDRA BANK	1343-1311	0.6	800	16.45	13160

Bullish strategy 3. Short put

<i>Scrip</i>	<i>Strike</i>	<i>Short</i>	<i>Lot size</i>	<i>Costing</i>
TCS	0.05	44.15	500	22075
RIL	0.05	29.25	1000	29250
HDFC BANK	0.05	47.65	500	23825
HINDUNILEVER	0.2	32	600	19200
INFOSYS	0.05	39	1000	39000
HDFC LTD	0.05	84	500	42000
MARUTI SUZUKI	0.2	205	75	15375
KOTAK MAHINDRA BANK	92	60	800	48000

Bullish strategy 4. Covered calls: - buy stock + sell call option

<i>Scrip</i>	<i>Instrument buy price</i>	<i>Call strike</i>	<i>Lot size</i>	<i>Call sell rate</i>	<i>Receives amount of</i>
TCS	1843 (1965)	64.55	500	28	14000

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RIL	972-1110.65	110	1000	16.95	16950
HDFC BANK	2108-2193	70	500	28.2	14100
HINDUNILEVER	1641-1670	0.1	600	15	9000
INFOSYS	1290-1373	72	1000	44.6	44600
HDFC LTD	1908-2023	75	500	20	10000
MARUTI SUZUKI	8820-9400	482	75	88	6600
K M BANK	1343-1311	0.05	800	10	8000

Bullish strategy 5: Long combo: - sell a put and buy a call

<i>Scrip</i>	<i>Put short</i>	<i>Put sell rate</i>	<i>Buy call strike</i>	<i>Call buy</i>	<i>Lot size</i>	<i>Net payment</i>
TCS	0.05	23.35	64.55	28	500	-2325
RIL	0.05	19.65	110	16.95	1000	2700
HDFC BANK	0.1	29.05	50	60.5	500	-15725
HINDUNILEVER	0.05	17	0.2	21	600	-2400
INFOSYS	0.05	39	12.7	21.35	1000	17250
HDFC LTD	0.05	84	39.5	10	500	-4916
MARUTI SUZUKI	0.2	205	387	125.3	75	-9192.5
KOTAK M BANK	92	60	0.05	6.6	800	-5220

Bullish strategy 6: Long straddle: - buy put + buy call

<i>Scrip</i>	<i>Put buy strike rate</i>	<i>Put buy rate</i>	<i>Buy call strike rate</i>	<i>Call buy rate</i>	<i>Lot size</i>	<i>Net payment</i>
TCS	0.05	23.35	64.55	28	500	25675
RIL	0.05	19.65	110	16.95	1000	36600
HDFC BANK	0.1	29.05	50	60.5	500	44775
HINDUNILEVER	0.05	17	0.1	15	600	19200
INFOSYS	0.05	23	12.7	21	1000	44000
HDFC LTD	0.05	30	39.5	10	500	20000
MARUTI SUZUKI	0.1	115	482	166	75	21075
KOTAK M BANK	0.6	17	0.05	13	800	24000

Bullish strategy 7: Long strangle: - buy OTM put + buy OTM call

<i>Scrip</i>	<i>Put buy strike rate</i>	<i>Put buy rate</i>	<i>Buy call strike rate</i>	<i>Call buy rate</i>	<i>Lot size</i>	<i>Net payment</i>
TCS	0.1	74.85	166	77.3	500	76075
RIL	0.05	41.1	150	19.65	1000	60750
HDFC BANK	0.05	60.5	106	57.6	500	59050
HINDUNILEVER	31	66	67	63	600	77400
INFOSYS	0.05	39	175	115	1000	154000
HDFC LTD	0.05	84	143	93	500	88500
MARUTI SUZUKI	0.2	205	584	214	75	31425
KOTAK M BANK	92	60	8.25	65	800	100000

Bullish strategy 8: Collars: - buy stock + buy put + sell call

<i>Scrip</i>	<i>Stock buy at cash</i>	<i>Put buy rate</i>	<i>Put strike rate</i>	<i>Sell call rate</i>	<i>Sell price</i>	<i>Lot size</i>	<i>Net payment</i>
TCS	1843(1965)	23.35	0.1	64.55	28	500	-2325
RIL	972-	19.65	0.05	110	16.95	1000	2700
HDFC BANK	2108-2193	0.1	29.05	50	60.5	500	-15725
HINDUNILEVER	1641-1670	0.05	17	0.1	15	600	1200
INFOSYS	1290-1373	0.05	23	12.7	21	1000	2000
HDFC LTD	1908-2023	0.05	30	75	20	500	5000
MARUTI SUZUKI	8820-9400	0.1	85	492	185	75	-3525
KOTAK M BANK	1343-1311	0.6	38	0.05	49	800	-800

Bullish strategy 9: Bull call spread strategy: - buy ITM call + sell OTM call

<i>Scrip</i>	<i>Call buy strike rate</i>	<i>Call buy rate</i>	<i>Sell call strike rate</i>	<i>Call sell rate</i>	<i>Lot size</i>	<i>Net payment Of premium</i>
TCS	64.55	28	165.80	77.3	500	24650
RIL	110	16.95	153	34.65	1000	17700
HDFC BANK	50	60.5	106	57.6	500	-1450
HINDUNILEVER	0.1	15	0.05	63	600	28800
INFOSYS	12.7	21	113	68	1000	47000
HDFC LTD	75	20	143	93	500	36500
MARUTI SUZUKI	482	185	584	214	75	2175

KOTAK M BANK	0.05	49	8.25	65	800	12800
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Bullish strategy 10: Bull put spread strategy: - sell put + buy put

<i>Scrip</i>	<i>Put sell strike rate</i>	<i>Put sell rate</i>	<i>Buy put strike rate</i>	<i>Put buy rate</i>	<i>Lot size</i>	<i>Net receives of premium</i>
TCS	0.1	74.85	0.05	23.35	500	25750
RIL	0.05	41.1	0.05	19.65	1000	21450
HDFC BANK	0.05	60.5	0.1	29.05	500	15725
HINDUNILEVER	31	66	0.05	17	600	29400
INFOSYS	0.25	81	0.05	23	1000	58000
HDFC LTD	0.05	84	0.05	15	500	34500
MARUTI SUZUKI	0.2	205	0.1	185	75	1500
KOTAK M BANK	92	48	0.6	29	800	15200

Bullish strategy 11: - Long call condor: Long Call Condor: Buy 1 Itm Call Option (Lower Strike), Sell 1 Itm Call Option (Lower Middle), Sell 1 Otm Call Option (Higher Middle), Buy 1 Otm Call Option (Higher Strike)

<i>Scrip</i>	<i>ITM call strike rate</i>	<i>Call buy rate</i>	<i>Sell ITM call strike rate</i>	<i>Sell call rate</i>	<i>Sell OTM call strike rate</i>	<i>Call Sell Rate</i>	<i>Buy OTM call strike rate</i>	<i>Buy call rate</i>	<i>Net receives of premium</i>
TCS	217	164	165	77.3	113	46.8	64.55	28	37.4
RIL	170	47.1	150	34.6	130	24.5	110	16.9	-5.2
HDFC BANK	164	100	125	67	90	46.0	50	28.2	-5.8
HINDUNILEVER	94	83	68	83	24	38	0.20	29	-54
INFOSYS	136	83	72	56	32	28	0.85	16	-13
HDFC LTD	128	108	61	57	119	34	58.55	17	11
MARUTI SUZUKI	800	330	584	214	387	125	183	67	-31
KOTAK M BANK	102.55	150	8.25	65	0.05	12.5	.05	2.5	22.5

Bullish strategy 12: Short call condor: - sell ITM call + buy ITM call + sell OTM call + buy OTM call

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<i>Scrip</i>	<i>ITM call strike rate</i>	<i>Call sell rate</i>	<i>Buy ITM call strike rate</i>	<i>Buy call rate</i>	<i>Buy OTM call strike rate</i>	<i>Call Buy Rate</i>	<i>Sell OTM call strike rate</i>	<i>Sell call rate</i>	<i>Net payment of premium</i>
TCS	217	164	166	77.3	113	46.8	64.55	28	67.85
RIL	170	47.1	150	34.6	130	24.5	110	16.9	5.2
HDFC BANK	164	100	125	67	90	46.0	50	28.2	15.15
HINDUNILEVE	94	83	68	83	24	38	0.20	29	-9
INFOSYS	136	83	72	56	32	28	0.85	16	15
HDFC LTD	128	108	61	57	119	34	58.55	17	34
MARUTI	800	330	584	214	387	125	183	67	58
KOTAK M	102.5	150	8.25	65	0.05	12.5	.05	2.5	75

Implementation of bearish strategies

Strategy number: 1 short call

<i>Scrip</i>	<i>Strike price</i>	<i>short price</i>	<i>Lot size</i>	<i>Breakeven point</i>
ITC	280	9-6.5	2400	
SBIN	280	8.6	3000	6.7

Strategy number: 2 buy put

<i>Scrip</i>	<i>Strike price</i>	<i>Buy price</i>	<i>Lot size</i>	<i>Costing</i>
ITC	240	0.35	2400	840
SBIN	240	2	3000	0.05

Strategy number: 3 Protective call / synthetic long put = short stock + buy call

<i>Scrip</i>	<i>Instrument short price</i>	<i>Call strike price</i>	<i>Lot size</i>	<i>Call buy rate</i>	<i>Costing of</i>
ITC	260-287.2	260	2400	9-26.1	21600
SBIN	260(288)	260	3000	9-26.9	

Strategy number: 4 Covered put = short stock + short put

<i>Scrip</i>	<i>Instrument short price</i>	<i>Put strike price</i>	<i>Lot size</i>	<i>Put sell rate</i>	<i>Premium</i>
ITC	260-287.2	280-0.10	2400	15	36000
SBIN	260 (288)	280	3000	21	0.05

Strategy number: 5 Short straddle = sell put + sell call

<i>Scrip</i>	<i>Lot size</i>	<i>Strike price</i>	<i>Sell put rate</i>	<i>Sell call rate</i>	<i>Total premium</i>
ITC	2400	280	15 (0.05)	1.55 -6.55	3735
SBIN	3000	280	21 (0.05)	2.4 (6.7)	7221

Strategy number: 6 Short strangle = sell out of money put + sell out of money call

<i>Scrip</i>	<i>Lot size</i>	<i>Short put strike price</i>	<i>Short call strike price</i>	<i>Short put rate</i>	<i>Short call</i>	<i>Total premium</i>
ITC	2400	240	280	0.35	1.55	4560
SBIN	3000	240 (0.05)	280 (6.7)	2.00	2.4	13200

Strategy number: 7: Bear call spread strategy = sell a call with a lower strike (in the money) + buy a call with higher strike (out of money)

<i>Scrip</i>	<i>Lot size</i>	<i>Sell itm call strike price</i>	<i>Buy otm call</i>	<i>Sell price</i>	<i>Buy price</i>	<i>Net premium</i>
ITC	2400	280	240	27-6.55	1.55-37	61080
SBIN	3000	280 (6.7)	240 42.5	25	2.4	67800

Strategy number: 8: Bear put spread strategy =buy a put with higher strike (in the money) + sell a put with a lower strike (out of money)

<i>Scrip</i>	<i>Lot size</i>	<i>Buy itm put strike price</i>	<i>Sell otm put strike price</i>	<i>Buy price</i>	<i>Sell price</i>	<i>Net premium paid</i>
ITC	2400	280	240	15-0.05	0.35-.05	35160
SBIN	3000	280 0.05	240. 42.5	21.35	1.95	58200

Strategy number: 9: Long call butterfly = sell 2 at the money call + buy 1 in the money call + buy 1 out of money call

<i>Scrip</i>	<i>Lot size</i>	<i>Atm strike price</i>	<i>Itm strike price</i>	<i>Otm strike price</i>	<i>Call sell price(2)</i>	<i>Buy itm call price</i>	<i>Buy otm call price</i>	<i>Net pay out or</i>
ITC	2400	260	300	220	8.95-26.1	0.30-	47.4-	-
SBIN	3000	260	300	220	8.6 26.9	0.70.0.05	40.7-	-

Strategy number: 10: Short call butterfly = buy 2 at the money call + sell 1 in the money call + sell 1 out of money call

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<i>Scrip</i>	<i>Lot size</i>	<i>Atm strike price</i>	<i>Itm strike price</i>	<i>Otm strike price</i>	<i>Call buy price(2)</i>	<i>Sell itm call price</i>	<i>Sell otm call price</i>	<i>Net pay out or</i>
ITC	2400	260	300	220	8.95-26.1	0.30-	47.4-	2370
SBIN	3000	260	300	220	8.6-26.9	0.70-	40.7-	2976

Data analysis and tabulation of bullish strategies

<i>Company</i>	<i>Long Call</i>	<i>Synthetic Long Call</i>	<i>Short Put</i>	<i>Covered Call</i>	<i>Long Combo</i>	<i>Long Straddle</i>	<i>Long Strangle</i>	<i>Collar</i>	<i>Bull Call Spread Strategy</i>	<i>Bull Put Spread Strategy</i>	<i>Long Call Condor</i>	<i>Short Call Condor</i>
TCS	33575	39000	22000	42775	18275	6625	6975	-6650	-25975	25725	-32150	32500
RIL	93050	109450	29200	45600	93050	73450	89350	-73450	-25300	21450	-4950	4000
HDFC BANK	16750	28000	23800	21600	-5250	-19750	-5250	-9225	-29450	15750	-8075	8000
HINDUNILEVER	-9030	7400	19100	8460	-12600	-22800	-18600	-1230	28830	10830	6720	-6600
INFOSYS	27950	60000	38900	55600	-8650	-47650	21000	-14650	-53300	57800	17850	-18000
HDFC LTD	27500	42500	41900	30000	14750	-27250	-17000	-42475	2500	34500	-13725	14000
MARUTI SUZUKI	23700	23800	15100	13950	19650	4275	12375	-29392.5	-5475	1492.5	-3450	3450
KOTAK MBANK	-9560	-38600	-25600	-17600	-5200	20400	-20000	9240	6240	-57920	15440	-15200

Data analysis and tabulation of Bearish strategies

<i>Company</i>	<i>Short Call</i>	<i>Long Put</i>	<i>Protective Call</i>	<i>Covered Put</i>	<i>Short Straddle</i>	<i>Short Strangle</i>	<i>Bull Put Spread Strategy</i>	<i>Bear Call Spread Strategy</i>	<i>Long call butterfly</i>	<i>Short call butterfly</i>
ITC	6000	800	31200	31200	24000	4560	61080	35160	-2370	2370
SBIN	6000	5000	36000	-21000	51000	13200	67800	58200	-2976	2976

Data analysis and finding

1. It was found from the study that applying 12 bullish strategies in TCS 3 strategies gives negative return and 9 gives positive return. Covered call being the best bullish strategy and long call condor being the worst strategy for TCS
2. It was found from the study that applying 12 bullish strategies in RELIANCE 3 strategies gives negative return and 9 gives positive return. Synthetic long call being the best bullish strategy and long call collar being the worst strategy for Reliance
3. It was found from the study that applying 12 bullish strategies. In HDFCBANK 6 strategies gives negative return and 6 gives positive return. Synthetic long call being the best bullish strategy and bull call spread strategy being the worst strategy for HDFC BANK
4. It was found from the study that applying 12 bullish strategies in HUL 6 strategies gives negative return and 6 gives positive return. Bull call spread strategy being the best bullish strategy and bull long straddle strategy being the worst strategy for HUL
5. It was found from the study that applying 12 bullish strategies in INFOSYS 5 strategies gives negative return and 7 gives positive return. Bull call spread being the worst strategy and synthetic long call being the best strategy for INFOSY.
6. It was found from the study that applying 12 bullish strategies in HDFC 4 strategies gives negative return and 8 gives positive return. Collar being the worst strategy and synthetic long call being the best strategy for HDFC
7. It was found from the study that applying 12 bullish strategies in MARUTI 3 strategies gives negative return and 9 gives positive return. Bull call spread being the worst strategy and synthetic long call being the best strategy for
8. It was found from the study that applying 12 bullish strategies in KOTAKBANK 8 strategies gives negative return and 4 gives positive return. Long straddle being the best strategy and Bull call spread being the worst strategy for
9. It was found from the study that applying 10 bullish strategies in ITC applying 10 bearish strategies, one gives negative return and 9 gives positive return. Best positive strategy was bull put spread strategy and long all butterfly was worst strategy for ITC
10. It was found from the study that applying 10 bullish strategies in SBIN applying 10 bearish strategies, 2 gives negative return and 8 gives positive return. Best positive strategy was bull put spread strategy and covered put was worst strategy for SBIN

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Perception towards adoption and acceptance of e-banking in Mauritius

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ABSTRACT

This study aims at understanding the customer satisfaction on adoption of e-banking services at Mauritius. This is an empirical evidence, with the help of primary data (drop off survey) and secondary sources. The main objective of the study is to investigate in depth the customer's perception regarding e-banking adoption and their satisfaction. Also examines, if customers' choice of banks is influenced by the quality of e-banking services provided. For the purpose of the study, a well-structured questionnaire with 5-point Likert scale having 35 questions is used and personal details and customers' e-banking preference of Mauritians. The questionnaire was administered to about 250 respondents who are regular on online banking transactions, and the response rate is 74% (185 responded). More suitable and reliable statistical techniques are adopted, such as, ordered probit, ordered logit and descriptive statistics with the help software STATA. The 'confirmatory factor analysis' (CFA) approach is exploited to generate the results with the help of software SPSS AMOS (Analysis of Moment Structures). The original and modification indices of the model are evaluated with help of SEM, which further establishes the improvement in SEM's effectiveness. It is evidence that, there is a relationship with different income group of respondents that the perception about the e-banking services offered by Mauritian banks. This study aims at contributing for the existing literature and assists for the policy makers.

Introduction

Today's competitive financial world, the efficiency, accessibility and customization of financial services is perceived positively and accepted by the stakeholders if they are docketed with potential of the Internet as a means of interacting with customers. However, the present study try to justify with the empirical evidence Web Mols, 1999) [1] and try to acknowledge that the internet banking or e-banking is a 'Marketing Association' and 'Marketing Technique' and shows that banks are falling behind pioneering dispersal of customer services that offers less waiting time and gestation period for the customers dealings compared to other industries. The financial services are more advanced and very innovative within their and a higher spatial convenience than traditional branch Internet channel (Booz, D., and Hamilton, 1997) [2]. Unlike traditional banking transactions and services, the e-banking services has the advantage of saving, cost, time and energy, and handy to even the ignorant customer who is not very advanced and updated technically, with the services of available round the clock at the outlets and also individual desks. These services are available 24 hours a day and 7 days a week. These services leads to leads to higher perception and life style though the customer's operational cost to the

bank but plays an important role in growth of levels of customer satisfaction, especially in retaining the customers. According to Rogers 1983 in his study on internet banking, he analysed 'internet banking' is very attractive to both banks as well as customers/consumers. Consumers' attitudes towards direct banking, compatibility now have higher acceptance to new technology with customer existing lifestyles (Lockett and littler, 1997) [3]. When we really look into the past, there are not many discoveries that have changed the business of banking sector as rapidly as the e-banking revolution. The entire world over financial services, especially the banks are reorienting their business and their business strategies towards new opportunities offered by e-banking technology and its adoption techniques. Internet banking is a system that enables banks and banking services to offer their customers access to their accounts to transact business and obtain information via 'Electronic Communication Channels' (ECC) such as 'Automated Teller Machines' (ATMs), 'tele-banking', and 'home banking'. As we witness, 'internet banking is becoming a common practice across the developed world day by day to sustain the competition. (Pikkarainen et al, 2004) [4]. As we review the literature on perception and the factors influencing the adoption and acceptance of e-banking services in Mauritius, we have not evidenced as such much of literature. Regardless of the evolution of e-banking across the world, the financial services, especially the banking services in Mauritius continue to demeanour maximum all their banking transactions using traditional methods such as using teller-based devices. This can be due to lack of proper exposure to the technology and infrastructural facilities. We can also predict to some extent, there can be some lapse or a gap in regulatory frame works, security issues, frequent power interruption...etc (Gardachew, 2010) [5].

Objectives of the Study

To test empirically the researcher has identified the dimensions of adopting the e-banking in Mauritius and to what extent these dimensions can impact the perception and satisfaction of the customers and consumers. For the purpose, the concept of e-banking acceptance and adoption is tested with chosen sample from the population based on their relativity and applicability to represent the universe. Also, tries to understand the relationship and level of satisfaction with the e-banking services like, secure transaction, efficiency, dependence, comfort and reliability.

Statement of the Problem

The role of information technology to the bank sectors are getting bigger. As a result, banks are adopting technologies that help them deliver banking services by the most cost-effective channels and one of such channel is adoption of e-banking or internet banking (Booz, and Hamilton, 1997) [6]. Though e-banking services are at an infant stage in Mauritius, the financial sector remain behind the use of IT in expanding e-banking services towards the global standard. Growing number of international trades, increase in the demand of customer and international relations, the banking sector in Mauritius is facing the challenge of offering efficient and dependable services (Garedachew, 2010) to meet the customer satisfaction. Therefore, this study is aimed at identifying the perceived benefits and challenges of e-banking adoption in Mauritius.

Conceptual Model

The study is basically a qualitative assessment, using interview technique with professionals of banks and customers. It is demonstrated that, based on the

empirical study and review of relevant available literature in this field, we conclude that effective factors for implementation and development of e-banking can be divided into demographic, socio-economic, technological, and e-trust. Hence, it can be clinched that the fences and encounters of electronic banking in Mauritius can be characterized into six main groups, including infrastructural barriers, knowledge barriers, legal and security issues, socio-cultural barriers, economic factors, and management and banking issues. After a review of concepts and the relevant literature pertaining to e-banking, research has been identified and organized following a conceptual model that includes all the different barriers to e-banking and has arranged these into six categories.

Hypotheses

Hypo1: Customers' satisfaction with services and reliability of electronic banking is positively related to services provided by banks.

Hypo2: Customers' satisfaction with services of electronic banking is positively related to positive experience (secure transaction) of services of electronic banking.

Hypo3: Customers' satisfaction with services of electronic banking is positively related to the dependence and level of comfort and the services provided by banks.

Literature Review

Review on existing literature relevant to this study suggests that there are number of factors that could empower or hinder the adoption of 'Information Technology' (IT). Referring to few of them, first and foremost, IT diffusion literature (Tornatzky and Klein 1982) [7] places the interest on the importance of perceptions of relative advantage in shaping the adoption of new technologies. According to their study, IT diffusion is a perception that the consumer or the customer accepts or rejects, but purely on perception and knowledge levels on the technology, followed by a trust. According to Rogers (1995) in his study, he suggests that the proportion of adopting new innovation is purely related to and depends on the (perceived) relative advantage: the greater the perceived relative advantage, the faster the adoption. Secondly, it is followed by the desire to improve individual/organizational performance/efficiency is seen to be an enabler for technological change. No doubt in believing that, the internet technology is inevitable and certain in improving the performance of, especially the financial sector, like banks, would be able to gain more advantage in a competitive environment, and many authors (Ketinger et al. 1994 [8] argue that IT has the potential to achieve this. The third important factor to be noted here is, the chance to improve the relationship with customers is also pointed to by researchers (Julian C and Ramaseshan B 1994 [9] as a reason for business to adopt new technologies, and is more in recent days. Here we need to apply a thought like how a bank could enhance its customer relationships through Internet technology adoption? The answer could be, and the literature suggests that this should be considered in relation to customer trust, commitment and satisfaction. As Jabnoun N and Al-Tamimi H (2003) [10] examined perceived services quality, emphasizing the importance of service quality to maintain market share, concluding that customers value human skills the most in service quality. In some of the recent studies by Khalfan et al. 2006 [11] conducted in Omani banking industry, stated that security concerns have been one of the major issues in the e-banking adoption. Coming to the last evidence from the literature in justifying this study, the importance of ease of use in determining successful IT adoption has been highlighted

in much previous literature (Davis, Bagozzi and Warshaw 1989 [12], which is referred as supportive evidence to this study.

Existing Theories about Online Banking: Referring to some of the existing theories on adoption of online banking services, which are steered recently, e-commerce has further and become more important and necessary factor of business strategy to be adopted as a sustainable measure. Though it is sturdy and tremor for economic development, for any nation, if perceived not right, it has very positive impact to push the economy to the heights. For example, the modern home loan banking services were the distance banking services over electronic media from early 1980s. To have more reasoning for the present study, we have examined three main theories related to online banking: 'The Theory of Reasoned Action' (TRA), 'The Technology Acceptance Model' (TAM) and 'The Theory of Planned Behaviour' (TPB). According to Jafar Beikzad et al (2008) [13] "these models follow the attitude-behavior paradigm that suggests that actual behavior is declared through intention toward the behavior. Intention is influenced by attitude and subsequently salient beliefs influence attitude".

Methodology and Research Design

To test empirically, the primary concern of this study is to explore and identify the important parameters affecting the adoption, acceptance and development of e-banking in Mauritius. A suitable well-structured questionnaire is constructed consisting of two parts; the 'demographic profile' of the respondents and the questions in 'seven specific sections' related to different challenges in order to explore the 'respondent's perceptions' about the challenges and obstacles for development of e-banking in Mauritius. The 'Cronbach's Alpha' value was calculated for these questionnaires and it was equal to 0.809. Besides, independent sample t- tests and one way ANOVA and post-hoc tests have been applied to compare the mean scores of different groups of educational attainment and job experience. A Friedman test was undertaken for ranking purposes. A statistical test has been executed using an ordered probit model to summarize public perceptions in the matter. Finally Structural Equation Model (SEM) is applied to understand the perception and satisfaction level of e-banking customers in Mauritius.

Econometric Modelling

A comparison between the properties of an ordinary least square (OLS), ordered probit and logit models are being used to evaluate e-banking trust among the public

Table 1: Descriptive analysis of variables				
Variables	Mean	Standard Deviation	Minimum	Maximum
Dependent Variable:	332.24865	0.8423639	1	5
Consumer Satisfaction with Internet banking in Mauritius.				
Age	0.951351	9.192554	18	63
Gender:				
Male				
Female				

Residential Area:				
Urban	0.389189	0.4888895	0	1
Rural				
Educational Achievement:				
Primary				
Secondary	0.6108108	0.4888895	0	1
Diploma				
Undergraduate	0.189189	0.392721	0	1
Others	0.459459	0.499706	0	1
Income:				
Level 1: Below Rs 10000				
Level 2: Rs 10000-Rs 20000	0.248648	0.499706	0	1
Level 3: Rs 20000- Rs 30000	0.102702	0.304394	0	1
Level 4: Above Rs 30000	0.183783	0.388358	0	1
Family Size	0.194594	0.396962	0	1
Marital Status:	3.627027	1.357877	0	8
Single				
Married	0.421621	0.495158	0	1
Divorced	0.016216	0.126648	0	1
Others	0.005405	0.073521	0	1
e-trust	3.88468	0.672016	1	5
Reliability	3.81982	0.723128	1	5
Efficiency	3.68108	0.65406	1	5
Comfort	3.76576	0.760056	1	5
Confidence	3.11351	0.905497	1	8.75
Secure transaction	3.33693	0.79551	1	5
Dependence				

Source: Authors own computation

in Mauritius. The 'Ordinary Least Square' (OLS) regression is an assumption of linear modelling technique that is used to model a single response variable which has been recorded on at least interval scale. The consumers are divided into two groups according to types of occupations. The actors that affect e-banking are efficiency, comfort, confidence, secure transaction, and dependence. Consumer of e-banking who believes the efficiency of the e-banking services, generally be comfortable in

dealing with the banks. This will improve the confidence level and security. The human psychology is that once there is a trust and confidence they tend to depend on, automatically. Here is the same with e-banking. The dependency of the consumers is mainly based on the trust in the services provided by the bank.

Ordered probit model: Within the ordered probit framework, the categorical dependent variable which exhibits ordered multinomial outcomes for

each respondent i , assuming $y_i = 1, 2, \dots, m$. The categorical outcomes with regards to effectiveness (question 8) are as “strongly disagree”, “disagree”, “neither agree nor disagree”, “agree” and “strongly agree”. The model can be represented as:

$$y_i = j \quad \mu_{j-1} < y_i^* < \mu_j \quad j = 1, 2, \dots, m$$

, where the latent variable y_i^* is assumed to be a linear function of a vector of covariates x_i' , plus a random error ε_i :

$$y_i^* = x_i' \beta + \varepsilon_i \quad \varepsilon_i \sim N(0, 1)$$

, where x_i captures the independent variables which explain the level of satisfaction β .

$0 = -\infty, j \leq j+1, m = \infty$ are the cut-points which separate the categorical outcomes. Assuming a normally distributed error term, the probability of observing a , where $F(\cdot)$ is the cumulative distribution function (CDF) of ε_i . The regression parameters β and the $(m - 1)$ threshold parameters μ_1, \dots, μ_{m-1} are obtained by maximum likelihood methods. The signs of the β 's can be determining whether or not the latent variable y_i^* increases with the explanatory variables.

Ordered logit model

Tables 3 present the results for the OLS regression. The coefficient of the variables in the tables demonstrate that a change in the latent dependent variable with a unit change in that variable, estimating other variables remain constant. Along with demographic variables and personality factors are found to have a significant impact on e-banking service and e-trust in Mauritius. For instance, 1% increases in age leads to 0.851% increase in depending and trusting e-banking services. In these tables the marginal effects has also been exhibit. Its Pseudo R² is quite good since it is between 0 and 1. As an alternative of the OLS and Ordered Logit, the Ordered Probit model on public perception is considered. With regards to the ordered probit model, age, rural areas, monthly income, family size, Reliability, Efficiency, Comfort, Confidence, Secure transaction and Dependence. are found to have statistically significant impact on the dependent variable. The R² for e-trust was found to be 0.1152 and 0.1173 respectively. This demonstrated that the model is relatively satisfying since it is between 0 and 1. For R² to rise there should be an increase in sample size. The probability increases in perception in the five categories increase 3.9 percentage point in category strongly disagree to 4.3 percentage point in category more likely. Increase in family size may not have positive impact on e-banking services and e-trust.

Table2: Ordered logit regression: e-trust						
Variables	Ordered Logit	Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5
Age	- 0.02414 12	0.000219	0.001114 6	0.00174 43	- 0.000 0622	- 0.00301 57
	- 0.02672 92	-0.0002831	- 0.001249 8	- 0.00194 76	- 0.0004 046	- 0.00331 13
Gender:	- 0.34514 26	0.0031304	0.015935 9	0.02493 74	- 0.000 8887	- 0.04311 5
(Baseline	- 0.37033 87	-0.0037981	- 0.017467 9	- 0.02699 76	- 0.0057 248	- 0.04614 23
Female)	- 1.08914 5	0.0098783	0 .0502881	0.07869 34	- 0.0028 043	- 0.13605 55
Male	(0.6390 763)*	-0.0081134	- 0.03200 9	(0.0470 82)*	- 0.0179 25	(0.0788 037)*
Educational						
Achievement	0.87440 5	0.0079307	0.04037 31	0.063177 9	- 0.0022 514	- 0.10923 03
(Baseline	(- 0.60950 82)	-0.0072847	- 0.02976 89	- 0.04471 84	- 0.0144 572	- 0.07519 46
Secondary)						
Diploma	- 0.16265 91	-0.0026655	0.007510 3	0.011752 5	- 0.0004 188	- 0.02031 93
Undergraduate	- 0.63475 52	-0.0035072	- 0.029391 9	- 0.04590 39	- 0.0031 178	- 0.07930 48
Others						
Residential	0.29388 93	0.0050501	- 0.013569 5	- 0.02123 42	0.0007 567	0.03671 25
Area	- 0.33674 41	(0.0068247)*	- 0.015864 2	- 0.02437 55	- 0.0048 892	- -0.04193
(Baseline Rural)						
Urban	- 0.55680 11	0.010865	0.02570 87	0.04023 02	- 0.0014 336	- 0.06955 53
Monthly Income	- 0.67439 96	-0.0081415	-0.031715	(0.0490 637	- 0.0093 253	- 0.08390 34
(Baseline Above	- 1.197936	0 0.008 597	0.055311 2	0.08655 38	- 0.0030	- 0.14964

						844	56
Rs30000)	(0.56877)*	4	-0.006539	(0.0296822)**	(0.0425089)*	-0.0196998	-0.069832
Below Rs10000	-						
	0.9479106	0.0008642		0.043767	0.0684888	-0.0024407	-0.1184125
Rs10000-	(0.48105)*	-0.0011761		-0.0251075	(0.0353908)*	-0.0155643	(0.0594076)*
Rs20000	-						
	0.0952824	0.0026659		0.0043994	0.0068844	-0.0002453	-0.0119026
Rs20000-	-						
	0.1218743	-0.003989		0.0057626	0.0088914	0.0015997	-0.015191
Rs30000	+						
	0.2939363	-0.1459896		0.0135716	0.0212376	-0.0007568	-0.0367184
Family size	-						
	0.4235663	-8.116549		0.0198478	0.0308718	0.0048959	0.0530136
Civil Status	16.09623	-0.002118		0.7431962	-1.162992	0.0414442	2.010733
(Baseline Single)	-						
	894.8483	-0.0190263		-41.31742	64.65523	-2.319066	-111.784
Married							
Divorce	0.2335176	-0.0000519		-0.010782	0.0168722	0.0006013	0.0291709
Others	-						
	2.088246	-0.0029729		0.0964102	0.1508215	0.006504	0.2608949
	0.0057199	-0.0052278		0.0002641	0.0004133	0.0000147	0.0007145
e-Trust:	-						
	0.3278752	-0.0042055		0.0151402	0.0236886	0.000847	0.0409595
	0.5763975	-0.0106083		0.0266135	0.0416461	0.0014841	0.0720033
Reliability	-						
	0.3316944	-0.0070772		(0.0163688)*	(0.0248006)*	-0.0094878	(0.0408177)*
Efficiency	1.169632	-0.0025635		-0.0540043	-0.0845088	0.0030115	0.1461099

Comfort	- 0.42591 47	-0.003289	(0.02326 97) *	(0.03255 53)*	- 0.0190 801	(0.0529 318)*
Confidence	0.28264 59	0.0016727	0.013050 3	0.02042 19	0.00072 78	0.03530 8
Secure	(0.32215 61) +	-0.0021545	0.015088 3	0.02345 5	0.0046 709	0.04024 63
transaction	0.18442 75	-0.0045389	0.008515 4	0.01332 53	0.0004 749	0.02303 86
Dependence	0.21273 07	-0.0036447	-0.01012	0.01549 03	0.0031 09	0.02639 28
	0.50044 34	0.0221065	0.023106 5	0.03615 82	0.0012 885	0.06251 51
	(0.27781 08) *	-0.0141747	(0.01417 47	0.02077 67	0.0082 942	(0.0339 362)*
/cut1	0.57124 43					
/cut2 	1.80657 6					
	3.13675					
	-1.74242					
/cut3 	4.60240 4					
	1.74529 8					
/cut4 	8.03364 -					
	1.80575 8					

Note: *, + and # denote 1%, 5% and 10% significance level respectively.

Source: Author's computation

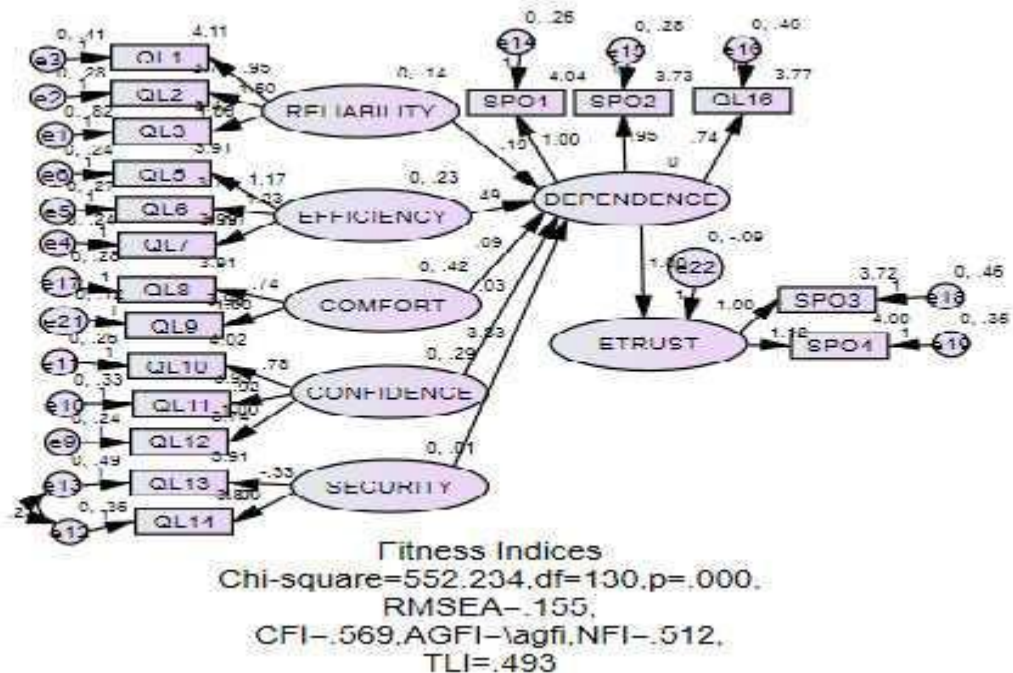
This can be interpreted due to higher expenditure and over burden of family and vice versa (Ongare, H, O., 2013) [14]. In general, both married and divorce relative to single is statistically insignificant. A positive influenced has been felt on other variables such as Reliability, Efficiency, Comfort, Confidence, Secure transaction, Dependence which are insignificant and have positive coefficients. However, comfort, confidence and dependence are significant at 1% and 5%. This shows a positive indication that, the e-trust is more among the Mauritian e-banking customers (Cheng, T. C. E., (2006) [15].

Structural Equation Modelling (SEM) and Factor Analysis (FA):

`Structural equation modelling` (SEM) represents an important advancement in social work research (Schumacker and Lomax, 1996) [16]. SEM is focused on challenging fundamental procedures essential in our theories. SEM is a fundamental

advancement in social work theory construction because it integrates measurement with substantive theory.

Fig 1: Structural Equation Modelling e-trust and e-banking services



Source: Author's computation

Table 3: t test for Specified value (Average = 3 of Statements on e-trust				
Statement on Environmental Perceptions	Mean	SD	t value	P value
Dependency	3.9	1.07	16.776	< 0.001**
Security	4.1	1.03	21.291	< 0.001**
Confidence	3.99	1.14	17.472	< 0.001**
Comfort	3.9	1.21	14.878	< 0.001**
Reliability	3.8	20-Jan	13.878	< 0.001**

Note: ** denotes significant at 1% level

Source: Author's computation

Inference

p value is less than 0.01, the Null Hypothesis is rejected at 1% level with regards to all the statements of e-trust, i.e., dependency, reliability, security, confidence, comfort which leads to e-banking customer satisfaction. Hence the opinion regarding all the statements of e-trust are not equal to average level. Based on Mean score, the opinion regarding all these statements are above average level. This is theoretically proven in many studies on e-trust and e-banking services. Since p value is less than 0.05, the Null Hypothesis is rejected at 5% level with regards to e-trust and e-banking. Hence there is significant diff between educational qualification with respect to e-trust. Based on mean score, the higher educational background among the customers of e-banking has better opinion e-banking services in Mauritius.

Conclusion

Finally, technological advancements have an impact on the services rendered by the individuals and industries across the globe. The availability of technology made it possible and easy for any one to perform better effectively and efficiently. Same the case with e-banking services (Burr W, 1996) [17]. It is very transparent and clear that the drastic changes and advances in banking technology has driven the changes in banking services distribution channels from `Automated Teller Machine` (ATM) to Phone-banking, to Tele banking, to PC-banking and most recently internet banking (e-banking). This study also identified despite of legal, security issues, socio-cultural barriers, management, infrastructure, banking issues are accepted as challenges for e-banking development in Mauritius. The findings of the study shed light on some important issues related to specification of challenges for development of e-banking that have not been addressed by previous studies in Mauritius. First, in terms of theory and literature this study attempts to provide a model with six factors which almost includes all obstacles and challenges and can be useful for further researches.

Recommendations

Decision makers should consider focusing on the e-trust, awareness, and confidence of users by enhancing security features, utilizing proper e-legislation, or a guarantee for every transaction in order to stimulate greater confidence in users of such services and promote a culture of e-banking usage across Mauritius.

Limitations

The major limitation of this study is the respondents level of internet skills, familiarity with banks and banking transactions and have been exposed to or have knowledge of the existence of e-banking alternatives.

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Effect of System and Information Quality on Use Intention of Online Retailers

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ABSTRACT

The study examined the impact of system and information quality on use intention of online retailers. System quality pertains to the efforts that companies make to manage the products sold by the companies. It also indicates the realizability of the promises made to the customer. Information quality pertains to information that is relevant and robust for use by the customers. Lastly, use intention indicates the proclivity of customers to use a particular service. Standardized questionnaire of Ahn et al (2007) was used to collect the data for the variables. The data was collected from 250 respondents. The factor analysis yielded that all three constructs were univariate. Multiple regression indicates that both system quality and information quality strongly affect use intention of online retailers.

Introduction

Online Retailing is all the rage in the current scenario. It is picking up at a rapid pace, and today everything from grocery to cosmetics, to medicines and even travel packages can be picked online. However, this entire explosion of websites means, that consumers do have to pick and choose what website is in their comfort space, and which one is not. A physical store gets evaluated in multitude of ways. Similarly, an online retailer too gets evaluated in several ways.

This current study picks up two dimensions for the same –system quality and information quality. System quality, in very simple words represents the mechanics put into place by an organization to be able to offer the services it is promising to. Similarly, information quality exacts the kind of information that is available on the retailer's website that makes the choice and decision making a richer and functionally useful aspect for the user.

A study by Lee and Kozar (2006) pegged the success of online retailers on their service quality. And they said that the major contributors to this online service quality included prompt response, accessibility, ease of use, attentiveness, security/safety and credibility. Needless to say, almost all of these dimensions would also contribute to information quality or system quality or both. Today having an online presence is not really an option for most of the businesses.

Advancement in information technology and rising competitiveness have made it mandatory that businesses start becoming attuned to the idea of building an online relationship with the customers as well. Companies now face a bigger service challenge given the idea that online presence is as crucial as offline services (Aladwani, 2001). Several researchers such as Jun et al (2004) have championed the need to build quality into basic systems of online retailers, and have laid emphasis on improving responsiveness, reliability and ease of use, among others as determinants of customer loyalty.

Looking at attracting customers from either a customer based or a technology based perspective is now a widespread field of research. Ha and Stoel (2009) have spoken about how convenience, selection/assortment, price, level of service, personal attention and even access to information is the key to customers. Ding et al (2011), further made a point that having an online portal has improved accessibility for consumers. While it takes efforts and geographical proximity to actually visit a brick and mortar store, online presence can open doors for browsing, even when physical proximity is not there. Matthews and Hendrickson(2001) have brought out the green aspect of online shopping by indicating how selling products online benefits economy.

His study enumerates the reduction in physical traffic, freeing of retail space and ambience costs, rejigging of inventory as possible benefits to the environment. But the system of online retailing would increase cost of transportation, and individual packing, and that aspect is the flipside in maintaining the system quality. Shim et al (2001) have identified search intentions of consumers online as one of the fuels to online pre-purchase intention model.

Research of Ahn (2005) highlights the idea that quality information affects the adoptability of online services. While the system quality is more a focus on the performance characteristic, and indicates how companies streamline their resource and investment utilization, and response to customers and other business demands.

Objectives of the Study

- To identify the underlying factors of System Quality, Information Quality and Use Intention of Online Retailers.
- To assess the impact of System Quality and Information Quality on Use Intention in context of online retailing.
- To suggest new areas for research.

Research Methodology

The Study: The study was empirical in nature and survey was used to complete it.

The Sample Design: Population comprised all those individuals who visit online shopping websites. The target sample size was 250 individuals. Individual visitors were the sampling element. For data collection, non-probability purposive sampling was used. Data was collected between Dec 2017 – Feb 2018.

Tools for Data Collection: Standardized questionnaires as cited by Ahn et al (2007) was used to collect data on a likert-type scale that had a sensitivity of 5.

Tools for Data Analysis: Item to total correlation was used to establish internal consistency of the questionnaire. Reliability of the questionnaires was established through the Cronbach Alpha method. Principal Component Analysis was done to identify underlying factors of the constructs. S-W Test was done to check the normality of the data. Multiple Regression was done to assess the impact of System and Information Quality on Use Intention of the websites.

Results and Discussion

Internal Consistency

Consistency of all the four measures was calculated through Item to total correlation using PASW 18.0

Reliability

The reliability statistics were as follows –

Construct Name	Cronbach's Alpha	Cronbach's Alpha based on Standardized Items	N of Items	Remarks
System Quality	.761	.762	5	Statements 8, 2 and 1 were deleted for this reliability to be obtained.
Information Quality	.729	.729	6	
Use Intention	.666	.669	4	Statement 18 was deleted for this reliability to be obtained.

Factor Analysis

System Quality

The values of KMO and Bartlett's Test of Sphericity were as follows:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.822
Bartlett's Test of Sphericity	Approx. Chi Square	256.346
	Df	10
	Sig.	.000

Since all the statements converged into a single factor, this construct is univariate.

Information Quality

The values of KMO and Bartlett's Test of Sphericity were as follows:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.813
Bartlett's Test of Sphericity	Approx. Chi Square	243.588
	Df	15
	Sig.	.000

Since all the statements converged into a single factor, this construct is univariate.

Use Intention

The values of KMO and Bartlett's Test of Sphericity were as follows:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy			.723
Bartlett's Test of Sphericity	Approx. Chi Square		136.660
		Df	6
		Sig.	.000

Since all the statements converged into a single factor, this construct is univariate.

Test of Normality

Outliers were identified from the data set and removed. In spite of that normality was not achieved in the data set. However, when normality test was conducted on residuals, normality was established.

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Standardized Residual	.042	240	.200	.993	240	.377

Here, the value of the statistic is .993 significant at .377 level of significance which indicates that normality was there.

Regression Analysis

Regression Analysis between system quality, information quality and use intention in which system quality and information quality is independent and use intention is the dependent variable.

Model	R	R Square	Adjusted R Square	Std Error of the Estimate	Durbin-Watson
1.	.429	.184	.177	2.34137	1.706

Model Summary above indicates that value of R Square is 0.184; it indicates that the independent variables impact the dependent variable by 18.4%.

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	293.560	2	146.780	26.775	.000
Residual	1299.236	237	5.482		
Total	1592.796	239			

Above table indicates that the F Value is 26.775, which is significant at .000

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig
	B	Std Error	Beta		
(Constant)	6.374	1.187		5.371	.000
TOTALSYSQ	.161	.063	.164	2.562	.011
TOTALINFOQ	.276	.052	.337	5.273	.000

The Beta value for the estimation of cause and effect relationship was 0.164 and 0.337. The table indicates that there was a significant impact of system quality and information quality on use intention in context of online retailers.

Avenues for Further Research

There are several study gaps that can be covered. The seamlessness of the technology and smooth switch from mobile to web based applications or back is critical. In Indian context, where the markers for store adoption are still being researched, online adoption of websites still appears to be a huge open field of research interest. This study did not include demographic information about the consumers and that is something that can be a part of the further studies on this aspect.

Conclusion

Online retailers have their job cut out for them. They have to attract and retain customers just like a normal retailer would, only that their parameters are slightly different. This study examined the impact of system and information quality on use intention of online retailers. System quality pertains to the efforts that companies make to manage the products sold by the companies. It also indicates the realizability of the promises made to the customer. Information quality pertains to information that is relevant and robust for use by the customers. Lastly, use intention indicates the proclivity of customers to use a particular service. Standardized questionnaire of Ahn et al (2007) was used to collect the data for the variables. The data was collected from 250 respondents. The factor analysis yielded that all three constructs were univariate. Multiple regression indicates that both system quality and information quality strongly affect use intention of online retailers.

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Resident's perceived economic benefits of heritage tourism and support for tourism development: A case of Khajuraho, Madhya Pradesh, India

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ABSTRACT

Heritage tourism has become a significant area of the worldwide tourism industry. It helps make ancient preservation economically viable by using heritage attractions and culture to draw in and assist tourists. Heritage tourism can bring cultural prosperity at the places of heritage attractions. It produces a quality experience in the mind of tourist, at the same time it encourages the preservation and conservation of the heritage sites. Different cultural benefits and preservation both can be made while promoting heritage tourism in a sustainable way.

This research deals with the heritage tourism in Khajuraho. Khajuraho is one of the UNESCO world heritage sites of Madhya Pradesh. This modest town of district Chhatarpur is very prosperous for heritage attractions, some of them are world famous for their unique architecture and erotic carvings. Prominent paws of medieval India passed through this historic township. This research seeks to explore the residents' perceived cultural benefits of heritage tourism of Khajuraho. A questionnaire was designed to measure residents' perceived economic benefits of heritage tourism in Khajuraho. Exploratory factor analysis and confirmatory factor analysis were conducted to find the significant difference for the perceived benefits of heritage tourism for different demographic elements. Substantial effects have been found on the research goals. The outcomes have important implication for government, DMO's, DMC's and different stakeholders of the tourism industry.

Introduction

In the final few decades, tourism has developed significantly, Tourism industry is regarded as the world's biggest industry with volumetric economy. The total share of Travel & Tourism of GDP was USD8, 272.3bn (10.4% of GDP) in 2017, and is forecast to grow by 4.0% in 2018, and to rise by 3.8% pa to USD12, 450.1bn (11.7% of GDP) in 2028. In 2017 Travel & Tourism directly created 118,454,000 businesses (3.8% of full employment), (WTTC, 2018).

Travelling, nowadays has become a dream for those who love to see new places for different purposes. Countries harness a lot of benefits arising out of these travelling activities. They get benefitted in a number of ways. They not only get benefitted through tourism in economic terms (Greiner, 2010), but tourism also contributes in a many other ways. Aside from economic gains for the lands, tourism as well helps in cultural preservation (Esman, 1984), environmental protection (Li & Syazni, 2015), peace and security around the world, infrastructure and development of the nation (Matiza & Oni, 2014).

The destinations all around the universe seemed to have been improving their performance recovering from safety and security challenges in late years. Plethora of tourism destinations in India, attracts number of holidaymakers from all around the cosmos, as India is very prosperous in terms of tourism attractions and resources. Destinations with heritage attractions are the premier destinations of India. Golden cultural history of India, makes India a prime state of heritage tourism destinations. Variety of heritage destinations from ancient to medieval to early modern age, are available in India. Tourism in India has matured with the rapid stride. Many more visitors get added every year on the existing number of visitants.

Heritage tourism is one of the demanded area of tourism industry. It helps make ancient preservation economically viable by using heritage attractions and culture which attract heritage lover. Heritage tourism can bring economic viability to the residents of that place. It creates a memorable experience in the mind of tourist, at the same time it encourages the preservation and conservation of the heritage of the destination. Cultural benefits and preservation both goals can be attained while promoting heritage tourism in a sustainable manner. Heritage tourism refers to leisure travel that has as its primary purpose the experiencing of places and activities that represent the past (Gunlu, Yagci & Pirnar, 2009). Heritage of the destination gives identity and fame to that particular destination. Heritage tourism brings many cultural benefits at the destination which include a sensory faculty of ethnic identity (EVA ŠIMKOVÁ & KASAL, 2012), develop respect for each-other culture and inculcate feeling of pride (Sharma, Gursoy, Carter, & Dyer, 2008), Promote respect for cultural heritage (Pratheep, 2017), sense of identity and cultural pride (Esman, 1984), conservation of cultural patterns and traditions of a region (Nagarjuna, 2015).

Tourism brings development in many ways at the destination. Development is directly related with the upliftment of the destination in many ways like tourism activities, tourism places, tourism resources, host community and other elements of tourism. Tourism is one of the largest manufactures in the cosmos, which provides millions of businesses worldwide and generates, a huge measure of money through its actions through several phases. The tourism development needs into its account all the factors which are directly and indirectly connected with it. The implications of tourism growth are considered as cultural evolution, societal development, economic growth and environmental evolution. All these different elements get benefitted through the evolution of tourism. The prosperity and richness of tourism resources of any goal, if arranged or managed and employed in proper and optimum style, and so they can bring huge potential for the development of tourism to that spot or address.

Support of locals for tourism development is defined by: Perceived benefits, attitude, community involvement and participation and the role of government. As the different benefits including cultural benefits of tourism increase, the support for tourism development also increases (Pennington-Gray, 2005) (Sirakaya, Teye, Available on SSRN-Elsevier

&Sonmez, 2002). The perceived benefits form the positive attitude of people towards tourism and so, as a result of positive attitude, the level of support increases. If there are less benefits the attitude becomes negative or neutral and thus diminishes the level of support (Alamgir& Hai, 2017). To increase in benefits, the locals are motivated to participate and involve more and more in the process of tourism growth. Both community involvement and participation are directly proportional to support for tourism development (if involvement and participation increases, then, support will likewise increase.) (Nagarjuna, 2015).

Khajuraho is famous for its heritage prosperity, it is a beautiful small town in Chhatarpur district of Madhya Pradesh, is well known for its masterpiece of medieval legacy. Heritage attractions of Khajuraho give this place a unique identity and fame worldwide. The hindu temples built by Chandella kings, are declared as UNESCO World Heritage site and serve as a wealth – generator for the residents as well as government. There were 85 temples but only 22 survived. These temples reveal the love, life and culture of that era.

Table 1: General information about Khajuraho

Longitude	24°51'-24°85'N
Latitude	79°56 'E-79°93'E
Area	59.8 sq.kms
Total Population	24478
Male	12648
Female	11830
Best time to visit	October to March every year

Source: Nagar Parishad Khajuraho.

Scope of Study

This study will be helpful for government, policy makers and other tourism stakeholders because sustainable development of heritage tourist destinations, is the need of hour. Sustainable development seeks support from local community and community actively support sustainable development when they get benefits from tourism these benefits may be in the form of cultural benefits or other benefits of tourism.

Rationale and Need for Study

Every bit in global context, sustainable development and its practices are the demands of the hour, sustainable development at tourist destinations can be achieved by active participation of the local community, it's a topic of investigation, how residents' observe cultural benefits of heritage tourism. Researcher was also interested to assess the support of residents for heritage tourism development at Khajuraho. Therefore, this research was undertaken.

Review of Literature

Table 2: Authors / researchers with their findings in various studies

Authors/Researchers	Outcomes of the research
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Resident's perceived economic benefits of heritage tourism and support for tourism development: A case of Khajuraho, Madhya Pradesh, India

Nishikawa, Kausar, & Yoshiaki,(2010)	Residents have positive reaction towards- conservation of culture, sense of pride for their destination, feeling of belongings and sense of togetherness.
Alexander, Bryce, & Murdy, (2016)	heritage tourism acts as a connecting medium when tourists visit the heritage site which they perceive as their homeland, when they discover more about themselves and their ancestors that is where they live, what they wear, how they celebrate. This ancestral tourism focuses on delivering an incredible experience and also develops a feeling of belongings.
Hau, (2016)	3 p's (protection, conservation and advancement) of the cultural heritage do not simply add to the tangible economic benefits for residents, but also gets the sense of individuality, sense of pride and community well-being.
Ismagilova,Safiullin, &Gafurov, (2015)	history is used as the source of attraction. It provides real opportunity of economic, social and cultural recovery.For children, heritage is a source of knowledge gaining and awareness while for youth heritage sites are source of employment opportunities.
Simkova & Kasal	Tourism is like a key to development, it brings economic, socio-cultural and environmental benefits.It forms social bonds, develop cultural identity, conservation and boosts the local economy.
OECD, (2005)	Culture adds to the local economy by not only mesmerize the tourists, but also adds to the income by exporting cultural products. exporting cultural products.
Sharma, Gursoy, Carter, & Dyer, (2008)	When people meet tourists, they know about each other's culture and learn to honour each other's culture, which infuse the spirit of pride.
Esman, (1984)	Tourism development creates strong sense of identity and ethnic pride.These two components ethnic pride and sense of identity and tourism are interrelated as tourism develops cultural values and in counter cultural values and traditions attract tourists and so, promotes tourism.
Chen (2000)	Respondents differ in attitude towards tourism, according to their demographic element, such as age and gender.
Besculides, Lee, & McCormick, (2002)	Tourism promotes, share, educate and preserves the local culture.Cultural benefits can be keyed out by proper management of the country to 'enhance and preserve'-preserving the local traditional folklore and other ethnic factors.
Andriotis (2004)	Dependence on tourism and education level strongly influence attitudes of residents for tourism. Residents give more importance to Economic, cultural and infrastructuralbenefits generated by tourism.
Uysal, Sirgy, Woo, & Kim, (2015)	Tourists activities and experiences have a favourable impact on the welfare of the residents and also promote the variety of domains-family life, social life, leisure life and ethnic spirit.
McGehee &Andereck, (2004)	Support of tourism planning is influenced by the community dependence, only not by the personal characteristics.
Sinclair-Maragh &Gaunette, (2017)	Demographic profile's element- biological sex type, age, monthly income, education level, ethnicity has a major

Objectives of study

This study sets forth two main objectives:

Objective 1 To investigate residents' perceived cultural benefits of heritage tourism in Khajuraho.

Objective 2 To investigate residents', support for heritage tourism development in Khajuraho.

Research Methodology

The samples were collected on the basis of non-probability convenient sampling technique and analysed with the help of SPSS-21 (Statistical package for social sciences). 600 Questionnaires were distributed to the respondents out of which 530 questionnaires were received from respondents. 30 questionnaires were not fully filled, then they were taken away at the time of ordering and filling the data in spss21.

Primary data were accumulated by a five point Likert scale questionnaire and secondary data is compiled by reviewing various research on residents' perceived cultural benefits of heritage tourism. A structured questionnaire was developed with the help of literature review and expert advice. Expert advice was also required to develop a final draft of the questionnaire. Three experts were selected from academics, tourism industry and research setting. The structured questionnaire consists of two sections, the first division consists of six questions of residents' demographic profile like gender, age, education, occupation, marital status and annual income, the second portion consists of 13 items of residents' perceptions of cultural benefits linked to heritage tourism in Khajuraho. Five point Likert-type scale was utilized in the second section of the questionnaire. Likert type scale values assigned 1 to "strongly disagree", 2 to "disagree", 3 to "neither agree nor disagree", 4 to "agree" and 5 to "strongly agree". Respondents were required to give their level of agreement on 18 statements of cultural benefits.

Data Analysis

Data analysis has been initiated with a respondents' profile, shown in table 3. It can be noted from the table that the study had good participation of respondents, which ponders the robustness of the enquiry.

Table 3: Demographic profile of respondents (N=500)

Attribute	Category	Frequency	% age
Gender	Male	416	83.2
	Female	84	16.8

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Marital Status	Married	355	71
	Unmarried	145	29
Age	20-30	203	40.6
	31-40	148	29.6
	41-50	83	16.6
	Above 50	66	13.2
Education Qualification	10+2 or Less	207	41.4
	Under Graduate	158	31.6
	Post Graduate	135	27.0
Occupation	Service	194	38.8
	Professional	91	18.2
	Self-employed	132	26.4
	Students	73	14.6
	Housewives	10	2.0
Annual Income	5 Lacs or below	436	87.2
	5-10 Lacs	50	10.0
	10 Lacs & above	14	2.8

Descriptive for Demographic Elements

Out of the total 500 respondents 416 (83.2%) respondents were male and the rest of the 84 (16.8%) respondents were female. The number of married respondents was 355 which accounted for 71% of the total respondents. And the number of unmarried respondents was 155 which was 29% of total respondents. Out of the total 500 respondents 203 (40.6%) respondents were aged between 20-30 years, 148 (29.6%) aged between 31-40 years, 83 (16.6%) aged between 41-50 years and the balance of the 66 (13.2%) respondents were above 50 years of age.

Reliability

Table 4: Reliability Statistics

S. No.	Variable Name	Cronbach's Alpha	No. of Items
	Cultural Benefits	.848	13

Reliability to measure the internal consistency of all 13 items was done. And it was found to be .889 which is quite high and considered very good by many researchers. When the Exploratory Factor Analysis was applied, reliability for all 13 items, was checked through Cronbach's Alpha. Reliability for Cultural benefits with thirteen items was 0.848.

KMO and Bartlett's Test of Adequacy and Sphericity:

Kaiser- Meyer- Olkin Measures of Sampling Adequacy test was applied to check the adequacy of the sample. KMO value reflects the normal distribution of data. If the value of KMO lies between 0.5 to 1 then the data is normally distributed. From the table, we can see that all the variables having the value greater than 0.5. Hence the data is quite adequate to consider the data for factor analysis.

Table 5: KMO and Bartlett's Test of Adequacy and Sphericity for the Benefits of Heritage Tourism:

S. No.	Variable Name	KMO	Chi Square	DF	Sig.
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2.	Cultural Benefits	.889	1845.724	78	.000
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Exploratory Factor Analysis for the Cultural Benefits:

Table 6: KMO and Bartlett's Test of Adequacy and Sphericity for the Cultural Benefits:

S. No.	Variable Name	KMO	Chi Square	DF	Sig.
2.	Cultural Benefits	.889	1845.724	78	.000

The KMO index and the Bartlett's test of sphericity were calculated and yielded KMO value 0.889 and chi-square value 1845.724 and p value 0.00 with 78 degrees of freedom. The values indicate that it is desirable to use factor analysis as the highest values are presented in a given table of KMO test. The diagonals of the anti-image correlation matrix were also all over 0.5. Finally, the communalities were all over 0.3, further confirming that each items shared some common variance with other items given these overall indicators, factor analysis was deemed to be suitable with all 13 items.

Altogether the 13 items of cultural benefits were subjected to factor analysis. Principle component factor analysis with Varimax rotation was used to detect out the underlying constituents of the cultural benefits. The factor analysis of cultural benefits resulted in two factors.

The details about factors, the factor name, Eigen value, and items converged; factor loadings and variance% are shown as follows:

Table 7: Results of Principle component analysis of Cultural Benefits:

Factor Name	Eigen Value	Total Variance Explained	Item Converged	Factor Loading
(Factor1) Cultural Proliferation & Concern	4.827	37.134	9 (popularity of town & city) 10 (sense of identity) 8 (sense of pride) 12 (utilization of local resources) 11 (common understanding of history) 1 (improving & diversifying cultural offer) 13 (attitude towards creative & innovative work) 7 (Interaction between hosts and guests)	.728 .725 .688 .663 .656 .597 .550 .538
(Factor2) Revival of Local Arts	1.181	9.083	3 (local traditions are re-discovered) 4 (more importance to local values) 5 (handicrafts gain more interests) 2 (festivals and cultural shows) 6 (gastronomy gains more interests)	.756 .705 .569 .553 .527

The Eigen value for factor 1- Cultural proliferation and concern, is 4.827 which consists of 8 items (item number 9, 10, 8, 12, 11, 1, 13 & 7) with factor loadings (.728, .725, .688, .663, .656, .597, .550 & .538). The total percentage variance explained by these 8 items was 37.134. The Eigen value for factor 2- Revival of local arts, is 1.181 which consists of 5 items (item number 3, 4, 5, 2 & 6) with factor loadings (.756, .705, .569, .553 & .527). The total percentage variance explained by these 5 items was 9.083.

Confirmatory Factor Analysis

After exploring the factor structure in Exploratory Factor Analysis, Confirmatory Factor Analysis (CFA) was applied using SPSS AMOS 21. CFA was applied to support the structure of the factors, extracted in EFA. In CFA the researcher specifies a model showing which variable load on which factors and which factors are correlated. Researcher gets a measure of the fit of his data to that particular model.

Confirmatory Factor Analysis was applied after Exploratory Factor Analysis to confirm the factors for statistically justified different residents' perceived benefits of heritage tourism.

Confirmatory Factor Analysis (CFA) of Cultural Benefits of Heritage Tourism

After applying Exploratory Factor Analysis (EFA) on cultural benefits 2 factors were identified- Factor 1-Cultural proliferation and concern(8 items) and Factor 2- Revival of local arts (5 items). Confirmatory Factor Analysis (CFA) was applied and to improve goodness fit some items were dropped from Factor 1-Cultural proliferation and concern. Item number 1, 10 and 13 were dropped from Factor 1- Cultural proliferation and concern. The final composition of factors after the CFA was- Factor 1-Cultural proliferation and concern (5 items) and Factor 2- Revival of local arts (5 items). Therefore, the final measure of cultural benefits had ten items converged, the five items from Factor 1 and five items from Factor 2.

Table 8: CFA Results of Cultural Benefits of Heritage Tourism:

	χ^2	DF	P - value	CIMN/DF	GFI	RMSEA	NFI	CFI	AGFI	TLI
Criteria	--	--	>0.05	1<CMIN/DF<3	?0.90	<0.05	?0.90	?0.90	?0.90	?0.90
Obtained Values	31.734	30	.380	1.058	.987	.011	.974	.999	.977	.998
χ^2 - Chi Square GFI - Goodness of Fit Index NFI - Normated Fit Index AGFI - Adjusted Fit Index DF - Degree of Freedom RMSEA - Root Mean Square Error of Approximation CFI - Comparative Fit Index TLI - Tucker-Lewis Index										

The value of chi square (31.734, DF. = 30) with p- value 0.380 indicated that the model was absolutely fit to the data. Further researcher investigated other model fit indices, viz. GFI, NFI, CFI, AGFI, TLI and badness of fit indices such as RMSEA and

it can be understood from the above given table that the values of various fit indices and RAMSEA are as per the defined standards. These parameters clearly indicate that this model fits to data and there is no further requirement to refine the model.

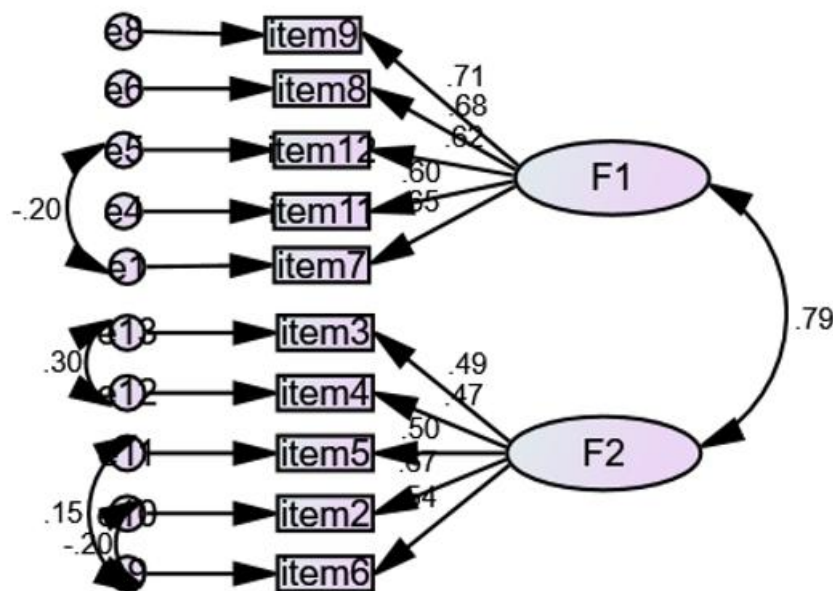


Figure 1: CFA of Cultural Benefits of Heritage Tourism

Items remained under the factor Cultural proliferation and concern and Revival of local arts after applying Confirmatory Factor Analysis were as follows:

Cultural Proliferation and Concern:

1. Item number 9: Towns and cities gain more popularity because of tourism.
2. Item number 8: Heritage tourism creates the sense of Pride in the region.
3. Item number 12: It increases the utilization of local services.
4. Item number 11: It develops a common understanding of history by reside.
5. Item number 7: Interaction between hosts and guests results in cultural enrichment.

Revival of Local Arts:

1. Item number 3: The local traditions are rediscovered.
2. Item number 4: Residents give more importance to their local values.
3. Item number 5: The handicrafts gain more interests.
4. Item number 2: Festivals and cultural shows are gaining importance and becoming profitable.
5. Item number 6: The gastronomy (cookery) gains more interests.

Conclusion

Straight off a day's heritage tourism is viewed as visiting the spaces of historical importance or places gifted by our antecedents, it is a type of tourism in which the primary motivation is to cognize about the heritage and legacy of the past that we obtained from our ancestors, but heritage tourism is not only limited to this, it is seeing, experiencing, reading about the tangible as well as intangible aspects of the inheritance of the terminus. This research study was conducted with the objective of finding out the residents' perceived cultural benefits of heritage tourism and their support for tourism development. The Results of the study reflect some new insight on the research problem. EFA was conducted on the cultural benefits with 13 items two factors were extracted. The first factor was cultural proliferation and concern with 8 items and a second factor was revival of local arts with 5 items. After applying CFA on cultural benefits 2 factors were confirmed factor 1- cultural proliferation and concern identified (5 items) and factor 2 - revival of local arts (5 items). The overall mean value of the sum total of the cultural benefits (with 13 items) was 52.48, it means mean value per item was 4.036, which reflects that residents have a positive attitude towards perceived cultural benefits of heritage tourism. The highest mean value per item was recorded for the cultural benefits of heritage tourism which was 4.036. It shows that the cultural benefits exist in the study area and they are the most observed and felt benefits of heritage tourism at Khajuraho. This research study has certain limitations which may be in terms of study area selected, respondents, sample, design (research design), analysis of data (tools used) and so on.

The significances of this research are limited to the study area, although it may be useful for the similar name and addresses with similar surroundings. Researcher tried to let in all the segments of the respondents at Khajuraho but few classes of the society could have not been included in equal number as the sampling technique was non-probability convenient sampling. This sampling was adopted regarding the fact of feasibility of time, cost, hypothesis and aims of the inquiry. This inquiry is based on residents' perceived cultural benefits of heritage tourism, so it primarily concentrates on the benefits arising out of heritage tourism in the cogitation.

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CSR in Indian Companies: A Comparative Study

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ABSTRACT

The motive behind this research paper is to know the impact of a company's Corporate Social Responsibility (CSR) policy on the buying behavior of customers. CSR is what a firm returns to the society for the services that it is receiving like land, resources, labor, etc., so it is a practice to contribute back to the society in the form of Social or Environmental concerns. CSR policies of different companies are usually distinguished between Good & Bad, and ranks are also given to the companies based on their CSR. The research is conducted in comparison of two brands of automobiles namely Maruti & TATA, considering their respective CSR ranks. For the research, a self-designed questionnaire was prepared which was further standardized. The study sample was of Management students. This research aims to study CSR along with its aspects and perspective of students towards it. The study resulted in different factors for Maruti and TATA for buying Behavior. Also, t-test resulted in the difference in buying behavior for these brands.

Introduction

CSR or Corporate Social Responsibility is a well-known term nowadays, used by most of us in our daily lives. It refers to the accountability of a firm towards society. It consists of various forms like towards employees, city, nation, the globe as a whole and also the environmental concerns. The primary features of CSR contain (1) Providing a proper working facility for the employees; (2) Giving the best possible product to the customers; (3) Creating abundant no. of jobs for the neighbourhood society; etc. But in this paper, we are discussing the extra initiatives that firms take as a concern for their responsibility like Charities, Environmental concerns, etc. Every year companies are ranked on the basis of their respective CSRs' and ranks are allotted to them on the basis of their activities. These ranks are given by the agencies and professionals of the field, thus companies could be easily distinguished between good and bad. In this paper we are trying to identify the impact of CSR on the buying behaviour of customers i.e. how much influence a company's CSR has on customer who is willing to buy a product and has a no. of companies to buy that product from. For the research we shortlisted two companies of automobiles Tata Motors (**Tata Motors Ltd.**) and Maruti Suzuki (**Maruti Suzuki India Ltd.**) of different CSR ranks.

TATA enjoys a deep-rooted tradition of CSR implanted by the founders of the company. The group is also involved in different sorts of activities for the environment and society.

They have made efforts in the field of education, health, women, entrepreneurs, etc. on the local, national and international basis.

Maruti Suzuki does surveys to know the needs of people by maintaining direct relations with the representatives of different sections of the society like by encouraging campaigns regarding Road Safety, Environment, Skill development, etc., for their customers.

Literature Review

Narwal and Sharma (2016) compared the ideology of people (in the context of CSR) at the time of the industrial revolution to 2016. They studied the transformation of CSR from forced by legislation to self-regulation by firms. Enock and Basavaraj (2014) explained the necessity of working on CSR as it is made mandatory by the government to include CSR in the system. They concluded that it is obligatory for every company to follow CSR and is part of the overall development of the company. Singh (2016) stated the expansion of CSR both economically and socially but yet there are few more hurdles to overcome. The study suggested the need for more dependable indicators of development for CSR and circulation of CSR strategies. Ghose (2012) addressed the effect of CSR on rising markets (globally). It suggested having CSR as a universal concept with some cultural beliefs and the need for more precise rules and standards which can be accepted globally, for the proper implementation. Mulyadi and Anwar (2012) studied the correlation between CSR with other factors like profitability and firm value. The study concluded that CSR is considered an investment rather than an expense, but there is no remarkable connection between CSR and the two. Sivaranjini, Rekha and Nisha talked about the growing interest of Indian people in CSR. It also stated the contracting gap between society & corporate and explained about the expansion in the ideology of people in the context of CSR. Nadaf and Nadaf (2014) stated that the CSR is an inevitable practice which must be performed by the firms as they have the potential to help the country develop. It emphasised the fact that small firms cannot shape society alone large firms also have to lay down their stress on CSR apart from making. Hopkins (2005) presented the difficulty of enforcing CSR in the firm. It also stressed the need for new measures of CSR as the old has no standard way of rating the companies. Khurana (2011) studied the importance of CSR as a strategic factor in the Company's sustainability rather than doing some fundamental good for society. It also explained the change in CSR from being a task or a job to nowadays presenting itself as the root culture of the corporate. Singh (2010) stated the concern that CSR is not only doing good to the society through money by the firms but also doing it in a way that it is also productive for the company, i.e. strategically. It also stated the need for standards like Global Reporting Initiative for measuring and managing the CSR by corporate. Kundu (2013) mentioned that CSR is the duty of a commercial business towards the General Public; it is basically concerned with the offerings to the Community or general public by their Commercial activity. Shyam (2016) explained that CSR is an addition of separate awareness of societal duty. Involvement of an organization in the betterment of community must be Obligatory because it also helps in encouraging their marquee. Baric (2017) stated that with the help of Sufficient supervision of CSR the administration could get a good economic outcome, on the other

hand, it will encourage the image of Firm by encouraging the living standard of the persons connected with the organization. Dipl and Olaru (2012) stated that CSR is not only concerned with the welfare, it is also related to increase the market value of the firm and to promote the effective identity of the firm. Choudhary (2010) made a point that CSR in Present time includes proceeding far away observation. It requires including speculation in Personnel Resources, Surroundings and Connection with the Contributors. Sarkar and Sarkar this study explained that an Enterprise must be engaged in communal activity other than earned surplus. They also have to contribute to the public. Moon (2018) focused on the other main and conflict operator; management. It stated that CSR should be treated as the section and package of an extensive network of administration. Aleksic and Boskovic (2017) mentioned that each organization is a commercial foundation with some duties. Apart from focusing only on earning a surplus, their duty is to serve to the social groups also. Tandon and Kaur (2017) explained that if the firm wants to survive in the competitive market for a longer duration than they have to perform social activities with the trade. Prabhakar and Mishra (2013) this research stated that CSR is growing in Indian administrations and the reason is that the firms have realised that the eventual goal is to make a positive identity of the firm. Premlata and Agarwal (2013) mentioned that CSR is concerned with bringing good changes in the surroundings by the corporate where it's running.

Objectives of the Study

1. To design, develop and standardise a questionnaire to measure perception of CSR for Tata Motors and Maruti.
2. To find out underlying factors for perception of CSR for Tata Motors and Maruti.
3. To find out differences in perception of students for CSR of Tata Motors and Maruti.
4. To find out differences-based on gender for perception of students for CSR of Tata Motors
5. To find out differences-based on gender for perception of students for CSR of Maruti

Research Methodology

The study was exploratory in nature. Survey method was used to complete it. All the students of Management and Technical institutes of Gwalior city were the population of study. Individual student was sampling element. Sample size was 100 respondents. Non- probability judgemental sampling method was used. For the purpose of data collection, self design questionnaire was used. The Questionnaire was on likert type scale and possessed a sensitivity of 5, where the extreme values namely 1 and 5 represented least agreement and most agreement respectively.

Tools used of data analysis: -

1. Reliability test was applied to check reliability of the questionnaire with the help of cronbach Alpha.

2. Factor analysis was applied to find act the underline factors for perception of CSR for Tata Motors and Maruti
3. Independent sample t-test was used to find differences in perception of students for CSR of Tata Motors and Maruti.
4. Independent sample t-test was used to find differences based on gender for perception of students for CSR of Tata Motors
5. Independent sample t-test was used to find differences based on gender for perception of students for CSR of Maruti

Results and Discussion

To fulfil the objectives, following tests were applied:

Reliability test for Maruti

The reliability measure of questionnaire was computed by using SPSS software. Cranach alpha reliability coefficients were computed reliability of all the items of questionnaire.

Table 1

Reliability Statistics of investor	
Cronbach's Alpha	N of Items
.792	16

It was in the above table the value of Cranach alpha was .874 which was greater than 0.7. It is considered that reliability of all measure is adequate. So the statements in the questionnaire were treated as reliable statements.

Factor analysis for Maruti

Factor analysis is used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. The factor analysis was applied using principal axis method and results are discussed below.

KMO and Bartlett's Test for Maruti

Test the suitability of data for factor analysis and measures sample adequacy of each variable.

Table 2

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.779
Bartlett's Test of Sphericity	Approx. Chi-Square	439.557
	Df	120
	Sig.	.000

The value of KMO above .779 indicates that the sample was adequate for factor analysis and the value of Bartlett's sphere city significant at .000 indicates that the data is not duplicated. The data matrix is different from identity matrix.

Table 3

Factor Table: The description of factors is given below in the factor table.

Factor analysis for Maruti Suzuki				
Factor name	Total eigen values	% of variance	Items converged	Factors loads
Sales of Product and Goodwill	4.433	27.706	Q1. Business is a part of the society and it must respond to social issues	0.707
			Q3. By being socially responsible a company's good will increases	0.685
			Q12. Business has a social responsibility beyond making a profit	0.683
			Q2. People buy the products of socially responsible companies	0.563
Resource Allocation and Self Interest	1.717	10.733	Q9. Firms that devote resources towards socially responsible actions have fewer resources available for increasing employee effectiveness	0.699
			Q13. If survival of a business enterprise is at stake then you must forget about social responsibility	0.663
			Q16. Overall effectiveness of a business can be determined to a great extent by the degree to which it is socially responsible	0.549
			Q11. The socially responsible manager must occasionally place the interests of the society over the interests of the company	0.5
Planning	1.331	8.320	Q15. Social responsibility and profitability can be compatible	0.821
			Q7. Social activities should be planned and not arbitrary	0.733
			Q14. Corporate planning and goal setting session should include discussions of social responsibility	0.55
			Q10. A company can be both socially responsible and manufacture products of high value	0.503
Expenditure and Product Quality	1.066	6.663	Q4. Social responsibility expenditure must be incurred even when the firm is not making profit	0.907

			Q8. Socially responsible behaviour by firm is often a cover-up for inferior product offering	0.401
Ignoring CSR	1.033	6.455	Q5. By ignoring social responsibility, a business can increase its profit	0.831

Description of factor analysis for Maruti Suzuki

1. Sales of Product and Goodwill: This factor has emerged the most important determinant of Research total variances (27.706%). Major elements of this factor include Q1. “Business is a part of the society and it must respond to social issues (.707)”. Q3. “By being socially responsible a company’s good will increases (.685)”. Q12. “Business has a social responsibility beyond making a profit (.683)”. Q2. “People buy the products of socially responsible companies (.563)”.

2. Resource Allocation and Self Interest: This factor has emerged the most important determinant of Research total variances (10.733%). Major elements of this factor include Q9. “Firms that devote resources towards socially responsible actions have fewer resources available for increasing employee effectiveness (.699)”. Q13. “If survival of a business enterprise is at stake then you must forget about social responsibility (.663)”. Q16. “Overall effectiveness of a business can be determined to a great extent by the degree to which it is socially responsible (.549)”. Q11. “The socially responsible manager must occasionally place the interests of the society over the interests of the company (.500)”.

3. Planning: This factor has emerged the most important determinant of Research total variances (8.320%). Major elements of this factor include Q15. “Social responsibility and profitability can be compatible (.821)”. Q7. “Social activities should be planned and not arbitrary (.733)”. Q14. “Corporate planning and goal setting session should include discussions of social responsibility (.550)”. Q10. “A company can be both socially responsible and manufacture products of high value (.503)”.

4. Expenditure and Product Quality: This factor has emerged the most important determinant of Research total variances (6.663%). Major elements of this factor include Q4. “Social responsibility expenditure must be incurred even when the firm is not making profit (.907)”. Q8. “Socially responsible behaviour by firm is often a cover-up for inferior product offering (.401)”.

5. Ignoring CSR: This factor has emerged the most important determinant of Research total variances (6.455%). Major elements of this factor include Q5. “By ignoring social responsibility a business can increase its profit (.831)”.

Reliability test for Tata Motors

The reliability measure of questionnaire was computed by using SPSS software. Cranach alpha reliability coefficients were computed reliability of all the items of questionnaire.

Table 4

Reliability Statistics of investor	
Cronbach's Alpha	N of Items
.778	16

It was in the above table the value of Cronbach alpha was .774 which was greater than 0.7. It is considered that reliability of all measure is adequate. So the statements in the questionnaire were treated as reliable statements.

Factor analysis for Tata Motors

Factor analysis is used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. The factor analysis was applied using principal axis method and results are discussed below.

KMO and Bartlett's Test for Tata Motors

Test the suitability of data for factor analysis and measures sample adequacy of each variable.

Table 5

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.786
Bartlett's Test of Sphericity	Approx. Chi-Square	392.119
	Df	120
	Sig.	.000

The value of KMO above .786 indicates that the sample was adequate for factor analysis and the value of Bartlett's sphere city significant at .000 indicates that the data is not duplicated. The data matrix is different from identity matrix.

Factor Table: The description of factors is given below in the factor table. Table 6

Factor analysis for Tata Motors				
Factor name	Total eigen values	% of variance	Items converged	Factors loads
Planning and Product Quality	4.187	26.168	Q1. Business is a part of the society and it must respond to social issues	0.772
			Q3. By being socially responsible a company's good will increases	0.715
			Q7. Social activities should be planned and not arbitrary	0.672

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			Q14. Corporate planning and goal setting session should include discussions of social responsibility	0.544
			Q10. A company can be both socially responsible and manufacture products of high value	0.437
CSR beyond Profitability	1.512	9.450	Q15. Social responsibility and profitability can be compatible	0.75
			Q16. Overall effectiveness of a business can be determined to a great extent by the degree to which it is socially responsible	0.671
			Q12. Business has a social responsibility beyond making a profit	0.552
			Q2. People buy the products of socially responsible companies	0.527
Resource allocation and Company's Interest	1.359	8.497	Q9. Firms that devote resources towards socially responsible actions have fewer resources available for increasing employee effectiveness	0.713
			Q8. Socially responsible behaviour by firm is often a cover-up for inferior product offering	0.675
			Q6. Even doing routine business properly is an act of social responsibility	0.569
			Q11. The socially responsible manager must occasionally place the interests of the society over the interests of the company	0.565
Ignoring CSR	1.175	7.347	Q4. Social responsibility expenditure must be incurred even when the firm is not making profit	0.698
			Q13. If survival of a business enterprise is at stake then you must forget about social responsibility	0.67
Profitability	1.037	6.484	Q5. By ignoring social responsibility a business can increase its profit	0.831

Description of factor analysis

1. Planning and Product Quality: This factor has emerged the most important determinant of Research total variances (26.168%). Major elements of this factor include Q1. "Business is a part of the society and it must respond to social issues (.772)". Q3. "By being socially responsible a company's good will increases (.715)". Q7. "Social activities should be planned and not arbitrary (.672)". Q14. "Corporate planning and

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goal setting session should include discussions of social responsibility (.544)". Q10. "A company can be both socially responsible and manufacture products of high value (.437)".

2. CSR beyond Profitability: This factor has emerged the most important determinant of Research total variances (9.450%). Major elements of this factor include Q15. "Social responsibility and profitability can be compatible (.750)". Q16. "Overall effectiveness of a business can be determined to a great extent by the degree to which it is socially responsible (.671)". Q12. "Business has a social responsibility beyond making a profit (.552)". Q2. "People buy the products of socially responsible companies (.527)".

3. Resource allocation and Company's Interest: This factor has emerged the most important determinant of Research total variances (8.497%). Major elements of this factor include Q9. "Firms that devote resources towards socially responsible actions have fewer resources available for increasing employee effectiveness (.713)". Q8. "Socially responsible behaviour by firm is often a cover-up for inferior product offering (.675)". Q6. "Even doing routine business properly is an act of social responsibility (.569)". Q11. "The socially responsible manager must occasionally place the interests of the society over the interests of the company (.565)".

4. Ignoring CSR: This factor has emerged the most important determinant of Research total variances (7.347%). Major elements of this factor include Q4. "Social responsibility expenditure must be incurred even when the firm is not making profit (.698)". Q13. "If survival of a business enterprise is at stake then you must forget about social responsibility (.670)".

5. Profitability: This factor has emerged the most important determinant of Research total variances (6.484%). Major elements of this factor include Q5. "By ignoring social responsibility a business can increase its profit (.831)".

Independent Sample t-test

It is applied to check the variance between perception of CSR for Maruti and Tata motors among students.

The Null hypothesis given in Levene's test for Equality Test Variance is: same/ Equal variances assumed

From the result it can be seen that the null hypothesis of equality of variance is not rejected. Corresponding to this the T value is significant at 0% level of significance. Hence it can be concluded that the assumption of equal variances holds. That is there is no difference in the Perception of CSR for TATA and maruti.

Table 7

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means		t-test for Equality of Means		
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference

Independent Samples Test

CSR	Equal variances assumed	3.762	0.054	12.539	198	0	14.39	1.1476
	Equal variances not assumed			12.539	186.733	0	14.39	1.1476

Independent Sample t-test for TATA Motors

It is applied to check the variance between perception of Males and Females (Students) on CSR for Tata motors.

The Null hypothesis given in Levene's test for Equality is: Test Variance is same/ Equal variances assumed.

From the result it can be seen that the null hypothesis of equality of variance is not rejected. Corresponding to this the T value is significant at 63% level of significance. Hence it can be concluded that the assumption of equal variances is present. That is there is no difference in the Perception Males and Females for TATA Motors.

Table 8

Independent Samples Test Gender TATA

		Levene's Test for Equality of Variances		t-test for Equality of Means		t-test for Equality of Means		
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
CSR_tata	Equal variances assumed	0.116	0.734	-0.473	98	0.637	-0.86	1.8185
	Equal variances not assumed			-0.473	97.978	0.637	-0.86	1.8185

Independent Samples t-test for Maruti Suzuki

It is applied to check the variance between perception of Males and Females (Students) on CSR for Maruti Suzuki.

The Null hypothesis given in Levene's test for Equality Test Variance is same/ Equal variances assumed.

From the result it can be seen that the null hypothesis of equality of variance is not rejected. Corresponding to this the T value is significant at 88% level of significance.

Hence it can be concluded that the assumption of equal variances is present. That is there is no difference in the Perception Males and Females for Maruti Suzuki.

Table 9

Independent Samples Test Gender Maruti Suzuki

		Levene's Test for Equality of Variances		t-test for Equality of Means		t-test for Equality of Means		
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
CSR_Maruti	Equal variances assumed	0.002	0.967	0.141	98	0.888	0.2	1.41663
	Equal variances not assumed			0.141	97.693	0.888	0.2	1.41663

Conclusion

The present study was done to measure perception of students belonging to higher education institutes i.e. management and Information technology for the CSR of Tata Motors and Maruti. A self designed questionnaire was used to get responses of the students. The study resulted in five factors forming perception for CSR of Maruti namely Sales of Product and Goodwill, Resource Allocation and Self Interest, Planning, Expenditure and Product Quality and Ignoring CSR. Further five factors forming perception for CSR of Tata Motors namely Planning and Product Quality, CSR beyond Profitability, Resource allocation and Company's Interest, Ignoring CSR and Profitability were reported. Again there is no difference in the perception of students for CSR of Maruti and Tata Motors. Even no gender differences were found.

CSR is not considered as money expenditure but CSR is lived at TATA and it's the basic reason for its success. Maruti also undertakes many CSR activities spend about 30% of its CSR funds on road safety. Maruti is expanding the number of driving schools and adding three more training institutes. Researchers have shown that there is a difference in the CSR expenditure of Tata and Maruti, Maruti doing more expenditure.

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Fractional Kinetic Equation involving Integral Transform

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ABSTRACT

In this paper, we derive the solution of fractional kinetic equation with Laplace and Fourier transforms. Their respective solutions are given in terms of Mittag-Leffler function and their generalization, which can also be represented as Fox's H-function. The result proved in this paper is application to wide range of engineering, astrophysics and physical science.

Introduction

The important of mathematical physics in distinguished astrophysical has attracted astronomers and physicists to pay more attention to available mathematical tools that can we widely use to solving several problems of physics and astrophysics.

A star (like the Sun) can be taken as a symmetric gas sphere in thermal and hydrostatic equilibrium with negligible rotation and magnetic fields. The star is characterized by its mass, luminosity, effective surface temperature, radius, central density and central temperature. The stellar structures and their mathematical models are investigated on the basis of the above characteristics in addition to some additional information related to the equation of state, nuclear energy generation rate, and opacity. Such stellar models describe how mass, pressure, temperature, and luminosity vary outward from the center of the star. The assumptions of thermal equilibrium and hydrostatic equilibrium indicate that there is no time dependence in the mathematical model, which involve mathematical equations describing the internal structure of the star Kourganoff [10], Perdang [19], Clayton [3]. Energy in such stellar structures is produced by the process of chemical reactions (thermonuclear reactions). Computation of such chemical reactions is of prime importance as it plays a central role in the evolution of such stellar structures. The two most important nuclear reactions (cycles) in stars, during their evolution, are the pp chain (proton-proton chain) and the CNO cycle (involving nuclei of carbon, nitrogen, and oxygen). The total energy production and luminosity of the star is based on the pp chain and the composition of stellar plasma is described by the CNO cycle. The production and destruction of nuclei in such thermonuclear reactions can be described by reaction-type (kinetic) equations. Solutions of such reaction-type (linear/nonlinear) equations determine distribution functions of the dynamical states of a single particle. The linear reaction-type equation, $dy/dx = y$, can be used to describe the fundamental principles of standard Boltzmann-Gibbs statistical mechanics. The nonlinear generalization of the reaction-type equation $dy/dx = y^q$ leads to new insights into generalized Boltzmann-Gibbs statistical mechanics, which is also known as non extensive statistical mechanics.

In a recent investigation, Ferro et al. [8] showed that a very small deviation from the Maxwell-Boltzmann particle distribution and the use of non extensive statistical mechanics can be applied to describe the modified nuclear reaction rates in stellar plasmas, which is consistent with the need for modification to nuclear reaction rates of stellar plasmas and their chemical composition. Few exact solutions of nonlinear reaction-type (kinetic) equations are known. The solution of a linear kinetic equation, which describes small deviations from the equilibrium solution of the nonlinear kinetic equation, is more thoroughly investigated (see, Kourganoff [10]; Haubold & Mathai [9]). If an arbitrary reaction is characterized by a time dependent quantity $N = N(t)$ then it is possible to calculate the rate of change of dN/dt by mathematical equation

$$\frac{dN}{dt} = -d + p \quad (1)$$

where d is the destruction rate and p is the production rate of N . In general, through feedback or other interaction mechanisms, destruction and production depend on the quantity N itself: $d = d(N)$ or $p = p(N)$ which is a complicated dependence since the destruction or production at time t depends not only on $N(t)$ but also on the past history $N(\tau)$, $\tau < t$ of the variable N . This may be formally given by the following equation [9].

$$\frac{dN}{dt} = -d(N_t) + p(N_t) \quad (2)$$

where the function N_t is defined by $N_t(t^*) = N(t - t^*)$, $t^* > 0$

Haubold & Mathai [9] studied a special case of this equation, when spatial fluctuations or In homogeneities in the quantity $N(t)$ are neglected, given by the equation

$$\frac{dN_i}{dt} = -c_i N_i(t) \quad (3)$$

with the initial condition that $N_i(t = 0) = N_0$ is the number density of species i at time $t = 0$ and constant $c_i > 0$ known as the standard kinetic equation. A detailed discussion of the above equation is given in [10]. The solution of the above standard kinetic equation can be put into the following form:

$$N_i(t) = N_0 e^{-c_i t} \quad (4)$$

An alternative form of the same equation can be obtained on integration:

$$N(t) - N_0 = {}_0D_t^{-1} N(t) \quad (5)$$

where ${}_0D_t^{-1}$ is the standard integral operator. Haubold and Mathai [9] have given the fractional generalization of the standard kinetic equation (5) as

$$N(t) - N_0 = c^v {}_0D_t^{-v} N(t) \quad (6)$$

where ${}_0D_t^{-v}$ is the well known Riemann- Liouville fractional integral operator (Oldham & Spanier [17] ; Samko et al. [22] ; Miller & Ross [13]) defined by

$${}_0D_t^{-v} = \frac{1}{\Gamma(v)} \int_0^t (t - u)^{v-1} f(u) du, \quad \text{Re}(v) > 0 \quad (7)$$

The solution of the fractional kinetic equation (7) is given in [9].

$$N(t) = N_0 \sum_{k=0}^{\infty} \frac{(-1)^k}{\Gamma(vk + 1)} (ct)^k \quad (8)$$

Further Saxena, Mathai and Haubold [23], [24], [25] studied three generalization of the fractional kinetic equation in terms of Mittag Leffler function which extended the work of Haubold and Mathai.

In this paper we derive the solution of fractional kinetic equation with Laplace and Fourier transform and the solution of generalized fractional kinetic equation involving Saigo-Maeda operator. The result proved in this chapter are applicable to wide range of engineering, astrophysics and physical sciences.

Mathematical Preliminaries

A generalization of the Mittag-Leffler function [14], [15]

$$E_{\alpha}(z) = \sum_{n=0}^{\infty} \frac{z^n}{\Gamma(n\alpha + 1)}, (\alpha \in \mathbb{C}, \operatorname{Re}(\alpha) > 0) \quad (9)$$

was introduced by wiman [27] in the general for

$$E_{\alpha,\beta}(z) = \sum_{n=0}^{\infty} \frac{z^n}{\Gamma(n\alpha + \beta)}, (\alpha, \beta \in \mathbb{C}, \operatorname{Re}(\alpha) > 0) \quad (10)$$

The main result of these functions are available in the handbook of Erdelyi Magnus. Oberhettinger and Tricomi [6], [7] and the monographs written by Dzherbashyas [4], [5], Prabhakar [20] introduced a generalization of (10) in the form

$$E_{\alpha,\beta}^{\gamma}(z) = \sum_{n=0}^{\infty} \frac{(\gamma)_n z^n}{\Gamma(n\alpha + \beta)n!}, (\alpha, \beta, \gamma \in \mathbb{C}, \operatorname{Re}(\alpha) > 0) \quad (11)$$

Where

$$(\gamma)_0 = 1, (\gamma)_k = \gamma(\gamma + 1)(\gamma + 2) \dots (\gamma + k - 1) \quad (k = 1, 2, \dots) \\ \gamma \neq 0 \quad (12)$$

For $\gamma = 1$

$$E_{\alpha,\beta}^1(z) = E_{\alpha,\beta}(z),$$

For $\gamma = 1, \beta = 1$

$$E_{\alpha,1}^1(z) = E_{\alpha}(z) \quad (13)$$

The Mellin-Barnes integral representation for this function follows from the integral

$$E_{\alpha,\beta}^{\gamma}(z) = \frac{1}{\Gamma(\gamma)} \frac{1}{2\pi\omega} \int_{\Omega} \frac{\Gamma(-\xi)\Gamma(\gamma+\xi)(-z)^{\xi}}{\Gamma(\beta+\xi\alpha)} d\xi \quad (14)$$

where $\omega = (-1)^{1/2}$ The contour Ω is straight line parallel to the imaginary axis at a distance 'c' from the origin and separating the poles of $\Gamma(-\xi)$ at the point $\xi = \nu$ ($\nu = 0, 1, 2, \dots$) from those of $\Gamma(\gamma + \xi)$ at the points $\xi = -\gamma - \nu$ ($\nu = 0, 1, 2, \dots$). If we calculate the residues at the poles of $\Gamma(\gamma + \xi)$ at the points $\xi = -\gamma - \nu$ ($\nu = 0, 1, 2, \dots$) then it gives the analytic continuation formula of this function in the form

$$E_{\alpha,\beta}^{\gamma}(z) = \frac{(-z)^{-\gamma}}{\Gamma(\gamma)} \sum_{\nu=0}^{\infty} \frac{\Gamma(\gamma+\nu)}{\Gamma(\beta-\alpha\gamma-\alpha\nu)} \frac{(-z)^{-\nu}}{\nu!}, |z| > 1 \quad (15)$$

From (15) it follows that for large z its behavior is given by

$$E_{\alpha,\beta}^{\gamma}(z) \sim O(|z|^{-\gamma}), |z| > 1 \quad (16)$$

The H-function is defined by means of Mellin-Barnes type integral in the following manner [11]

$$\begin{aligned} H_{p,q}^{m,n}(z) &= H_{p,q}^{m,n} \left[z \left| \begin{matrix} (a_p, A_p) \\ (b_q, B_q) \end{matrix} \right. \right] = H_{p,q}^{m,n} \left[z \left| \begin{matrix} (a_1, A_1) \dots (a_p, A_p) \\ (b_1, B_1) \dots (b_q, B_q) \end{matrix} \right. \right] \\ &= \frac{1}{2\pi i} \int \theta(s) z^{-s} ds \end{aligned} \quad (17)$$

$$\text{where } \theta(\xi) = \frac{\prod_{j=1}^m \Gamma(b_j + B_j \xi) \prod_{j=1}^n \Gamma(1 - a_j - A_j \xi)}{\prod_{j=m+1}^q \Gamma(1 - b_j - B_j \xi) \prod_{j=n+1}^p \Gamma(a_j + A_j \xi)} \quad (18)$$

$$m, n, p, q \in N_0 \text{ with } 1 \leq n \leq p, 1 \leq m \leq q, A_j, B_j \in R_+, a_j, b_j \in R$$

$$(i = 1, 2, \dots, p, j = 1, 2, \dots, q) \quad (19)$$

$$A_i(b_j + k) \neq B_j(a_i - l - 1) \quad (k, l \in N_0; i = 1, 2, \dots, n, j = 1, 2, \dots, m)$$

Where we employ the usual notations $N_0 = (0, 1, 2, \dots)$, $R = (-\infty, \infty)$, $R_+ = (0, \infty)$ and C defines the complex number field. Ω is a suitable contour separating the poles of $\Gamma(b_j + B_j \xi)$ from those of $\Gamma(1 - a_j - A_j \xi)$.

A detailed and comprehensive account of the H-function along with convergence condition is available from Mathai and Saxena [11]

It follows from (15) that the generalized Mittag-Leffler function

$$E_{\alpha,\beta}^{\gamma}(z) = \frac{1}{\Gamma(\gamma)} H_{1,2}^{1,1} \left[-z \left| \begin{matrix} (1-\gamma, 1) \\ (0, 1)(1-\beta, \alpha) \end{matrix} \right. \right] (\alpha, \beta, \gamma \in C, \operatorname{Re}(\alpha) > 0) \quad (20)$$

Putting $\gamma = 1$ in (20)

$$E_{\alpha,\beta}(z) = H_{1,2}^{1,1} \left[-z \left| \begin{matrix} (0, 1) \\ (0, 1)(1-\beta, \alpha) \end{matrix} \right. \right] \quad (21)$$

If we further take $\beta = 1$ in (21) we get

$$E_{\alpha}(z) = H_{1,2}^{1,1} \left[-z \left| \begin{matrix} (0, 1) \\ (0, 1)(0, \alpha) \end{matrix} \right. \right] \quad (22)$$

From Mathai and Saxena [1] it follows that the cosine transform of the H-function is given

$$\begin{aligned} &\int_0^{\infty} t^{\rho-1} \cos kt H_{p,q}^{m,n} \left[at^{\mu} \left| \begin{matrix} (a_p, A_p) \\ (b_q, B_q) \end{matrix} \right. \right] dt \\ &= \frac{\pi}{k^{\rho}} H_{q+1, p+2}^{n+1, m} \left[\frac{k^{\mu}}{a} \left| \begin{matrix} (1-b_q, B_q) \left(\frac{1}{2} + \frac{\rho, \mu}{2, 2} \right) \\ (\rho, \mu)(1-a_p, A_p) \left(\frac{1}{2} + \frac{\rho, \mu}{2, 2} \right) \end{matrix} \right. \right] \end{aligned} \quad (23)$$

The Riemann-Liouville fractional integral of order $\nu \in C$ is defined by Miller and Ross [4], [26].

$${}_0 D_t^{-\nu} f(t) = \frac{1}{\Gamma(\nu)} \int_0^t (t-u)^{\nu-1} f(u) du \quad (24)$$

where $Re(\nu) > 0$ following Samko, S.G., Kilbas, A. A. and Marichev, O.I. [22] we define the fractional derivative for $\alpha > 0$ in the form

$${}_0D_t^\alpha f(t) = \frac{1}{\Gamma(n-\alpha)} \frac{d^n}{dt^n} \int_0^t \frac{f(u)}{(t-u)^{\alpha-n+1}} du, (n = [Re(\alpha)] + 1) \quad (25)$$

where $[Re(\alpha)]$ means the integral part of $Re(\alpha)$.

In particular, if $0 < \alpha < 1$

$${}_0D_t^\alpha f(t) = \frac{d}{dt} \int_0^t \frac{f(u)du}{(t-u)^\alpha} \quad (26)$$

And in $\alpha = n \in N$ then

$${}_0D_t^\alpha f(t) = D^n f(t) \quad (27)$$

is the usual derivative of n .

From Erdelyi, A., Magnus, W., Oberhettinger, F., and Tricomi, F.G [6] we have

$$L\{ {}_0D_t^{-\nu} f(t) \} = s^{-\nu} F(s) \quad (28)$$

$$F(s) = L\{f(t); s\} = \int_0^\infty e^{-st} f(t) dt \quad (29)$$

where $Re(s) > 0$

The Laplace transform of the fractional derivative is given by Oldham and spanier [17], [26].

$$L\{ {}_0D_t^{-\nu} f(t) \} = s^\alpha F(s) - \sum_{k=1}^n s^{k-1} {}_0D_t^{\alpha-k} f(t)|_{t=0} \quad (30)$$

From among the numerous operators of fractional calculus studied in mathematical literature in one context or the other. We find it convenient to recall here the definition of the fractional calculus operator for a complex valued function $f(z)$.

Definition

The fractional integral operator of order α, α' for a function is defined by

$$\begin{aligned} & \left(I_{0^+}^{\alpha, \alpha', \beta, \beta', \gamma} f \right) (x) \\ &= \frac{x^{-\alpha}}{\Gamma(\gamma)} \int_0^x (x-t)^{\gamma-1} t^{-\alpha'} F_3(\alpha, \alpha', \beta, \beta'; \gamma; 1-t/x, 1-x/t,) f(t) dt \end{aligned} \quad (31)$$

Where $\alpha, \alpha' > 0$ $Re(\gamma) > 0$, β, β' being the real number and

$$\begin{aligned} & \left(I_{0^-}^{\alpha, \alpha', \beta, \beta', \gamma} f \right) (x) \\ &= \frac{x^{-\alpha'}}{\Gamma(\gamma)} \int_x^\infty (t-x)^{\gamma-1} t^{-\alpha} F_3(\alpha, \alpha', \beta, \beta'; \gamma; 1-x/t, 1-t/x,) f(t) dt, \end{aligned} \quad (32)$$

Where $\alpha, \alpha' > 0$ $Re(\gamma) > 0$, β, β' being the real number

The I-function which is generalization of the well known H-function

$$I(z) = I_{P_i, Q_i, R}^{M, N}(x) = \left[x \left[\left\{ (a_j, \alpha_j)_{1, n} \right\} \left\{ (a_{ji}, \alpha_{ji})_{n+1, P_i} \right\} \right] \right. \\ \left. \left[\left\{ (b_j, \beta_j)_{1, m} \right\} \left\{ (b_{ji}, \beta_{ji})_{m+1, Q_i} \right\} \right] \right] \\ = \frac{1}{2\pi i} \int_L \varphi(s) z^{-s} ds \quad (33)$$

Where $i = \sqrt{-1}$, $z \neq 0$ is a complex variable and $z^s = e^{[s \log|z| + i \arg z]}$ in which $\log|z|$ denotes the natural logarithm and $\arg z$ is not necessarily principal value. An employ product in interpreted as unity. Also

$$\varphi(s) = \frac{\prod_{j=1}^M \Gamma(b_{ji} + \beta_{ji}s) \prod_{j=1}^N \Gamma(1 - a_j - \alpha_j s)}{\sum_{i=1}^R \left[\prod_{j=M+1}^{Q_i} \Gamma(1 - b_j - \beta_j s) \prod_{j=N+1}^{P_i} \Gamma(a_{ji} + \alpha_{ji}s) \right]} \quad (34)$$

Where $P_i (i = 1, 2, 3, \dots, R)$, $Q_i (i = 1, 2, 3, \dots, R)$, M, N are integers satisfying $0 \leq N \leq P_i$, $0 \leq M \leq Q_i$, $(i = 1, 2, \dots, R)$, R is finite, $\alpha_j, \beta_j, \alpha_{ji}, \beta_{ji}$ are real and positive numbers and a_j, b_j, a_{ji}, b_{ji} are complex number such that none of the points $s = (b_j + \nu)/\beta_j$, $(j = 1, 2, \dots, M; \nu = 0, 1, 2, \dots)$ which are the poles of $\Gamma(b_j - \beta_j s)$, $(j = 1, 2, \dots, M)$ and the points $s = a_j - \nu - 1/\alpha_j$, $(j = 1, 2, \dots, N; \nu = 0, 1, 2, \dots)$, which are poles of $\Gamma(1 - a_j - \alpha_j s)$, coincide with one another i.e. $\alpha_j(b_h + \nu) \neq \beta_h(a_j - 1 - k)$, for $\nu, k = 0, 1, 2, \dots, h = 1, 2, \dots, M, j = 1, 2, \dots, R$.

The Mellin transform [2], [16]

$f(s)$ of $f(x)$ is defined as follows

$$M\{f(x); s\} = f^*(s) = \int_0^\infty x^{s-1} f(x) dx, \quad s \in C \quad (35)$$

Provided the integral exists.

Under the suitable condition, we have

$$M\left\{x^{\alpha+\alpha'-\gamma} \left(I_{0+}^{\alpha, \alpha', \beta, \beta', \gamma} f\right)(x)\right\}(s) = \\ \Gamma\left[\begin{matrix} 1-s, 1-\alpha'+\beta'-s, 1-\alpha-\alpha'-\beta+\gamma-s \\ 1+\beta'-s, 1-\alpha-\alpha'+\gamma-s, 1-\alpha'-\beta+\gamma-s \end{matrix}\right] M[f(x)](s) \quad (36)$$

where $1 \leq p \leq 2$ and constant $\alpha, \alpha', \beta, \beta', \gamma \in C$, with $Re(\gamma) > 0$ satisfy $R(s) < 1 + \min[0, R(\beta' - \alpha'), R(\gamma - \alpha - \alpha' - \beta)]$ then for $f \in L_p(R_+)$ or $f \in M_p(R_+)$ with $p > 2$

$$M\left\{x^{\alpha+\alpha'-\gamma} \left(I_{-}^{\alpha, \alpha', \beta, \beta', \gamma} f\right)(x)\right\}(s) = \\ \Gamma\left[\begin{matrix} s+\alpha+\alpha'-\gamma, s+\alpha+\beta'-\gamma, s-\beta \\ s+\alpha+\alpha'+\beta'-\gamma, s, s+\alpha-\beta \end{matrix}\right] M[f(x)](s) \quad (37)$$

where $1 \leq p \leq 2$ and constant $\alpha, \alpha', \beta, \beta', \gamma \in C$, with $Re(\gamma) > 0$ satisfy $R(s) > 1 +$

$\max[R(-\alpha - \alpha' + \gamma), R(-\alpha - \beta' + \gamma), R(\beta)]$ then for $f \in L_p(R_+)$ or $f \in M_p(R_+)$ with $p > 2$.

The inverse Mellin Transform [2], [16] $f(x)$ of $f(s)$ defined as follows

$$M^{-1}\{f^*(s); x\} = f(x) = \frac{1}{2\pi i} \int_{\gamma-i\infty}^{\gamma+i\infty} x^{-s} f^*(s) ds, x \in \mathbb{C} \quad (38)$$

Where $i = \sqrt{-1}$ and γ is a real number in the strip of analyticity of $f^*(s)$. When $f^*(s)$ is analytic in the relevant strip, $f(x)$ is uniquely determined by $f^*(s)$ by the formula (10). The convolution for Mellin transform is given by the relation

$$h(x) = \int_0^\infty f\left(\frac{x}{\xi}\right) g(\xi) \frac{d\xi}{\xi} \leftrightarrow f^*(s) g^*(s) = h^*(s) \quad (39)$$

Solution of Fractional Kinetic Equation with Laplace and Fourier Transform

In this section we present the solution of fractional kinetic equation with Laplace and Fourier transform in the form of following theorem:

Theorem 1: Consider the fractional diffusion equation

$$N(x, t) - N_0 t^{\mu-1} = -c^\nu {}_0D_t^{-\nu} {}_0D_x^\nu N(x, t) \quad (41)$$

with initial condition

$${}_0D_t^{\nu-k} N(x, t)|_{t=0} = 0 \text{ and } {}_0D_t^{-\nu-k} N(x, t)|_{x=0} = 0, \quad k = 1, 2 \dots n \quad (42)$$

Where $n = [Re(\nu)] + 1$; c^ν is diffusion constant then for the solution of (4.1) is given by

$$N(x, t) = \frac{N_0 \Gamma(\mu)}{c^t} H_{1,1}^{1,0} \left[\frac{|x|^\nu}{(ct)^\nu} \middle| \begin{matrix} (\mu+\nu, \nu) \\ (1+\nu, \nu) \end{matrix} \right] \quad (43)$$

Proof- $N(x, t) - N_0 t^{\mu-1} = -c^\nu {}_0D_t^{-\nu} {}_0D_x^\nu N(x, t)$

Apply Laplace and Fourier transform with time variable and space variable respectively to (41) we get

$$\begin{aligned} N^*(k, s) - N_0 \frac{\Gamma(\mu)}{s^\mu} &= -c^\nu k^\nu s^{-\nu} N^*(k, s) \\ N^*(k, s) \{1 + (s/c)^\nu k^\nu\} &= N_0 s^{-\mu} \Gamma(\mu) \\ N^*(k, s) &= N_0 s^{-\mu} \Gamma(\mu) \left\{1 + \left(s/kc\right)^{-\nu}\right\}^{-1} \\ &= N_0 s^{-\mu} \Gamma(\mu) \sum_{r=0}^{\infty} \frac{(1)_r \left[-(s/kc)^{-\nu}\right]^r}{r!} \\ &= N_0 \Gamma(\mu) \sum_{r=0}^{\infty} \frac{(1)_r (kc)^{r\nu} (-1)^r}{r!} s^{-\nu r - \mu} \end{aligned}$$

where $N^*(k, s)$ Laplace and Fourier transform of $N(x, t)$

Taking inverse Laplace transform

$$\begin{aligned}
 N(k, t) &= N_0 \Gamma(\mu) \sum_{r=0}^{\infty} (kc)^{rv} (-1)^r L^{-1} \{s^{-vr-\mu}\} \\
 N(k, t) &= N_0 \Gamma(\mu) \sum_{r=0}^{\infty} (kc)^{rv} (-1)^r \frac{t^{\mu+rv-1}}{\Gamma(rv+\mu)} \\
 &= N_0 \Gamma(\mu) t^{\mu-1} E_{\nu, \mu}(-c^{\nu} k^{\nu} t^{\nu})
 \end{aligned}$$

which can be expressed in terms of H-function

$$= N_0 \Gamma(\mu) t^{\mu-1} H_{1,2}^{1,1} \left[c^{\nu} k^{\nu} t^{\nu} \left| \begin{matrix} (0,1) \\ (0,1)(1-\mu, \nu) \end{matrix} \right. \right]$$

Now take inverse Fourier transformation

$$\begin{aligned}
 N(x, t) &= \frac{1}{\pi} \int_0^{\infty} \cos kx t^{\mu-1} N_0 \Gamma(\mu) H_{1,2}^{1,1} \left[c^{\nu} k^{\nu} t^{\nu} \left| \begin{matrix} (0,1) \\ (0,1)(1-\mu, \nu) \end{matrix} \right. \right] dk \\
 &= \frac{t^{\mu-1} N_0 \Gamma(\mu)}{\pi} \frac{\pi}{|x|} H_{3,3}^{2,1} \left[\frac{|x|^{\nu}}{(ct)^{\nu}} \left| \begin{matrix} (1,1)(\mu, \nu)(1, \nu/2) \\ (1,1)(1, \nu)(1, \nu/2) \end{matrix} \right. \right]
 \end{aligned}$$

Applying a result of Mathai and Saxena [11] the above expression becomes

$$N(x, t) = \frac{N_0 \Gamma(\mu)}{|x|} H_{2,2}^{2,0} \left[\frac{|x|^{\nu}}{(ct)^{\nu}} \left| \begin{matrix} (\mu, \nu)(1, \nu/2) \\ (1, \nu)(1, \nu/2) \end{matrix} \right. \right]$$

If we employ the formula Mathai and Saxena [11]

$$\begin{aligned}
 x^{\sigma} H_{p,q}^{m,n} \left[z \left| \begin{matrix} (a_p, A_p) \\ (b_q, B_q) \end{matrix} \right. \right] &= H_{p,q}^{m,n} \left[z \left| \begin{matrix} (a_p + \sigma A_p, A_p) \\ (b_q + \sigma B_q, B_q) \end{matrix} \right. \right] \\
 N(x, t) &= \frac{N_0 \Gamma(\mu)}{ct} H_{2,2}^{2,0} \left[\frac{|x|^{\nu}}{(ct)^{\nu}} \left| \begin{matrix} (\mu + \nu, \nu)(1, \nu/2) \\ (1 + \nu, \nu)(1, \nu/2) \end{matrix} \right. \right] \\
 N(x, t) &= \frac{N_0 \Gamma(\mu)}{ct} H_{1,1}^{1,0} \left[\frac{|x|^{\nu}}{(ct)^{\nu}} \left| \begin{matrix} (\mu + \nu, \nu) \\ (1 + \nu, \nu) \end{matrix} \right. \right]
 \end{aligned}$$

Theorem 2: Consider the fractional diffusion equation [12], [18]

$${}_0 D_t^{\nu} N(x, t) - E_{\nu}(-d^{\nu} t^{\nu}) = -c^{\nu} \frac{\partial^2}{\partial x^2} N(x, t) \quad (44)$$

with initial condition

$${}_0 D_t^{\nu-k} N(x, t)|_{t=0} = 0 \quad k = 1, 2, \dots, n \quad (45)$$

Where $n = [Re(\nu)] + 1$; c^{ν} is diffusion constant.

Then for the solution of (44) is given by

$$\begin{aligned}
 &\frac{1}{2d^{\nu/2}} \sin(d^{\nu/2} x) * \frac{1}{(ct)^{\nu}} H_{1,1}^{1,0} \left[\frac{|x|^2}{(ct)^{\nu}} \left| \begin{matrix} (1 - \nu/2, \nu) \\ (0, 2) \end{matrix} \right. \right] \\
 &\quad - \frac{1}{2d^{\nu/2}} \sin(d^{\nu/2} x) H_{1,2}^{1,1} \left[d^{\nu} t^{\nu} \left| \begin{matrix} (0,1) \\ (0,1)(0, \nu) \end{matrix} \right. \right] \quad (46)
 \end{aligned}$$

Proof-

$${}_0D_t^\nu N(x, t) - E_\nu(-d^\nu t^\nu) = -c^\nu \frac{\partial^2}{\partial x^2} N(x, t)$$

Applying the Fourier transform with respect to the space variable x and the Laplace transform with respect to the time variable t . we get

$$\begin{aligned} s^\nu N^*(k, s) - \frac{s^{\nu-1}}{s^\nu + d^\nu} &= -c^\nu k^2 N^*(k, s) \\ \{s^\nu + c^\nu k^2\} N^*(k, s) &= \frac{s^{\nu-1}}{s^\nu + d^\nu} \\ N^*(k, s) &= \frac{s^{\nu-1}}{\{s^\nu + d^\nu\}\{s^\nu + c^\nu k^2\}} \\ &= \frac{s^{\nu-1}}{c^\nu k^2 - d^\nu} \left[\frac{1}{s^\nu + d^\nu} - \frac{1}{s^\nu + c^\nu k^2} \right] \end{aligned} \quad (47)$$

To invert equation (47). It is convenient to first invert the Laplace transformation and Fourier transform. Apply inverse Laplace transform we obtain

$$N(k, t) = \frac{1}{c^\nu k^2 - d^\nu} [E_\nu(-d^\nu t^\nu) - E_\nu(-c^\nu k^2 t^\nu)] \quad (48)$$

Which can be expressed in terms of H-function

$$N(k, t) = \frac{1}{c^\nu k^2 - d^\nu} \left\{ H_{1,2}^{1,1} \left[d^\nu t^\nu \left| \begin{matrix} (0,1) \\ (0,1)(0,\nu) \end{matrix} \right. \right] - H_{1,2}^{1,1} \left[c^\nu k^\nu t^\nu \left| \begin{matrix} (0,1) \\ (0,1)(0,\nu) \end{matrix} \right. \right] \right\} \quad (49)$$

Invert the Fourier transform

$$\begin{aligned} N(x, t) &= \frac{1}{\pi} \int_0^\infty \cos kx \frac{1}{c^\nu k^2 - d^\nu} \left\{ H_{1,2}^{1,1} \left[d^\nu t^\nu \left| \begin{matrix} (0,1) \\ (0,1)(0,\nu) \end{matrix} \right. \right] dk \right. \\ &\quad \left. - \frac{1}{\pi} \int_0^\infty \cos kx \frac{1}{c^\nu k^2 - d^\nu} H_{1,2}^{1,1} \left[c^\nu k^\nu t^\nu \left| \begin{matrix} (0,1) \\ (0,1)(0,\nu) \end{matrix} \right. \right] dk \right\} \\ &= -\frac{1}{2d^{\nu/2}} \sin(d^{\nu/2} x) H_{1,2}^{1,1} \left[d^\nu t^\nu \left| \begin{matrix} (0,1) \\ (0,1)(0,\nu) \end{matrix} \right. \right] + \frac{1}{2d^{\nu/2}} \sin(d^{\nu/2} x) \\ &\quad * \frac{1}{|x|} H_{3,3}^{2,1} \left[\frac{|x|^2}{(ct)^\nu} \left| \begin{matrix} (1,1)(1,\nu)(1,1) \\ (1,2)(1,1)(1,1) \end{matrix} \right. \right] \\ &= -\frac{1}{2d^{\nu/2}} \sin(d^{\nu/2} x) H_{1,2}^{1,1} \left[d^\nu t^\nu \left| \begin{matrix} (0,1) \\ (0,1)(0,\nu) \end{matrix} \right. \right] \\ &\quad + \frac{1}{2d^{\nu/2}} \sin(d^{\nu/2} x) * \frac{1}{(c^\nu t^\nu)^{1/2}} H_{2,2}^{2,0} \left[\frac{|x|^2}{(ct)^\nu} \left| \begin{matrix} (1-\nu/2, \nu)(1/2, 1) \\ (0,2)(1/2, 1) \end{matrix} \right. \right] \\ &= \frac{1}{2d^{\nu/2}} \sin(d^{\nu/2} x) * \frac{1}{(ct)^\nu} H_{1,1}^{1,0} \left[\frac{|x|^2}{(ct)^\nu} \left| \begin{matrix} (1-\nu/2, \nu) \\ (0,2) \end{matrix} \right. \right] \\ &\quad - \frac{1}{2d^{\nu/2}} \sin(d^{\nu/2} x) H_{1,2}^{1,1} \left[d^\nu t^\nu \left| \begin{matrix} (0,1) \\ (0,1)(0,\nu) \end{matrix} \right. \right] \end{aligned}$$

The fractional kinetic equation has been extended to generalized fractional equation (41) and (44). Their respective solutions are given in terms of Mittag-Leffler function and their generalization, which can also be represented as Fox's H-function.

Conclusion

In this study, we derive the solution of fractional kinetic equation with Laplace and Fourier transform. Their respective solutions are given in terms of Mittag-Leffler function and their generalization, which can also be represented as Fox's H-function. The result proved in this chapter is application to wide range of engineering, astrophysics and physical science.

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India's Renewable Energy Potential: A Review

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ABSTRACT

India, with a population of 1.2 billion people, is one of the largest and fastest growing economies in the world. There is always a very strong demand for energy, which currently comes mainly from coal, oil and oil, is not just renewable. It is also harmful to the environment. Therefore, it is important for India to achieve the security of energy supply without affecting the booming economy, which means finding alternative sources of energy. This would mean that the country has to switch from non-renewable energy (oil and coal) to renewable energy. The Indian government has already taken several steps and launched numerous agencies to achieve its goal of becoming one of the world's leading producers of clean energy. Renewable energy is the energy of a resource that can be replaced by existing energy flows such as the sun, wind, water, biological processes and geothermal heat fluxes. These energy resources can be used directly or indirectly as forms of energy. In this paper it is discussed that the potential and technological opportunities in this direction in the context of India.

Introduction

Energy is one of the most important inputs for a country's economic development. In the developing world, the energy sector is crucial to achieving this. Global energy production exceeds 20,000 TWh (terawatt hours).

Fossil fuels are expected to continue to provide much of the energy used around the world. Demand for renewable energy sources accounted for 19% of the global share.

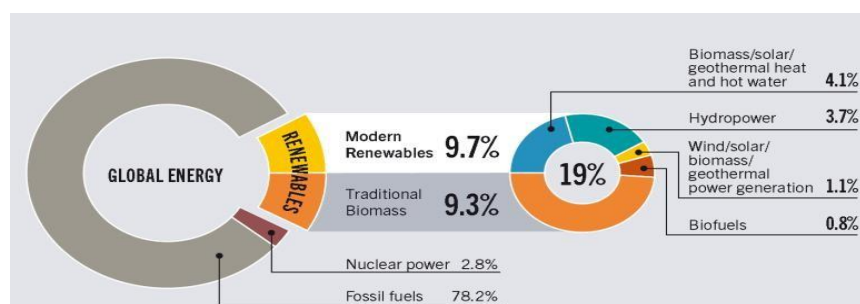


Fig 1 Global share of Renewable energy

Electricity in India

The electricity sector in India had a Capacity of 233,929 GW as of December 2013. Captive power plants produce an additional 34,444 GW. Not Renewable energies

account for 87.55% of the installations and renewable energy plants form the remaining 12.45% of total installed capacity. The total annual electricity production was 1053.9 terawatt hours (TWh) from all types of sources in 2012.

India is currently suffering from a severe shortage of electricity generation, even though it is the largest consumer of energy in the world after the United States, China & Russia.

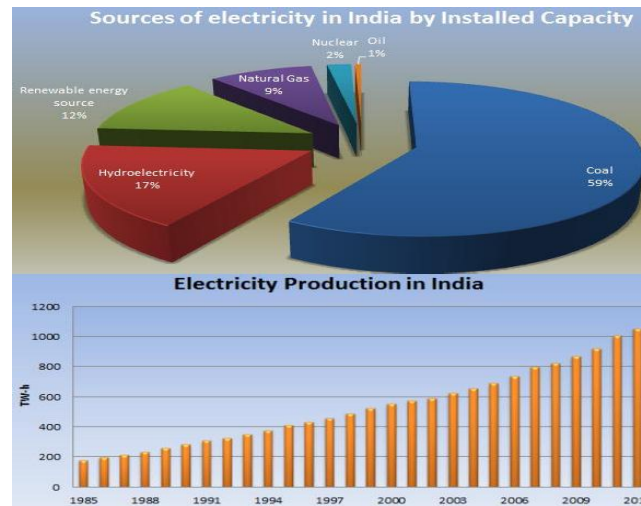


Fig. 2 (a) Sources of electricity and (b) Yearly production in India

Status of India in Renewable Energy

India was the first country in the world that set up a ministry of non-conventional energy resources in 1980s. Renewable energies in India are part of responsibility of the Ministry of New and Renewable Energy (MNRE). The total estimated potential of renewable energies production in the country at 31.03.12 is estimated at around 89,774 MW.

Outside the solar and wind, there are other renewable energies which make significant progress -especially small hydropower plants and biomass. Some of segments that now show little activity - waves, tides and geothermal energy for example - has considerable potential growth in the future.

The main drivers of renewable energy growth in India are:

- High growth rate of total energy demand
- Increasing dependence on fossil fuel imports
- The need for a viable solution for rural electrification
- Supply of electricity peak demand
- Pressure on industry and politics to reduce the greenhouse gas emissions.

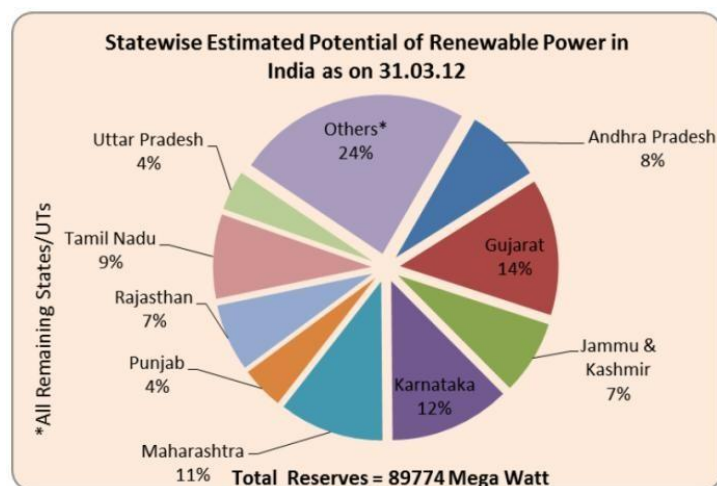


Fig 3 Estimated potential of Renewable energy in India- 2012

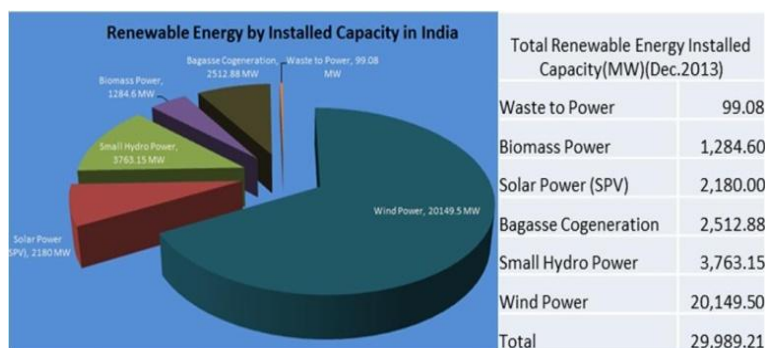


Fig 4 Renewable energy installed capacity in India- Dec2013

Pros and Cons

Renewable Energy Technologies (RETS) have various advantages over conventional based mainly on fossil fuels, energy systems. Firstly, promote the security of energy supply and much more stability against the volatility of market prices and secondly the renewable energies are scalable (up to a few kilowatts) and can also be installed in modular designs.

On the other hand, also have several RETS disadvantages. First some primary energy flows (eg solar energy and wind) are variable and not completely predictable, requiring more hybridization with systems under human control. Some forms of renewable energy, such as biofuels compete for arable land and irrigation water with food crops. If they are not implemented with great care, they have adverse social and economic consequences.

Renewable Energy Sources and Its Potential in India

This section deals in detail with the various renewable sources such as energy technologies / options available in the country. Details on potential and status are provided for the following renewable energy sources: Solar, wind, biomass, small hydropower plants, geothermal, waves and tides

Solar Energy

The Earth's surface receives solar energy equivalent to about 10,000 times the world's energy needs. Solar energy is considered the most abundant of all renewable raw materials in India. The total theoretical potential of solar energy over direct normal irradiation is very large, as shown in Figure 5. India has a huge potential to generate electricity from solar energy because it receives more than 5000 trillion kWh a year of solar energy annually, which is above the country's total energy consumption. As a densely populated country with housing, agriculture and industry priorities, the availability of land for solar energy programs will likely be a constraint.

Solar technologies are currently divided into two main categories:

Photovoltaic: converts sunlight directly into electricity due to photovoltaic effects.

Thermal: converts the heat of the sun mainly for heating and drying.

Solar Photovoltaic (PV): Solar photovoltaic (PV) refers to the technology of using solar cells to convert solar energy into electricity. The potential exploited is less than 150 MW, of which about 20 MW are connected to the grid. In India, the goal is to reach an installed capacity of 1 to 2 GW for 2013, 4 to 10 GW for 2017 and 20 GW for 2022.

Concentrating Solar Power (CSP): CSP systems use mirrors to focus solar radiation and generate heat and steam to generate electricity by a conventional thermodynamic cycle. The exploited potential is very small or insignificant. The National Solar Mission has already supplied 500 MW to Indian companies and these CSP plants are being launched.

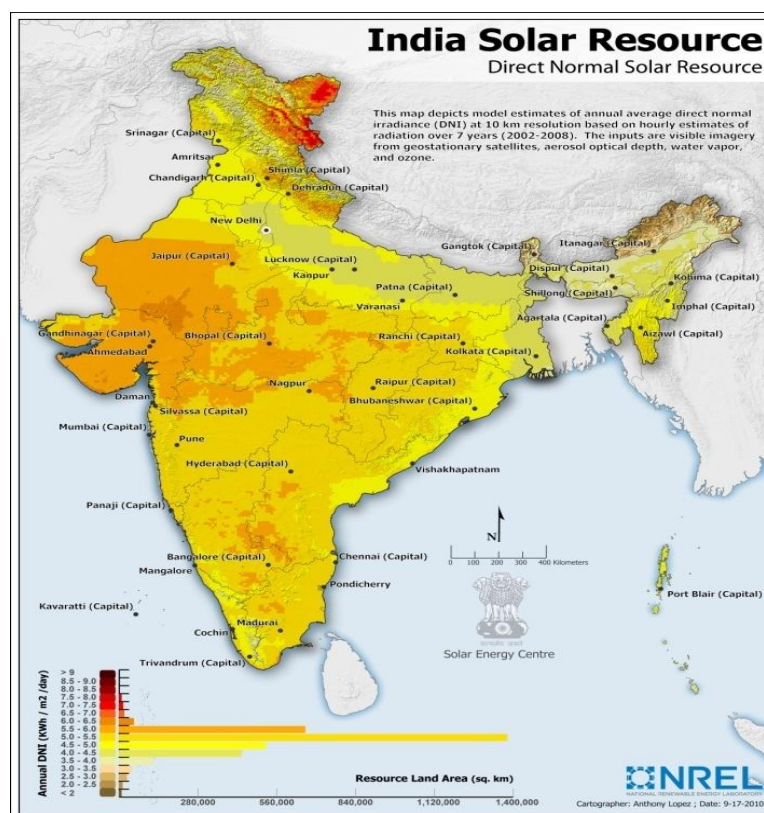


Fig 5 Solar resource map of India

Solar Thermal for Heating Purposes: Solar thermal for heating and drying has a significant potential in India. Studies have shown that solar thermal used for industrial heating and drying can save up to 4.5 million tons of fuel oil or diesel per year. Certain industries that could find solar heating and drying applicable are heating are food and beverages, transport, textiles and chemical products.

Solar Water Heating: The total potential in India for solar water heating is about 140 million square meters. Of which total the installed sum is about 3.5 million square meters. Every year over 20,000 solar water heaters are installed throughout India. According to some estimates the Jawaharlal Nehru National Solar Mission targets to install 20 million square meters of solar water heaters for 2022.

Wind Energy

India has the fifth largest installed wind energy capacity in the world. The most important technology related to Wind energy is the wind turbine, the wind turns the blades of the wind turbine and the rotating blades rotate and turned the shaft attached to the blades. The moving shaft can either power a pump or run a generator that can generate electricity.

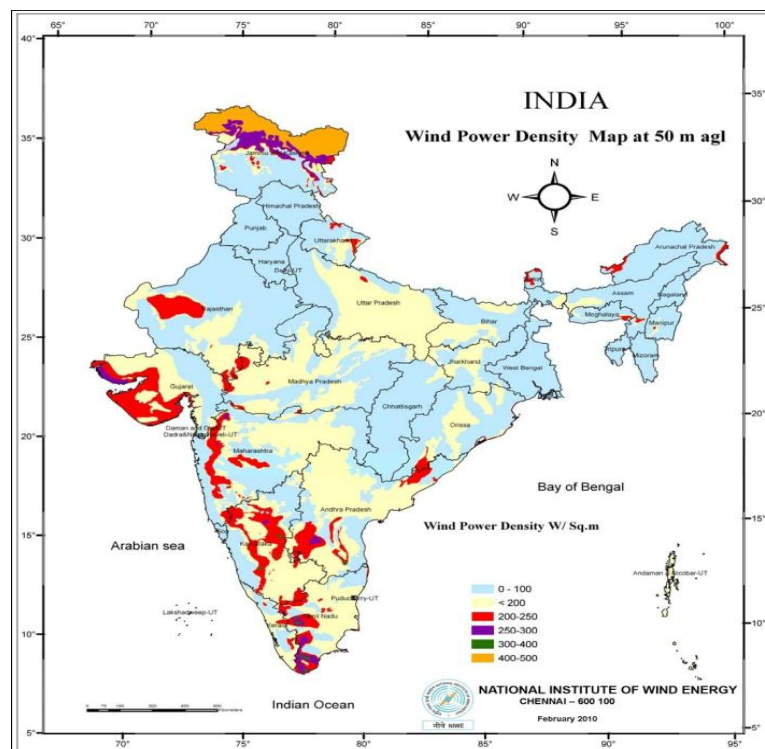


Fig 6 Wind power density map of India

The total available potential of 100,000 MW and the exploited potential is around 14,000 MW. Estimates of the energy alternative India-EAI Wind Research Project with a total installed wind capacity of more than 50,000 MW by 2020.

The efficiency of existing wind turbines in India is slightly lower than that of many other major wind energy producing countries. States with high wind potential are

Tamil Nadu, Gujarat, Andhra Pradesh, Karnataka, Kerala, Madhya Pradesh and Maharashtra.

A long coastline and relatively low construction costs could make India a prime destination for offshore wind energy. As a result of these factors, the Indian government has decided to explore the possibilities of harnessing the potential of offshore wind energy.

Biomass

Traditional biomass, such as wood and cow dung, has played an important role in India's energy supply and still provides energy to cook almost all of India's rural population. .

In India, about 4 million biogas plants are installed at home, with nearly 4,000 additional units serving households or village groups. Cattle manure is the main raw material of these domestic plants. MNRE estimates that available livestock manure could supply about 12 million national biogas plants.

Solid biomass is used in India, either for direct combustion, for gasification for electricity generation, or for combined heat and power. The DNRE estimates that the excess biomass could support the installed electricity generation capacity of 25 MW and that the cogeneration capacity added to existing industries requiring heat treatment could increase the power generation capacity by 15 GW.

Liquid biofuels, ethanol and biodiesel, are used to replace transport fuels derived from petroleum. In India, ethanol is mainly produced by the fermentation of molasses, a by-product of the sugar industry, and biodiesel, which is made from non-edible oilseeds. India is researching the transformation of cellulose biomass into ethanol.

The establishment of *Jatropha* plants and the local and municipal production of biodiesel, which respects the environment, can lead to better incomes in these areas. The establishment and continuous improvement of a *Jatropha* system will benefit four major aspects of development and ensure a sustainable way of life for the farmers of the villages and their supporting land.

Small Hydro Power Plants (SHP)

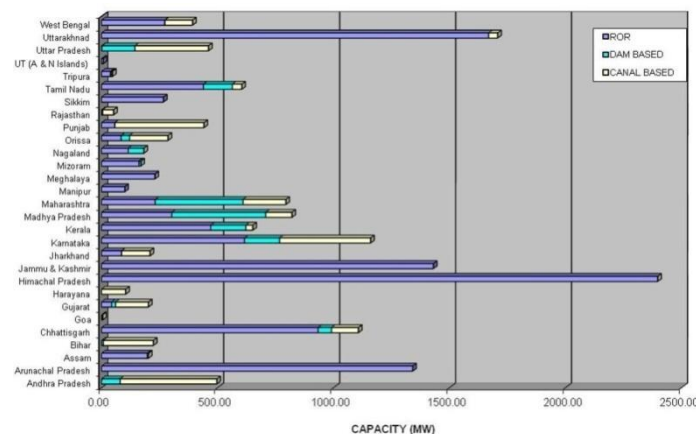
The Indian government defines hydropower plants of up to 25 MW as small hydropower plants. The Ministry of Natural Resources estimates India's hydropower potential at over 15,000 MW and is constantly reviewing it as new sites are identified. Over 40% of this potential has been identified in four mountainous states in the north.

The main advantage of SHP is that it is the only source of clean and renewable energy available around the clock. It will have a very little impact on the environment. In India, DNRE is responsible for medium and small hydropower projects.

The other advantages of the small hydropower plant are its ease of use, low cost and short wearing time. In some cases, people in rural areas managed to manage the passage of firewood for cooking with electricity, which limits deforestation and reduces CO₂ emissions.

Some conventional hydropower projects are referred to as run-of-the-river (ROR). These ROR projects are smaller; have a smaller or no tank; and they are more often placed behind large hydropower projects.

SHP plants with a total capacity of 3,421 MW were built in several regions of the country (MNRE). A total of 261 private hydroelectric projects with a total capacity of 1,326 MW were built. In addition, approximately 270 projects representing approx. 914 MW were in various stages of implementation. The country's hydroelectric potential is considerable, as shown in the following graph:



SHP potential of different states in India (2010)

Geothermal Energy

Heat energy flows continuously to the earth surface of the interior, where the temperature in the core is at 6000 ° C. The heat transfer to the outside is through means of the conductive heat flux and the convection flow of molten mantle fused under the earth's crust. This leads to the heat on the surface of the earth. However, this heat flow is not evenly distributed on the surface; it's more like that concentrated along the boundaries of the active tectonic plate, where volcanic activity transports high-temperature molten material to the near surface.

The generation of geothermal energy is currently based on five technological options that stand out briefly as dry steam plants, flash plants, binary plants, combined cycles or hybrid plants and geothermal energy in combination with heat and power.

India has a relatively good potential for geothermal energy and potential geothermal provinces as in the figure such that 10,600 MW of power can be generated. But now geothermal projects have not been used at all.

Deep wells can be drilled into underground structure of the reservoirs to tap steam and hot water drives the turbines to drive electricity generators. The main cost drivers are drilling and subsequent transfer of steam or hot water. The geothermal energy potential in India is in detail in the figure 7. In India, nearly 400 thermally

springs occur and the Puga Valley has in the Ladakh region is the most promising geothermal field.

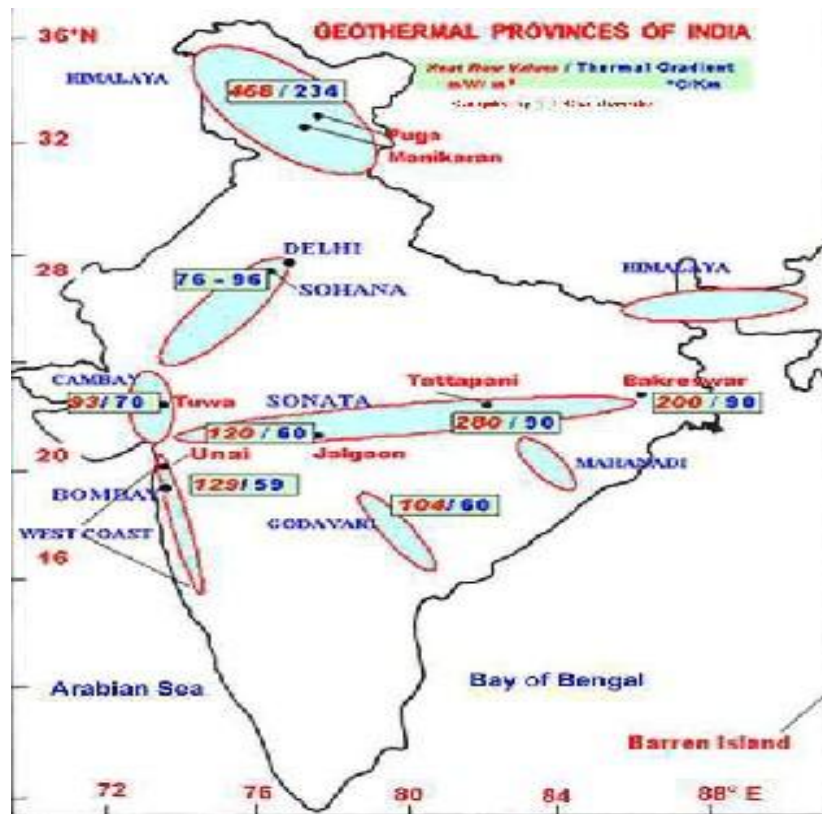


Fig 7 Geothermal Energy Potential in India

Tidal and Wave Energy

The ocean can produce two types of energy, such as the mechanical energy of tides and waves and the heat energy of solar heat.

Tide Energy: Tides are generated by a combination of forces exerted by the gravitational forces of the sun and the moon and by the Earth's rotation. The tides may be deprived of energy by creating a reservoir or pond behind a barrier and then passing tidal water through the barrier turbines to generate electricity. With India surrounded by the sea on three sides, the potential for tidal energy is enormous. The economic potential of tidal energy in India ranges from 8,000 to 9,000 MW.

Wave energy: The sea wave energy is detected directly by surface waves or by pressure fluctuations below the surface. Wave energy systems convert wave motion into usable mechanical energy that can be used together to generate electricity. The main estimates show that the annual energy potential of waves along the Indian coast is between 5 and 15 MW per meter. The theoretical potential of a coast is therefore between 40,000 and 60,000 MW.

Ocean energy: Ocean Thermal Energy Conversion (OTEC) is the conversion of oceanic solar energy into usable energy. OTEC systems use the natural thermal gradient of the ocean, the fact that the ocean's water layers have different temperatures to control a power generation cycle. OTEC in India has a potential installed capacity of 180,000 MW.

Conclusion

Different awareness at the national level, there are efforts in terms of effective various options for renewable energies by promoting research and development in these areas of technologies and alternative resources. Developments in renewable technologies are developing rapidly both in India and around the world and at higher levels of regional cooperation can play a key role in accelerating the development and development of renewable energies.

By 2050, some estimates show the power requirements of India at one terawatt or trillion watts. This would mean a six-fold increase in India's performance in installed capacity. It is a big challenge. But it's big opportunity for Indian companies. In India the Suzlon, the third wind energy installer is representing almost 10% of the global market across the world. Other innovative companies in the field of solar energy, biomass energy production and energy efficiency are also increasing. As most of India's power plants still need to be built, India has options that many countries can only dream of that.

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A Study of Behavior of consumers towards Online Shopping- A case study in Gwalior City

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ABSTRACT

Electronic commerce is the activity of buying or selling of products on online services or over the internet. It includes sharing business information, maintaining business relationships and conducting business transactions by means of Tele-communication networks or process of trading goods over the internet. Internet has gained tremendous popularity and emerged as one of the important and efficient means of communication. Online shopping is rapidly growing e-commerce area. Online shopping are available 24 hours a day and almost maximum customers have an internet access both at work places and at also home. This paper examines the behavior of online customers in Gwalior.

1. INTRODUCTION

The idea of introducing internet has to allow millions of people to share information and ideas, video clips, photos, etc by using their computer across the world. Online shopping is the process of buying goods and services from merchants who sell on the internet. A lot of variety of items from online stores can purchase by a consumer. Books, clothes, household appliances, toys, health insurance, etc. can buy from online store. Some E-shopping sites are Amazon, Flifkart, Snapdeal, etc. By purchasing products online, it saves a lot of time. Nowadays, every person is busy in their lives and it becomes very difficult for everyone to purchase each and every product by offline. Online shopping is jackpot for all those consumers. Customers use the Internet not only to buy the product online, but also to compare prices, product features and after sale service facilities they will receive if they purchase the product from a particular store. Online shopping is a form of e-commerce which permits consumers to directly purchase goods or services from a seller by using the Internet. An online shop arouses the physical similarity of buying products as well as services from internet shop and this process of shopping is called business-to-consumer online shopping. Online shopping is the practice in which consumers decide to buy the product through internet.

2. REVIEW OF LITERATURE

Kuester (2012) in his study considers, Consumer behavior as the study of individuals, groups, process and organizations they use to secure, select, and arrange of experience, products, services, experiences, or ideas to satisfy the consumer and society. It balances components from sociology, psychology, management and economics. It tries to know the decision-making processes of consumers, both exclusively and in clusters. It makes emphasis on individual consumers and their

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characteristics such as demographics and behavioral variables to understand customers' want. It also tries to assess the effects on the consumer from family, friends, groups, and also society in general.

Petrovic (2006) in his study on Analysis of consumer behavior online explained that the most appropriate behavioral appearances of online customers and inspect the ways they find, associate and estimate product information. Comparison of survey data with the present customer performance theory stemmed in detection of an amount of issues related to an explicit customer group. The objective of this report is to transform these results into a set of execution activities at strategic and technical level. Implementation of these recommendations will end in better adaptation of customers.

Shun &Yunjie (2006) in their study revealed that there are different kinds of product, which are additional possible to be sold online such as book, software, electronics and music. Motive for such belongings is that when buying these kinds of products, one does not need individual examination, if not all products, can be drawn in the product explanation and descriptions. Most goods in the mobile phone family fit to this group. According to the new study on customer behavior, there are four different customer groups with diverse purposes and motivations. They also found that regular efficient collection of music videos. A great level of technical assurance inside this cluster tends to be a hopeful feature when it comes to product evidence research online.

Desai (2003) in her study E-tailing is the practice of selling retail goods on the Internet explores that e-marketing is the reduced version of "electronic retailing" which basically creates business to buyer business. While the concept of e-tailing is no longer in its budding stage; it remains to change, as progressive e-commerce requests act as a strong promoter in developing e- marketing. The idea of e-marketing differs from a diverse range of products and services as against direct shopping experience. Therefore, online marketing is just not restricted to consumers purchase. As consumers are well-informed, they can take good decisions. This includes a fair price comparison, product research, and proving the credibility of the e-store online shopping.

Jarvenpaa et al. (2000) explore how customers professed store size and status inspire their trust in risk perception, attitudes and willingness to purchase from the specific store. They realize that there is a positive correlation between customer belief in internet stores and the stores supposed reputation and scope. Higher customer belief correspondingly decreases perceived risks related to internet shopping and produces more promising attitudes near to shopping at a specific store, which in turn raises readiness to buying from store.

Solomon (1998) studied the Consumer behavior and said that it is the study of the processes involved when an individual select, purchases, uses or disposes of products, services, ideas, or experiences to satisfy needs and desires.

Schiffman et al. (2003) in his study researched that "yet individual attitudes do not, by themselves, influence one's intention and/or behavior. Instead, that intention or behavior is a result of a variety of attitudes that the consumer has about a variety of issues relevant to the situation at hand, in this case online buying. Over time the Internet buyer, once considered the innovator or early adopter, has changed.

3. OBJECTIVE OF THE STUDY

The main objective of this paper is to examine the behavior of consumers towards online shopping. Keeping this in view, the following specific objectives have been set for the study.

1. To know the consumers' awareness about online shopping?
2. To know the various factors which motivate a consumer towards online shopping?
3. To know the kind of goods they purchase online?

4. HYPOTHESES OF THE STUDY

H01: There is no significant relationship between qualification and awareness of customers towards online shopping.

H02: There is no significant relationship between income and awareness of customers, towards online shopping.

H03: There is no significant relationship between profession and buying habit of people towards online shopping.

5. SAMPLE SIZE AND AREA

Samples were collected from consumers and buyers of online shopping of Gwalior city of Madhya Pradesh. A target of 80 respondents was set, but many of them provided incomplete questionnaire and having no experience of using internet and online shopping therefore only 55 questionnaires were entertained for final analysis and data interpretation.

6. ANALYSIS AND INTERPRETATION

For data analysis, percentage analysis, simple charting and tabulation tools are used to understand the behavior of the respondents for online shopping.

6.1 AGE WISE DISTRIBUTION OF CUSTOMER

Table 1

Options	Respondents	%age
Under 18 Years	12	21.8
18-25 Years	22	40.0
26-35 Years	13	23.6
36-45 Years	6	10.9
ABOVE 45 Years	2	3.6
Total	55	100.0

Customers Age

The above table shows us the percentage in the age of respondents. As it shows that from age under 18 years the number of respondents are 21.8 %, from age of 18 to 25 it is 40%, from 26 to 35 it is 23%, from 36-45 years it is 10.9% and lastly above 45, it is 3.6%.

6.2. PROFESSION OF ONLINE CUSTOMERS

Table 2

Options		Respondents	Percentage
	Student	19	34.5
	Business	9	16.4
	Housewife	6	10.9
	Government employee	8	14.5
	Professional	13	23.6
	Total	55	100.0

Profession of customers

This table help us to know the occupation of the respondents, this is to know that which segment of people are buying more products on the internet whether they are the segment of students or business, housewife or government employee or professional, the above table shows that the segment of the students is 34.5% are using internet and use to buy online product.

6.3. MONTHLY INCOME OF CONSUMERS

Table 3

Options		Respondents	Percentage
	Less than 5000	23	41.8
	5000-15000	9	16.4
	15000-25000	10	18.2
	25000-35000	8	14.5
	Above 35000	5	9.1
	Total	55	100.0

Monthly Income of consumers

From the analysis we find that out of 100 respondents 41.8% of respondents having monthly income less than 5000, 16.4% of respondents having monthly income of 5000-15000, 18.2% of respondents having monthly income of 15000-25000, 14.5% of the respondents having monthly income of 25000-35000 and 9.1% of the respondents having monthly income of above 35000.

6.4. METHODS OF PAYMENTS

Table 4

Options		Respondents	Percentage
	Credit card	13	23.6
	Net banking	9	16.4
	Debit card	14	25.5
	Cash on delivery	12	21.8
	Others	7	12.7
	Total	55	100.0

Payment mode of consumers

This table shows that mostly people uses credit card and debit cards to pay their payments almost 50% consumers use to pay by credit/debit card and 21.8% through cash on delivery and 16.4% through Net banking and 12.7% by other mode of payments.

6.5. FAVORITE ONLINE SHOPPING SITE

Table 5

Options		Respondents	Percentage
	Flipkart	15	27.3
	Snapdeal	13	23.6
	Amazon	17	30.9
	Myntra	4	7.3
	Jabong.com	2	3.6
	Homeshop 18	1	1.8
	Others	3	5.5
	Total	55	100.0

Favorite E-commerce website

According to the research, 30.9% of the respondents prefer Amazon, 27.3% prefer Flipkart, 23.6% prefer Snapdeal, 7.9% prefer Myntra, 3.65% prefer Jabong.com, 1.8% prefers Homeshop 18, 5.5% prefer other websites.

6.6. KINDS OF GOODS PURCHASED FROM THE INTERNET

Goods purchased by consumer

It is depicted in the table that the highest category of goods purchased by the respondents (32.7%) is clothes. Whereas the lowest category of goods purchased online are music 1% of the respondents.

6.7. SOURCES GIVEN INFORMATION ABOUT THE PRODUCT ON SITE:

Table 7

Options		Respondents	Percentage
	Search engines	17	30.9
	Product review in the print media	2	3.6
	Product Catalogs	6	10.9
	Advertisements (Print & broadcast)	15	27.3
	Friends and family	7	12.7
	Promotional emails	4	7.3
	Company Websites	1	1.8
	Others	3	5.5
	Total	55	100.0

According to the study, it is depicted that maximum number of respondents (30.9%) got information about the products on online than other sources of information.

6.8. CHI-SQUARE TESTS

HO1: There is no significant relationship between qualification and awareness of customers towards online shopping.

Table 8: Qualification * Awareness of online shopping				
Crosstabulation				
		Awareness of online shopping		Total
		Yes	No	
Qualification	High School	3	0	3
	Under Graduate	6	4	10
	Graduate	12	4	16
	Post Graduate	11	4	15
	Doctorate	5	0	5
	Others	6	0	6
Total		43	12	55

Table 9: Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.147 ^a	5	.292
Likelihood Ratio	8.853	5	.115
Linear-by-Linear Association	2.044	1	.153
N of Valid Cases	55		

The Pearson chi-square Tests showed that awareness of Online Shopping in Gwalior have relationship with education level as the chi-square value is 6.147 (df =5, N=55, $P > 0.05$ which is significant at 5 degree of freedom, indicates that there is no significant relationship between education level and awareness of online shopping. From the above results, null hypothesis is accepted, and alternative hypothesis is rejected.

It is shown in above tabulation that there is no relationship between qualification and awareness of online shopping in Gwalior. As per above table all the respondents have different level of relationship with the awareness of online shopping in which most of the respondents (43) agreed that they have awareness of online shopping and they also agreed that qualification as crucial factor in awareness.

HO2: There is no significant relationship between income and awareness of customers, towards online shopping.

Table 10: Monthly Income * Awareness of online shopping	
Crosstabulation	

		Awareness of online shopping		Total
		Yes	No	
Monthly Income	Less than 5000	16	7	23
	5000-15000	8	1	9
	15000-25000	8	2	10
	25000-35000	7	1	8
	Above 35000	4	1	5
Total		43	12	55

Table 11: Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.042 ^a	4	.728
Likelihood Ratio	2.119	4	.714
Linear-by-Linear Association	.853	1	.356
N of Valid Cases	55		

The Pearson chi-square Tests showed that awareness of online shopping in Gwalior have relationship with monthly income as the chi-square value is 2.042(df =4, N=55, $P < 0.05$ which is significant at 4 degree of freedom, indicates that there is no significant relationship between monthly income and awareness of online shopping. From the above results, null hypothesis is accepted, and alternative hypothesis is rejected.

It is shown in above tabulation that there is no relationship between monthly income and awareness of online shopping in Gwalior. As per above table all the respondents have different level of relationship with the awareness of online shopping in which most of the Respondents (43) agreed that they have awareness of brand retail outlets and they also agreed that monthly income as crucial factor.

H03: There is no significant relationship between profession and buying habit of people towards online shopping.

Table 12: Profession * How often do you shop online? Crosstabulation		
	How often do you shop online?	Total

		Frequentl y (once a week)	Rarely (Once in a year)	Regularl y (At least once in a month)	Accor ding to the need	Occa siona lly (Onc e in 2-4 mont hs)	6.00	
Profession	Student	8	1	2	2	2	4	19
	Business	1	2	2	1	0	3	9
	Housewife	4	1	1	0	0	0	6
	Governme nt employees	3	1	2	1	1	0	8
	Profession al	2	3	2	1	2	3	13
Total		18	8	9	5	5	10	55

Table 13: Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.071 ^a	20	.772
Likelihood Ratio	19.564	20	.485
Linear-by-Linear Association	.010	1	.921
N of Valid Cases	55		

The Pearson chi-square Tests showed that buying habit of people have no relationship with qualification as the chi-square value is 15.071(df =20, N=55, $P>0.05$ which is no significant at 20 degree of freedom, indicates that there is significant relationship between qualification and buying habit of people. From the above results, null hypothesis is accepted, and alternative hypothesis is rejected.

It is shown in above tabulation that there is relationship between qualification and Buying habit of people. As per above table all the respondents have different level of relationship with the buying habit of people.

6.9. FACTOR ANALYSIS

Factor analysis is a technique that is used to reduce a large number of variables into fewer numbers of factors. This technique extracts maximum common variance and puts them into a common score. As an index of all variables, we can use this score for further analysis. Factor analysis is part of general linear model (GLM) and this method also assumes several assumptions; there is linear relationship, there is no multicollinearity, it includes relevant variables into analysis, and there is true

correlation between variables and factors. Several methods are available, but principle component analysis is used most commonly.

Kaiser-Meyer-Olkin (KMO) is an index which helps to identify whether sufficient relation exist among the variables has checked the sampling adequacy or not. It compares the magnitudes of the observed correlation coefficients with the partial correlation coefficients. The minimum acceptable value of KMO is 0.50 (Kaiser 1961). In the present study the value of KMO is found 0.550 and Bartlett's Test of Sphericity (0.00) which should be below 0.05 value.

Table 14: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.550
Bartlett's Test of Sphericity	Approx. Chi-Square	34.370
	Df	36
	Sig.	.000

The below table clearly indicates that there are four components which are more important for the respondents regarding services provided by the online shopping. The remaining variables also have exerted influence on the respondents but that is on a limited scale. The result of principal component analysis has further been analyzed through factor loading.

Table 15: Total Variance Explained						
Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.686	18.733	18.733	1.686	18.733	18.733
2	1.440	15.996	34.728	1.440	15.996	34.728
3	1.332	14.798	49.526	1.332	14.798	49.526
4	1.204	13.378	62.904	1.204	13.378	62.904
5	.747	8.303	71.207			
6	.716	7.957	79.164			
7	.686	7.624	86.788			
8	.622	6.916	93.704			
9	.567	6.296	100.000			
Extraction Method: Principal Component Analysis.						

As indicated in the above table there is four variables whose value is more than 1.0 Eigen value. The cumulative variance showed by these four elements is 62.904 %. The above table points out that there are four variables, which are more important for the respondents about services provided by online shopping. The other variables have also exerted influence on the respondents but on small scale

6.10. FACTOR DISTRIBUTION:

Table 16

Factor Name	Initial Eigen	%age of varianc	Statement	Loading value
-------------	---------------	-----------------	-----------	---------------

	Values	e		
Assurance	1.686	18.733	Assurance of online delivery Known or famous brand name Inclination trying something new	.769 .739 .263
Offers/discounted prices	1.440	15.996	Offers/discounted prices Ease of finding products No need to deal with sales people	.804 .599 -.115
Convenience	1.332	14.798	Convenience Can find product not available on stores	.754 .684
Ease of product return and money refund	1.204	13.378	Ease of product return and money refund	.535

In this study we found that there are nine factors that plays very important role on online shopping, those are Assurance of online delivery, Known or famous brand name, Inclination trying something new, Offers/discounted prices, Ease of finding products, no need to deal with sales people, Convenience, can find product not available on stores and Ease of product return and money refund. These are the factors; people prefer online shopping.

7. FINDINGS OF THE STUDY

1. Most of the consumers used search engines as a source for gathering information about products available on online stores in Gwalior city.
2. Clothes and electronic goods are mostly purchased by consumers by online shopping.
3. Amazon and Flipkart is the most favorite shopping site of the respondents for online shopping in Gwalior city.
5. By applying Chi square test, we find that there is no significant relationship between profession and buying habit of people towards online shopping.
6. Assurance of online delivery, Offers/discounted prices, Convenience and Ease of product return and money refund are the major factors why people prefer online shopping.
7. Most of the persons prefer Debit and Credit cards as mode of payment for online shopping in Gwalior city of M.P.

8. SUGGESTIONS OF THE STUDY

Online shopping is becoming one of the top Internet activities all over the world and there is a huge growth in this business as more manufacturers and providers are integrating the Internet into their sales model. But there are many things that need to occur in online shopping to generate higher revenues and the key to it lies in the hands of the marketers. To make online shopping a boom following methods can be followed.

1. Due to concern of security, many peoples use cash on delivery which is obstacle towards cash less economy. India has a strong research and development (R&D) capability, so companies should innovate rapidly to take care of the security issues.

2. Consumers today demand a better, more efficient and less cumbersome way to compare and buy products online. Innovative service should be provided to the consumers so that they can compare products, which are available online using their mobile phones.
3. In India still the low speed of Internet has not happened the way it should have been which is another obstacle for online shopping. Ecommerce revolution can be brought about by providing more broadband connections at affordable prices.
4. Convenience and time saving are the main reason to shop online. Therefore, Business to Consumers sites should be designed in such a way that consumers spend less time in finding information

9. CONCLUSION

Online shopping is becoming more popular day by day with the increase in the usage of internet. Understanding customer's need for online selling has become challenge for marketers. Specially understanding the consumer's attitudes towards online shopping, new innovative strategies, making improvement in the factors that influence consumers to shop online and working on factors that affect consumers to shop online will help marketers to gain the competitive edge over others. Privacy and security should be given more importance when strategies regarding online shopping by owners of these online stores. Risks associated with online shopping should minimize, so that more and more people prefer online shopping. way. Online shopping is picking up and is becoming a trend. More consumers are indulging into internet shopping as seen by the research because of the value proposition it offers to a customer such as convenience, 24x7 shopping, doorstep delivery, a broad product selection and the ever-expanding range of unique and unusual gift ideas as well as increased consumer confidence in shopping on the internet is increasing.

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Need for New Performance Format of Indian Civil Servant

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ABSTRACT

The India has a democracy where political class rule the country. The political decision. They rule the country through defined political system. They have to contest election in every five Indian civil service are the backbone of public administration years. The Govt decide the blueprint of development. The development has social, economic and political dimension. The politicians are to face public and public interest. The civil servants are the executive wings of Govt. They will have to implement Govt projects and plans. The Govt appoints civil servants through fair and objective system. Govt gives training and offer facilities to civil servants. The civil servants are not linked to profit motives. They are linked to free welfare motives of the welfare Govt. The civil servants are neutral and fair to everybody by constitutional ruling.

Introduction

The India has a democracy where political class rule the country. The political decision. They rule the country through defined political system. They have to contest election in every five Indian civil service are the backbone of public administration years. The Govt decide the blueprint of development. The development has social, economic and political dimension. The politicians are to face public and public interest. The civil servants are the executive wings of Govt. They will have to implement Govt projects and plans. The Govt appoints civil servants through fair and objective system. Govt gives training and offer facilities to civil servants. The civil servants are not linked to profit motives. They are linked to free welfare motives of the welfare Govt. The civil servants are neutral and fair to everybody by constitutional ruling.

The civil servants have been gurranted the constitntional cushion. They can't be demoted or removed so easily. The civil servants are considered important both in both independence and post independence era. has described that burecuracy has in to free disease of self interest. The self interest has became the motive rather than social interest.

The legacy of serving has been on a decline role. The burecacy had a strong legacy impart but now new fores have stated influencing the original legacy. Jain (1989) has presented the social impart on the burecaratic legacy.

When india was under closed economy there was a strong dominance of bureaucracy in socio economic decision of Govt. Now India is on the cross road of Market

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economy, now what should be the role of Indian bureaucracy. The Indian bureaucracy has been transformed or should have been transformed in the present day reality of economic situation. Why do candidates join civil service is an important question? The reasons may be different or same with the comparison of timely situation. Dubhashi (1971) has written about the committed bureaucracy as the bureaucrats need to be politically neutral so the political commitment cannot be the reason to join civil services. Civil servants enjoy life time employment. The bureaucracy gives preference to process and procedure rather than innovation and performance.

Demmke (2005) has mentioned about the importance of process and procedure. The competitive environment in the job also decides the job mindset situation. Rainey (2003) has mentioned about the absence of competitive situation in civil service. Indian bureaucrats work for power situation but power situation may be for self interest.

Work challenges of civil servants

The working life of civil servants are not like business executives. The civil servants are the executive wing of Govt. they have the responsibilities to execute Govt missions. Civil servants are joined after the well defined system. They are being given proper training and exposure for Govt related work. The public works have a different challenges. Their challenges are of heterogeneous nature. The challenges exist

all from bottom to job.

The civil servants are to work with political system. The political system has their own agenda. The civil servants used to work under defined rules and regulations. They cannot cross and violate these rules. The political class many times consider these rules as burden and block so fake civil servants as their opponents.

Governance tool for civil servants.

The booklet has given various moral and ideal conditions of behaviour but not with the encouraging and motivating guide lines. To motivate for better work. The Good work may be some time rewarded but it depends on the goodness of senior officers and the political class. The punishment and enquiry can be done any time but you find positive gesture for civil servant in a non regular condition. The conditions for lower bureaucracy is more discouraging. They do not have any constitutional apparatus. Civil servants at that level have to work at their own strength.

The extrinsic and intrinsic factors of motivation are more challenging. They do not work like private sector's managers. The Intrinsic factors are supportive to some extent. They do not have to be under stress for minor situation. The civil servants do have one status to express disagree on some proposal but they many time have to suffer with delay in promotions and continue transfer. Simons (2000) has mentioned about the importance of motivation by manager to team members. The civil servants do not become habitual of this process.

Civil servants enjoy the life time employment. Demmke (2005) has confirmed the role of civil servants as procedure liking not innovation liking. The private sector employee feels about the importance competitive situation. Rainey (2003) has

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mentioned that lack of competition convert the public organisation into a controlled organisation.

Indian civil servants are governed by civil service rules. The performance appraisal system in the govt. sector is annual confidential reports. The superior officer will have to fill ACR of subordinate officer. The ACR consists of forms in prescribed format. Indian political relations of civil servants are also an important factor. Dewey (1993) has mentioned the importance of political relationship as an important factor for govt. sector.

The one senior officer will have to assess the performance of the entire subordinate. Kashikar (2012) has written about the difficulties about the remembrance of single officer to write the comment about the performance for the other officer then paper goes to other office for final comment if head of department is of different opinion he/she can do opposite comment.

Administrative reform commission (2007) has presented the submission that forms should be separate for different cadres. The work attitude, decision making abilities should be common to all.

Dept of personnel Govt. of India (2014) has prescribed the new format for civil servants. It has following sections. The format of APAR is as follows

- Basic information
- Self appraisal
- Appraisal
- Review

I Section deals with Administered division.

II Section deals with candidate.

III deals with reporting officers. Review is done by review officers. II Section deals with following officers.

- Mention of sample plan
- To reflect on opportunity
- Factors which have helped officer to get success.
- Need for up gradation of skills.

The reporting officers will assess these observations and the numerical grading will be awarded from the scale of 1 to 10. The candidate will be made aware now this is not the confidential system. The candidates can represent on the issues, SP ARROW (online system has been developed by Govt. for civil Servants).

Job profile of civil servant

The civil servants are selected through UPSC examination. The civil servants are being apprised about various roles of civil servant and bureaucracy in their training. The training gives the role and functional clarity to civil servant. The civil servant after training depute to field places. The field assignment gives the importance to

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civil servants for learning. They learn the exact way of Govt functioning. The senior officers give the practical understanding to these trainee officers. They learn the various departments' role for development. The trainee officers will have to observe the role of each and every officers /employee contribution in Govt affairs. The civil servants are to take these assignments as model learning so they can initiate their career.

Simon (2012) has written about the cultural membership, participation and political ideology decide the importance of job for civil servants.

The political intervention after an extent will not be of any use for civil servants. Alex (2007) has mentioned that civil servants require protection after some extent. Civil servants require to be different from other employees. Public servants require to follow rule of law and implement policies of Govt. Deemke (2005) has mentioned about the role of intensity and honesty for Govt functioning. Civil servants have to work for public and Govt interest. The civil servants may require specific communication skills. Gregory (2004) has written about specific communication skills for civil servants. The job profile is not as simple as seemed to be. They are in full contact with internal and external agents.

Performance appraisal for civil servants

Morriam webster define performance as the execution of an action or fulfillment of claim. It is a given task measured against present standards of completeness, cost and speed. Business dictionary defines performance is deemed to be fulfillment of an obligation in a manner that releases the performer from all liabilities under the content.

Research questions

After review of literature some questions came out in following manner.

- The current performance reviews of civil servants are appropriate?
- The performance appraisal consists all the evaluation factors of evaluation.
- The performance appraisal gives appropriate chance to candidates for presentation of potential.
- The Flexibility exist in performance appraisal system.
- The performance appraisal has peer review or single review system?

Research Methodology

The questionnaire was developed to study on these asserts. Kumar (2004) has suggested the appropriate these of qualitative methods. The researcher has decided to go for Focus Group discussion.

Sampling strategy

In other studies the respondents were selected from various organizations. Garland (1995) has mentioned then scope of sample selection.

The two types of civil servants have been selected for this study

Central civil servants	state civil servants	Total
35	40	75

<i>The other demographic</i>	<i>Factors are also central officers</i>	<i>Included state officers</i>
<i>Age less than 30 years</i>	<i>15</i>	<i>27</i>
<i>Age between 30 to 50 years</i>	<i>8</i>	<i>10</i>
<i>Age more than 50 years</i>	<i>12</i>	<i>03</i>
<i>Total</i>	<i>35</i>	<i>40</i>

Focus group discussion

Researcher has discussed in the small group about appropriateness of performance appraisal system. The officers have discussed about the presented variables and they have also expressed their opinion about the performance appraisal

Some new variable have also emerged. The following statements are now present for observation

- Pear review system is lacking in present system
- Political problems handling skill is not included
- Social problems skills handling is considered where it is a crucial task.
- The initiative approach is not welcome many times.
- The theory and practical has a total difference.
- The problems do not address by senior officials even after informed.
- The superiors do not want to see juniors as successful just because they have failed so.
- The feeling for awarding good rank is in majority a luckewasm
- The social views are also important part in our assessment
- There is total lack for motivation of improving lack of performance.
- The talent is most of time ignored for assigning any posting.
- System has problem findings but not potential findings.
- The behavioral skill part is not included in the system.
- Often reviewers do not understand the working condition at held level.
- Multiple feed fork system may be lack of objectivity.
- The review system lacks the assessment at corporate level.
- The system lacks the discussion among reporting officer and candidate.

The application coding system in the process

- Poor review
- Political handling
- Social involvement

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- Initiative
- Biasness
- Motivation
- Attitude
- Objectivity
- Communication

Even now the coding process can be applied finally.

- Peer review
- Attitude
- Skills set
- Communication
- Crisis management skills

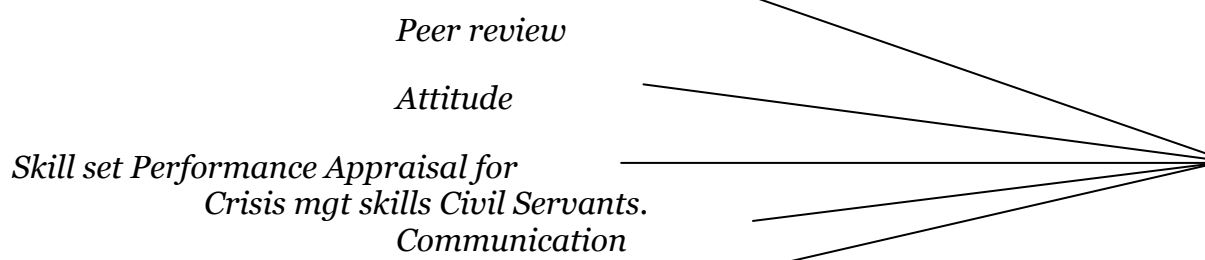
The quantitative research has given following data sets:

<i>S.no.</i>	Variable	Preference
1	Peer preview	60%
2	Attitude	20%
3	Skill set	55%
4	Communication	65%
5	Crisis mgt skills	70%

The respondents have answered for various queries. Peer review has considered useful. Attitude is also an important factor. skill set is also required to be addressed. Communication is also considered very important for candidate and authority.

Finding and recommendation

The suggested conceptions model:



(The next level of research may carry further research on proposed model for conformity.)

The Govt. may incorporate the following level of changes in performance review of all officers. The limited opening in some cases of sensitive post is appropriate but in non sensitive position candidate could be given information about performance.

The potential assessment may be done for further posting. The external experts can be involved in performance review process

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Web security using user authentication methodologies: CAPTCHA, OTP and User Behaviour Authentication

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anomaly detection,
phishing.

ABSTRACT

When we refer to the Banking Systems then the security is at a higher stake since the time internet crossed roads with the banks. The data security is very critical to be managed since the last few years due to various hacking techniques. When we are so much dependent on web then it creates a dread of loss to our data. The statistics also reveal that 15 million people across United States become a victim to Identity Theft, online. There is a collective loss of \$50 billion. 100 million Americans faced problems due to these online data thefts or Identity Thefts. The paper discusses the methodologies for CAPTCHA, OTP and UBA for user authentication and we also discuss about the web security through these methods.

Introduction

In today's world of Internet and engineering the major risk appears on user data. This user data includes all kinds of login credentials, credit card details and personal details. This type of social engineering attack is called Phishing. Phishing often happens when a hacker sends a spooked e-mail, text message or instant message, camouflaged as a reliable unit. This leads for the victim to click on a malevolent link to install a malware. This in turn freezes the system and all the important credentials are revealed. Theft, unauthorized purchases or stealing of funds can be some of the few harms the attack and reveal of information can cause. [1]

When we refer to an organization then this attack may cause severe financial and potential value decreasing losses such as loss in market shares, customer trust and most importantly loss of reputation. The security threats that these malwares may cause can also be worse for the company as the company may have a hard time to overcome that loss. [1]

Review of Literature

Jun Chen (2017) proposed CAPTCHA as a major threat to the multimedia security. He also proposed a framework for the CAPTCHA breaking technique. For this he claimed that the breaking of CAPTCHA defines how secure that CAPTCHA was and that can also help in improvement of that applied method.

Indrajeet Das (2013) said that the major issue in logging in the cloud is to use static passwords because they do not provide complete privacy and can be used by many people around and across the globe. The users rarely change the passwords and use it on multiple websites and login accounts which in turn increases its fact of threat-making and anomaly rising. The solution to which came out to be One Time Passwords.

Moshe Zviran (2006) claimed Internet to be a very important part of business strategies. There are 3 major components for security in this region. The first is the access control identification, authentication and authorization. All these can be completely handled through User Behaviour Authentication.

Phishing Attacks

1. A mail supposedly from myuniversity.edu was rolled out too many faculty members around the world.
2. This mail claims that password of the user has been expired and attaches a link through which the user can change the password using that link and end up installing a malware. This mail also instructs to change the password within 24 hours.

CAPTCHA

CAPTCHA was firstly proposed by Luis von Ahn of CMU in 2002 [2]. This feature was invented to help the computer differentiate between 'bots' and humans, so that a bot may not sign up for multiple accounts and create and spread junk mails. Figures below show some typical CAPTCHAs. The following Figures show the different types of CAPTCHA that the system uses.

- Figure 1(a) is an early one generated by EZ-GIMPY: An image with randomly distorted characters and gradient colour background.
- Figure 1(b) is a more complicated CAPTCHA that adds a perturbing curve to prevent computer from segmenting the string into single characters.
- Figure 1(c) makes the characters crowded and difficult to separate, some even human might not recognize.

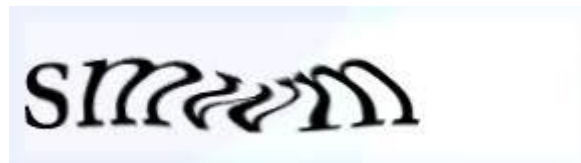


figure 1(a)



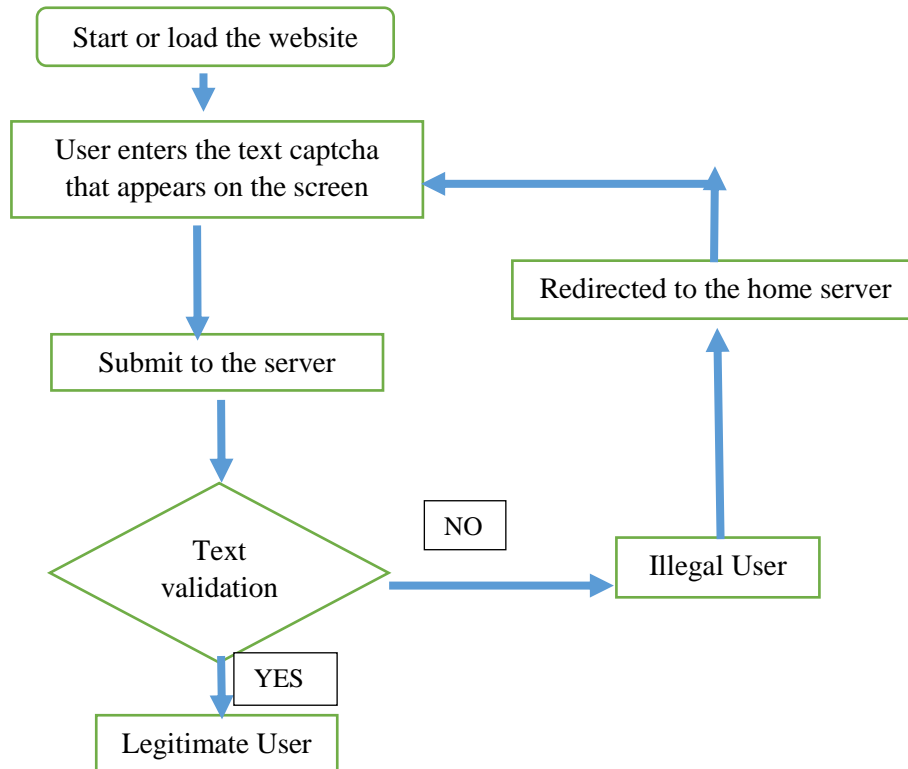
figure 1 (b)



figure 1 (c)

How CAPTCHA works?

1. The website which we have to work on first gets loaded.
2. Then the screen happens to have a CAPTCHA which the user enters.
3. Then it is submitted to the server.
4. The server then checks the text validation which leads to 2 cases:
 - a) If the text validation is correct, the user is allowed to enter the website.
 - b) If the text validation happens to be wrong, then the user is declared illegal and is directed back to the home server.



Is captcha a secure solution?

Never was it believed that CAPTCHA would be the safest option and soon it was broken. No sooner did it take the researchers to teach the machine to guess the correct option and all the work on CAPTCHA became no more a safe option. When the pattern was cracked the accuracy rate that the answer would be correct was 70.78 percent precisely and time recorded was less than 20 seconds. The CAPTCHA that failed miserably was that of FaceBook at a rate of 83.5 percent.

The advanced cracking and hacking algorithms smashed down image CAPTCHA. Even the sound captcha was said that it could be fooled after an extensive work by Jennifer Tam, Jiri Simsa, Sean Hyde and Luis von Ahn who worked for Carnegie Mellon University, Pittsburgh. The reports of 2012 declared GOOGLE audio CAPTCHA split by 99 percent success rate. The main protection didn't consider a high frequency sounds which made it easy for the hackers to invade by detaching each word by finding the regions of higher frequency. [3]

Cons of captcha

CAPTCHA becomes very annoying and irritating in cases when it has to be recognized and added again and again. It probably seems that the developers have dusted off their responsibilities and thrown them on you but they should have found some less annoying way to do that. Now-a-days, it's very easy to fool a captcha through various algorithms.

Applications of captcha [5(a,b)]

- a) **Protecting Website Registration:** Captchas protect various e-mail services from Bots. These websites are the ones which may get a lot of accounts registered every minute using algorithms like automated script.
- b) **Protecting Email Addresses from Scrapers:** Various servers protect the mail id of any user by making the user first solve a captcha before making his or her mail id visible.
- c) **Preventing Dictionary Attacks:** After a number of unsuccessful logins, the computer asks the user to solve a captcha test so that the computer program is restrained to repeat through the entire space of passwords.
- d) **Search Engine Bots:** The search engines through captcha prevent the download or reading the texts from the sites that may have some confidential data or information.

One-time password

The alphanumeric string or number, generated automatically, that verifies the user for a single transaction or a single login is called a one-time password or an OTP.

A password that is static or generated by the user can be weak or reused for multiple accounts for multiple times. OTP is more secure than passwords. It adds a new layer for security as it replaces authentication for login information.

Generation of OTP

The algorithm that is used to generate the values for an OTP is Hashed Message Authentication Code algorithm. It also involves time based information or an event counter. The timestamp used in case of OTP values is in minutes or even in seconds which proposes greater security. The OTP can be sent to the user in various ways, which in some cases can be opted by the user itself. The modes can be SMS- based text message, an e-mail or a phone call in which the OTP is spoken to the user and then he or she enters the OTP.

The OTP function depends on a 2FA system that prevent the SMS message hoax and man-in-the-middle attacks. The use of SMS for 2FA and OTP was quite criticised by the U.S. National Institute of Standards and Technology (NIST). NIST proclaims that SMS is a weak method to protect the systems from the attacks caused due to these passwords or codes. They also proposed to the enterprises to find some other methods for OTP rather than delivering them through SMS.

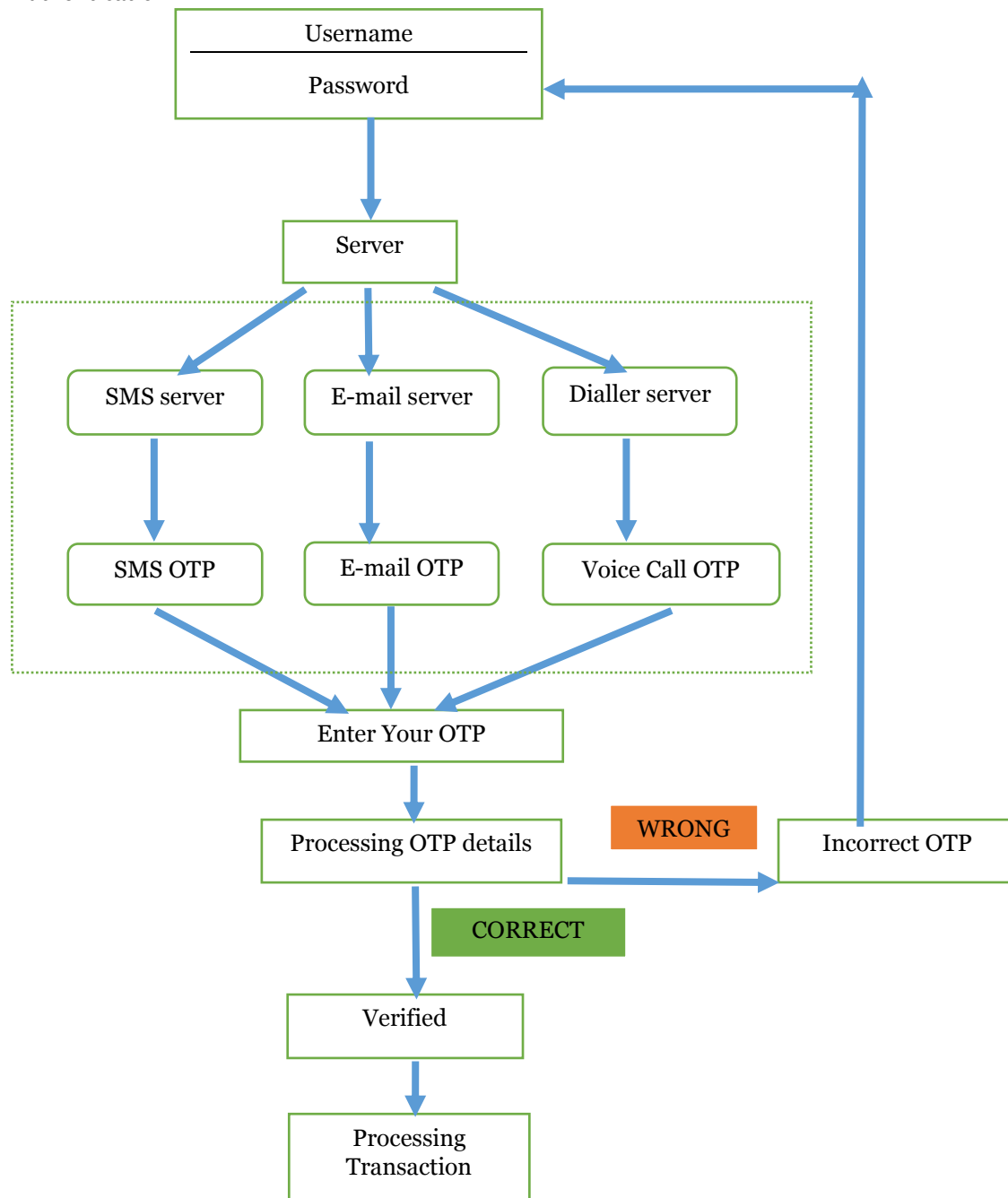
Benefits of OTP [4]

1. OTP avoids common pitfalls: IT administrators face a lot of problems with password security. With OTP they do not have to worry about the rules of setting passwords, commonly known as the strong or weak passwords.
2. Password sharing: It happens that a lot of accounts and user may have the same password and that may cause sharing of credentials. OTP overcomes this problem as it happens follows a two-step verification methodology.
3. Time-stamp prevents attackers: The major advantage of OTP is that it has a time stamp and becomes invalid in minutes, and in some cases even seconds. Hence the attackers face a hard time obtaining the codes and reusing or misusing them.

Working of OTP

The websites which provide the particular access to manage accounts follow a few important steps. Following is the flowchart of how OTP authentication works.

1. The user enters the Username and password to get access to the account.
2. The credentials are sent to the server which then generates an OTP.
3. The server takes decision of choosing whether it has to send the OTP as SMS, E-mail or call. Sometimes, it is offered to the user to select what mode he wants the OTP in.
4. The SMS server, Email server and Dialler server sent the OTP as an SMS, E-mail or Voice Call respectively.
5. An OTP with a time-stamp is then sent to the user and is asked to feed in the OTP within the time provided.
6. The entered OTP details are then processed and checked if it is correct or not.
 - a) If the OTP is wrong or the time lapses then the thread is sent back to the main page or website.
 - b) If the entered OTP is correct, then the verification process is confirmed and transaction is processed.



User Behaviour Analytics (UBA)

There are a few threats that can't be cleared even by the above mentioned methods. This happens because of the huge data travel over the cloud through the internet. The mechanism henceforward used is User Behaviour Analytics.

User behaviour analytics (UBA) was explained by Gratner as a cybersecurity process about detection of insider threats, targeted attacks, and financial fraud. The solutions look at patterns of human behaviour, and then apply algorithms and statistical analysis and find out the potential threats and through anomalies found out from the derived patterns.[6]

Insider threats

Threats are issues that are caused by the user to an asset. Following are the major threats which needed to be solved.

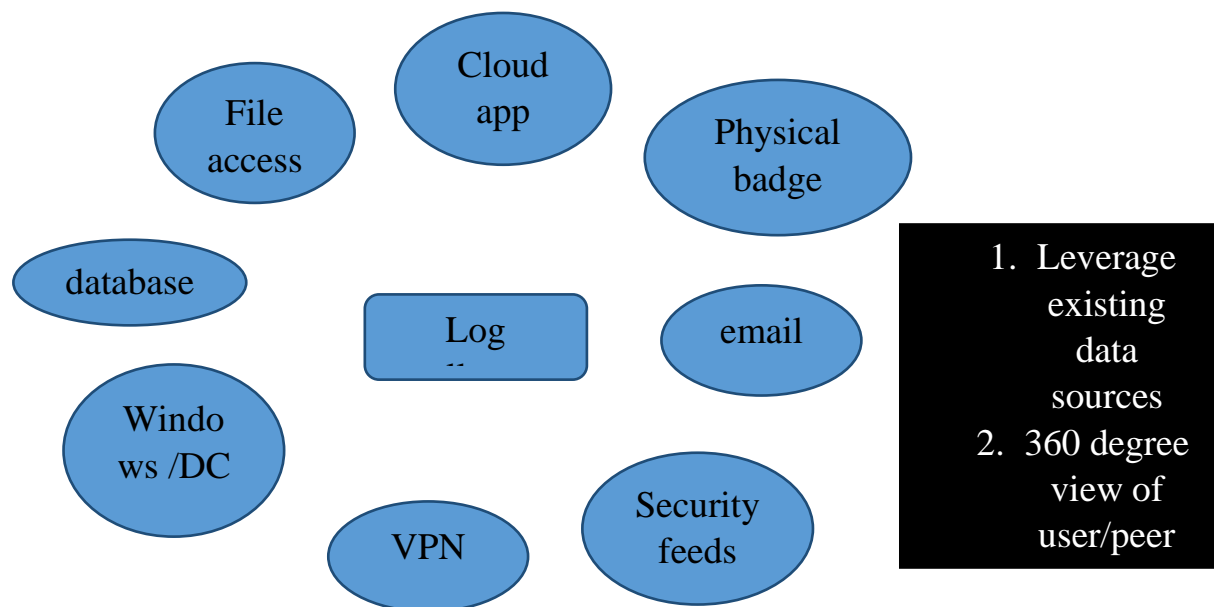
1. Disgruntled employees with malicious intents.
2. Privileged user violating acceptable user policies.
3. Compromised account via phishing.

Data Source

Here we are talking using machine learning so we want know user behaviour analytics. We collect data as much as data is possible from various source for achieving 360 views of user behaviour. User asset accessing activities is being recorded on something called controller from this log you can know which user is accessing which asset.

VPN log-this allow you to see which profile come from which country just like VPN work.

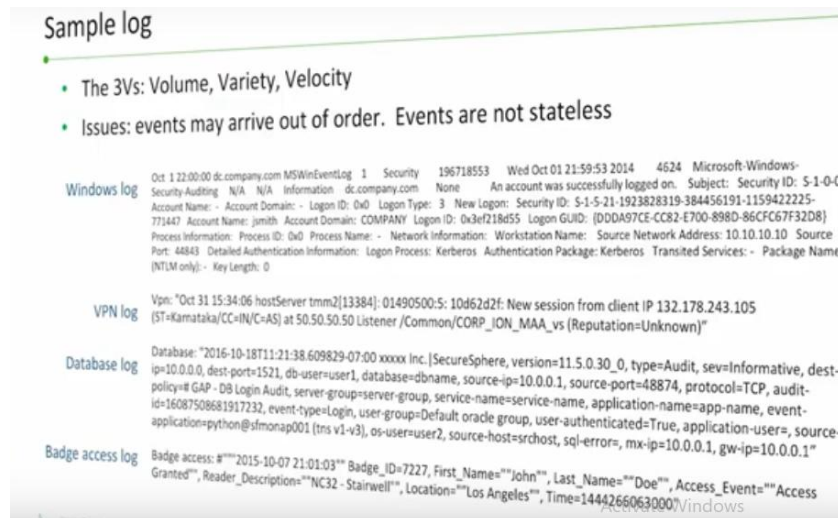
VPN log, window log, file access log, database log, cloud apps log, physical badge access log, email log, security log.



The 3V effect on Data (Volume, Velocity, Variety)

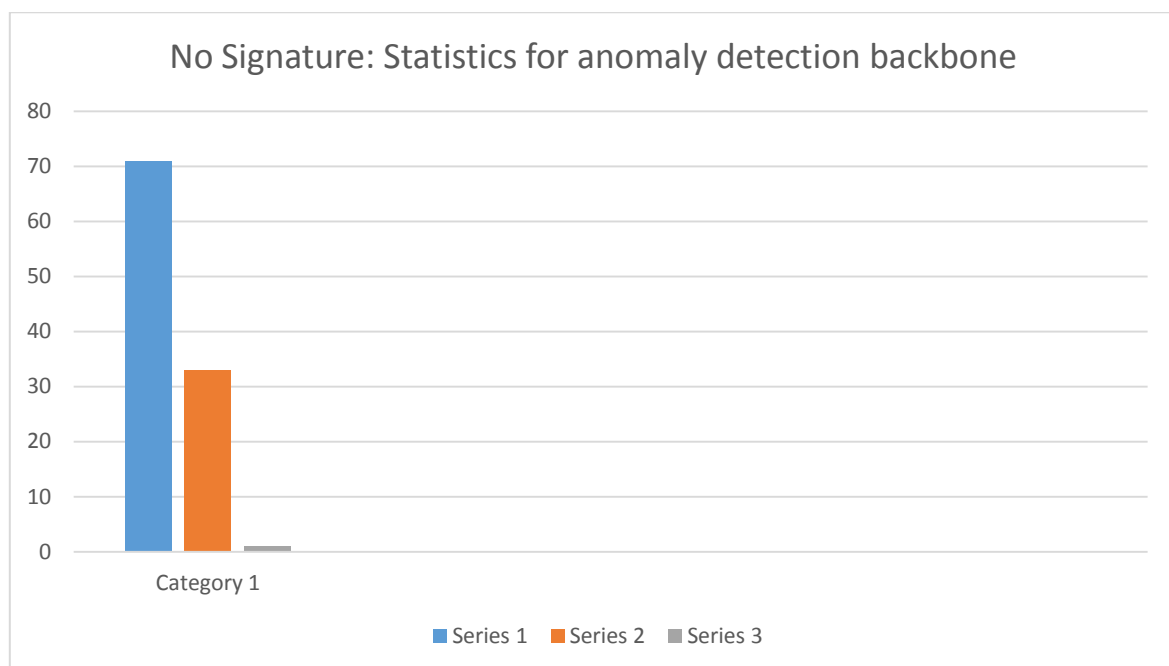
Data set has big data problems like of size and volume then these data high velocity problem like 3000 to 7000 events per second sometimes have the very high variety because they are various data sources that need to inject.

Web security using user authentication methodologies: CAPTCHA, OTP and User Behaviour Authentication



Behavior Profiling

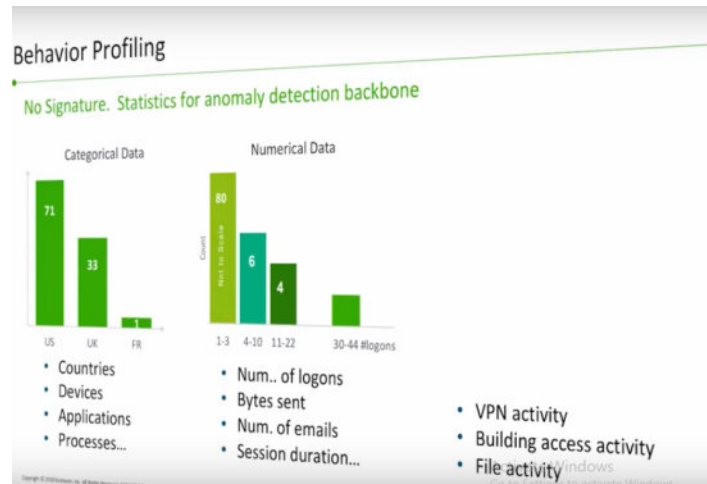
Each user I want to profile his behavior among various dimensions on various activities. If I established his normal behavior profile then I if any new activity coming from him then I can rise my alert (something is wrong, something is not normal)



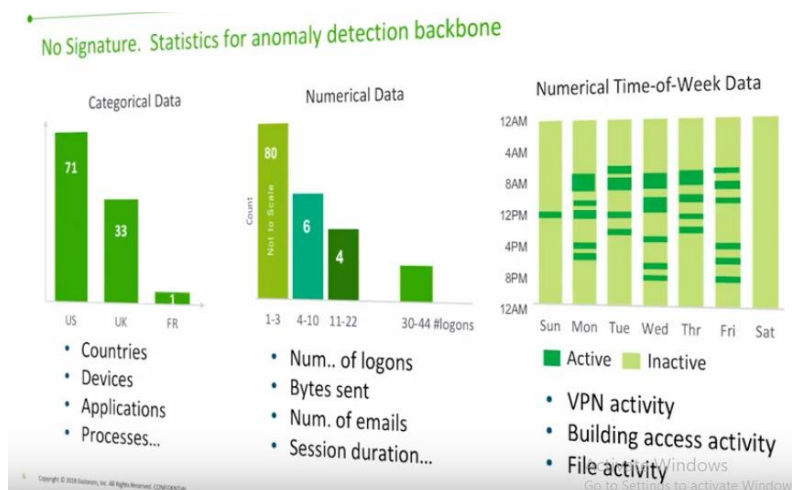
- Countries
- Devices
- Applications
- Processes
- Number of logons
- Bytes sent
- Number of emails
- Session duration
- VPN activity
- Building access activity

▪ File activity

Through VPN log we can find out about the last 6 months' data. In which 71 times data came from US, 33 times it came from UK and only 1 time it came from France. Now we can detect data form normal interaction and we can also look over their activities on VPN log. As we have used countries like wise we can also devices on the x-axis so that we can know how many devices he has touch and might have the models name so we can know what application he is using in the past and about his executed process.



We can also have his behavior profiling using numeric data so we check his profile over numerical activities. For examples how many no. of logons the user has done and no. of bytes he has send and how many no. of emails he has send and also about his session duration.



Here we can also check his normal numeric time –of – week data. We can check his normal activities from dusk to dawn also the time of activity.

And also keep check on his VPN activities, file accessing and building access activities.

1. Throughout course of session event for victor. He did different type of activities. One of his activity is when he access an asset in New York. This type

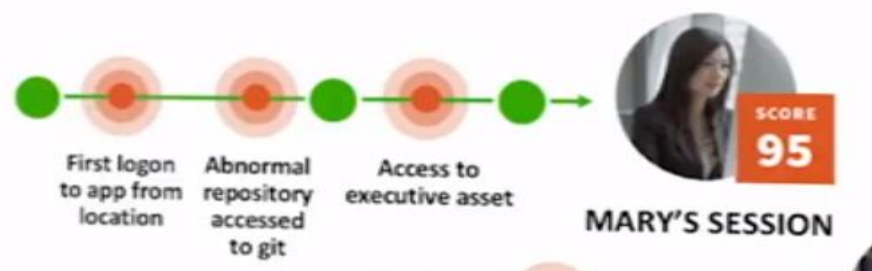
of asset cannot be explain by his normal profile like he has touch or access any asset which is new or never been access by his named profile before so when his histogram cannot detect his activity we rise any alert with his score like 15.



2. Like-wise for Mary's session

There were three type of activities during her session which cannot be explain her histogram so they have generated alert.

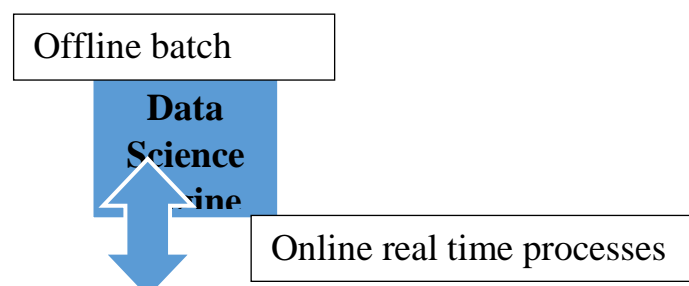
In her case the first trigger arise for alert is when she want to logon to any application from any location. So give 30 point there and then next is maybe she has abnormal repository accessed to git so there she get another 30 point and then she want have access to the executive asset again alert is arises and at least when sum up all her alert aggregate score is 95.

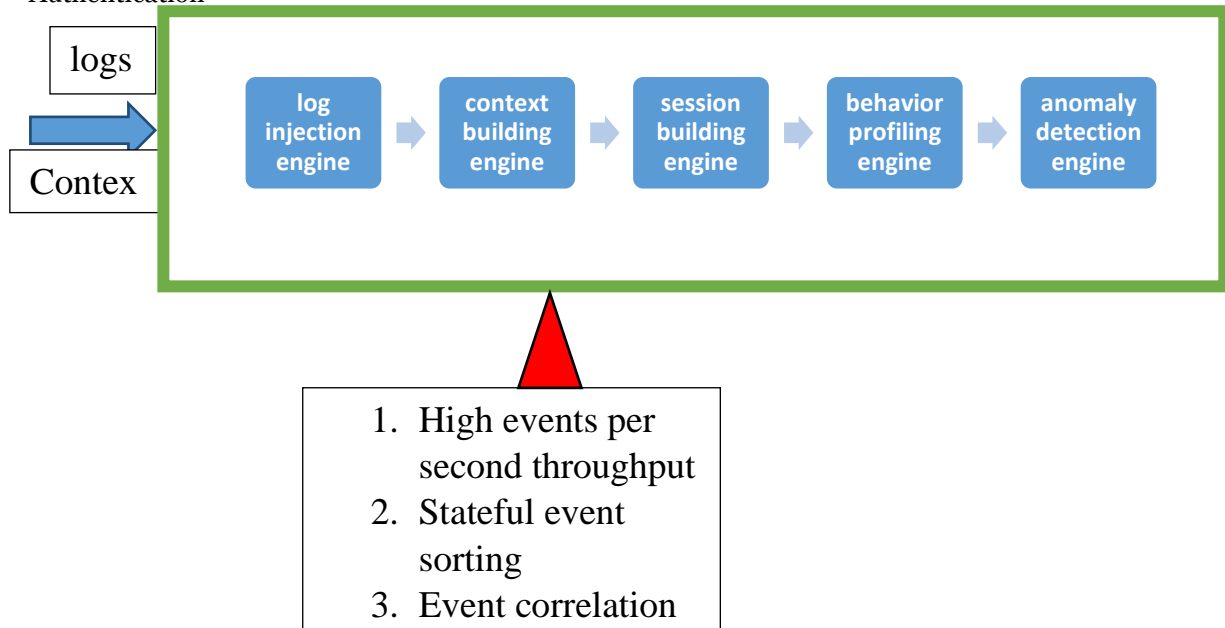


3. In the same way when triggered some alert and total score will 120.



Batch Processing in UBA





Online Real Time Process

So as we can see that log or context is coming from left hand side so the engine which the data is log injection engine(it is used to do all the data processing like to sort, normalize the data) this process happen for numerous times.

- High event per second throughput
- Stateful event sorting
- Event correlation

Context building engine

- In context building engine applicable information is pulled from the environment to find out the identity, assets, location etc.
- Through this, we also determine context like whether a station is a server or a normal workstation or whether the user who is using it is a service user or a user account.
- It is used to understand the environment well enough to apply models and rules.

Session Building Engine

Once the context building engine has completed its work, it is then that session building engine starts off its job.

- Its job is to stitch all the activities from start to end.
- It checks across all accounts, devices and IPs, and auto-assembles coherent sessions that link all activity to a user, all sessions – historical and ongoing – for each user in the company

Its goal was to assemble activity into coherent structures and tie them to the users. In simple words, its goal is to construct the coherent structure and tie all of them together before it is presented to the user.

Anomaly Detection Engine

After session building is done anomaly detection engine takes port.

- It defines security research driven rules to assess risk of anomalous behaviour and apply risk scores to unusual activity.
- Aggregate risk scores are then calculated and the topmost users are displayed on the Exabeam Dashboard where the risk ratings can be explained to analysts in plain English.

The goal is identifying users that are behaving in a way that is both abnormal and risky so that analysts can take appropriate action quickly.

Offline Batch Process (Data Science Engine)

Data science engine plays a major part in UBA as it heads the data to all the engines for appropriately finding the information.

- The context data is estimated
- The offline Target where from the anomalies are coming are hereby detected.
- And after all the engines have performed their jobs and the information is retrieved from the data is then sent back to data science engine which then controls all the anomalies and clears all the problems.

Conclusion

The paper discusses about the problems faced by the various methods used during the authentication and process during login internet access. The technologies used and the problems faced by them. These technologies are majorly used in the today's time and are being developed lately. The CAPTCHA technology is working on the various algorithms for the enhancement and also working on the above mentioned issues over time. One Time passwords have been recognised as quite secure due to its two factor authentication methodology and also the reach to the user and cause least anomalies. The paper also covers the insider threats identified by anomalies lead through the algorithms. These algorithms follow the User Behaviour Authentication and calls in the user data to authorize the login and navigation processes.

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Proposal: How The 3B's Needs VR: Addressing Workplace Harassment & Bullying

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ABSTRACT

Harassment and bullying require three key actors or 3B's, a bully, the bullied (or target of the bullying) and the bystander. Negative behaviours occur in large and small organizations, profit, non profit and public sector agencies across all job classifications regardless of educational levels. What is clear is all too often childhood bullies enter the workplace using tactics that have served them well during their formative years, and those who were bullied, become bullies as a defense mechanism (Einarsen, Hoel, & Cooper, 2002).

The World Health Organization recognizes bullying as a global issue classifying it as psychological violence carried out in the workplace (Kakoulakis, Galanakis, Bakoula-Tzoumaka, Darvyri, Chroussos, & Darvyri, 2015). The costs to the individual's bullies, the organization and society are being recognized as huge due to the stunted careers, turnover and brand damage. Workplace harassment needs to be addressed to thwart its destructiveness to employees both at work and outside of the workplace. Incorporating VR training into anti-harassment training can be a sufficient stimulus to cause neurological shifts in the learner allowing for 'refreezing' into a receptive state for sustainable learning and long term organizational culture changes.

Introduction

Harassment and bullying require three key actors or 3B's, a bully, the bullied (or target of the bullying) and the bystander. Negative behaviours occur in large and small organizations, profit, non profit and public sector agencies across all job classifications regardless of educational levels. What is clear is all too often childhood bullies enter the workplace using tactics that have served them well during their formative years, and those who were bullied, become bullies as a defense mechanism (Einarsen, Hoel, & Cooper, 2002).

Scholars have debated definitions for both workplace harassment and bullying for several decades.

Vartia, (2018) states, "Workplace Bullying:"means harassing, offending, or socially excluding someone or negatively affecting someone's work. In order for the label bullying to be applied to a particular activity, interaction, or process, the bullying behaviour has to occur repeatedly and regularly (e.g. weekly) and over a period of time (e.g. about six months). A conflict cannot be called bullying if the incident is an isolated event or two parties of approximately equal strength are in conflict."

Debate exists regarding the scale of workplace harassment, from ten – forty percent depending on the country, sector or role (Zapf, Einarsen, Hoel & Vartia, 2003; Bonde,

Gullander, Hansen, Grynderup, Persson, Høgh, Willert, Kaerlev, Rugulies, & Kolstad, 2016; Power, 2014). Others challenge the growing numbers of employees facing harassment or bullying by suggesting some individuals place frivolous claims of bullying when managers are applying appropriate and reasonable work performance expectations (Birks, Budden, Stewart, & Chapman, 2014).

It is clear workplace harassment and bullying occurs on a scale much larger than previously thought (Canadian Safety Council, 2018; Canadian Centre for Occupational Health & Safety, 2018). Despite the lack of agreement on a definition for workplace harassment and bullying the elements and attributes of these acts are consistent (Van Fleet, White, Van Fleet, 2018). These are ubiquitous negative behaviours around the globe, no country is immune however the term bullying is often associated with children while harassment is more often associated with adults (Jacobson, Hood, & Buren, 2014).

Organizational cultures can condone or foster harassment-free environments through benign neglect in dismissing harassment complaints, lack of or poorly worded policies overly complicated and time consuming complaint processes. Organizational policies are typically created or recommended by Human Resources or in-house counsel who then is tasked to oversee compliance thereafter. Implementation of policies includes launching classroom and or online anti-harassment training. Power imbalance, extreme cultural norms, racial or gender positions drive harassment, bullying and sexual harassment (Einarsen, et al, 2002; Keltner, 2017). These are complex emotional issues with literature debating the profiles of bullies, the bullied and the bystanders or even the existence of profile characteristics when in fact the role of the organization needs to be examined.

Are lawyers and Human Resources exaggerating this issue of workplace harassment and bullying? While not all countries recognize workplace harassment or bullying, for example the United States and Canada have federal law covering sexual harassment, there is no federal law covering workplace harassment only inconsistent provincial health & safety codes and even scarcer state protection. Only recently have the hard and hidden costs begun to be calculated: countless thwarted careers, lost time due to stress, physical and psychological trauma, by ignoring negative behaviours. The organizational costs are huge. One organization, The Royal Canadian Mounted Police (RCMP) has been forced to address sexual harassment following the Merlo-Davidson lawsuit which resulted in \$1.1M settlement (MacKay, 2017). More recently, a larger class action lawsuit addressing harassment and bullying including males and females has been filed in excess of \$1.1B settlement (Ibid, 2017; Seglins, D. 2018). The RCMP has reshuffled senior leadership, and mandated 'Respect in the Workplace' training in both classroom and online formats. Currently, this researcher is studying the effectiveness of anti-harassment training and its ability to impact sustainable organizational culture.

How we train

Traditional training delivery mechanisms address harassment and bullying from the priority of satisfying immediate compliance needs to minimize organizational liability often with little regard for sustainable culture change at the team or department level. Delivery relying on classroom methodology remains subjective dependent on the

facilitator's knowledge of the subject matter, experience delivering such programs to audiences and audience composition. One Australian survey found only 20% of Diversity and Inclusion facilitators responsible for delivering Anti-Harassment programs had any formal training in this area, most had fallen into this field as 'other duties as assigned' spilling over within Human Resources

Current formal in-house anti harassment and bullying training programs in Canada are commonly short, lasting from an hour to two days, covering just the facts (Cheung, Goldberg, King & Magley, 2017). Retention of information and internalized learning is short-lived using traditional or blended delivery modes (Stewart et al., 2008). In many workplaces, compliance training fulfillment, such as anti-harassment training is tolerated because HR mandates it, or dismissed as an intrusion into 'real work time'. Another frequent over used approach is to specifically train leaders on 'How to address workplace harassment', again with limited long term impact. If a baseline of the leaders own status of bullying is not established first, then knowledge of their shift due to any learning process is nebulous.

How we can measure training

A combination of peer reviewed questionnaires have been utilized by this researcher to examine the effectiveness of anti-harassment training within one federal agency, the Royal Canadian Mounted Police (RCMP): The Negative Assessment Questionnaire-r (NAQ-r) a 22-question self-reporting assessment on workplace bullying (Cameron,) and the Organization Culture Assessment Instrument (OCAI) provides insights into current organizational culture state through 20 questions, and the Kirkpatrick Evaluation Model measuring the effectiveness of organizations integrating training programs. The latter tool measures training integration on range from 1= representing employee compliance with little retention of key learning's, to 4= integration of training material at the personal and team level, at both the operational and strategic levels, alignment of policies, written and unwritten norms and metrics consistent with business goals.

How we can train

Utilizing virtual reality (VR) headset offers individuals a mechanism to learn by stimulating deeper neurological connectivity through interactive learning based scenarios allowing both data retention and more meaningful discourse post training event (Hershcovis, Reich, and Niven, 2015). Designing anti-harassment curriculum where learners enter a scenario from different perspectives forces the learner to engage in Lewin's change model of 'unfreeze-change-refreeze' (Cumming, Bridgman & Brown, 2016). Only when learners accept the issue of harassment at a personal level and from different perspectives can significant and sustainable long term changes occur (Lundgren, Bang, Justice, Marsick, Poell, Yorks, Clark, Sung, 2017). Following VR training with a mind readied for meaningful discussion, individuals can engage in whole body workplace training group sessions (Khan, pending 2019; Noe, Clarke & Klein, 2014). Training events where breaking bread together occurs, breaks down stereotypes, and challenges prejudices in a safe environment. How can the 3 B's understand different perspectives when it comes to workplace harassment? Clearly augmenting existing training, to ensure learners 'unfreeze-change-refreeze' change model occurs (Cumming

Available on SSRN-Elsevier

et al 2016). Traditional training approaches alone cannot sustain organizational change culture as evidenced by decades of attempts in all sectors. It is only with total body learning integration with the desired enhanced policies aligned to rewards systems based on 360 performance reviews that recognize intentional shift occurs towards an harassment free workplace culture.

So what?

The World Health Organization recognizes bullying as a global issue classifying it as psychological violence carried out in the workplace (Kakoulakis, Galanakis, Bakoula-Tzoumaka, Darvyri, Chroussos, & Darvyri, 2015). The costs to the individual's bullies, the organization and society are being recognized as huge due to the stunted careers, turnover and brand damage. Workplace harassment needs to be addressed to thwart its destructiveness to employees both at work and outside of the workplace. Incorporating VR training into anti-harassment training can be a sufficient stimulus to cause neurological shifts in the learner allowing for 'refreezing' into a receptive state for sustainable learning and long term organizational culture changes.

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Stakeholders Perception of Tourism Industry in Valley of Kashmir in Jammu and Kashmir : An Importance-Performance Analysis

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ABSTRACT

Jammu and Kashmir is a mainstream tourist destination in view of its vast tourism potential. The state of Jammu and Kashmir has three distinct regions, viz. Jammu, Kashmir and Ladakh and all three have immense potential for tourism from both domestic as well as international tourists. Kashmir region is known for unique scenic attractions popularly known as “Paradise on Earth”. Kashmir is one of the most beautiful regions of the world. The natural beauty of the Valley of Kashmir has many tourist attractions ranging from picturesque mountains, lush green meadows, famous mountain peaks, deep gorges, waterfalls, important high altitude lakes, fascinating forest flowers, wildlife, glaciers and centres of pilgrimage. Kashmir is home to a rich cultural heritage, besides a panoramic landscape that attracts tourists. Tourism is one of the major industries of the state especially in the Valley of Kashmir. Tourism is considered to be economic bonanza for J & K state because industrial development is very limited to hilly terrains. The complex nature of the industry and the multiple stakeholders that are involved in producing satisfying tourism experiences and products complicate the situation for destinations in achieving destination performance. The success of destination performance relies on the efforts of all the stakeholders that contribute in creating the total experience. The empirical research method was used for this study to examine tourism industry stakeholder’s perspectives on expectation and perception. A self administered questionnaire was developed for getting comprehensive information about expectation and perception of various prime stakeholders tourism industry in the study area. A total number of 312 establishments belonging to different stakeholders were surveyed at different places in the valley of Kashmir. The findings reveal a number of challenges in tourism industry of Valley of Kashmir in achieving desired results. These findings are brought into perspective of importance- performance analysis. Some pragmatic suggestions are provided based on main research findings of this study which may help to

the revival of tourism in Valley of Kashmir.

Introduction

Tourism has been considered as the largest service provider in the world. Tourism at largest is gradually assumed greater significance and dimensions, securing an eminent place for itself in the world economy. Tourism, which is referred as “smoke-free industry”, greatly contributes to Gross National Product and absorption of foreign currency in countries where tourism industry has recently blossomed. At the same time other countries have also made remarkable progress on the issue. Tourism is one of the largest and fast growing industries in the world today. Tourism in India is economically important and is growing rapidly. Jammu and Kashmir is a mainstream tourist destination in view of its vast tourism potential. The state of Jammu and Kashmir has three distinct regions, viz. Jammu, Kashmir and Ladakh and all three have immense potential for tourism from both domestic as well as international tourists. Kashmir is one of the most beautiful regions of the world. The natural beauty of the Valley of Kashmir has many tourist attractions ranging from picturesque mountains, lush green meadows, famous mountain peaks, deep gorges, waterfalls, important high altitude lakes, fascinating forest flowers, wildlife, glaciers and centres of pilgrimage. Main tourist places in Kashmir are; Srinagar, Dal Lake, Gulmarg, Pahalgam, Sonamarg, Kokernag, Aharbal, Achabal, Yusmarg, Daksum, Mughal Road etc. Kashmir is also the home to famous Hindu pilgrimages in India, where thousands of Hindu community people visit the shrine of Amarnath Cave every year. Jammu and Kashmir is home to a rich cultural heritage, besides a panoramic landscape that attracts tourists. This culture and tradition is reflected in the several fairs and festivals of Jammu and Kashmir that are widely celebrated with much zeal and fervor. Tourism is one of the major industries of the state especially in the Valley of Kashmir. This industry provides employment to lakhs of people directly and indirectly hoteliers, house boat owners, transporters, travel-agencies, traders, guides, porters, pony men, boatmen, handicrafts and small scale industry units and many others earn their livelihood because of this industry. The industry has given jobs to a very large number of people and has generated economic activities in the primary, secondary and tertiary sectors in the state, which owes dependence to a large extent to this industry. Tourism holds a strategic place in J&K economy by providing economic benefits like employment, foreign exchange, infrastructure development and development of local industries like handicrafts and handlooms, which has placed J&K always in the limelight at the national as well as international level. Tourism is considered to be economic bonanza for J & K state because industrial development is very limited to hilly terrains.

Objectives

1. To identify the profile of the study area.
2. To evaluate the Importance-Performance Analysis of tourism industry in Kashmir Valley.

3. To provide suitable outcomes for the development of destination performance in the study area.

Methodology

The quantitative research method was used for this study. A self-administered questionnaire was used to collect data from the prime stakeholders of tourism industry of Kashmir Valley in Jammu and Kashmir. A questionnaire was used to collect the information about tourism network, destination development, community development, tourism entrepreneurship and tourism network challenges. A five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used within 40 items. The total number of 312 questionnaires was filled by respondents as for their perception. People like Restaurateurs and Hoteliers, Travel Agents/Tour Operators, Local Entrepreneurs, Tourist Escorts/Guides, Employees of Tourism Development Authorities, Event Managers/Employees were targeted and constituted the sample of our study. The Kashmir Valley comprises ten districts namely Anantnag, Baramullah, Budgam, Kupwara, Pulwama, Srinagar, Kulgam, Shopian, Ganderbal and Bandipura. The four districts namely Anantnag, Srinagar, Baramullah, Ganderbal were considered for the study keeping the time, reach and cost in mind. These selected study area districts was on the basis of divisions of Kashmir Valley districts namely southern districts (South Kashmir), northern districts (North Kashmir) and centre districts (Central Kashmir). The location of these districts can be found in the Kashmir Valley is as follows: Anantnag (South Kashmir), Baramullah (North Kashmir) and Srinagar, Ganderbal (Centre Kashmir). The number of stakeholders surveyed in each district was proportional to the total number of establishments in that district. The non probability-sampling (convenience sampling and a judgment sampling) has been considered feasible with respect to the time and cost, and the objectives.

Analysis

The findings from survey with key tourism industry stakeholders whose opinions were sought on a range of issues related to linkages in tourism ecosystem of Kashmir Valley. In this research the tourism linkages were divided into five primary components i.e. tourism network, destination development, community development, tourism entrepreneurship and network challenges. Moreover each single concerned component is further divided into four items. The first component i.e. tourism network is divided into four primary items i.e. coordination, opportunities, environment and communication. The second component i.e. destination development is divided into four items i.e. quality services, adequate facilities, joint activities and feedback. The third component i.e. community development is divided into four items i.e. local employment, motivation, public facilities and tourist expenditure. The fourth component i.e. tourism entrepreneurship is divided into four items i.e. entrepreneurial opportunities, skill training, resource mobilization and business ideas. The fifth and last component i.e. network challenges is divided into four items i.e. mutual understanding, private participants, good relations and interdependency. In order to get concrete findings of the study the stakeholders' expectation and perception rating in respect of each of these component items was measured and then calculated on overall stakeholders' satisfaction in Kashmir valley through Importance-Performance Analysis.

Importance-Performance Analysis (IPA)

The Importance-Performance Analysis is a technique originally developed for marketing that has also seen wide applications in other fields. The IPA uses measures of importance and performance plotted in an action grid to identify the strengths and weaknesses of a service or company. The action grid is divided into four quadrants, usually using the mean or median of these measures as the crosshairs. The four quadrants help managers and marketers focus on improving customer relationships. The Importance-Performance analysis Quadrant is taken from Martilla and James (1977) as source to explore the analysis findings as shown Figure 1.1 below:

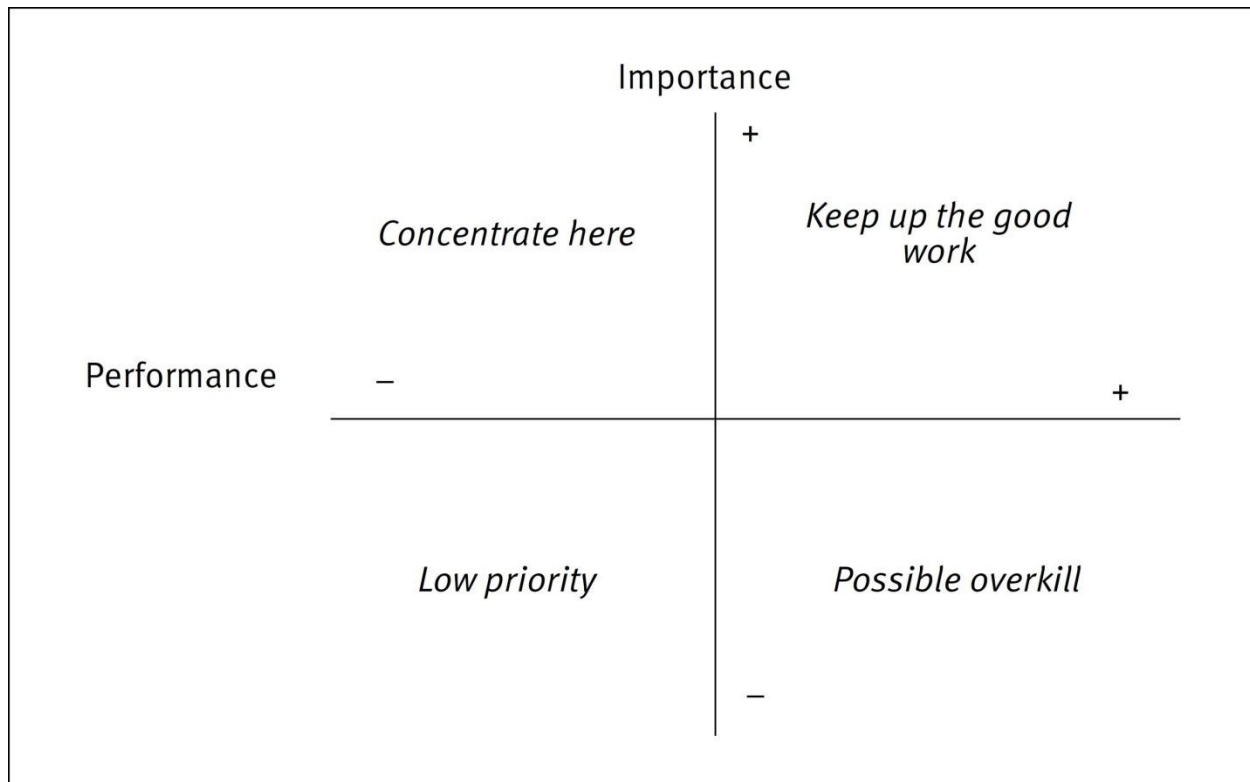


Figure 1.1: Importance-Performance Grid

In the below figure 1.2 importance-performance matrix, respondents' rankings of the role of stakeholders in tourism industry in Kashmir valley for both importance and performance are plotted on a grid with four quadrants. Each of the quadrants represents how important the role of stakeholders was relative to the perceived performance. By plotting importance and performance scores along x-axes and y-axis, four quadrants are formed revealing areas in which planners and managers may choose to focus their efforts. With this matrix, it is possible to identify where there are gaps (i.e. the expectation is high in importance but low in performance). The following four quadrants present the results of this analysis.

Quadrant I: High importance/low performance (Concentrate here)

Quadrant II: High importance/high performance (Keep up the good work)

Quadrant III: Low importance/low performance (Low priority)

Quadrant IV: Low importance/high performance (Possible Overkill)

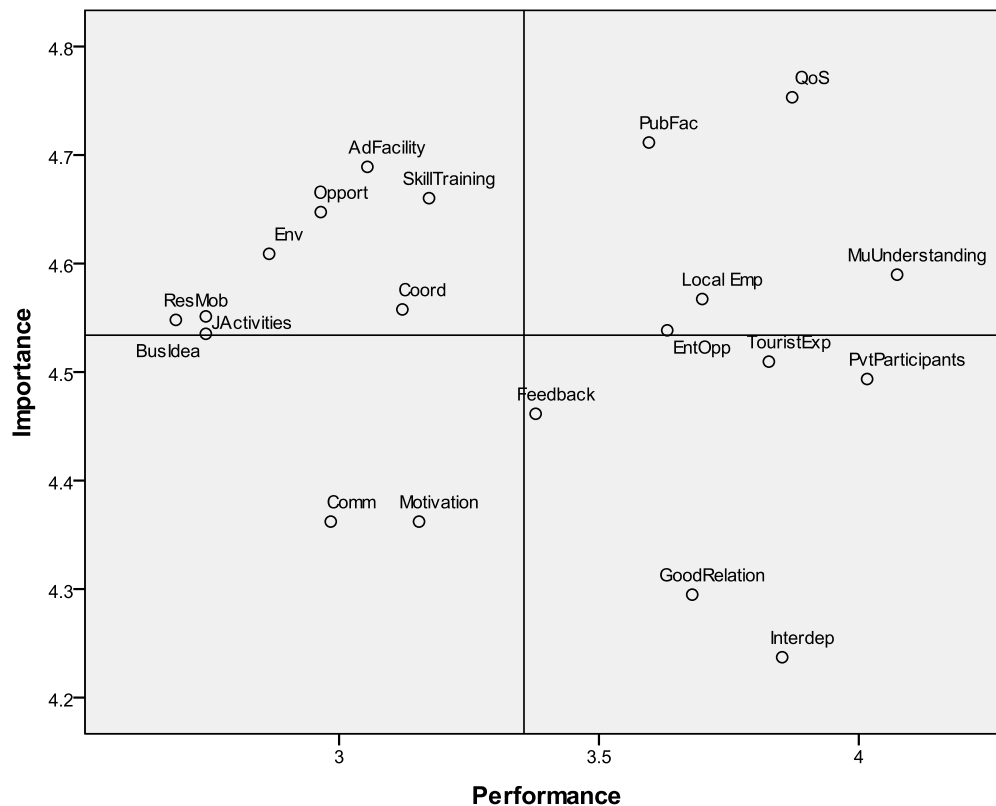


Figure 1.2 Importance-Performance Analysis

Quadrant I: Concentrate Here

Quadrant I (Concentrate here) includes the different items of tourism industry in Kashmir valley that were rated important to principal stakeholders but whose performance was rated as low (as compared to the means of each group). Quadrant I captured different items of tourism industry at different levels. It seems that different items that are found in this quadrant need to be given special attention; they were important yet yielded lower performance ratings by the respondents. This quadrant included different item variables such as adequate facilities, skill training, opportunities, environment, coordination, resource mobilization, joint activities and business ideas. Gap analysis showed that these items are significantly more important to tourism industry in Kashmir valley than other items. This finding has two implications: a) even though there is a significant difference score between stakeholders' expectation and

perception, these items are still important to all the principal stakeholders; b) all the stakeholders should do a better job in offering these items better in tourism industry. There should be high priority to remedy performance or curb expectation.

Quadrant II: Keep up the good work

Quadrant II (Keep up the good work) has various items of tourism industry that were important to principal stakeholders and were high in performance. The quality services, public facilities, mutual understanding, local employment, entrepreneurial opportunities were the items fell into this quadrant of role of stakeholders in tourism industry in Kashmir valley.

Quadrant III: Low Priority

Quadrant III (Low Priority) includes the items of the tourism industry that are both low in importance and performance, thus of low priority for the principal stakeholders. The items found in this quadrant were communication and motivation. However, just because items appeared in the “Low Priority” quadrant, may not mean that stakeholders should ignore them. This finding may be because: a) these items may be in the first stage of their stakeholder’s life cycle and therefore may move into a mainstream stage later; or b) the value of these are not known or expected by current stakeholders.

Quadrant IV: Possible Overkill

Quadrant IV (Possible Overkill) includes the items of the tourism industry that have low importance and high performance. The items found in this quadrant were tourist expenditure, private participants, feedback, good relations and interdependency.

Discussion

The Importance-Performance Analysis (IPA) interprets the empirical findings of stakeholders’ expectations and perceptions of various statements of the questionnaire and presents the synthesis of the findings. The underlying linkages between stakeholders’ expectations and perceptions derived from the findings are taken into the discussion to present an innovative approach to understanding the role of stakeholder relationship in perceived performance. Specific attention is given to understanding how these areas may choose to focus where group effort plays predominantly significant roles are discussed below:

a) *Coordination*: The coordination covers involvement of various stakeholders to give a better and modernized shape to tourism. Stakeholders in general in the Valley of Kashmir are not cooperatively faithful to creating collaborative practices but some major players support it. The main rationale for the aversion to this practice is ignorance of the wider benefits of collective efforts. Since the tourism is covered in the private and public sector simultaneously, therefore it is obligatory on the part of the state government to knit the programming to avoid any discrepancy or any sub-standardisation.

b) *Opportunities*: Tourism generates employment opportunities, both skilled and unskilled because it is a labour oriented industry. Opportunities for SMTEs in the Valley

of Kashmir to engage with the major players of the tourism industry are rare. This affects the motivation of SMTEs to collaborate with key tourism stakeholders.

c) *Environment*: In Kashmir Valley there is a frequent transfer and change of key persons of various tourism development authorities that hinders the tourism network. It also impedes communication and relationship among the different stakeholders as it takes long time to establish trust and close relationships.

d) *Adequate Facilities*: The Stakeholders has ignored the adequate facilities but has evolved the industry on the secondary sources. As tourist is the main pivot of this industry and we have to see if he is properly served, his needs are fulfilled, his activities gain momentum on the basis of experience, hotel accommodation, transportation and other arrangements. At picnic resorts and entertainment, at hospital and other allied services, the tourist needs proper attention.

e) *Joint Activities*: Identifying and developing tourism attractions and experiences that are most appropriate for specific areas, packaging the various activities and attractions in ways that will enhance the Valley of Kashmir's overall attractiveness, and promoting what is on offer across the region.

f) *Skill training*: Tourism industry in the Valley of Kashmir does not provide a good platform for those tourism players who have lack of education and skill and lack of experience in this sector.

g) *Resource mobilization*: For utilizing and exploiting the diverse assets of Valley of Kashmir linkages among various stakeholders is not seen to be essential to achieve their maximum potential.

h) *Business Ideas*: Tourism industry in the Valley of Kashmir are not exploring the entrepreneurial qualities of those who wanted to implement their own business ideas, would be a tour and travel business, restaurant and catering etc. in the Valley of Kashmir successful entrepreneurs are not encouraged to learn about the process of setting up a business and identify opportunities better.

Conclusion

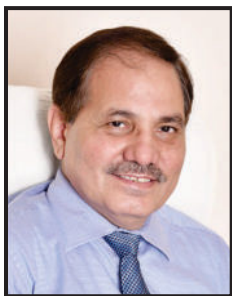
In wrap up the Importance-Performance Analysis (IPA) results came up indicated the strengths and weaknesses of tourism business in the Valley of Kashmir. The IPA uses measures of importance and performance plotted in an action grid divided into four quadrants can be useful to the planners and marketers of tourism business in formulating strategies to maintain and enhance its competitiveness. In other words, they should focus more on maintaining or improving factors that contribute to the overall expectation of the stakeholders.

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