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ABOUT ITS

I.T.S Group of Educational Institutions is a pioneer educational group which has since evolved as a brand in the realm of education. Established in 1995 under the aegis of Durga Charitable Society started with its first campus in Mohan Nagar, Ghaziabad, The Group is now having four campuses formidable with establishments at Muradnagar and Greater Noida also, imparting multidisciplinary curricula.

I.T.S - The Education Group is an 24 years old leading educational group of the country. Its various programmes are NBA accredited & NAAC (A-Grade) accredited. ISO 9001:2008 certified group offers 20 courses to its 8000 students in its 8 Institutes spread over 4 campuses, endowed with state-of-the-art infrastructure, all modern facilities and more than 700 distinguished faculty members.

I.T.S - The Education Group is a renowned and established educational group offering programmes in Management, IT, Dental, Engineering, Pharmacy, Biotechnology and Physiotherapy. PGDM programme offered by I.T.S is equivalent to MBA as certified by the Association of Indian University (AIU) which is a rare recognition given to any such programmes in India.

I.T.S is headed by Dr. R. P. Chadha as its Chairman who believes in nurturing the potential of the students and ensuring it to grow into a commitment to create a Thinking Professional Order. There is strong societal, industry, professional and fraternity participation rendering the graduated students as highly sought after products in the professional field.

All the Institutes under I.T.S – The Educational Group, are supported by full-time experienced and qualified faculty members who also act as mentors. All the courses are either affiliated to Universities and/or approved and accredited by AICTE. Apart from ISO 9001:2008 certification, the campuses are Wi-fi enabled. Value added inputs together with research work, seminars, paper presentation, MDPs and FDPs are a way of life. The group lays due stress on the development of the student not only as a professional but also as a worthy members of the society.

The I.T.S Group of Educational Institutions has 4 different campuses offering different professional courses. The Mohan Nagar campus started in 1995 in Ghaziabad offering PGDM, approved and accredited by AICTE and equivalent to MBA by AIU. The MCA/MBA programs are approved by AICTE and affiliated to AKTU, Lucknow. The BBA and Bca programs are affiliated to C.C.S. University, Meerut.

The Campus at Muradnagar started in the year 2000 imparts MDS (Approved by Dental Council Of India), BDS (Recognised by DCI & affiliated to C.C.S.), M.Sc (Biotech)/ B.Sc (Biotech) and BPT and MPT(affiliated to C.C.S. University, Meerut) and B Pharma and M Pharma which is approved by AICTE and affiliated to AKTU, Lucknow. Two campuses in Greater Noida started in 2006 and located at Knowledge Park III, offers B.Tech (approved by AICTE and affiliated to AKTU, Lucknow) with specialization in CS, IT, EC,ME & EE and MBA which are also approved by AICTE and affiliated to AKTU, Lucknow. The second campus established as Dental College and Hospital offers BDS and MDS which are approved by Dental Council Of India.

The admissions in all the Campuses are exceptionally in demand showing the growing popularity of the brand. This is duly backed by the placement records of the group with its passout being getting selected immediately in companies of repute.

I.T.S supplements education with its CSR activities offering help, care and guidance to the down trodden and unprivileged segments of the society. I.T.S-The Education Group offers nonprofit medical care to society through its two, 100 bedded fully equipped multi-speciality hospitals.

ABOUT CONFERENCE

Corporate involvement in societal issues is not new. Companies have deployed a portfolio of tools to exercise their citizenships in society, including corporate governance, corporate philanthropy and corporate social responsibility. Social innovation is distinct from these traditional approaches in pursuit of societal challenges and in ways that leverages company core competencies such as human capital, supply chain management, technology, sales & distribution system and create tangible sustainable business benefits by aligning company's innovations & business strategies with social issues and problems and to find out a meaningful long term solutions. In recent years, the non-profit organizations (NPOs) and social entrepreneurs create social innovation through information and communication technique approach to social innovation. The regular use of low-priced, high-performance devices, such as smartphones, personal computers and services (e.g., cloud services) have become more prevalent in social innovation. The prevalent use of ICT to create social innovation suggests that it is necessary to focus on the change in the business process through the introduction of ICT as well as the relationship between human value-creation networks and entrepreneurship.

It is realistic about challenges facing India at the threshold of a huge socio-economic transformation: rapid urbanization, digital revolution, a huge youth population, strained infrastructure, low per capita income and unbalanced urban/rural growth. This requires optimistic discussions for innovative, practical, sustainable market based approaches thereby accepting power and realities of information technology, digitalization and operation system to benefit society in general and low income or underserved population in particular.

This will take a particular shape when academicians, business executives, political leaders, policymakers, and technological innovators gather at a common platform to address such issues in more strategic, more ambitious and more collaborative manner in order to access and provide opportunity for billions of low-income people to participate in the global economy.

ABOUT IARA

Indian Academicians and Researchers Association (IARA) is an educational and scientific research organization of Academicians, Research Scholars and practitioners responsible for sharing information about research activities, projects, conferences to its members. IARA offers an excellent opportunity for networking with other members and exchange knowledge. It also takes immense pride in its services offerings to undergraduate and graduate students. Students are provided opportunities to develop and clarify their research interests and skills as part of their preparation to become faculty members and researcher. Visit our website www.iaraedu.com for more details.

Message from the Chairman

It gives me great pleasure to note the publication of the conference compendium for the International Conference on “Convergence of Social Innovation and Digital Transformation in Business (ICCSIDTB-2020, Part-II)”. The international conference is a flagship event in the calendar of the Institute of Technology and Science, Mohan Nagar. It provides a valuable opportunity for the confluence of ideas in diverse streams of thought in management and allied areas like Marketing, Human Resource Management, Finance, Operations, In, Part-Information Technology, Ethics, International Business, etc.

This convergence of thoughts on a particular relevant and contemporary concepts and issues is like Samudra Manthan of Indian Mythology, just as churning of the ocean of thoughts resulting in the creation of Amrit or Divine Nectar for educationists, researchers, business professionals and policy makers. The deliberations and discussions at ICCSIDTB-2019 is expected to widen the scope of research and Knowledge base and in the diversified areas of management, information technology, business and society .

I would like to take this opportunity to greet and express gratefulness for the concerted efforts of academic fraternity, researchers, business practioners and technologists for providing thought provoking contributions.

I am also indebted to them for choosng to participate in the conference at I.T.S Mohan Nagar and thus helping in raising the standards of academic excellence.

Dr. R. P. Chadha
Chairman I.T.S. - The Education Group

Message from the Vice Chairman

It is indeed a matter of great pride and pleasure that the Institute of Technology and Science, Mohan Nagar successfully organized the International Conference on “Convergence of Social Innovations and Digital Transformation in Business” (ICCSIDTB-2020, Part-II).

The two day conference witnessed enthusiastic participation from different parts of the country and abroad as academicians, researchers and business practitioners for deliberations on a variety of themes across diversified areas of management, information technology, business and society. A heartening feature of the conference was substantial participation and presentation of academicians, researchers and business professionals with thought provoking concepts and ideas on social innovations and digital transformation in more strategic, more ambitious and more collaborative manner in order to access and provide opportunity for billions of low-income people to participate in the global economy

Overall the conference provided a fertile ground for the productive exchange of ideas, laying the foundation for further research in the relevant fields. In order to ensure that the papers presented during the conference are available for posterity, and more importantly, accessible for use by future researchers, we are bringing out this compendium.

We are happy that Cengage has undertaken to be our partner in this endeavor. I believe, publication of this compendium will help and encourage researchers and educationists to delve more into these areas and unearth newer nuggets of wisdom.

I hope that future conferences at I.T.S are able to build on this head start and further excel and strengthen the path of knowledge and research in various fields of management and technology.

Shri. Arpit Chadha
Vice Chairman
I.T.S-The Education Group

From the Desk of Director

We feel highly delighted that Institute of Technology and Science, Mohan Nagar organized two days international Conference on “Convergence of Social Innovations and Digital Transformation in Business” (ICCSIDTB-2020, Part-II).

The objective behind the conference is to suggest measures in order to access and provide opportunities for billions of low income people to participate in the global economy and to discover unique approach to expedite social innovations by dissolving boundaries and facilitating dialogues between the public, private, and nonprofit organization taking into considerations of speed, space and sustainability.

The publication of the conference compendium for the International Conference is the sum total transactions of thoughts and concepts delivered and presented by the participants and dignitaries deliberations on a variety of themes across diversified areas of management, information technology, business and society.

It is hoped that the papers and abstracts included herein will spark greater interest in the area of social innovation and digital transformation leading to holistic development of research and academic excellence.

We are thankful to all the teachers, researchers and business professionals who invested their valuable time and effort in writing these papers, and chose to contribute for this compendium.

We would also like to take this opportunity to express our gratefulness to the management, faculty, staff and students, without whose efforts this conference would not have been possible.

With best wishes

Prof.(Dr.) Vidya Sekhri
Director (Management)
I.T.S Mohan Nagar, Ghaziabad

Preface

It is realistic about challenges facing India at the threshold of a huge socio- economic transformation- rapid urbanization, digital revolution, a huge youth population, strained infrastructure, low per capita income and unbalanced urban/rural growth. This requires optimistic discussions for innovative, practical, sustainable market based approaches thereby accepting power and realities of information technology, digitalization and operation system to benefit society in general and low income or underserved population in particular.

Social entrepreneurship and social enterprise have been popular for those trying to improve the economic world. These two notions are positive ones; but neither is adequate when it comes to understanding and creating social change in all of its manifestations. Social innovation is a better vehicle for doing this. Most of today's innovative social solutions cut across the traditional boundaries separating nonprofit organizations, government, and for-profit businesses. Unique approach to social innovation may be dissolving boundaries and brokering a dialogue between the public, private, and nonprofit organization taking into considerations of speed, space and sustainability.

Companies have deployed a portfolio of tools to exercise their citizenships in society, including corporate governance, corporate philanthropy and corporate social responsibility. Social innovation is distinct from these traditional approaches in pursuit of societal challenges and in ways that leverages company core competencies such as human capital, supply chain management, technology, sales & distribution system and create tangible sustainable business benefits by aligning company's innovations & business strategies with social issues and problems and to find out a meaningful long term solutions.

View points before organizing this conference and publication of this compendium is addressing and documenting company's innovation and business strategies with social issues and problems in order to leverage company's core competencies and creating sustainable business development and hence to discuss organizational and management issues.

Furthermore it aims at Developing human capital by skill development and employment of huge youth population in rural backward areas, bringing them into the mainstream of the national economy and ensuring improved Human Development Index (HDI) at global level and to Suggest measures in order to access and provide opportunities for billions of low income people to participate in the global economy.

We are extremely indebted to all the teachers, researchers and business professionals who invested their valuable time and effort in writing these papers, and chose to contribute for this compendium.

We would also like to take this opportunity to express our deep sense of gratitude to the management, faculty, staff and students, without their efforts this conference would not have been possible. I am thankful to Cingage that has co partner of this event and shown interest in publishing this compendium.

With best wishes

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A STUDY ON PATTERNS OF CONSUMERS IN COSMETIC INDUSTRY WITH RESPECT TO HERBAL AND NON HERBAL PRODUCTS

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ABSTRACT

Purpose: The objective research is to analyse the Patterns that influence the purchasing behaviour of the consumers regarding herbal and non-herbal cosmetic products.

Research methodology: The research is descriptive in nature. The researcher has chosen quantitative data collection method and secondary method in order to conduct the research.

Findings: Herbal products have a great influence over non-herbal products because people nowadays prefer herbal products as compared to non-herbal products. It is because in the recent times it has been observed that there has been an exponential growth of herbal skin care products in the market replacing the non-herbal products.

Limitation of the study: The prime limitation of the study was timescale and budget. This study is conducted via secondary analysis, it is compulsory for the researcher to develop proper questionnaires and select appropriate options for questions.

Keywords: purchasing behaviour, consumers, herbal and non-herbal cosmetic products, consumer behaviour, cosmetic industry

1. INTRODUCTION

For this research work, the chosen company is Patanjali (Patanjaliayurved.net, 2018). Patanjali is one of the leading suppliers of cosmetic products in India. This section will reflect the background based on which the research will be conducted. The cosmetic industry is growing rapidly in India. Patanjali is a company that provides the people with herbal products for skin care purposes. In India, the people are oriented towards herbal products as compared to non-herbal products. The consumer behaviour of people in India is changing at a rapid rate regarding the cosmetic and skin care products. The perception of Indians are getting oriented towards herbal products as they believe that herbal products are more effective for skin as it does not contain any kind of chemicals and artificial things. As non-herbal products, contain chemicals and artificial materials people think that it might affect their skin in a negative manner and could be harmful. Patanjali promises to provide the customers with pure herbal cosmetic products to tap the growing favourability for the herbal products.

2. OBJECTIVES

The aim of the research is to analyse the factors that influence the purchasing behaviour of the consumers regarding herbal and non-herbal cosmetic products.

- To identify the Buying patterns that influences the buying behavior of consumers towards Herbal and non-herbal products
- To recognize the likes and dislikes of consumers regarding Herbal and non-herbal products

3. LITERATURE REVIEW**FACTORS AFFECTING CONSUMER BEHAVIOUR IN THE COSMETIC INDUSTRY**

It has been observed that the demands for the cosmetic products in women have increased to a higher level, benefiting the cosmetic industry. However, it is necessary to understand the concept of consumer behaviour to retain customer base (Solomon et al., 2014). Consumer behaviour is the attitude, which determines the purchasing pattern of the customers. The behaviour is observed during purchasing and post using the products. The factors affecting consumer behaviour helps in determining the consumer decision-making ability. There are several factors that contribute in influencing the consumer behaviour in buying herbal and non-herbal products of the cosmetic industry, Patanjali which are discussed below:

SOCIAL FACTORS

Social class: The income level influences the purchasing factor of the customers largely (Joshi and Rahman, 2015). As herbal products are costly in nature, customers belonging to the higher class of the society prefer to buy cosmetics product to suit their fashion in the cosmetic industry and society.

Reference: Customers are often influenced by the neighbours or other individuals' choices and tastes. For example, if the neighbour has a good experience with the products then the individual gains trust in the product

and purchases the same product. While if the customer had a bad experience with the product, the purchasing factor of the other individual is affected. Reference plays a vital role in influencing the purchasing nature of the customers.

PSYCHOLOGICAL FACTORS

PERCEPTION

When a customer has prior knowledge of the products, the purchasing behaviour is affected. Having knowledge about the products through advertisements or reviews, the customers build a trust for the product. Having no perception significantly leads to confusion in choice.

PERSONALITY

An individual belonging to the higher class may not prefer to buy herbal products rather prefers non herbal products of luxury brand. The personality is depended on the status and the brand image of the company. While middle class people prefer herbal products as it is affordable to them. Choices of the individuals determine the personality affecting consumer buying process (Rani, 2014).

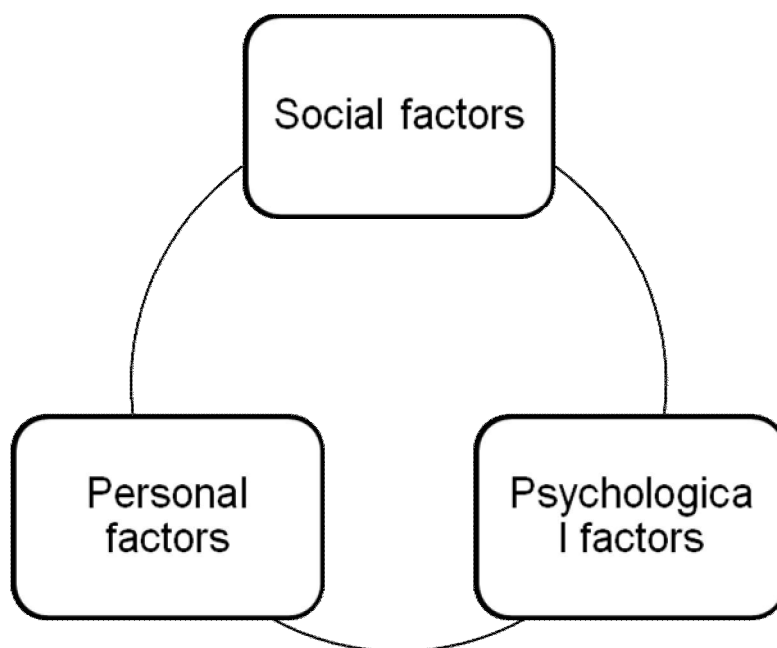


Figure 1: Factors affecting Consumer Behaviour

(Source: Created by learner)

FAVOURABILITY OF THE CONSUMERS FOR HERBAL COSMETIC PRODUCTS

As consumers are nowadays more concerned about their health, herbal products have created a positive influence on the customers. Consumers have shifted their focus from non-herbal to herbal products as it has no side effects and offers good quality products. Customers have increased their demand for buying herbal products like Patanjali (Jaggi and Ghosh, 2017). Research has stated that maximum customers feel satisfied with the quality of the herbal products and have gained a trust the products are less prone to create any kind of health hazards.

It has been concluded from a research that about 80% of the customers shifted their focus to herbal products due to its unadulterated herbal products (Sulaiman et al., 2017). Herbal products are natural in nature and from the traditional age given benefits to the customers curing them from many diseases and injuries. Customers have a belief that herbal products help in improving the health of the individuals than consuming piles of medicines, increasing the expense of the individuals and having side effects. Customers favour herbal products as they are aware of the preparation of the products with the help of advertisements. The customers having a perception of the products, increase their favourability for the products.

LIKES AND DISLIKES OF CONSUMERS FOR HERBAL AND NON-HERBAL PRODUCTS

HERBAL PRODUCTS

The customers have a growing **likability** for the herbal products as many herbal companies use preservative to protect the customers from health issues. As herbal products are broadly advertised in the commercials along with the manufacturing process, customers have developed a perception of the products and are aware of the

ingredients used in the products. Promotion of the herbal brand and their ingredients has persuaded the customers to buy herbal products in large scale. Having no side effects has been a great factor in encouraging the customers to buy the products. However, there few customers who have generated **dislikes** for the products as the products costly in nature and consists of side effects due to consuming or applying the non-herbal products. Customers now demands products that are quick in action and offering quick remedies. Herbal products have failed to give quick remedies to customers.

NON HERBAL PRODUCTS

As many herbal products are not safe in nature and lacking knowledge of the proper usage of the products can cause harm to the health of individuals. Customers so prefer non-herbal products as they are either prescribed by the doctors or usage method is written in the label of the products. Brand image plays a vital role in affecting customers to buy non-herbal products. Celebrities are endorsed to advertise about the non-herbal products creating a good impression on the customers.

However, many customers has a dislike for non-herbal products as the customers are not aware of the ingredients used in the manufacturing process and are sometimes not suitable to the heath of the customers creating hazards like swelling of skin, allergy.

LITERATURE GAP

The purpose of the research to be conducted is its failure to show the importance of factors affecting consumers' behaviours in purchasing cosmetics products. Earlier, the research failed to have a data analysis of the customers using herbal and non-herbal products. In this research, the consumer behaviour is focused to determine the increase in the productivity of the companies. This research has been undertaken to highlight the influence of the consumer behaviour in affecting the growth of the sector. The likes and dislikes of the consumers have not been taken into account in the earlier research study.

6. RESEARCH METHODOLOGY

RESEARCH PHILOSOPHY

Research philosophy is defined as the process of perception and belief generally for the growth of knowledge. An effective procedure helps the researcher to gather proper and reliable information for the research work (Hughes and Sharrock, 2016). As per the nature of the research work, the researcher selects the research philosophy in order to conduct the study in an efficient manner. It helps the researcher to specify the specific methodology of research that will be used in order to conduct the research. Selection of proper research philosophy also helps the learner to understand the purpose of the research. There are basically three types of research philosophy realism, positivism, and Interpretivism. In this research work, the researcher has chosen the philosophy of positivism in order to gather reliable information to conduct the research work properly.

RESEARCH APPROACH

Research approach is stated as one of the most effective stage of the entire research work. It mainly concentrates on determining the different approaches to the research work. On the other hand, research approach enables the researcher to have a better understanding of the project. As per the nature of the topic of research, the researcher selects the variables for the conduction of the study. Research approaches are basically of two types inductive approach and deductive approach (Stage and Manning, 2015). According to the theories and models, the research work can be constructed in a well-structured manner. Thus, it could be said that selection of essential theories and models is necessary for the research work to be conducted in a proper way. In this research work, the researcher has chosen the method of deductive approach in order to conduct the research in an effective manner. Deductive approach primarily concentrates on the models and theories that already exist and can be utilized for better recognition and construction of the study. Based on several different layer of the research work the researcher is able to make easy approach towards the study so that it is more reliable and productive.

RESEARCH DESIGN

Research design is one of the most essential parts of the entire research work. The researcher must select the right research design in order to make the research work more dynamic and eye catching for the learners. It is required for the completion of the study. With proper selection of research design, the researcher is able to collect suitable and appropriate data and information in order to carry out the research work. It makes it easier for the researcher to display the data accumulated. Appropriate selection research design helps the researcher to build up a strong content for the research work. There are generally three types of research design descriptive, exploratory, and explanatory (Wohlin and Aurum, 2015). In this study, the researcher has chosen the explanatory research design to conduct the study. With the help of explanatory research design, the researcher is

able to explain the things in an easy manner. It recognizes and develops a relationship amid the parameters and variables selected for the research topic.

DATA COLLECTION AND ANALYSIS TECHNIQUE

Data collection and analysis technique is another important aspect of research methodology. It is vital for the researcher to select appropriate tools and techniques in order to conduct the research in a proper way. There are generally two types of data collection method namely primary data collection and secondary data collection. Primary data collection method helps the researcher to collect the data easily by carrying out survey and personal interviews. Primary data collection is further divided into two parts quantitative data collection (Field, 2015) and qualitative data collection. In quantitative data collection researcher prepares a set of questionnaire for the target audience and in qualitative data collection (Creswell and Creswell, 2017) the researcher conducts face-to-face or personal interview with executive department of the organizations. On the other hand, secondary data collection method helps the researcher to collect relevant data from various sources like internet, journals, books etc. in this research work the researcher has chosen quantitative data collection method and secondary method in order to conduct the research.

SAMPLING TECHNIQUE

According to the nature of the research topic, the researcher selects the sampling technique. It is another aspect of research methodology that is significant to conduct the research. With the help of sampling technique, the researcher is able to decide the target or the sample audience for the survey (Emerson, 2015). In order to conduct this research, the researcher has chosen 500 people for the survey and prepared 10 questions for them in order to have an idea regarding the purchasing behaviour of the consumers and their preference of herbal products over non-herbal products.

ETHICAL CONSIDERATIONS

In order to conduct the research, it is important for the researcher to maintain the ethics in a proper manner. The researcher while conducting the research must maintain the ethical codes of practice to conduct the research work in a right way. The researcher must follow the "Data protection Act 1991". It is vital to conduct the entire research work in a legal way so that it does not harm the ethics of the people. The researcher must use accurate and reliable information for the study to make it clear to the learners.

7. DATA ANALYSIS

Quantitative data analysis

Please specify your gender

Particulars	Percentage of respondents	Number of respondents	Total number of students
Male	75%	375	500
Female	25%	125	500

Table 1: gender of respondents

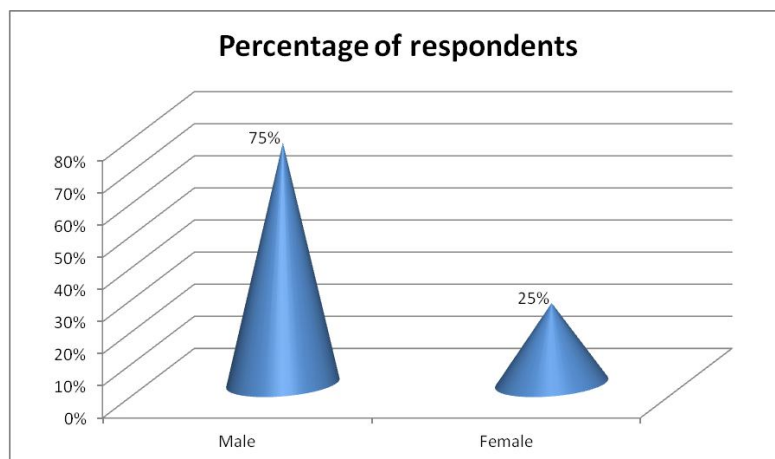


Figure: 1.1

Analysis: The above figure shows that number of female participants is much higher as compared to male participants.

How far do you agree that Patanjali offers herbal cosmetic products to its consumers?

Particulars	Percentage of respondents	Number of Respondents	Total number of respondents
Highly agreed	30%	150	500
Agreed	25%	125	500
Neutral	15%	75	500
Disagreed	20%	100	500
Highly disagreed	10%	50	500

Table 2: Patanjali offers herbal cosmetic products to its consumers

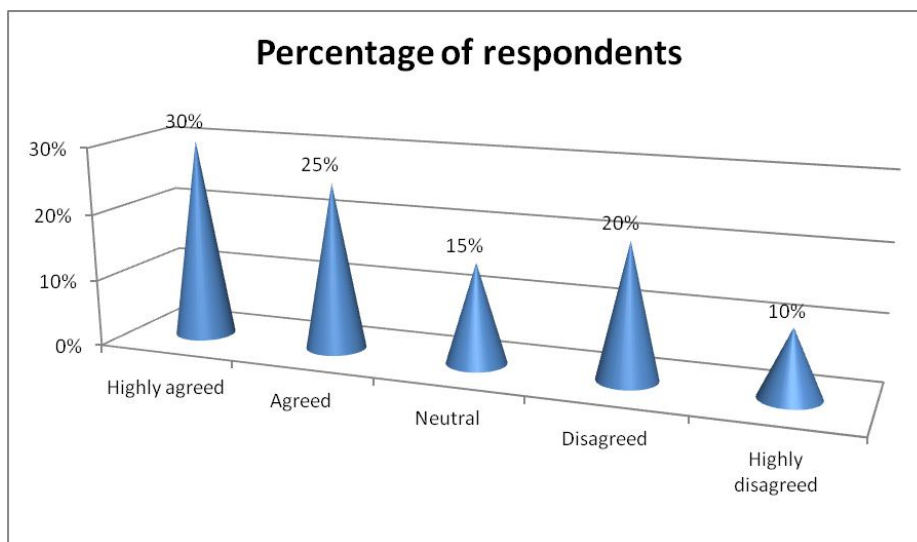


Figure 2.1

Analysis: the above figure shows that 55% of the respondents agree with the point that Patanjali offers herbal cosmetic products to its consumers whereas 15% people are neutral and 30% people are disagreeing with this point

How far do you agree that herbal products are more skin friendly than non-herbal products?

Particulars	Percentage of respondents	Number of Respondents	Total number of respondents
Highly agreed	40%	200	500
Agreed	30%	150	500
Neutral	10%	50	500
Disagreed	10%	50	500
Highly disagreed	10%	50	500

Table 3: herbal products are more skin friendly than non-herbal products

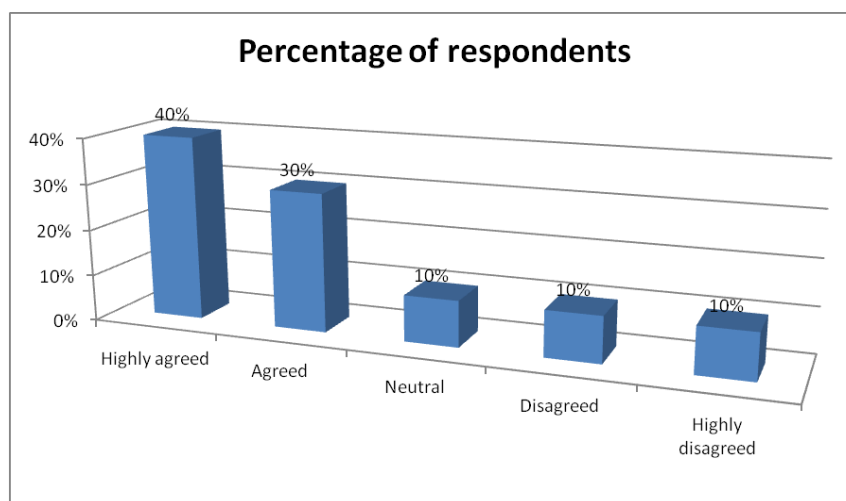


Figure 3.1

Analysis: As per the data in above figure, it can be observed that majority of the people are agreeing with the point that herbal products are more skin friendly than non-herbal products. Whereas 105 people are neutral and 20%, people are disagreeing with this point.

How far are you satisfied with the herbal skin care products offered by Patanjali?

Particulars	Percentage of respondents	Number of respondents	Total number of respondents
Highly satisfied	40%	200	100
satisfied	25%	125	100
Likely	15%	75	100
Dissatisfied	10%	50	100
Highly dissatisfied	10%	50	100

Table 4: satisfied with the herbal skin care products offered by Patanjali

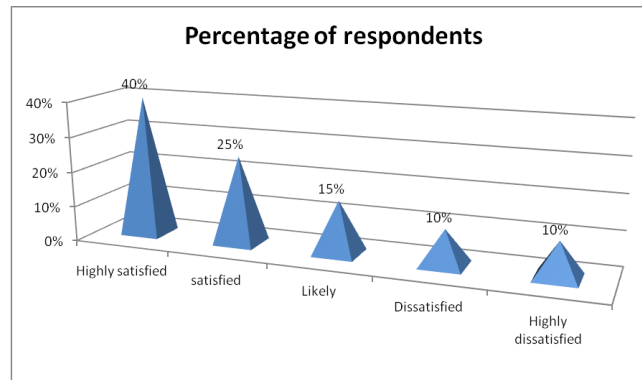


Figure 4.1

Analysis: As per the figure, 65% of people are satisfied with the herbal skin care products offered by Patanjali. On the other hand, 15% of people are neutral and 20% people are dissatisfied.

How far do you agree that of the ingredients mentioned on the package affects the purchasing intentions of the customers?

Particulars	Percentage of respondents	Number of Respondents	Total number of respondents
Highly agreed	20%	100	500
Agreed	20%	100	500
Neutral	10%	50	500
Disagreed	30%	150	500
Highly disagreed	20%	100	500

Table 5: ingredients mentioned on the package affects the purchasing intentions of the customers

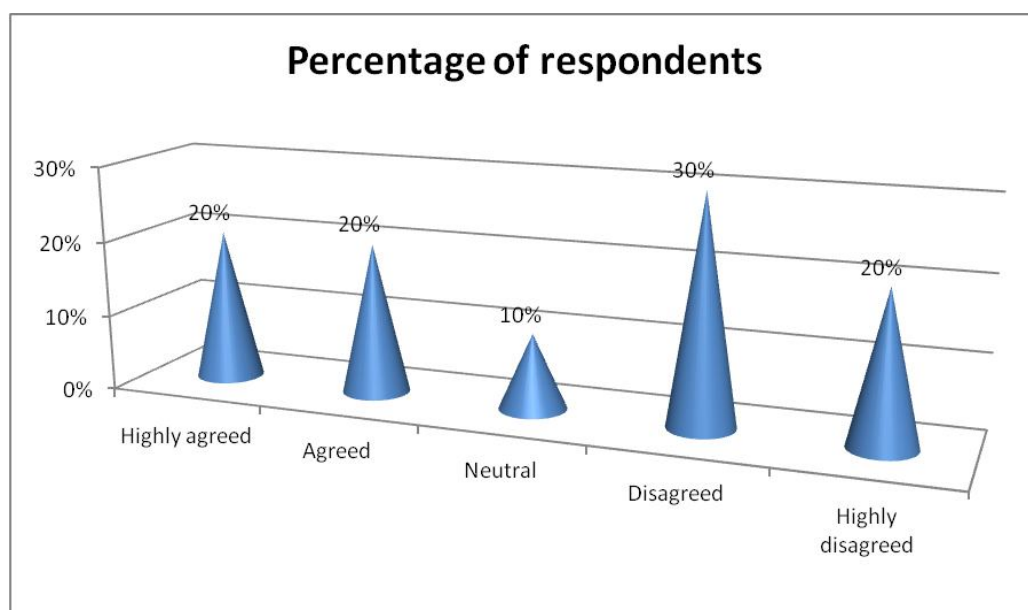


Figure 5.1

Analysis: According to the data, 50% people are disagreeing with the point that ingredients mentioned on the package affects the purchasing intentions of the customers. On the other hand, 10% people are neutral and 40% agree with this point.

8. CONCLUSION AND RECOMMENDATION

In this research work, difference between herbal and non-herbal cosmetics has been discussed and the way it influences the purchasing intentions of the consumers. The researcher has used several tools and techniques in order to conduct the survey to have an idea regarding the usage of herbal skin care products over non-herbal products. The researcher while conducting the research came to know that it affects the purchasing intention of the consumers. The research has been conducted in proper way to make a clear understanding of herbal and non-herbal products and its influence over the buying behaviour of people. Questionnaires and themes have been developed by the researcher to collect information on the research topic. Lastly, the researcher has made sure to use appropriate tools and techniques to collect accurate and reliable information to make the research understandable for the learners. To develop effective strategies for the betterment of the herbal skin care products offered by Patanjali. Patanjali must come up with innovative products to compete in the market. The company must make their client base aware of the duplicate herbal cosmetics supplied by other companies. Thus, these are some of the recommendations to influence the purchasing intentions of the consumers concerning herbal products.

9. LIMITATION OF THE STUDY

The researcher while carrying out the study faced numerous challenges. The prime limitation of the study was timescale and budget. It became quite tough for the researcher to complete the entire research work within the stipulated period. Before conducting the study, the researcher must have proper understanding of the topic. Since this study is conducted via secondary analysis, it is compulsory for the researcher to develop proper questionnaires and select appropriate options for questions. To develop proper questionnaire and select appropriate options for the questions that are going to be asked in the survey it becomes very difficult for the researcher to do it within a short amount of time. Due to time limitation it also becomes quite difficult for the researcher to accumulate accurate and reliable data for the research work.

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USE OF TECHNOLOGY IN RECRUITMENT AND SELECTION

Komal Gawri and Tulsi Dwivedi

ABSTRACT

The focus of the study is on social media adoption in employee's recruitment and selection. Social technologies are increasingly being used in organizational functions, including human resource management.

In addition to determining what technologies are being used, we had another objective of studying why HR managers were adopting these technologies. There are several factors that have been traced to contribute to the increased use of technologies for screening and selection. The first relates to potential cost savings. For example, Innovex reports had in its research, reducing screening costs by half, by using IVR in their screening processes. The potential savings for selection processes was even higher. For example, the average cost of interviewing candidates face-to-face at different universities has been estimated to be \$1700 per candidate. On the basis of impression management, it's assumed that both organizations and interns makes effort to impress the other side during the internship if they intend to hire or to be hired. Using longitudinal data collected at 3 points from 122 intern-supervisor dyads in the United States, it was found that 60% of internships turned into job offers from the host firms. Interns wishing to be hired were more likely to use self-promotion and compliments, which increased the likelihood of job offers.

INTRODUCTION

Recruitment strategies by organizations should be tailored towards specific positions to be filled. These strategies in the modern global environment include advertisements in electronic and print media, agencies and services, schools and colleges/universities forum, professional associations, internal resources and many more. All the strategies can produce particular employees with varying performances. Armstrong (2009) observed that candidates can be selected using different methods in order to assess their suitability for a certain role. These methods include; individual interviews, interviewing panels, selection boards, and assessment centers. Despite a well-drawn plan on recruitment and selection recruitment processes followed by organizations can face obstacles too while implementation, Theories of Human resource management may therefore provide insights on the best approaches to recruitment although organizations will have to use in house management skills to apply common theories within specific organizations

ORGANIZATIONS -USING DIFFERENT KINDS OF TECHNOLOGIES FOR RECRUITMENT.**HILTON**

With the goal of delivering a top-notch candidate experience .Hilton uses **AllyO** to steer thousands of applications it receives a day.

HUMANA

Humana introduced **on-demand video and voice interviewing** as a recruitment tool.

THREDUP

Thredup uses **Textrecruit** to reach younger hourly workers to recruit the right candidates.

NIKE

Nike uses **Interactive Voice Response (IVR)** technology to screen the candidates over the telephone, further followed by computer-assisted interviews with selected applicants, and then finally performs face-to-face interviews. (Thornburg, 1988)

HOME DEPOT, BI-LO, JCPENNY, US DEPARTMENT OF DEFENSE

All these organizations Uses following technologies for screening and selection, **-telephone, IVR, and computer adaptive testing** (Frost, 1997).

TESCO

Tesco follow **Bond Talent program**, a web based software application to fill the vacant posts. This software application is used by Tesco to perform a proactive approach for its recruitment process.

PRACTICAL IMPLICATIONS

The practical implications of this research for organizations operating in Egypt are that ,while there may still be a preference for both internal and informal means of recruiting, for managers, there is also widespread use of external mechanisms for recruiting candidates. Outsourcing to consultants, external advertising and the use of web sites all indicate that companies in Egypt are adopting practices common elsewhere and they are

responding to the new economic, competitive and Selection practices in Egypt 209 technological environments confronting them. Selection methods used also varies according to the job description. If we talk about Europe, for managerial jobs there is still a preference for the three methods most popular in Europe, the interview, application forms and references. However, for other types of jobs these methods are less common and testing for aptitude and skills takes precedence and using internet methods has come into existence. The responsibility for recruitment and selection is shared between HRM professionals and line management with evidence of increasing decentralization of this responsibility to line management. Organizations moving into Egypt therefore was not appearing to be confronted with substantial resistance to the adoption of new methods and techniques for recruiting and selecting staff neither were they likely to be confronted with resistance if they wish to involve line management in the decision-making process.

CHALLENGES

Recruitment and selection of staff in Zimbabwe comes with challenges that the human resources manager must deal with.

The findings of research into the challenges faced by 10 organizations in Zimbabwe regarding recruitment and selection are indicative of the challenges faced by employer organization in Zimbabwe in general. The study revealed that cost of advertising, misrepresentation of qualifications, nepotism and favoritism, geographical location of a company, change in business model of the organization and political interference pose challenges of recruitment and selection.

While use of information technology and E – recruitment facilitates casting the internet for recruitment globally, it poses challenges in the management of the data and information that is then being generated in responses, thereby rendering the selection process a bit problematic. Finding right candidate for a job is dependent upon a number of factors, both internal and external to the organization, and technology therefore plays a major role these days, as it gives accuracy in its result's.

RESULTS OF THE RESEARCH

Online recruitment and selection process is the way to recruit and select people through use of internet. Overall research data indicates that online recruitment and selection is effective in terms of time reduction in hiring, recruitment and administration cost saving. Apart from this, it is also identified that online recruitment is also effective in terms of developing competitive edge for the firms by developing market image and attaining quality candidates.

CONCLUSION

This study focused on the effectiveness of online recruitment and selection process. It has been investigated that e-recruitment and selection are useful and effective in terms of saving recruitment cost, reducing time to hire and helping companies in developing competitive edge, market image and attracting right skilled candidates is also the result. It has been investigated that e-recruitment will likely to grow in coming years.

So, there is lot of scope to conduct further research over this growing phenomenon that is currently on the prime focus for corporations as well as for the students.

It seems, however, that some methods of graduate recruitment and selection such as interviews are culturally bound while the graduate labour market is no more the exclusive domain of large employers. The findings of this study are expected to be useful for employers considering initiating graduate recruitment procedures and also for those wishing to improve their existing ones as well as to institutions providing higher education to reconsider the type of knowledge and skills they provide to prepare their students for the real working scenario.

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ROLE OF ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCE MANAGEMENT

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ABSTRACT

In this competitive business world, for any kind of business the human resource (HR) is a mandatory asset /input for improving the organizational performance. To be successful, organizations have to strive for higher customer – satisfaction which is vital key for their survival, and to achieve this, organizations have to adopt innovative HR – practices to improve their performance and be different among its competitors. In near future, HRM is moving away from its foundation administrative functionality like recruitment, selection, appraising to more advanced progress like Automation, Augmented Intelligence, Robotics and Artificial Intelligence that are completely re – defining and re – shaping the way of their workforce characteristics and organizations. At present the buzz word is AI and how it is completely transforming the human resources, and how AI is seizing millions of jobs globally in each and every sector. However, HR is not traditionally associated with this emerging technology, failure to deploy AI with HR practices could prove to be a dreadful sin which makes the organizations difficult to grow big and survive in this globe driven by these advanced technologies and machines. Global workforce is completely threatened by AI and advanced self-learning machines and they are wiping away the interference or involvement of humans in each and every aspect. But, in reality any advanced technology that is created and used for the benefit of humanity not for its destruction. To compete with AI and advanced machines the real challenge now lies within the respective HR – departments that how well they train and re-transform their workforce in understanding the AI and collaborating and working with AI & Robots.

INTRODUCTION

Artificial intelligence is a tool which use human intelligence in various fields and improve the performance, and it is an emerging technology which is used in all industries to improve productivity and performance (Brouwer 2015). AI has a tremendous power to act like a human brain and it gives full efficiency. It uses different inputs to give outputs in the human resource management, Robotics is an artificial intelligence which mainly deals with every aspect in the industry, simply intelligence which is carried out by machines is called artificial intelligence, I work in speech recognition, problem solving etc. (Margaret Rouse).

Artificial intelligence uses certain algorithms and according to the algorithms it performs its actions. A test is made to identify whether the machines can exhibit intelligent behavior alike human beings by Alan Turing (computing machinery and intelligence in 1950), the Turing test is conducted by using 3 participants i.e., computer, human interrogator, and a human foil. The interrogator asks several questions to the two participants (computer and human foil) to distinguish computer from human. All this communication is done through a display screen and keyboard. The computer will answer all the questions in such a way that wrong identification is done. The human foil will try to give answers to help interrogator to make right identifications. If human interrogator fails to distinguish computer from human being, then the computer is considered as intelligent according to the proponents of Turing test.

Even though the AI concept is around for centuries but it came into limelight after 1950's where true possibility of it was explored. Many scientists, philosophers, mathematicians all had the AI concept but never highlighted until Alan Turing suggested the Turing test which distinguish machines(computers) from humans.

Today's AI growing rapidly. Technology has been used widely across all the fields. Intelligence system manages quite a large part of every human being. It is almost used in every field. The internet has changed our lives a lot. In today's world we are much more dependent on the technology to do our things in easy way and so we are much connected with technology development.

Human resource management is the way of maintaining people in the organization and it is about dealing with people and their attitudes in the organization, it mainly deals with recruitment, selection, training, development etc.,

Artificial intelligence plays important role in human resource management it mainly reduces the workload of human resource manager because artificial intelligence uses Chabot agnostic solution and algorithms and basing upon algorithms the entire process takes place like recruitment, selection, training, development etc., linking artificial intelligence with human resource will enhance the process and it create more interest for the employee towards work.

ARTIFICIAL INTELLIGENCE DEFINED

“Artificial Intelligence is the science and engineering of making intelligent machines, especially intelligent computer programs.” (John McCarthy)

“Artificial Intelligence is the science of making machines do things that would require intelligence if done by men.” (Marvin Minsky).

LITERATURE REVIEW

A researcher in his research paper, title “The Impact of Robotics, Artificial Intelligence on Business and Economics” has studied that use of Robotics and Artificial intelligence in business may have negative impact on the overall functions of an organization like production, performance management, sale, strategic planning, customer relationship management, banking system, coaching, training, taxes etc. **(Dirican, 2015)**

In the paper title how AI and machine learning will impact HR practices today .AI has becoming more and more important and reshaping the way companies hire and do each and every activity recruitment becomes easy for the practitioners because machine learning technology will make use of chatbot and proceed all the activities ,AI will screen candidates and send the confirmation or rejection email to the candidates .according to the analysis of India report of Deloitte 5th annual global human capital trends 53% of companies are ready to deploy digital tools while 22% have already deployed there tools. AI and machine learning are the current buzzwords in present days HR chatbots to work efficiently, actually HR managers will have many tasks to do they should be capable of using chatbot to get solutions. the major challenge HR manager face is about performance appraisal that means basing upon employee’s performance the performance appraisal will be decided and it can decide employees career path. **Anupam jauhari (2017)**

Human-robot interaction(HRI) represents a challenge for AI. Even though every work done by humans physically, can done through AI. But emotional intelligence is not there for AI. As this is the major drawback of human robot interaction become critical. Robots can only do the things which are pre instructed to them. They can’t change their actions by their own as they are controlled by humans. It is a difficult task to impose the independent software modules, specially it is not only a technical challenge, but it is also an architectural challenge. **Severin Lemaignan(2017)**

The research paper identified the role of artificial intelligence in human resource management. The researcher has quoted that most of the companies has been adopting modern technology in various HR process like recruitment process, performance appraisal process, cloud-based HR systems. **(Jain, 2018)**

In the paper titled the impact of AI on HR function clearly shows that in near coming future AI is going to bring a drastic change in the way of implementing HR practices with the implementation of AI in an organization .It is true that several jobs may be affected but in reality it raises the productivity of an organization although some of the western companies are successful in integrating AI with some HR practices and became productive and others are still counting on the cost aspects and out of all the HR practices recruitment is the best function in integrating with AI from sourcing ,screening the qualified applicants and finally it is the duty of the governments and the respective organizations to reshape ,re skill and upgrading their work force to compete with these intelligent machines . **Peter (2018)**

RESEARCH OBJECTIVE

1. To study the concept of artificial intelligence.
2. To study the AI impact on different occupations in future
3. To study the benefits of artificial intelligence in human resource management.
4. To study the challenges of artificial intelligence in human resource department.

RESEARCH METHODOLOGY

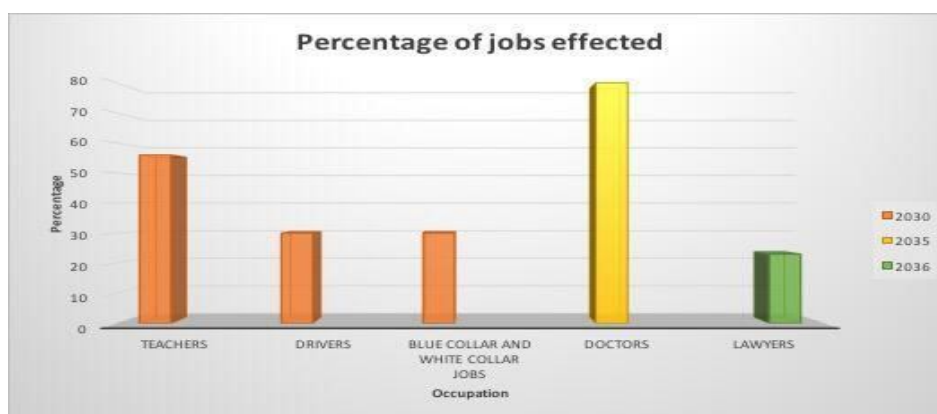
The research study is using the descriptive research design. In the research study we have used secondary data. The secondary data has been collected from research papers, published materials, online websites, HR blogs, and survey reports published by various research organizations.

AI IMPACT ON DIFFERENT OCCUPATIONS IN FUTURE

1. **Teaching:** Artificial intelligence plays very important role in teaching profession, students learn differently with the help of AI according to united nations educational, scientific and cultural organization the percentage of primary and secondary school children not attending school is of high percentage, so digital teachers can attract children to learn something with the help of artificial intelligence.

2. **Drivers:** Artificial intelligence will replace drivers by mid-2030's, it uses certain algorithms for driving a car and prevention of risks and accidents, although driverless cars are existing but it will emerge and transform within few decades by 30%.
3. **Blue-collar and white collar jobs:** Blue collar and white collar jobs will be eliminated, nearly 20 to 30 million jobs will be eliminated by the year 2030 and it can eliminate 30% of jobs of labor and it can displace jobs of 800 million of people.
4. **Doctors:** He argues robots will replace doctors by the year 2035, and definitely 50% of jobs will be replaced by AI in the next decade, he even said that machines will substitute 80% of doctors in future by healthcare seen entrepreneurs but not by medical professionals
5. **Lawyers:** AI can predict better legal outcomes than humans, it is clear that AI and machine learning emerging and transforming at present, and by the year 2036 1 lakh legal roles will be automated and it reduce the job of lawyers and the way of dealing cases. According to Mckinsey Global institute 23 %of jobs can be automated in future.

SL. NO	Occupation	% of Jobs will be effected	Year
1	Teachers	56	2030
2	Drivers	30	2030
3	Blue collar and white collar jobs	30	2030
4	Doctors	80	2035
5	Lawyers	23	2036



AI IMPLEMENTATION IN HR – RELATED FUNCTIONS:

Recruitment: Predicting the best hire in the future is most important in every organization. The use of AI integrated systems helps the recruitment team to analyze the received resumes and then compares the them with already existing employee of same job role and then based on the result it will select the best candidate. So as there is zero human intervention there will be zero human bias. The use of AI integrated systems will help to speed up the recruitment process.

Now-a-days AI has been successfully integrated. Previously it is used to take lot of time of the recruiters to screen the resumes and select best among them. But the integration of AI in the recruitment has completely reshaped the process used in selecting the candidates with Requisite skill-set. If we observe the current world of recruiting with AI, it can be divide into two: - (1) Chatbots Functionality (2) The Machine learning.

Fama technologies a California based firm (A Tech Firm) has developed AI based software that searches the candidates Profile, that matches the interests of hiring managers, another example is Hyderabad based start-up named Param.ai which uses AI, which automatically Prescreens the resumes for various companies and tells if the candidate is good, bad (or) Average basing on the past hiring patterns. (Smitha Verma)

Training: The organizations design their training programs without any pre-defined parameters and, in real sense most of the organizations don't know how to train their employees perfectly. Most of the learning Professionals argued that whatever the trainees learn during the training programs at least half is wasted (Forgotten, inappropriately applied, waste of time and money).

But now, the use of AI in training has become a powerful avenue in organizations and the T&D programs are more effective by the application of AI based Algorithms that monitors and studies the skills, behaviors and attitudes of the employees working at various levels. Different people have different styles of learning so by using the AI, customization of training programs can be made.

In Performance Management: Traditional appraisal of evaluating employees' performance is decreasing due to implementation and usage of AI. Most of the employees viewed that while conducting appraisals, most of the managers showed bias and they also viewed even the error rate is also very high.

where some of the top companies like Microsoft, adobe Accenture and Deloitte been successful with AI based applications in evaluating the performances.

As, per the latest survey conducted in the year 2017 by IBM over 6000 executives, "Extending Expertise": How cognitive computing is going to transform HR, and the key results of the survey are as follows as coming to implementation of AI with HR majority of the companies are hesitating because of the high cost. But, majority of the experts argued that AI can really measure the employees value and to prove this, a survey was conducted among 800 enterprise decision – makers revealed the following key results: (Chris Nerney)



OTHER FUNCTIONS

Access of information: Both the employer and the employee will have easy accessibility for the required information. Employees can access their personal information like, address, emergency contacts, organization details, vacation days spent and available, approval or rejected status of vacation requests, and authorized HR business data etc., The employer can access employee data like, an employee's job history, team information, number of projects submitted in time by each team, performance rate, head count, top performers and pending transaction requests etc.,

Scheduling / maintenance: There are repetitive and low value tasks in every day work life. So by using the AI, automation of these repetitive works can be done so this will save the time and helps the HR specialists to more concentrate on strategic, useful, creative work to achieve the company's goals and objectives. For example, company spends a lot of time for some standard ongoing process for new employees etc., so by automation of such tasks will save the time.

Talent management: Humans are the main important assets of any organization. Talent management means planning made by the organization to meet the workforce needs. So the activities that are done by HR includes succession planning, talent acquisition, employee management etc., for example greenhouse software is using AI tool (they are integrating IBM-AI capabilities through the IBM Watson Candidate Assistant). This tool helps to select the best candidate for the job by analyzing the skills, personalities etc., it also collects the data from different sources like social media etc.,

CHALLENGES OF ARTIFICIAL INTELLIGENCE IN HR

Nowadays, necessary skillset for employees are required due to involvement of artificial intelligence into human resource department. Most of the times it is difficult for employees to adopt and learn the AI tools and have a proficiency in the field of digital technologies (Jain S., 2017). The core part in any company is

their human resource and by implementing the AI system it may have impact on levels of management which will lead fearless in the mind of employees. Getting right candidate to handle AI tools is one core challenge in front of industry and it can be difficult to HR department. One more limitation and challenge is restricting HR department to take decisions in day-to-day life as technology overcomes the authority and role of HR into decisions making in an organization.

CONCLUSION

Integration of HR practices with AI based applicants definitely have a stronger impact in enhancing the organizational performance. Even though AI applications may not possess the abilities like humans the emotional and cognitive abilities, but these powerful AI based HR applications can analyze, predict, diagnose, and it is powerful resource for any kind of organization. But, the real fear that is daunting the Global workforce is how AI is showing its impact in job cutting across various sectors throughout the world. But, the reality is that it is not the advanced technologies that are replacing people, but it is all about how the people should change and view these technologies in creating wealth and prosperity. In, true sense there will be some percentage of employees are affected by the AI based functions, so it is the duty of the HR leaders and organizations to focus on its employee needs and possible outcomes. And, finally based on our study most of the organizations are successfully integrating AI based tools in recruitment but in near future AI is everywhere in HR: May be in recruitment, training, on boarding, performance analysis, retention etc., But Majority of the organizations are still lagging in integrating AI to its HR-Practices because of its cost associated in integration.

To, conclude the AI implementation should be viewed as an optimistic opportunity, because AI enhances the lives, AI creates better future if it is clearly understood and utilized in a proper way.

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DATA PRIVACY LAW AND FUTURE OF HR**Neha Aggarwal and Shivani Srivastav****ABSTRACT**

Today at the time of digital era the word data play an important role and its privacy is another sensitive area to work on. Data privacy is basically means security of data from unlawful activities or act by unauthorized users who can access the data in unethical manner as data is important asset of any organization and privacy is every individual right to get free from unethical practices going on. In hr domain also data plays an very important role, there are many data privacy laws that are introduced by government to protect the data from getting leaked or hacked, but before that there is a need that every individual who is working or non-working must know that how to protect their personal and professional data as now a day's data leaking or get hacked is a vital concern.

INTRODUCTION

As in every field whether it is hr, operations, marketing or any other field every person should know how much data is an important asset of any organization. As in the field of hr, where each and every part of the organization is linked with it not only recruitment is done by hr people but also many other tasks and important function of organization is controlled and handled by the HR. Only HR department of any organization can help their employee to secure their data carefully. (Neßler, 2016) Hr professionals would not require a minor change in the understanding but also the skills needed to secure their employee's privacy concern. Even data protection laws also provide some signification ways to how a person can protect its data or any personal content. App like what's app is also giving the end to end encryption policy to protect data. Even now organizations are moving towards modernize their human resource to enhance the workforce stability, standardization, career development and real-time performance so all of these require employee generated data to drive the internal analytics needed to improve employee performance and employee stability. (Edwards, 2016) Collecting and processing personal data of users in the internet is not as easy as it looks. HR deals with personal data in recruitment, employer branding, and on the on boarding process so it is needed to have a close look on it. For an instance if you are hired by an company the HR of that company will look forward towards your different social accounts and try to find your keen interest area and the groups or pages that you liked to know more about you other than that what you speak up in your interview and to also know about that did you like the company last post or not. Big data is a term that is linked with the term data, big data helps an HR Recruiter to find suitable candidate for the position they are looking because in current scenario all the data is recorded in system for both the selected as well as non-selected candidate with their specialization and key points so it become easy for them to find the person for the particular position. (Irwin, 2019).

DATA PRIVACY ACROSS THE EMPLOYMENT JOURNEY

Privacy is hot, 81% of humans information is jeopardized due to loss of security and protection issues. This will continue until the companies don't start using the brand new European Privacy Policy, the General Data Protection Regulation that is a law in EU regulation on information protection and privacy. This offers person the manipulation over their statistics. This additionally help employee on massive scale by using supporting them to process the statistics of their capacity employees. By this, a business enterprise may additionally method the facts of its employees with regard to their paintings surroundings for instance, records from camera and employee net behavior. (Edwards, L. (2016).

As gatekeepers and processor of personal records, HR and those teams play a completely crucial function in developing a way of life and safety for the employee at some stage in their whole corporation journey. An employee adventure is specific for the employer. (Everson, E. (2016)).

Recruitment	<ul style="list-style-type: none"> • Collect activity related information most effective. • Use a at ease portal to capture worker information • Get file for auditing and tracking technique. • Get consent to procedure facts. • Provide privacy notice that how their detail can be processed.
Preboarding	<ul style="list-style-type: none"> • Payroll facts. • Inform when record is processed. • Allow new employees to manage themselves.

Onboarding	<ul style="list-style-type: none"> • Payroll facts. • Inform when records is processed. • Allow new employees to manage themselves.
Ongoing	<ul style="list-style-type: none"> • Make strategies to make certain facts are controlled effectively or now not. • Create a tradition in which character and groups are liable for information governance.
Offboarding	<ul style="list-style-type: none"> • Develop a clean communication strategy. • Identify high danger exits.

DESIGNING A STATISTICS PRIVACY SUBCULTURE

The benefits of a data privacy culture are clear. Organizations ought to build in privacy by way of layout to make certain they're creating a healthful records privateness subculture across the whole employee lifecycle. (H, 2013)

Technology: Software can assist in complying with GDPR, such as information garage, facts protection, records evaluation, security alerts and supplying a virtual audit.

Policies and consent: Policy and process are vital even as designing the program. Clearly communicate the policy truly to your employees so they may now not do any sort of mistake the usage of the facts.

Your workforce: Ensure employees are aware of their obligation for the records security of their fellow personnel, clients, partners, and their responsibility to the enterprise to guard its privacy.

The strength of an enterprise is its personnel. However, they may be additionally a danger when it comes to records protection.

HOW HR MAKES USE OF INFORMATION FOR HIRING

As facts come to be a first-rate supply in HR field, personnel are getting hired with the net and offline statistics as paintings becomes greater complicated and interdependent, talents have become complex to evaluate. HR human beings are looking for expertise with new sights in order that they're the usage of generation and on-line recruitment of the worker, even a number of the business enterprise use robots for the recruitment procedure.

Streamline manual processes to boom the quality of lease: High-extent recruitment duties which include sourcing and screening are demanding. Applying data-driven artificial intelligence and gadget gaining knowledge of technology can simplify these tasks through automation. This will permit recruiters to cognizance on extra cost-adding tasks, including cognitive hiring selections. For example, resume-parsing the usage of AI gear can shortlist applicants on choice primarily based on skill-in shape, way of life-match, organizational-healthy, and so on. This shift will permit a better high-quality of hire, enhance recruitment-efficiency, and decrease hiring fees.

Minimize bias for proper expertise choice: Human judgments can shade hiring selections. Hiring biases such as affirmation bias, recency impact, halo impact, overconfidence, and beauty bias can affect the hiring technique.

Predict at-threat personnel and keep pinnacle talent: Using records-pushed platforms can help cognizance on engagement and retention efforts on skills, susceptible to leaving.

Improve the candidate experience, create a higher corporation logo: Data insights assist higher to recognize applicants' expectancies and aspirations. The proper personnel intelligence solution can help in measuring candidate engagement degrees, consisting of the final time contacted, the candidate's preceding remarks, and so forth. Recruitment Chat bots and social tools can assist to engage candidates in a meaningful way.

HOW TO INCORPORATE DATA INTO YOUR HIRING

- Cost-per-hire
- Time-to-hire
- Source of hire
- Candidate experience scores

INTELLIGENT HR IS DATA-DRIVEN HR

In the beyond, a variety of HR facts went unused or, if it was used, it become placed into charts and tables for something like a company overall performance percent. Now, within the era of large facts and analytics, organizations are turning their data into insights, which include predicting whilst personnel will leave, in which to recruit the maximum suitable applicants from, the way to become aware of and appeal to the ones appropriate applicants, and the way to hold them satisfied when they come to be personnel. (Marr, 2018).

HR data is extra precious than ever earlier than. So it's no surprise that a file via the Economist Intelligence Unit found that eighty two% of companies deliberate to either begin or boom their use of massive information in HR before the give up of 2018. This has given upward push to 'smart HR' as a bit of a buzz word. Many HR teams spend most of the people of their time on admin tasks or prison issues. Clunky personnel appraisals, the everyday interest of recruitment and people control, and wasteful, steeply-priced sports like annual body of workers satisfaction surveys soak up time that would be better spent elsewhere.

Truly sensible or records-driven HR focuses HR information and analytics on the purpose of including price and using performance across the enterprise – all the time, now not simply on occasion or on specific initiatives. With shrewd, facts-driven people management, the pinnacle precedence is to add cost to the company within the smartest manner possible, the usage of all the tools at the HR group's disposal: records, sensors, analytics, gadget learning, artificial intelligence, and extra. (Angrave, D., Charlwood, A., Kirkpatrick, I., Lawrence, M., & Stuart, M. (2016)

DATA-DRIVEN RECRUITING

Data-driven recruiting is while you use tangible statistics and stats to inform your hiring choices, from deciding on candidates to growing hiring plans. Recruiting groups that use statistics are more likely to be green, reduce charges and enhance their hiring.

Data-driven recruiting also helps you:

- Allocate your finances. For instance, to accurately spend your finances, music source of rent to decide which recruiting channels deliver inside the most qualified candidates.
- Increase productivity and efficiency. For example, track what number of emails members of your hiring crew alternate with applicants to look if there are specific ranges where you may speed up your time-to-hire.
- Unearth hiring problems. For example, evaluation your application shape conversion prices to decide in case you need to tweak your questions or redecorate your web page.
- Same with diversity: take a look at candidate demographics to see in case you are unwittingly discriminating towards protected businesses.
- Reach more objective (and legally defensible) hiring choices. For instance, selecting the nice candidate primarily based on evaluation scores and dependent interview effects is an effective hiring technique.
- Make the case for recruiting system improvements. For instance, in case you realize that your organization desires to spend money on referral software, you could present data that suggests the effectiveness of this method to solidify your argument.

DATA COLLECTION

Data series is frequently time-ingesting. Aim to make it as painless as feasible. Here's how:

- Use software program on your advantage: Your applicant tracking device (ATS) may already have reporting capabilities to be able to do your work for you.
- Find exclusive methods to accumulate information: Some statistics can effortlessly be accumulated via Google Analytics (e.g. Careers web page conversion fees) or through easy surveys.
- Use records to evaluate the beyond and plan for the destiny: Even in case your hiring teams are used to making selections based on intuition, they may find a stronger ally in records. Data will help them see what worked and what didn't in past hiring processes and improve their destiny hiring choices.

DATA SUBJECT RIGHTS

Employee in the organization are friends to each other but still if a situation arise where they have to share data to other person, they will not. There are eight data subject rights:

- The right to be informed
 - The right of access
-

- The right to rectification
- The right to erasure
- The right to restrict processing
- The right to data portability
- The right to object
- Rights related to automated decision making, including profiling

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RECTIFICATION OR RECESSION PHASE OF THE ECONOMY- LET US MULL OVER IT

Nidhi Dwivedi

ABSTRACT

Today, the world economy is in the clasp of economic crisis. So, is ours. This is the consequence of many global as well as domestic slip-ups. The government has kicked off a series of initiatives to cope up with this situation. Therefore, an endeavour has been made to figure out the remedial measures adopted by the government to lessen the challenging impact of the crisis. Finally, this paper has been summed up by discussing at length if the present situation can be termed as rectification phase (which is the need of the hour also) rather than the recession one of the economy.

Keywords: Economic crisis, Auto Sector, MSME sector, Real estate sector, Rural sector

1. INTRODUCTION

Economic crisis has gripped almost the whole world. Economies of not only the countries like Germany and China are bearing its brunt, but, the safest country like USA is also not spared by it. Today, no nation, even China is able to achieve double digit growth rate, who, maintained it in the golden age of 1950-2001. Actually, shrink in working population, debt burden and low productivity are the biggest challenges globally in realizing it. In India, economic slowdown had forced RBI to reduce GDP growth forecast to 6.1% for the financial year 2019-20. On the other hand, South Asia Economic Focus report of the world bank had anticipated it at 6 per cent by citing below normal local demand but also hoped for the growth be revived gradually to 6.9 per cent in 2020-21 and to 7.2 per cent in the following year. It had patted the government for initiating the accurate measures for economic restoration.

The present economic crisis is cyclical in nature, however, Mr Manmohan Singh had termed it as cyclical as well as structural which he predicted is going to be “prolonged” for it being of a severe nature due to shrunken demand. Though, solution to both is a must to attain high growth rate. Generally, it happens once in a decade. In the last decade, financial crisis had arisen from a lack of liquidity in the United States in 2007. It was termed as even worse than that of 1930s Great Depression which, had declined economic activities very significantly. It had crashed major financial institutions, the stock market worldwide, the real estate market, the business and ultimately the job market.

At that time, the government of India had injected three incentive packages of Rs 1.84 lakh crore in 2008-09 for economic revival. This stimulus package so provided, instilled confidence in the economy and people parted with their saving for investment. This step relieved the Indian economy from the impact of the global financial crisis and it grew by 6.8 percent in 2008-09. Saving is the biggest virtue of Indian economy which had shielded us during downtrend phase 2008 too. In the present scenario although our economy has seen decrease in the growth rate in the couple of last quarters, but, saving has increased. However, it is not as high as was during 2008 crisis. It is so because, along with saving our liabilities also have risen which make it appear as if saving is stable. This is a cause of concern for the economy. Had the economy growing by 8-9%, then saving would have been more than what it is now-a-days. Therefore, investment is required not only to increase the growth rate but, also the saving.

Before inferring anything about the present scenario, let us take a close look at the corrective actions adopted in the economy.

2. THE CORRECTIVE ACTIONS ADOPTED IN THE ECONOMY**2.1 INVESTMENT IN INFRASTRUCTURE**

Measures like disbursement of recapitalization fund to banks by the government, transfer of 1.76 lakh crores from RBI to the government, decrease in repo rate, linking of repo rates to the banks so that people can avail the benefit of decreased rate and easy loan availability have been taken by the government with the hope that credit flow increase in the economy will help in its revival. Except this, many other measures like injection of more money in the form of concrete investment have been executed to revert the present trend. These steps will help in increasing income, demand and saving altogether. And generally once recession has set in, it takes 8-12 months to put the economy on the track.

Finance Minister already has set up a six-member team for making a survey to earmark the areas of utmost importance for announcement made by her during the budget speech regarding 100 lakh crores infrastructure investment in the next 5 years. Taxes are the biggest source of government's income. But the dismal collection

from it gives a thoughtful feeling about the persons whose tax share can make the biggest source of revenue for government and the get away with it by exploring some or the other alternate ways. The salaried one however, file their taxes religiously and they feel motivated in paying off their taxes happily with reduced tax rates as it acts as a social security tranquilizer to them. But, their collection hardly makes much difference. This attitude of people diminishes the government's tax base. Government can attract this amount by setting its own example of depicting transparency in the area of political funding.

2.2 INITIATIVES TAKEN IN THE RURAL SECTOR

The first quarterly economic report 2019 was followed by many suggestions and recommendations from various economists and the concerned dignitaries like 'Timely payment of 'किसान सम्मान निधि' to the farmers', Easy agriculture loan and Investment in long term projects in rural areas etc.

The government at the centre did take a note of it and initiated a series of innovative means for rural area progress that will help in uplifting the socio-economic status & the welfare of the farmers in agriculture, and recover the agriculture from downtrend. These include –

To help this sector which contribute 45% to GDP & generates nearly 80% job opportunities and the farmers in general, the central government earlier had announced the Rs 75,000 crore PM Kisan Samman Nidhi Yojana (PM-KISAN) in the interim Budget 2019-20, under which Rs 6,000 per year will be given in three installments to 12 crore small and marginal farmers holding cultivable land up to two hectares. The government can authenticate the direct benefit transfer to the entitled farming community as this transfer has been done to the accounts of farmers which are linked with their Aadhaar.

Prime Minister Narendra Modi with an outlay of Rs 10,774 crore for the next three years, launched a pension scheme named as 'Pradhan Mantri Kisan Man-dhan Yojana' on September 12 for farmers who are in the category of small and marginal slabs with a cultivable land up to 2 hectares as per land records of the concerned State/UT and fall between the age group of '18 to 40' years. Under the scheme, the eligible farmers need to make a monthly contribution of between Rs 55 and Rs 200 per month till they attain the age of 60 and the government would pay a matching amount for the pension scheme. They will start getting Rs 3,000 per month pension after reaching 60. The enrolment charges of Rs 30 for farmers to this scheme are also to be borne by the government at Centre.

During 'The 6th World Congress on Rural and Agri Finance' address, FM Sitharaman had revealed about putting rural and farmer development concerns on a larger map by planning to form about 10,000 farmer produce organizations (FPOs) and motivating them to trade online the agricultural commodities through online national trading platform National Agriculture Market Centre (eNAM). eNAM platform will provide better opportunities to farmers than the marketing board of Agricultural Produce Market Committee (APMC) which is followed by state governments for agriculture product marketing to safeguard farmer's interest. Therefore, FM has requested states to switch over to eNAM by dismantling the APMCs. But, I don't foresee any reluctance the states should show in replacing the same if some glitches like uniformity in handling legal /other aspects dealing with it in all the states are addressed and attached to it. Another step taken by the government to uplift the rural economy is by allowing farming community-related women self-help groups (SHGs) to avail a loan up to Rs 1 lakh under the MUDRA Scheme.

In order to help the farmers in identifying and maintaining the soil health related to nutrition and moisture levels of the plot they are holding, the government is coming out with a soil health card also. Now, India's expenditure to import about 15 MT of edible oil to fulfill its annual demand of 25 MT is over Rs 70,000 crore. The government is pondering to levy 2-10 percent cess on import of edible oil to generate funds for investing in mission of making India self-sufficient in edible oil production.

Moreover, one another step which the government has undertaken is that it has liberalized the existing 2002 guidelines of Rs 2,000-crore investment in the petroleum sector for grant of transport fuel-marketing license. It has replaced the condition of minimum investment by companies with the introduction of minimum net worth of Rs 250 crore only. Government has also taken the initiative of allowing non-oil companies to make at least 5 per cent of their investment in setting up of the petrol pumps in the notified remote areas with time bar of five years. Besides, within three years of operationalization of outlets selling conventional fuel, they also need to put in place marketing facilities of at least one new-generation alternative fuel, such as CNG, LNG, and biofuel at their retail outlets. This step will benefit the customers with improved services due to the presence of intense competition amongst more number of suppliers of the product and the development of rural sector.

Let us hope that the government's investment exemption to long term projects persuades FDI in rural area, thereby, **relieves overburdening the urban area by creating job opportunities locally and uplifting the demand level** in the coming quarters.

Recent budget speech proposal of setting up a 'Kisan Rail' through the public-private-partnership (PPP) mode for a cold supply chain to transport perishable goods can be a good face lifter of rural sector.

2.3 STEPS TAKEN TO ENCOURAGE THE REAL ESTATE SECTOR

The Q_1 and Q_2 report of FY20 has depicted the gloomy picture of real estate sector. Multiple factors are responsible for this situation. GST and Demonetisation are few of them. These steps did keep a check on the black money, but, didn't stop it fully. Now, people are scared of circulating it. This has weakened the economy temporarily. The real estate sector also got adversely affected by the problem in NBFC. Problem of currency in the reality sector started with the default of IL&FC in September 2018. Difficulty in procuring loan from banking and NBFC led to closing down many projects of builders, developers and has also discouraged the home buyers.

The announcement of reduction in corporate tax rate to 15% earlier by finance minister gave some hope of more FDI to the crippling real estate sector of the economy. This step will help in expediting the economic revival process and the real estate sector which is capable of providing plenty of job opportunities to the masses. Now, the government has made an honest endeavour of its' revival by extending financing facility as well to complete the stalled real estate projects across the country by approving setting up a special fund named Alternative Investment Fund (AIF) which will provide money in escrow accounts that can be used only for completion of the identified projects. The total fund size is estimated at over Rs 25,000 crore with the Centre pumping Rs 10,000 crore in it. The State Bank of India and LIC will be injecting the balance amount of Rs 15,000 crore into the fund in due course. In due course of time, the fund can exceed the limit of Rs 25,000 crore with joining into it the keen partners of sovereign wealth funds and pension funds. This move of the government is expected to act as a catalyst for housing sector which can help in extracting large amount of funds stuck in these projects.

One doesn't know for sure the exact time taken by reality sector to recover, but, it is expected that this government spending will help in easing liquidity conditions and thereby lend a helping hand in improving economic activities in real estate dependent ancillary industries like paint, cement, tiles, steel & the growth rate in the following quarters to come in the economy. Also, the situation of construction material's old stock getting plummeted with escalation in fresh demand for it in launching the new projects will put its foot forward to reverse the present condition of the economy.

2.4 ENCOURAGEMENT TO EXPORTS OF MSME SECTOR

Growth in labor-intensive sectors i.e. Micro, Small & Medium Enterprises (MSME) sector is very important which can assist in bridging a widening gap of fiscal deficit by its earnings from exports. This sector is competent of mass jobs generation, therefore, it can give thrust to the sluggish labor market also. Consumer Packaged Goods (CPG) of MSME like packaged foods, beverages, toiletries, over-the-counter drugs, other consumables, textile and electronics help in realizing inventory as they are relatively low priced products which can be sold quickly. Today, not only public sector banks are facing liquidity crunch but, its danger is looming over to NBFCs also. NBFC crisis which resulted from NPA because of borrower's default in loan payment is creating a problem in loan disbursement. However, fresh defaulter case of Punjab and Maharashtra Bank (PMB) has thickened the economic challenge still further. Economic challenge is getting triggered furthest with difficulty in acquiring loan internationally due to adoption of harsh stand for global financing. Entrepreneurs are also showing distant interest in making investment by procuring loans. Insolvency and bankruptcy is an innovative reform but, in the present scenario it can't help India's large MSME sector. Increase in demand of auto sector, textile, Fast-Moving Consumer Goods (FMCG)/ CPG can be captured by providing easy loans. Infusion of liquidity in MSME will help in arresting de-growth of this sector as well as support capital formation in the economy. Few more steps like expediting input tax credit refund process of MSME and lessening its present time of three months will help in running the business smoothly and thereby escalating exports of MSME.

2.5 AUTO SECTOR STATUS

The economic slowdown has not spared even auto sector which is at its inflexion point. However, finance minister said that slowdown in auto sector can be attributable to many factors including transition to Bharat Stage VI emission norms (BS VI), higher registration fees and millennials not wanting to commit to EMIs to buy a vehicle and preferring cab & metro services. Today, people prefer to order food rather than going to restaurants for meals. Here, she is trying to convey the message that it is a transitional phase and economy is

trying to adopt itself to the e-platform mode. If we leave apart these things and concentrate more on to some extra reasons, then things like less job generation, high fuel prices, bad transport infrastructure and shortage of currency in the market are the issues which are responsible for demand decrease. Governments have to adopt even/odd formula to keep less number of vehicles on the road to resolve pollution issue. People prefer public transport for this reason and therefore don't want to block money in the first-hand vehicle purchase. Troubled auto sector has plagued ancillary industries also.

Rolling back of foreign investors also can be added to the list of reasons of auto sector slump. Imposition of surcharge on FPI in India on July 5 in the budget announcement can also be included in the list of causes till first quarter. This had resulted in equity withdrawal of more than rupees 30,000 crores by foreign investors. Though government has taken it back now. But less foreign investment is expected in India as there are bleak chances of four major central banks - The Federal Reserve System, European Central Bank (ECB), Bank of England and Bank of Japan to increase liquidity. Looking from global point of view, factors like - protests in Hong-Kong against the extradition law, US - China trade war, uncertainty prevails in UK for BREXIT makes investment in Asian markets risky.

One more reason which seems justified here is that as crisis in oil producing countries is making fuel prices exorbitant, therefore, millennials might be eyeing on to the cost efficient electric cars than a conventional petrol or diesel cars. Other benefits of such cars are that they are environment friendly, enjoy tax grants and are exempted from certain charges and fees. Consequently, this might be transitory phase as well towards pure electric motoring which is getting depicted in the form of lull in auto purchase activity. People might be taking wait and watch viewpoint before finalizing the decision of an electric car purchase wisely.

Let us hope for the consumption to pick up with attractive announcements of finance minister.

I don't have much understanding about the policy matters, however, I believe that government can accomplish the development tasks only when it has enough liquidity with it. When it notices that some sections of population are embracing money and are not parting with it easily, government has to adopt some harsh stand. I believe the present punitive stand on motor vehicle act is the result of same and the government wants to use it as a double edged sword i.e.: -

- i) To scare people that much that by fear of law they start obeying the road safety rules in which their welfare is hidden.
- ii) Government gets some success in extracting money from people which they are holding.

Although, money so extracted will help in continuing with the development tasks. Modernization of armed forces to safeguard the nation from any type of external threats is yet another important task which is going on the fast track. Still, I must say here that in this bulls' fight, undoubtedly though, it is the common man who is suffering the most but, in return, we certainly do will have the blessed effects of all these bitter pills.

3. DISCUSSION

Slowdown process is prevalent globally and skipping this word in a three-hour long budget speech might be intentional as this situation is not created by our FM but, we also are part and parcel of it and facing the consequences of global recession. The actions our FM is going to take to reverse this situation were needed to be addressed and she was very clearly vocal with all those. Relaxing on taxes was one step which makes it a visionary budget. Stimulus in income created by such move in the hands of masses will help in increase in production activity via consumption. Along with this, any type of construction activity (like- infrastructure of rail/road/air transport, construction of Ram Mandir) is also going to increase consumption through generating mass employment. This step will help in heading towards revival.

The country's GDP growth is estimated to slow to an 11-year low of 5 per cent in the current financial year. Recent government initiative of approving 72 changes in the Companies Act, 2013 which includes decriminalizing provisions of the act, re-categorization of 23 offences out of 66 compoundable offences and no need of constituting a committee for Rs 50 lakh corporate social responsibility (CSR) can prove to be a big leap forward in pushing business activities. The proposed changes will pave the way for Indian companies to get listed on foreign stock exchanges. This listing will facilitate them in increasing competitiveness in terms of access to capital, broader investor base and better valuations. The government is hopeful that these moves will give impetus to the dwindling economy. Consequently, it will help in relieving the economy of decadal financial crisis, thus benefiting health of the Indian economy. Furthermore, the approval for merger of 10 public sector banks (PSBs) into four mega banks which were announced in August last year has been given a green

signal. Besides, strenuous actions at government level are going on to prepare itself to meet coronavirus emergencies if arises any in the economy.

The government is making an honest endeavor to bring the money deposited in Swiss bank back and if it succeeds in it, we can hope for the prime minister's promise and dream of a \$5 trillion economy becoming reality by 2024. Recent action of the cabinet committee on economic affairs (CCEA) related to clearing the way to privatize five PSUs is the biggest ever asset-sale exercises till now, which is hoping to generate ₹ 1.05 trillion to the government. This disinvestment move has been done to enhance professionalism in these companies so that they can contribute efficiently to fulfill the PM's dream of economy becoming a \$5 trillion one.

A strong banking system is necessitated for jerk-free functioning of the economy. Merger of public sector banks definitely will strengthen the banking system. But, banks can't contribute fully in the initial transitory phase of merger to the revival process as banks will be occupied handling their own challenges in their re-structuring. Therefore, government's injection of investment only can wane through the present economic crisis in this initial transitory phase. But, in future, this robust banking system can be trusted for absorbing any type economic shocks.

Today, e-platform of Digital India provides plethora of high quality products at affordable price to the consumers. Consumers are ready to shell out money on high quality product. Therefore, in this cut throat competition world, supplier can extract money from consumers only by not compromising with the quality of the product. There are remote chances of high quality product ditching the competition. If retailers expect wonders of enhanced income will happen to them with old business models, they are living in the fool's paradise. For that to happen, retailers have to spend money on surveys/research to study the mindset of the consumers and should make appropriate changes in their business strategy. They should think of extending their reach to the consumers with the feeling of 'if the mountain won't come to Muhammad, Muhammad must go to the mountain'. During this gloomy phase of economy, if business community also co-operate by carrying out manufacturing activities until their shut down/break-even point has reached, then along with the government's booster dose of investment, the economy will be able to arrest downfall phase early. This in return will give ample opportunities to the businesses to flourish and earn super normal profit. In my opinion, we, currently are passing through the phase of learning to make an omelet by breaking a few eggs.

There is a lot of job generation scope in tourism industry in India. Therefore, this area entails political attention for investment. There is no doubt that Prime Minister's Swach Bharat Abhiyan has improved the cleanliness of the places, but, to attract more national & international tourists at old and new tourist places in India, more facilities, improved infrastructure and tourist's friendly environment will have to be provided at these places. Government however has achieved a major breakthrough in countering terrorism recently which not only provides a great threat in enabling tourist's friendly environment but, also tends to impact negatively to the growth rate by diverting political and financial attention towards it.

Low population is making the situation challenging for nations round the globe and the number of nations with this adversity have risen from 2 to 46. It forces us to relook and rework on our definition of economic growth. Recent estimates have shown that by 2040, China's working population (between the age group of 15-64) will remain 90 crores and that of Japan as only 6 crores. Therefore, the challenge of attaining high growth rate will be a distant reality in these countries with less working hands. Our country with a problem of educated unemployment and high population can reap the benefit of this opportunity by starting a negotiation with these countries for sending this segment of our youths on work visas in future.

A strong legal system is the first and foremost thing India requires to get it counted in the developed nations category. Modi government which has come with huge majority in the second tenure will leave no stone unturned in enforcing and implementing a strong legal system. In this context only, our home minister Mr Amit Shah had spoken that now is the time when better policing does not require third degree torture of the criminal but, authenticating a crime on the basis of forensic report. Along with putting check on the crimes, these type of reforms in the judicial system will open job avenues in academics also by incorporating this area in the curriculum of higher studies.

The macroeconomic performance is measured by considering the three basic components of the economy which are output, unemployment and inflation. The government uses macroeconomic tools which include taxes, government spending and borrowing, exchange rate determinants, monetary and credit rules to achieve the macroeconomic objectives of a high, but sustainable rate of economic growth, full employment, price stability, income equality and balance of payment equilibrium. To evaluate these objectives, the government keeps a vigil on real GDP, M2 (Money Supply), Current Employment Statistics (CES) for labor employment, Consumer

Price Index (CPI) for inflation, Producer Price Index (PPI) for industrial production, Housing Stats for "New Residential Construction" and the balance of payments for its equilibrium. If macroeconomic indicators are doing well in the economy, then each sector tends to show good result as they have to make the most of their invested money. Moreover, development can't be commented by looking at only GDP parameter. Currently, macroeconomic indicators are demonstrating gloomy picture of the economy owing to tough and stern stand on reforms like (Article 370, Triple talaq, Anti-terror law, Merger of banks, POCSO amendment, Motor vehicle act, Ram Mandir, labour reforms, National Register of Citizens (NRC) and now Citizenship Amendment Bill(CAB) taken by the present Modi government in his second tenure. Assuming that in the initial couple of years after coming back to power, one can opt for the risk of taking stern actions & tough reforms and the present economic slowdown is the result of that, then, we need not to worry about slow pace as the next phase of the economy will be of revival one. And, Modi government has already started taking significant revival initiatives to give strength to the wilted economy.

It is the time of change. The change, when we are talking about purifying our air by steel structured tree known as bio-urban rather than plants. Mexico startup company has innovated one-ton steel structured tree which uses algae in this structure. The company claims that it purifies air equal to more than 300 trees of 1-hectare area and can be installed to purify air in the area covering a population of 3,000 people. After looking at all this, people opine at saying that it appears in the first instance that fire incidents of Amazon in Brazil which produces 20% of oxygen and absorbs about 5% of carbon dioxide are all man made to flourish the above mentioned start up structure.

When technology is advancing at that pace, how can we keep sticking to old measures to evaluate the economy. Therefore, now is the time to accept the reality of harsh times.

Technology is advancing at a very fast pace. Artificial intelligence and machine learning are the two areas on which our future will survive. The automation technology helps in creating jobs rapidly, but, once the same technology gets obsolete, very swiftly it vanishes them also. If one doesn't keep oneself updated with the new technology, then it is difficult to retain the job. It can attack and even fail any political system - Democracy, Socialism or capitalism. Therefore, emotional strength and flexible mindset which is ready to struggle & can adapt itself to varying environment are two such things which will be needed the most in the time to come.

We should keep learning from the crisis of outside world also. Our government is proving it by constantly working upon updating the outdated laws. Present critical situation of Venezuela teaches us a lot. During the time period of 1940s to 1970, its share of earnings from oil export in its' economy was excessively high to the extent that a national slogan 'sowing the oil' was based on it. But, over the past few years, a formerly prosperous and well-to-do known economy got disintegrated and collapsed by the hyper populist policies, corruption and mismanagement of the economy by the government.

All said and done, we can't sit idle at this juncture and keep cherishing the corruption blossoming in front of us just for the apprehension of implementing monetary or any other reform. Already, the termite of corruption has damaged the roots of the economy to the extent of hollowing it. Now the time has come to have faith in the belief that hope is life and proceed with the feeling that bitter pills ultimately will have blessed effects.

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**AN APPRAISAL OF THE CITIZEN'S DIGITAL EMPOWERMENT INITIATIVE OF NDA
GOVERNMENT'S FIRST TENURE**

Nidhi Dwivedi

ABSTRACT

The importance of internet has increased for everyone with the launch of a leading program – the “Digital India” by PM Narendra Modi of the Indian government. Digitalization is nothing but paper less information freely available at any time anywhere. The Digital India is a comprehensive vision consisting of an Umbrella Programme consisting of nine pillars. This platform has provided a robust bridge between the government departments and its masses for discharging government services digitally. It has also eased in doing business in the country. Ever since its inception, Digitalization has brought a drastic and widespread change in the functioning of the system. Digital payment has assisted in tracking illegal transactions as each transaction of the merchants gets recorded and in doing so black money circulation in the economy got restricted to a great extent. With digitization, government will be able to increase its revenue through sales tax in the time to follow to improve the financial health of the country. All these steps very rightly seem are following the famous saying of Abraham Lincoln which reads that the “Government of the people, by the people, for the people” shall not perish from the earth.” Integrated digital transformation of services has started impacting the citizen’s life in a positive way. Implementation of “Digital India” programme is impossible without the use of Internet and cybercrimes are part and parcel of it. Therefore, providing round the clock safe, protected and secure cyber space (which is a very challenging job) is a need of the hour. This job is paramount agenda of the government and also the government is continuously making an endeavour to improve it.

Objective: To view the citizen’s digital empowerment initiative of the government.

Keywords: Challenges in digitalization, Digital India, e-Governance, e-Kranti, Internet, pillars of Digital India.

1. CONTEXT BACKGROUND

“The Internet” is the means which boost up the expansion of Digital Revolution. This not only helps speedy processing, it also saves (wastage of) paper and makes the use lot more convenient and hassle free. Lakhs of files with crores of valuable document/ pages will thus go digital, without use of paper. No fear of loss or mutilation of our own certificates, hence forth. Internet has plethora of benefits. Unlike the previous clumsy technology, present technology is paperless and is very efficient. Personal documents can be stored and saved in digital lockers that can be shared across departments.

Life without internet is impossible now-a-days. IT is one area where India has an edge over other leading countries of the world, in being the torch bearer. Digitalization is nothing but paper less information freely available at any time anywhere. It involves storing data or information by using computer technology/smart mobile phones. Digitalization or the Information Era started during 1980s and is ongoing. From computing to communication, entertainment to education, from printing documents to printing products, and, now to internet of things, it's been a long journey in a short time. According to Technopedia, the Digital Revolution is the transition of technology from electronic and mechanical devices to the digital technology which is available today. The Digital Revolution is also intermittently termed as ‘The Third Industrial Revolution’.

Ever since its inception, Digitalization has brought a drastic and widespread change in the functioning of the system. Its journey started with the launch of transistor in 1947. From 1950s and 1960s, computer application was limited to The government, military and other organizations. This decade has to its credit the creation of the World Wide Web. By the end of 1980 decade, computer was used for many jobs and the first cell phone was also introduced. Application of the Internet became a normal routine of most business operations by 1996 with the introduction of World Wide Web in 1992 and almost half of the American population started using internet. By the end of millennium i.e. 2000, even the developing world started tasting Digital Revolution, mobile phones, the Internet by using World Wide Web and the television also started receiving digital signals. By 2010, nearly 70 percent of the world's population started mobile communication and even this was replaced by tablet computers by 2015. This was about the journey of digitalization over the decades.

On 31st July 2015, Prime Minister Modi launched the flagship programme ‘Digital India’ with the vision to transform India into a digitally empowered society and knowledge economy. ‘Digital India’ has information or knowledge policy in the form of National Knowledge Commission, information Super Highway or National Knowledge Network (NKN). The pace at which people are taking to digital technology defies our stereotypes of

age, education, language and income. India now has moved from e to m (mobile) governance technology. Mobile governance has made the development a truly inclusive one and has put the governance within everyone's reach.

The dream of Digital India was impossible without the help of Internet which has relieved us of laborious way of getting any work done and is convenient, efficient as well as economical also. These days everything gets done by just click of a mouse which simplifies executing any activity. It's assisting people with multiple benefits like Transfer of money, Shopping (wide choices), Renew their ATM cards, Payment of bills, Suggesting/submitting ideas on 'my gov', Sharing & Publishing research papers internationally, learning on line courses, taking expert advice from international community for clearing doubts and so on. Benefits are endless. It is because of this platform only that a patient in a remote area in small village can be treated with the advice of AIMS doctors sitting in Delhi and farmers can be benefitted from the advice of experts of the prestigious agricultural institutions. Digital agriculture is empowering small-holder farmers in a few dozen villages in Telangana, Maharashtra and Madhya Pradesh with increase in their income through higher crop yield and greater price control by using technologies such as Artificial Intelligence (AI), Cloud Machine Learning, Satellite Imagery and advanced analytics. Through this platform government is trying its level best to transform lives of people in ways that was hard to imagine just a couple of decades ago. This platform is not confined to only national level, but, we can take the help of internet in extending to and receiving from any assistance whosoever is in need of it in any part of the world.

The Digital India is transformational in nature which will prepare India for a knowledge future and it works on IT (Indian Talent) + IT (Information Technology) = IT (India Tomorrow) ideology.

1.1 NINE PILLARS OF THE DIGITAL INDIA

The Digital India is a comprehensive vision consisting of an Umbrella Programme that contains a large number of ideas and thoughts of many departments. Each individual element of this programme stands on its own, but at the same time also is a part of the larger goal. It aims to provide Government services like infrastructure as a Core Utility and governance & services on demand to every citizen electronically. It also aims at digitally empowering the citizens by making the resources available on the Cloud. The nine pillars which extend support to these three key area include: broadband highway, universal accessibility, public Internet connection, e-Governance, e-Kranti, information for all, electronics manufacturing, IT for jobs and early harvest program. Development of UMANG App is an endeavour in the direction of providing different services under one umbrella. These nine pillars are summed up as follows: -

1.1.1 Broadband highway

This covers three sub components, namely Broadband for All - Rural, Broadband for All - Urban and National Information Infrastructure (NII) to be done by the Department of Telecommunications (DeitY). Coverage in a phased manner of putting nationwide optical fiber network (NOFN) in all 2.5 lakh gram panchayats in the country was planned during the launch in 2015 which was to be finished in FY 2016-17 with a complete approximated price of Rs 20,100 crore. NII aims at integrating all ICT infrastructure components such as State Wide Area Network (SWANs), National Knowledge Network (NKN), nationwide optical fiber network (NOFN), Government User Network (GUN) and the MeghRaj (GI) Cloud. NII will have provision for horizontal connectivity to 100, 50, 20 and 5 government offices/ service outlets at state, district, block and Panchayat levels respectively.

1.1.2 Universal access

Mobile phone access in around 55,619 uncovered villages by 2018 and to set up 1,836 mobile towers in the nation by the Department of Telecommunications (DeitY) was ensured. The work of providing mobile coverage to uncovered villages of North East has been initiated under the comprehensive development plan and the remaining uncovered villages would be covered in a phased manner.

1.1.3 Public Internet access

The two sub components of Public Internet Access Programme are Common Services Centres (CSCs) and Post Offices as multi-service centres. Under this pillar people were ensured at least one common services center (CSC) in 2.5 Lakhs of Gram Panchayats for maximizing delivery of e-Services to the citizens by the Department of Telecommunications. There was even a provision of transforming in the next two decades 1.5 lakh post offices into a multi-service centers by the Department of Posts.

1.1.4 e-Governance

Business procedure re-engineering was anticipated to enhance procedures and service distribution. Services were planned to be linked to Integrated platforms of The Unique Identification Authority of India (UIDAI),

payment gateway and mobile platform in order to have least & efficient governance and also to facilitate integrated and interoperable service delivery to citizens and businesses. Even general public complaint redressal was to be computerized end to end through automated government departments and agencies workflow.

Government is doing its best to initiate measures of e-governance to help people. For the ease of farmers Government has started electronic national agriculture market (e-NAM) for inter-state trade on its platform very lately, thus facilitating traders of one state to buy agricultural produce of a different state. Many states like Telangana, Andhra Pradesh, Haryana, Chhattisgarh, Madhya Pradesh, Uttar Pradesh and Uttarakhand have allowed movement of agriculture and horticulture produce within a state under inter-mandi trade platform. Farmers can make use of these for better market access, more buyers, realise higher prices for their produce and can benefit themselves.

1.1.5 e-Kranti

The national level e-Governance programme that was initiated in May 18, 2006 was named as National e-Governance Plan (NeGP) and had 27 Mission Mode Projects (MMPs). 4 more mission mode projects namely 'Education', 'Health', 'Posts' and 'Public Distribution System' were added to NeGP portfolio in 2011. In order to overcome the shortcomings of National e-Governance Plan, Government of India launched 'e-Kranti' programme that aimed for electronic, mobile and good delivery of all types of services like education, health, farming, rights and financial addition. Education under it were to cover digital knowledge program and MOOC (massive online open courses) and installing free Wi-Fi in 250,000 educational institutions. The internet assessment, medical records, medicine supply and pan India exchange for individual details by 2015 and full dental coverage in 3 years were planned to get covered under healthcare. Farming were to cover on line real-time price details, cash loan and relief payment with mobile banking. All projects including e-Governance projects have to follow main principles namely 'Transformation, Integrated Services, Cloud by Default, ICT Infrastructure on Demand, Mobile First, Language Localization, Fast Tracking Approvals, Security and Electronic Data Preservation and Mandating Standards and Protocols of e-Kranti.

Now, the portfolio of (MMPs) has increased from 31 to 44 MMPs. Many new social sector projects namely Women and Child Development, Social Benefits, Financial Inclusion, Urban Governance, eBhasha etc have been added as new MMPs under e-Kranti.

1.1.6 Global Information

Under this heading, things like Open Data platform and online hosting of information & documents, proactive engagement through social media and web based platforms like MyGov were emphasized. It will facilitate open and easy access to all information. The innovative platform (myGov.in) which is also believed to be the "world's largest platform in citizen engagement in policy making" was initiated by our Prime Minister Mr. Narendra Modi on 26 July 2014. The greatest benefit of it is that once registered on website [MyGov.in], citizens can use it for sharing their ideas, suggestions with the government enabling them to directly participate towards Good Governance. It also includes online messaging through SMS's and mails on special occasions and events.

1.1.7 Electronics manufacturing

Under this heading the Centre had planned to consolidate many areas like taxes, rewards, financial systems of range and offering cost benefits to local producers to execute the plots of set top boxes, VSAT, mobile, consumer electronics, technology, medical electronic devices, intelligent energy meters, Smart cards and micro ATMs. Demand for electronic goods is increasing incessantly and the Indian government is taking several steps in meeting those demand by promoting manufacturing and investment in this sector, which puts India high on the list of potential places to invest.

1.1.8 IT Training for Jobs

This pillar focuses on providing training to the youth in the skills required for availing employment opportunities in the IT/ITES sector. IT sector has great scope of employment generation and absorbing educated unemployed youths. In order to reap the cost benefits of small place and to have more regional balance, the establishment of BPOs in the North Eastern Region through appropriate incentives were proposed. The government had planned to prepare one crore learners from small towns and village through training for IT industry. There are eight components with specific scope of activities under this pillar. Plans were also to exercise 300,000 assistance distribution providers in 2 years to run practical companies offering IT services and telecoms companies to train 500,000 rural workers in 5 years. Now, Google's "Internet Saathi" programme that was launched in July 2015 has moved way forward covering almost 17 states in bridging the digital gender divide and empowering women in rural India through digital literacy. It's training has enabled rural woman to

upgrade their social and economic status. While releasing Vision document for North East 'Digital North East: Vision 2022' during the inauguration of a new BPO at world's largest river island Majul, the Union electronics and IT minister said the digital power of North East villages will get strengthened by setting up a cloud hub in Guwahati. It will help in transforming the lives of people and enhance the ease of living through leveraging digital technologies to the masses of that area.

1.1.9 Early Harvest

As the name suggests, 'Early Harvest' programme basically consists of those projects which are to be implemented within short timeline. Projects under this heading cover areas of IT Platform for Messages developed by MeitY, Government Greetings to be e-Greetings- the crowd sourcing of which has been ensured through the MyGov platform, Biometric attendance - The government had intended to implement Aadhar driven Biometric Attendance System in all central government offices of Delhi so that the concerned stakeholders can keep an eye on online recording of attendance through a web based application software system., to provide Wi-Fi in all universities on National Knowledge Network (NKN) by Ministry of Human Resource Development (MHRD), Standardization Government Email Design and Upgradation of the infrastructure of appropriately protected email program to improve its utilization within government program by MeitY, Public Wi-fi hotspots to be provided in the cities with population of over 1 million and tourist centres to promote digital cities by DoT and Ministry of Urban Development (MoUD), School Books to get converted into eBooks by Ministry of HRD, SMS based weather information and disaster alerts provided by Ministry of Earth Sciences (MoES) (India Meteorological Department - IMD)/ Ministry of Home Affairs (MHA) (National Disaster Management Authority - NDMA), National Portal for Lost & Found implemented by children MeitY and Department of Women and Child Development (DoWCD) was also realized.

1.2 ACCOMPLISHMENTS AND AN APPREHENSION OF CHALLENGES IN ACHIEVING OF DIGITAL INDIA

1.2.1 Apprehensions in the Digital Curriculum ambit

Digitalization under 'Digital India' heading is expanding at a very fast pace. A few years ago it was probably enough to have a superficial knowledge of the digital marketing industry by just reading a few blogs and the occasional book and is certainly a good starting point. But it is not near enough to become a skilled professional. The Digital Marketing industry today is so dynamic that by the time a book is published, what is written in it will get outdated. Digital Marketing industry requires skilled professionals to flourish. It is a bit of a challenge to stay up to date in the Digital Marketing industry today. Equally challenging is to find skilled professionals in it because, unfortunately, most of the educational institutions do not have anything to do with digital marketing in their curriculum. However, a very few courses on E-Commerce basics are there, but, Digital Marketing is a robust one than E-Commerce and only few institutions have introduced them. There seems to be an apprehensive challenge in front of us about the redesigning of our curriculum to make digital learning skills an elective component in our education system.

However, very recently an initiative has been started by IIT Hyderabad with the introduction of a full-fledged new B. Tech. programme in Artificial Intelligence to create a complete ecosystem for Artificial Intelligence Academics and Research. Besides, Microsoft has planned to skill 5 lakh youth in artificial intelligence (AI) and set up labs in 10 universities in order to broaden its AI push in India and to create the right conditions for human-focused AI.

So, we can hope for the saying 'well begun is half done' to come true in the near future in India.

1.2.2 Apprehensions in the loosing employment ambit

India is a labour surplus economy and it has the advantage of using labour intensive techniques. This technique accommodates most of its labour force. Now, not only in services like banking, education, insurance, medical and telecommunication, but, digitalization has its presence in every sector. There are strong apprehensions that in the coming days even doctors will also see redundant employment growth, because, patient's data and technology will provide better clinical diagnosis and treatment. Technology is getting used to impart scale and speed to development. All these steps will render our labour force jobless. Data of 'The Centre for Monitoring Indian Economy (CMIE)' which is based on the panel size of over 1,58,000 households in the country has shown that The unemployment rate in December 2018 rose to 7.38% from 6.62% in November 2018 and 4.78% in December 2017, highest since September 2016 when it stood at a high of 8.46%. It's data also noted that alongside the increase in the unemployment rate, there has also been a decline in the labour participation rate (LPR). In such a scenario, joblessness is a matter of great concern in a labour abundant economy like India and also how to tackle it is one of the biggest challenges.

Conversely, refuting this apprehension about technology, Infosys co-founder and renowned IT industrialist Mr NR Narayana Murthy has reposed his faith in Emerging technologies such as artificial intelligence (AI) and machine learning and reiterated that technology has enabled countries like US, UK and Japan to reduce unemployment rate to a single digit. The claim of favouring technology by Mr NR Narayana which will not be at the cost of human employment, gets justified by the recent incident of consumer-technology laden Henn-na hotel in Japan which had to remove more than half of its android concierge as they weren't keeping proper pace with services of the hotel.

Quoting the above mentioned incidents, we can also relax our apprehension that the robot revolution is not going to threaten/replace human jobs. Technology only provides an opportunity to people to move from drudgery to tasks that require more human touch. Nevertheless, at present the situation is grim, but, a stable government at the center will pursue the policy of promoting electronic manufacturing in North East region which will help India in becoming the targeted a trillion-dollar digital economy in the near future that will also become a catalyst in creating jobs in the digital sector.

Furthermore, today the application of technology in medical sector in India has given a mother in a distant hill village a better chance to save her new born infant by best world renowned expert advice. Today, a child in a remote village has better access to education.

Therefore, Rachit Jain, CEO of Youth4work is of the opinion that thinking on the line that technology will replace the human beings is irrelevant and it is like saying that manufacturing more medicines will result in doctors to lose their business.

1.2.3 Apprehensions in the ambit of providing safe cyberspace

Besides driving digital transformation, the Digital India Programme is building a protected digital set-up for the country. The Information Act which is in use for dealing with cybercrime and digital commerce in the country was first formulated in 2000, and then was revised in 2008 after amending a number of sections that were related to digital data, electronic devices and cybercrimes known as 'The Information Technology (Amendment) Bill, 2008'. The Government is becoming very stricter with its cybercrime policies to deal with cybersecurity issues and the nodal agency for it is The National Security Council Secretariat.

Today cybercriminals are resourceful and are smart enough. As a result, cybercrimes of diverse types are ramping up in great volumes. Recently WannaCry shook the world of cybersecurity affecting more than 100 countries. Among those, India was the 3rd worst affected. According to ITU Global Cybersecurity Index, in 2015, India was the 5th secured country among some 134 countries but moved to 23rd of the UN Global Cybersecurity Index (GCI) in 2017.

In light of the recent attacks, The Ministry of Electronics and Information Technology developed 'The National Cyber Security Policy (NCSP), 2013' and has taken various steps in this regard. Allocation of 10 % Budget for Cyber Security in Central Ministries and training of 1.14 Lakh persons through 52 institutions are some of them. The vision of the Indian government's cybersecurity policy is to build and strengthen the Regulatory framework for ensuring a secure and resilient cyberspace for citizens, businesses and Government. It will enhance adoption of IT in all sectors of the economy by generating adequate trust & confidence in IT systems and transactions in cyberspace and thereby. It also aims to create National and Sectoral level 24X7 mechanism for detecting cyber threats and to protect the Nation's critical information infrastructure by operating a 24x7 National Critical Information Infrastructure Protection Centre (NCIIPC).

In Digital India, the vital components would necessarily be highly dependent on digitally interconnected, interdependent and complex Critical Information Infrastructure (CII), How to make Data privacy and security of digital data is a very big challenge. Cyber security is vulnerable to exploitation and unsecured Wi-Fi networks can be misused for carrying out any type of cybercrime. Though Data Security Council of India has come up with Data Security Framework, but, apprehension of serious gaps in our cyber security framework such as ambiguity about the role of multiplicity of Agencies, lack of comprehensive cyber security law, absence of mandatory cyber security compliance regime, declaration of protected systems under Section 70 of IT Act, insufficient involvement of private sector and academia in cyber security programs, absence of a nationwide cyber security awareness and culture, inadequate funding of cyber security functions, insufficient preparedness of police forces to detect, investigate and prosecute cybercrimes, almost negligible cyber intelligence, shortage of skilled cyber security professionals, inadequate development of indigenous hardware and software etc. are still there.

However, recently The Reserve Bank of India (RBI) permitting authorized card payment networks to offer card tokenization services to any token requestor or third-party app providers is a step taken to check cyber-crimes in payment transactions.

1.2.4 Apprehensions in the ambit of providing telecommunication infrastructure

A KPMG report says that one of the biggest challenges that the Digital India programme faces is inadequacy of required infrastructure. India has a severe shortage of tele-infrastructure of telecom towers and fibre network. India has 500,000 telecom towers and Tower and Infrastructure Providers Association (TAIPA) estimates that the country is short by 100,000 towers. By 2020, India will need 1.2 million telecom towers to cater to the rising data demand, according to industry estimates. Fiberisation essentially strengthens the backbone of a telecom network and less than 20% of towers are fiberized in India. A Deloitte report released last year noted that India's fibre coverage in km-per-capita terms is 0.09, way behind China's 0.87, and Japan's and the US' 1.3.

In November 2016, the Centre introduced the Right of Way (RoW) rules to ease the infrastructure roll out. However, due to lack of clarity and implementation, the RoW has posed challenges to the sector. The ASSOCHAM-EY report said that RoW challenges largely stem from fragmented and non-uniform policies adopted by various states and local bodies. However, Jharkhand and Haryana have already started work on the online mechanism for right-of-way. Odisha and Uttar Pradesh are also working and the remaining states are also expecting to catch up. Presently telecom infrastructure providers have to take multiple approvals which is a time-consuming process. Anyhow, in order to save time and to fix the (RoW) problem, The Cellular Operators Association of India (COAI) will work with the Department of Telecommunications (DoT) to launch an online portal to monitor if state-wise Right of Way (RoW) applications rules and approvals for setting up telecom infrastructure are being complied with or not. The portal will enable the government and telecom infrastructure providers to keep a tab on the process, right from the time an application is filed till the final approval.

The KPMG report further said that absence of internet and a sizeable number of population without computer or laptop are a stumbling block to gaining widespread digital literacy. Free public Wi Fi facility at airport lounges and railway platforms has been provided. But, providing secured telecommunication infrastructure at each nook & corner of the country especially in far flung areas for bridging the rural-urban digital divide & to make digital system functional is a big apprehensive challenge as these are prone to random sealing, vandalism and theft.

1.2.5 Apprehensions in the ambit of linkage to national level apps

People in developing countries are a little bit hesitant in disclosing/sharing their personal information because of their conservative nature and low level of education obstructs their understanding in knowing the real significance of getting connected to the national level apps. People not co-operating the government drive to link their Aadhar numbers with any app which was seen very lately was mainly because they are apprehensive about leaking their personal information. Bill Gates in an interview during his visit to India also showed concern for country's education level for making the reforms successfully implemented.

Bill Gates in his interview had communicated that Aadhar card is nothing but a 12-digit identity number. It is just like saving Bank account & is not an intrusion to or threaten the privacy of any individual. It is only when how it is handled by the apps using this information.

Our revered Law and IT minister Ravi Shankar Prasad also agrees with Mr Bill Gates & fortifies his statement by commenting in an interview to Times of India that "Individual privacy is a must, and should remain important but, it cannot become a shield for the corrupt or terrorists. He further added that cybersecurity is one of the priority areas for the Narendra Modi government at a time when India is in an overdrive to promote cashless transactions and has been rolling out numerous citizen-empowerment services digitally."

2. CONCLUSION AND DISCUSSION

We can conclude it by saying that looking at the low level of education of Indian masses, making 'digital India' a big success and making people aware about taking Aadhar as personal identity saving account is a great challenge in front of us. But, at the same time I assume one can expect wonders if our very strong social media can do the needful in making people aware about the benefits of getting digitally connected. These steps would also bring in accountability of public servants as well as of the government in discharging their respective tasks. It will certainly work like magic in executing mandated delivery of government's services electronically. Such steps will unarguably help in meeting the aspirations of country's citizens where government and its services reach the doorsteps of each and every citizen and contribute towards a long-lasting positive impact. Additionally, availability AI skilled individual's talent will assist India to compete in future by contributing in the economic growth of the country. It can be wrapped up by saying that 'Digital India' endeavour of our Prime Minister which is a necessity now can be accomplished only if Government, private players and society come

together to transform India's socio-economic dynamics so that the idea of power to empower of Digital India program can become a reality and a future of immense possibilities can be explored.

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UNFOLDING KEY COMPONENTS OF TOURISM DESTINATION COMPETITIVENESS BY USING STRUCTURAL EQUATION MODELING

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ABSTRACT

Purpose – This research study seeks to investigate the determinants of tourism destination brands competitiveness in order to develop a structural model to establish relationship between explored determinants and competitiveness of tourism destination brands exist in Uttar Pradesh, India.

Design/ methodology/ approach – This study referred Ritchie and Crouch's model of tourism destination competitiveness. A structural model has been developed by using 21 variables of this model. Exploratory factor analysis followed by structural equation modeling along with Cronbach's alpha as the reliability coefficient and various measures of model validity have been employed with the help of IBM SPSS (var. 21.0) and AMOS. . This study used a sample of 286 foreigner tourists who were visiting to tourism destinations of Mathura and Ayodhya, between 1st July to 20th August, 2019.

Findings – the results of the exploratory factor analysis resulted into the reduction of variables into selective number of factors. The reliability of each factor composition was confirmed by using Cronbach's alpha. The structural model has been developed by using the factors obtained from exploratory factor analysis and it is represented by using path diagram of model. CMIN measure and baseline comparison measures validate the structural model.

Research limitations/ implications – Further research is required to confirm the application of model developed in this research in order to provide worthy information to improve competitive advantage of each of the tourism destination exist across Uttar Pradesh. A multiple regression based model can also be developed to show the relative contribution of the determinants (factors) of the tourism destination brand competitiveness.

Originality Value – The value of this research study is that it contributes to the literature review and it shall provide key insights about what determine the competitiveness of tourism destination brands and these insights can be used to promote the tourism destination as a brand.

Keywords - Tourism destination branding, Structural equation model, destination competitiveness, Tourism Marketing

INTRODUCTION

India is full of tourism destinations. These destinations include religious, heritage, wildlife, historic monuments, wonder of world destinations. For more than two decade central government along with state governments has been trying to promote India as "Incredible India" from the perspective of tourism. India is a developing country and tourism is one such industry that not only contributes to the GDP (Gross Domestic Product) but also in the generation of employment to unskilled work force to skilled and professional work force. Within India tourists tends to visit as many destinations as they can but tourists have to tradeoff during the selection of tourism destinations. The destination that preferred over the other supposed to be more competitive. Tourism destination competitiveness has been defined in many ways for example some destinations are highly price competitive as the cost of tourism related activities is relatively economic (India Tourism Statistics 2017). Tourism destination competitiveness has been defined with the help of diverse indicators by the researchers at different point in time. Ranges of conceptual models have been proposed to explain determinants of tourism destination competitiveness. This research study aims to explore the determinants of tourism destination competitiveness with specific reference to the city of Ayodhya and Mathura in Uttar Pradesh, India (Ministry of Tourism, Annual report, 2017-18). Furthermore, this study also attempts to develop a structural model for the evaluation of tourism destination competitiveness from the perspective of foreign tourists who visited the mentioned cities.

LITERATURE REVIEW**TOURISM DESTINATION AND COMPETITIVENESS**

The physical space that includes tourism products including support services, tourists' attractions and tourism resources with well defined geographically defined boundaries is termed as tourism destination (Caldwell, 2004). Tourism destinations can be country, city, or an island. Administrative and politically defined border lines in addition to geographic boundaries helps to define the location of the tourism destination on the global

map. Competitiveness is the essentially required character of competing entities such as products, services, professionals, companies, industries and countries and an extension to this list is tourism destinations. Degree of competitiveness affects the potential to sustain and also decide the future of competing entities (Cretu, 2011). Competitiveness is a measure of superiority to compete. Competitiveness of a tourism destination can be discussed by using region specific factors or by using country specific factors. Different countries defined measure of tourism destination competitiveness with the help of diverse indicators. The selection of the indicators by a country is influenced by the economic condition of the country and also by the overall perception of the country at global level.

TOURISM DESTINATION COMPETITIVENESS

Tourism destination competitiveness is the measure of destination's potential to maintain its strong positive perception among tourists against all competing tourism destinations. As per academic literature the tourism destinations compete on six 'A's (WEF, 2008). These are 'Attraction' such as monuments, specific event, religious place, and heritage etc., 'Amenities' such as hospitality, and food, 'Accessibility' like transport infrastructure, transport options and related support, 'Activities' such as recreational activities for tourist, 'Ancillary support' such as banking, health care and telecom etc., 'Available packages' organize by professional tour operators or by authorized government agencies. Each of the 'A' described here has a potential to confer greater degree of competitiveness to a specific tourism destination. Most of the authors and researchers has defined tourism destination competitiveness with the help of one or more of the six 'A's as described in aforementioned details.

One of the key objectives to measure tourism destination competitiveness is to understand the ability of the destination to contribute in increasing the real income of its resident and also in uplifting their standard of life (Chaudhary & Manjula, 2011). In some of the research studies competitiveness of a tourism destination has been linked to social, cultural, legal, technological and political indicators. It has been observed in past researches that the tourism destinations compete against each other on the basis of available attractions, infrastructure and safety of tourist. In some of the researches certain indicators that have lost their role in the determination of destination competitiveness has been pointed out. Such indicators include assurance for quality tourist services, promise of hygienic accommodations and price effective tourism packages (Sharma, 2014). Role of effective marketing efforts and strategically designed tourism policy are among the key differentiators in making destinations of a location more competitive. The literature on tourism destination has been more around conceptual discussion and empirical studies are comparatively less available specifically in Indian context on the topic of tourism destination competitiveness.

One of the early model of destination competitiveness was a conceptual model developed by De Keyser and Vanhove. It was proposed in 1994 and this model explained the role of 'tourism policy', 'supply factor', 'demand factor', 'macroeconomic factor' and 'transport factor' in the overall competitiveness of tourism destination (Elizabeth & Barber, 2016). In year 2000 a model was proposed by Hassan and it explain four determinants of tourism destination competitiveness. This model composed of four factors and the key differentiating factor of this model was the factor named as 'Environmental concern'. The other factors were 'Comparative advantage of the tourism destination', 'Industry structure' and 'Demand factors' (Hassan, 2000).

Ritchie and Crouch's model proposed in 2003 is among the early models related to destination competitiveness (Ritchie & Crouch, 2001). According to their model destination competitiveness is affected by the comparative advantage of the destination. The comparative advantage could be due to natural endowments or in some cases it has been found that comparative advantages could be obtained by technology led human efforts. Competitive advantage that brought out due to destination's ability to use its comparative advantage also contributes to the competitiveness of the tourism destination. The foundation of Ritchie and Crouch's model is inspired from the theory of absolute advantage, theory of comparative advantage and the Porter's diamond model of competitive advantages. The model identified 36 variables related to the competitiveness of tourism destination and these were classified into six factors. These six factors include 'Planning & Development', 'Destination Related Policy', 'Destination management', 'Core resources & attractors', 'Qualifiers & Amplifiers' and 'supporting factors & resources'. However this model is highly comprehensive yet it has been criticized for not addressing the demand conditions and the role of globalization and degree of urbanization on the level of competitiveness of tourism destination. An integrated model for tourism destination competitiveness was proposed in 2003 by Dwyer and Kim and their model has been among the few dominant model use for the detailing of the competitiveness of the tourism destination (Kim, 1998). Four important constructs were considered in this model. These were 'Demand conditions', 'Core resources', 'Situational conditions' and 'Destination management'. One of the key differentiating point of this model was that it attempted to distinguished between

infrastructure for general purpose and infrastructure for exclusively developed to promote tourism at the destination. 'WEF travel and tourism has developed a competitiveness index (WEF, 2008).

BACKGROUND OF THE STUDY

This study was carried out at two most prominent and famous tourism destinations situated in the state of Uttar Pradesh, India. These were city of Mathura and the city of Ayodhya. India is much known for its religious and heritage destinations that attract tourist from across globe. Literature review indicated that few research studies have been in the context of tourism destination competitiveness (India Tourism Statistics 2017). Uttar Pradesh has been the third most visited tourist destination in India by the foreigner tourist in 2016 and within the state of Uttar Pradesh the second most visited place was Ayodhya and eight most visited places was Mathura. Despite so attractive statistics related to these two places, there have been very limited studies about these two places. In a recent policy level attempt the state government started to develop various tourism circuits to promote tourism at selective destinations. One of the tourism expansion efforts is the development of 'heritage arch' and this arch includes the city of Ayodhya and the city of Mathura (Sharma, 2014). This has motivated to examine the tourism destination competitiveness of the Ayodhya and Mathura.

RESEARCH METHODOLOGY

This research study is based on descriptive research design. The population of this study consisted of foreigner tourist visiting to Ayodhya and Mathura. A sample of 286 foreigner tourist was obtained by using non-probability based convenience sampling technique. This sampling technique was selected as it was less expensive as well as less time consuming. Out of 286 sample size 150 foreigner tourists were surveyed at Mathura and 136 foreigner tourists were surveyed at Ayodhya. A structured close ended questionnaire was used to collect data. The questions related to tourism destination competitiveness included the variables obtained from the Ritchie and Crouch's model. Tourists were asked to share their opinion regarding what they feel about the competitiveness of the tourism destination in the form of ratings on a five point Likert rating scale. This scale ranges from highly competitive to not at all competitive. Exploratory factor analysis was used to identify important factors and these factors subsequently used to construct a structure model. The structure model was further validated by using various measures. Basic sample profile description was summarized to briefly describe sample related demographic statistics. SPSS and AMOS were used for the data analysis and model development.

DATA COLLECTION

Data collection was completed in three week time. Data collection was done with the help of self-administered questionnaire. The survey at Ayodhya was conducted during July month while data collection at Mathura was done in the month of August. The tourists were contacted during their visit the destination attractions. Tourists were keep coming to visitors site throughout the day and to have better representation so the data collection was also run through out of the day.

DATA ANALYSIS

Out of 286 foreigner tourists survey participants (Table 1), 62.9 percent were male and 37.1 percent were female. The age of these tourists found to be in a mix. 33.6 percent tourists were of the age group of 26 to 35 years. Almost similar percentages of tourists (approximately 19%) were from the age group of 18 to 25 as well as 36 to 45. Tourists belonged to 55 years of age or above were 10.5 percent. 52.4 percent of tourists were surveyed from Mathura while 47.6 percent tourists were surveyed from the city of Ayodhya. The foreigner tourists were coming from different countries to visit tourism destination of city of Mathura and Ayodhya. Majority of the foreigner tourists were found to be coming from the neighboring countries such as Sri Lanka (3.5%), Nepal (14%), Bangladesh (19.2%) and Bhutan (16.4%). However significant numbers of tourists were also coming from the countries such as USA (12.2%), Japan (18.9%), UK (5.2%) and Australia (10.5%)

Table 1 Frequency distribution of demographic variables

Variable	Category	Frequency	Percent
Tourist's Country	USA	35	12.2
	Japan	54	18.9
	Nepal	40	14.0
	Srilanka	10	3.5
	Bangladesh	55	19.2
	Bhutan	47	16.4
	UK	15	5.2

	Australia	30	10.5
	Total	286	100.0
Age	18-25	55	19.2
	26-35	96	33.6
	36-45	57	19.9
	46-55	48	16.8
	Above 55	30	10.5
	Total	286	100.0
Gender	Male	180	62.9
	Female	106	37.1
	Total	286	100.0
Tourism Destination	Mathura	150	52.4
	Ayodhya	136	47.6
	Total	286	100.0

RELIABILITY TESTING OF SCALE

Total 21 variables were selected from Ritchie and Crouch's model of tourism destination competitiveness. Foreigner tourists were asked to rate the destination related variables to evaluate the competitiveness of the tourism destination by using five point Likert scale. The reliability of scale was evaluated by using Cronbach's alpha estimation. The results (Table 2) (0.802) indicated the reliability of scale, (Cross Validated, 2017).

Table 2 Reliability Statistics

Cronbach's Alpha	N of Items
.802	21

RESULTS OF EXPLORATORY FACTOR ANALYSIS

Exploratory factor analysis with varimax rotation was used to determine the dimensions of the destination competitiveness. The factors that had Eigen value equals to one or more than one were considered as significant factors. Following Table 3 shows the structure of each identified factor along with respected factor loading. Factor analysis resulted in four dimensions (or factors) of destination competitiveness and these were named as "Destination Environment", "Destination Attractiveness", "Tourist Safety" and "Tourism Marketing". Overall reliability of each factor has been calculated and has been mentioned in the following table against each factor.

Table 3 Factor Analysis and reliability statistics

Factor	Variable	Factor Loading	Cronbach's Alpha
Factor-1 Destination Environment	Facilitation	.747	0.796
	Accessibility	.667	
	Infrastructure	.659	
	Tourist Management	.598	
	Monuments Structure	.588	
	Destination Development	.562	
	Location of Destination	.522	
Factor-2 Destination Attractiveness	Climate Conditions	.653	0.813
	Cultural Aspect	.650	
	Special Events	.630	
	Cost Touring	.599	
	Hospitality Tourist	.581	
	Entertainment Level	.580	
	Mix of Activities for Tourist	.500	
Factor-3 Tourist Safety	Crisis Management	.838	0.836
	Safety	.772	
	Service Quality	.735	
Factor-4 Tourism Marketing	Awareness	.697	0.62
	Marketing Efforts	.692	
	Destination as Brand	.599	
	Information search	.438	

STRUCTURAL EQUATION MODEL OF TOURISM DESTINATION COMPETITIVENESS

AMOS has been used to draw path model. Selected 21 variables were reduced to four factors after exploratory factor analysis. Factor loadings of the variable under each factor ranged from 0.747 to 0.438. All 21 variables except two (destination as brand and information search) had the factor loading equals to or more than 0.60. This indicate reasonable discriminant validity (Kline, 2005) .The factor loadings of “destination as brand” variable was 0.599, which is close to 0.60 and because Cronbach’s alpha for the factor-4th that contain “Information search” variable (factor loading 0.438) was 0.62 which means factor in totality is reliable so both of these variable were not excluded from further analysis (commfacity, 2014). Structural Equation Modeling analysis was conducted to examine the model fit. The results of model fit summary include the measure of CMIN, Baseline comparison measure, Root Mean Square Error of Approximation measure. The analysis estimation obtained in output as model fit summary are used to evaluate fitness of model. CMIN/DF is a test measure that evaluates the fit of model. The value of CMIN/DF less than three indicates good fit (www.ncbi.nlm.niti.gov).

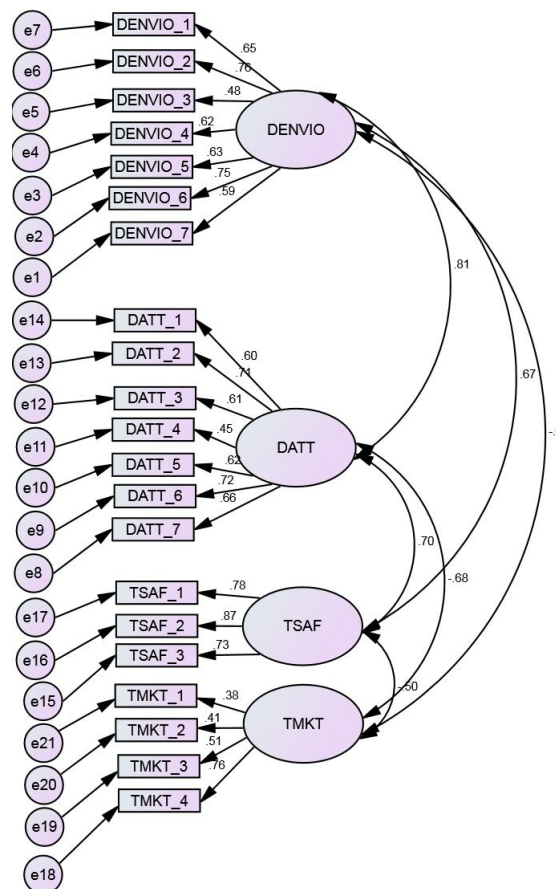


Figure 1 Path Model

Notations: DATT_1(Climat e Condition), TMKT_1(Awareness), TMKT_4 (Information Search), DATT_6 (Entertainment Level), DATT_3(Special Event), DENVIO_1(Facilitation), DENVIO_6(Destination Development), TSAF_1(Crisis Management), TMKT_2 (Marketing Efforts), DENVIO_3 (Infrastructure), TSAF_2 (Safety), DATT_5(Hospitality Tourist), DENVIO_5 (Monuments),DENVIO_4(Tourist Management), DENVIO_7 (Location of Destination), DATT_7 (Mix activities for tourist), TSAF_3 (Service Quality), DENVIO_2 (Accessibility), TMKT_3 (Destination as Brand), DATT_4 (Cost of Touring), DATT_2 (Cultural Aspect)

Table 4 Model Fit Summary

Model	CMIN/DF	NFI	IFI	CFI	RMSEA
Default Model	2.376	.820	.887	.886	.069

The estimated value of baseline comparison measures includes the measure such as NFI (0.820), IFI(0.887) and CFI (0.886). All the values are close to 0.90 and as per suggested standard the values of baseline comparison index should be close to 0.9 for good fit of model (www.ncbi.nlm.niti.gov). This indicates a moderate fit of the model. Root Mean Square Error of Approximation (RMSEA) values are used to evaluate the overall model fit (Cornell, 2015). RMSEA measures evaluate how well model fitness is present to different part of model

(Shodhganga, 2015). The estimated value of RMSEA is 0.069. As per accepted standard the value close to seven indicate marginally mediocre fir of model.

CONCLUSION

This study has identified four factors that can contribute to make the tourism destination more competitive. This study has reviewed concept of destination competitiveness from the view point of foreigner tourists. The results shows that destination competitiveness is a composite concept and different variable affect degree of competitiveness to varied level so it is required to understand the relative importance of selected variables. Tourism marketing alone could not significantly work in the development of competitiveness. Structural equation model has been developed and its fitness has been evaluated. This model could have indicative value to show how more comprehensive model to evaluate competitiveness can be developed. The results show that the identified factors could provide insights to the authorities and people working toward making Indian destinations more competitive.

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AN IMPORTANCE & BENEFITS OF STRATEGIC MANAGEMENT

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ABSTRACT

To determine the objectives of an organization, it is very important to understand what are its current situation and the types of barriers the business concern would have to be faced from the existing environment. Through deploying effective strategies an organization can realize its mission and the objectives. So the firms should aware about strategic planning with strategic management. Strategic planning which requires a great deal of strategic thinking is the most important management weapon which helps managers to recognize the priorities and to find the main functions necessary to realize the mission and objectives of the organization. Presently the strategic management has become one of the basic topics in management of organizations because of the dynamic and changing business environment. This paper explains the concepts of strategy, strategic planning, strategic thinking, strategic management and the importance of strategic management.

Keywords : Management Tools, Strategy, Strategic Planning, Strategic Thinking, and Strategic Management.

STRATEGY & STRATEGIC MANAGEMENT

The word strategy has several meanings itself and all these meanings are useful, important and relevant to the people who are setting strategy for their organizations and corporations. Various authors have drawn their attention on the concept of strategy. Author entailed the past definitions of various scholars and proposed a new definition on the term strategy. Strategic Management is a broader term than strategy. And also it is a process which includes environmental analysis of the organization by the top managers for the purpose of strategy formulation and the plan of strategy implementation and controlling. Strategic management is a collection of ongoing activities of strategic analysis, strategy creation, implementation and monitoring. It systematically organizes the resources in align with vision, mission and strategy throughout the organization. Strategic management doesn't predict the future, but prepares the organization for it by knowing the exact steps to implement strategic plan. Initially strategic management was a part of strategic planning which is now a main instrument of it. Strategic planning is incorporated with strategic management which unites both planning and management in the same process (Porth, 2002) now strategic management has become one of the most prominent areas of management. It consist a comprehensive collection of management actions which supports company managers to keep the organization consistent with the environment and shows the correct path of development (Jones et al. 1981). Strategic management in an organization focuses on the issues of creating and sustaining competitive advantage (bowman et al. 2002). It is a process and a path guiding actions all over the organization (Dess et al. 2007). It is a collection of actions consists of organizational analysis, decisions and actions to create and sustain competitive advantages. These competitive advantages support an organization to explore opportunities and minimize threats from the environment. Therefore more generally strategic management is a comprehensive ongoing process which involves determining the mission and the objectives of the organization within the internal and external environment.

BENEFITS OF STRATEGIC MANAGEMENT

Strategic Management makes an organization to be more proactive, rather than reactive to initiate and influence activities to control by its own in molding its own future. Today most of the organizations has recognized and realized the benefits of strategic management (Fred, 2011). Back in history, formulating sound strategies by using systematic, logical and rational approach to strategic choice was the main benefit of the strategic management (Fred, 2011). More Precisely the benefits of strategic management are in two ways; financial benefits and non-financial benefits. All the improvements in the sales, profitability and productivity include in financial benefits. A sound strategic management can lead an organization to realize its mission and objectives of the company (Fred, 2011). There are non-financial benefits too. They are listed as follows; (Fred, 2011) • It enhances the awareness of competitors 'strategies threats from the environment and employee productivity. • Helps to avoid resistance to change and explore more opportunities. • Enhances the problem-avoiding ability of the organization by improving interactions among managers at different levels of the hierarchy. • It brings order and discipline to the organization. • It develops a framework to coordinate and control the activities in an organization. • It enhances the communication and the interaction between managers and employees. • It develops the strategic thinking ability of all members in the organization

CONCLUSION

Strategy is a very useful concept for an organization, since it has many variations. In this paper it has entailed some definitions of strategy used by different scholars and author has proposed a new definition for the strategy as “A strategy is a plan of actions that one uses to formulate goals, objectives and means of achieving those goals and objectives”. Strategic planning is a road map for an organization which helps to manage the enterprise, especially if strategic plan can successfully deploy throughout the organization. Strategic thinking and strategic management are more important aspects of senior management’

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IMPACT OF SELECTED FACTORS ON ADOPTION OF E -BANKING

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ABSTRACT

E-banking is automated delivery of new & traditional banking products & services directly to customer through electronic, interactive communication channels. E-banking enables the customers to perform the basic banking transaction by sitting at their office or at homes through PC or Laptop .They can access the banks website for the transaction & other enquiry related to accounts. This study proposes a conceptual framework to investigate the effects of perceived usefulness, perceived ease of use, risk, need for interaction and prior experience of computer and technology on customer adaptation mediated through customer attitude in the context of e-banking. The theory of reasoned action –TRA (Ajzen and Fishbein 1980,) and the technology acceptance model -TAM (Davis 1989) provide the theoretical foundation for the development of the research model of this work. The multiple regression analysis conducted on the five factors indicate that PU, PEU, R, CP was found to be the most influential factors explaining the attitude towards e-banking. Another factor Need for Interaction (NI) was not found statistically significant variable for model and not suitable for it. It means an attitude towards e-banking is not influenced by direct interaction with bank employees.

Keywords: Perceived Usefulness, Perceived Ease of Use, Risk, Need for Interaction, Prior Experience, Technology Acceptance Model

INTRODUCTION

E-banking is automated delivery of new & traditional banking products & services directly to customer through electronic, interactive communication channels. E-banking enables the customers to perform the basic banking transaction by sitting at their office or at homes through PC or Laptop .They can access the banks website for the transaction & other enquiry related to accounts.

The main types of virtual E-banking services are:

- Automated teller machines(ATM)
- Shared ATM networks
- Electronic fund transfer at point of sale(EFTPS)
- Plastic Money
- Stored Valued Cards
- Phone Banking
- Home Banking
- Internet & Intranet Banking

COMPONENT OF E- BANKING

E-banking systems can vary significantly in their configuration depending on a number of factors:-

- Strategic objectives for E-banking
- Scope, scale & complexity of equipment systems & activities.
- Technology expertise
- Security & internal control requirements

Financial institutes are free to choose internal or external support for their e-banking system. Following are the examples-

- From another financial institution
- Internet service provider internet banking software vendor or processor
- Core banking vendor or processor
- Managed security service providers
- Bill payment providers

- Credit bureau
- Credit security company

The following list includes many of the potential components & processes seen in a typical institution followed e-banking system.

- Website design and hosting
- Fire wall configuration & management
- Intrusion(interruption) detection system (IDS)
- Network administration
- Security management
- Internet banking server
- E- commerce applications
- Internal network servers
- Core processing system
- Programming support
- Automated decision support systems

These components work together to deliver E- banking services. Each component represents a control point to consider.

WHY E-BANKING?

Current scenario is very fast and techno savvy .Every one want fast working so E-banking full fill the need of every individual.

- Round the clock banking
- Convenient banking
- Low cost banking (services & infrastructure)
- Profitable banking
- Quality banking
- Speed Banking
- Service banking

All above components & factors are reason for satisfaction of the users of E-banking product and services.

LITERATURE REVIEW

Rogers (1962) proposed a **model of the diffusion of innovations** that included five product or service characteristics postulated to influence consumer acceptance of new products and services: **relative advantage, compatibility, simplicity/complexity, observability, and trialability**. Several researchers have incorporated pieces of **Rogers' model** in empirical work that examined **technological innovations** (Rogers, 1962; Raju,1980; Shimp and Beardon, 1982; Price and Ridgeway, 1983; Childers, 1986; Prendergast, 1993; Busch, 1995; Dabholkar, 1996; Lockett and Littler, 1997; Daniel,1999; Howcroft et al., 2002; Lee et al., 2003). Trial ability refers to the ability of consumers to experiment with a new innovation and evaluate its benefits. The extent to which various financial institutions offer "introductory" e-banking to their customers impacts the trial ability and accessibility of the innovation.

Empirical studies on the acceptance of technologies have found consistently positive relationships between **usefulness and to a lesser extent, ease of use, and the adoption of a variety of specific technologies**, ranging from computer software to e-mail (see, for example, Davis, 1989; Karahanna et al., 1999; Chau and Hu, 2001).Relative advantage is the degree to which consumers perceive a new product or service as different from and better than its substitutes (Rogers, 1962). In the case of e-banking, savings of time, money and convenience have been cited as relative advantages. At the same time, financial management conducted online raises concerns of privacy, a relative disadvantage for some (Abbate, 1999; Snel, 2000; Karjaluoto et al.,2002). Consumers who must supply myriad personal information before being permitted to use the innovation may be inhibited from

adopting a given e-banking service. Observability is the extent to which an innovation is visible and communicable to consumers. For example, seeing ATMs on the street corners and in grocery stores may make this technology more observable than PC banking conducted inside the home. Simplicity/complexity is the extent to which consumers perceive a new innovation as easy to understand or use. For consumers without previous computer experience, or for those who believe that e-banking is difficult to use, adoption of these innovations may be thwarted. Compatibility is the extent to which a new product or service is consistent and compatible with consumers' needs, beliefs, values, experiences, and habits. In the case of e-banking, we must consider the degree to which a given technology fits in with the banking behavior of a consumer, and the way in which they have historically managed their finances. Technological service innovations differ from other commodities insofar as their adoption may require behavior different from consumers' typical routines (Gatignon and Robertson, 1985). This includes "bricks and mortar" issues such as not having a branch bank to visit, as well as "paper" issues including receiving statements electronically and not in the mail. A further refinement of Rogers' original model added the dimensions of perceived risk as well as product involvement (that is, how involved consumers are in related IJBM22, 4240 product categories; Lockett and Littler, 1997). This study found that risk-averse households were less likely to adopt direct banking and households that used other technologies (ATMs and buying products over the telephone) were more likely to adopt direct banking. The researchers conclude that "perceived innovation attributes appear to be better predictors of adoption behavior than personal characteristics" (Lockett and Littler, 1997, p. 807).

The **Technology Acceptance Model (TAM)**, proposed by Davis (1989), incorporated the characteristics of perceived ease of use and perceived usefulness into a model of technology acceptance. Empirical work related to diffusion of technological innovations has expanded the use of the TAM model to include individual differences (Gattiker, 1992; Gefen and Straub, 1997; Taylor and Todd, 1995; Mick and Fournier, 1998; Jayawardhena and Foley, 2000; Karjaluoto et al., 2002), and attitudes as defined by the Theory of Reasoned Action (Davis et al., 1989; Karahanna et al., 1999; Jayawardhena and Foley, 2000; Venkatesh and Morris, 2000; Karjaluoto et al., 2002). Explorations of demographic correlates of technology acceptance have produced differing results with respect to significant relationships to adoption. In part, these differences may relate to the sets of variables included in the analysis. Gender has not been found to have a direct effect on adoption of technology in general (Taylor and Todd, 1995; Gefen and Straub, 1997), but men and women appear to have different acceptance rates of specific computer technologies, with men more likely to adopt (Gefen and Straub, 1997). Results with respect to gender may be confounded by marital status. When it comes to bank accounts, married couples may have jointly held accounts; thus at the household level, adoption of e-banking may be related to the combination of marital status and gender, with married couples more likely to adopt than either single males or single females. Research has also linked age and adoption of technologies, with younger persons being more likely to adopt (Zeithaml and Gilly, 1987; Trocchia and Janda, 2000; Karjaluoto et al., 2002; Lee et al., 2002). Race has not often been included in studies of technology adoption. Lee and Lee (2000) did find that for direct bill payment, minorities were less likely to have already adopted the technology. Increases in income and education tend to be positively related to the adoption of an innovation (Donnelly, 1970; Uhl et al., 1970; Labay and Kinnear, 1981; Kennickell and Kwast 1997; Daniel, 1999; Lee and Lee, 2000; Jayawardhena and Foley, 2000; Mattila, 2001; Lee et al., 2002; Karjaluoto et al., 2002). Research limitations/implications – Results may or may not differ according to whether consumers are using online, telephone banking, electronic funds transfer (EFT) or direct bill payment. These results may generalize to telephone banking and EFT as these products, like online banking, require an active consumer role in using the product. With direct bill payment, consumers need only set up the process initially and then monitor it on a semi-regular basis.

Attitude in the context of human behavior has been studied over many years (Ajzen, 2001). The term "Attitude" is used to denote the overall degree of favorability. By definition, "an attitude is an index of the degree to which a person likes or dislikes an object", see Ajzen and Fishbein (1980, p. 64). For a more comprehensive explanation of attitude see East (1997). Attitude plays an important role in inducing different choice behaviour and behavioural intentions (Dabholkar, 1994). The formation of attitude involves a combination of cognitive beliefs and affective feelings about the attitude object (Zanna and Rempel, 1988).

DIFFUSION AND ADOPTION OF INNOVATION

A major issue in marketing and consumer behavior is the acceptance of new product and services. The framework for exploring consumer acceptance of new products is drawn from the area of research known as the diffusion of innovations. To closely understand diffusion of innovations there is a need to understand related processes. The diffusion in the broadest sense is a macro process concerned with the spread of a new product (An Innovation) from its source to the consuming public. In contrast, adoption is a micro process that focuses on the stages through which an individual consumer passes when deciding to accept or reject a new product.

Diffusion researchers have identified five product characteristics that influence consumer acceptance of new products:

- 1) **Relative advantage** –The degree to which potential customer perceived new product as superior to existing substitutes.
- 2) **Compatibility**- The degree to which potential consumers feel a new product is consistent with their present needs values & practices.
- 3) **Complexity**- The degree to which a new product is difficult to understand or use.
- 4) **Trialability**- The degree to which a new product is capable of being tried on a limited basis.
- 5) **Observability**- The degree, to which a product benefit or attributes can be observed, imagined or described to potential customers.

Proposed variables affecting e-banking are –

Construct	Definition	Source
(Dependent variable) Attitude	The term “Attitude” is used to denote the overall degree of favorability. Its define as “an attitude is an index of the degree to which a person likes or dislikes an object”,	Ajzen and Fishbein (1980, p. 64) Davis et al., 1989; Taylor and Todd, 1995
(Dependent variable) Intention to Use-	A person readiness to adopt internet banking.	Davis et al., 1989
(Independent Variable) Usefulness	The Perceived usability is characterized as "the degree to which an individual accepts that utilizing the framework will be free of exertion"	(Davis et al., 1989) (Dollet al., 1998)
(Independent Variable) Ease of Use	It has been defined as “the degree to which a user would find the use of a particular technology to be free from effort on their part”.	(Davis et al., 1989).
(Independent Variable) Need for interaction	It’s defined as a “desire to retain personal contact with others during a service encounter”.	(Dabholkar, 1992).
(Independent Variable) Risk	“Risk is the probability of certain outcomes given a behavior, and the danger and severity of negative consequences from engaging in those behaviors”.	Cunningham (1967)
(Independent Variable) Compatibility	“The more a technology is perceived to be compatible with existing technology the higher is confidence of mastering the new technology & more positive the attitude that can be derived”.	(Branchan & Wetherbe 1990) Cortes 1982
(Independent Variable) Prior Experience of Computer and Technology	“Impacts on consumer beliefs and attitudes towards related systems & technology”.	(Karjaluoto et al. 2002) (Arnd et al, 1985)(Levin & Gordon 1989)

RESEARCH PURPOSE

This research based on e-banking is chosen because by general observation, it was noted that many people are not very much aware of electronic banking. In the present scenario, it is very useful for saving time and efforts.

This study proposes a conceptual framework to investigate the effects of perceived usefulness, perceived ease of use, risk, need for interaction and prior experience of computer and technology on customer adaptation mediated through customer attitude in the context of e-banking.

Thus in order to promote E-banking product and services by making customers more aware of them and determine and highlighting to banks and their problem area.

OBJECTIVES OF STUDY

This research has two objectives, primary and secondary.

- Primary objective of the research is to find impact of selected factors on e banking adoption.

- To find attitude of users towards e banking.
- To find intention of users for the adoption of e banking.

HYPOTHESIS

The theory of reasoned action –TRA (Ajzen and Fishbein 1980,) and the technology acceptance model -TAM (Davis 1989) provide the theoretical foundation for the development of our model. While the TRA explains consumer behavior on the basis of attitudes and reference group influence, the TAM posits that perceived usefulness and perceived ease of use determine a person's behavior and two variants taken from Karjaluoto et al. [2002] research work that are Prior Computer Experience Prior and Technological Experience, remaining two Need for Interaction, Perceived Risk and Compatibility taken from Dabholkar, (1992),Cunningham (1967) and { Branchean & Wetherbe (1990) Cortes (1982)} respectively.

Based on the literature we generate the following hypotheses with respect to quality features of e banking for the adaptation of technology:

PROPOSED HYPOTHESIS**DEMOGRAPHIC HYPOTHESIS**

H₀₁: There is no significant difference between Attitude (ATT) towards e-banking based on gender.

H₀₂ : There is no significant difference between Behavioral Intention (BI) to use e-banking based on gender.

H₀₃ : There is no significant difference in Attitude (ATT) towards e-banking among the different age group.

H₀₄ : There is no significant difference in Behavioral Intention (BI) to use e-banking among the different age group.

H₀₅: There is no significant difference in Attitude (ATT) towards e-banking based on education.

H₀₆: There is no significant difference in Behavioral Intention to use e-banking based on education.

H₀₇: There is no significant difference in Attitude (ATT) towards e-banking based on occupation.

H₀₈: There is no significant difference in Behavioral Intention to use e-banking based on occupation.

H₀₉: There is no significant difference in Attitude (ATT) towards e-banking among different groups of income.

H₀₁₀: There is no significant difference in Behavioral Intention to use e-banking among different groups of income.

HYPOTHESIS FOR SELECTED FACTORS

Ha₁₁ (a,b,c,d,e). There is significant impact of Perceived Usefulness (PU) Perceived Ease of Use (PEU), Need for Interaction (NI), Perceived Risk (R) and Compatibility (CP) on Attitude (ATT) towards E banking

Ha₁₂. There is significant impact of Attitude (ATT) towards E-banking on Prior Computer Experience (PCE)

Ha₁₃. There is significant impact of attitude towards E-banking on Prior Technological Experience (PTE)

Ha₁₄. Attitudes (ATT) towards E-banking will have significant impact on Behavioral Intention (BI) to use E-banking

Ha₁₅. Prior Computer Experience (PCE) will have significant impact on Behavioral Intention (BI) to use E-banking

Ha₁₆. Prior Technological Experience (PTE) will have significant impact on Behavioral Intention (BI) to use E-banking

RESEARCH METHODOLOGY

This research based on e-banking is chosen because by general observation, it was noted that many people are not very much aware of electronic banking. In the present scenario, it is very useful for saving time and efforts.

This study proposes a conceptual framework to investigate the effects of perceived usefulness, perceived ease of use, security and privacy on customer adaptation mediated through customer attitude in the context of e-banking.

Thus in order to promote e banking product and services by making customers more aware of them and determine and highlighting to banks and their problem area.

With the help of this research they can remove or restructure their factors which are responsible for short comings and can increase the acceptance of customer.

In this research city selected for research will be Gwalior because here more scope available for e-banking awareness to increase potential customer and variables (dependent and independent) which are required for the further research. (Private and Public both banks available for study)

Methodology of this research will be a combination of descriptive, netnography and exploratory research as an effort will make to first gain some basic knowledge on e- banking through the study of previous research on e – banking and also studies recent trends and wording for e-banking. It will also describe customers’ perception, acceptance, and satisfaction for internet banking, manual/traditional banking, ATM banking, and telebanking.

SAMPLE SIZE

Sample size for primary research will be 1000 respondents which include

1000 – e-banking users

Sample will be selected through convenient sampling e-banking customers.

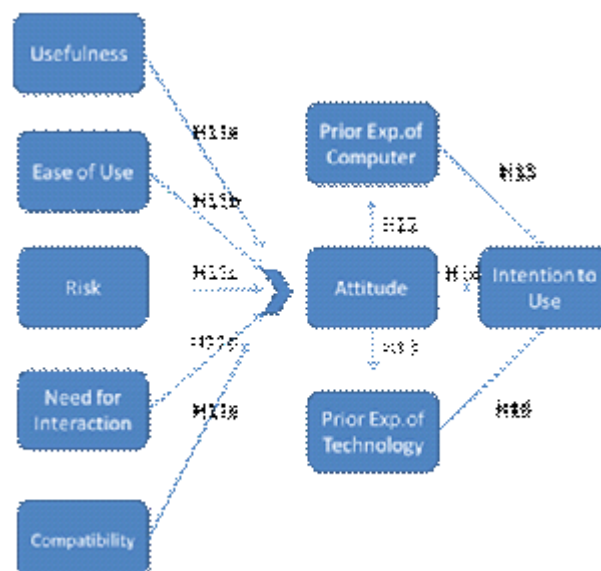
This research study will considered following variables:

Ease to use, usefulness, compatibility, need for interaction, risk, prior computer & technological experience, attitude towards e-banking, behavioral intention to use e-banking. Here we can assume attitude towards e-banking, behavioral intention to use e-banking, as **dependent variable** and others are responsible for adoption of e banking so they can considered as **independent variables** for this research. Hypothesis will determine the significant impact of e-banking service quality on customer’s adoption of e-banking products and services. Variables of research will be based on **Technological Acceptance Model** & attitudes towards **Self Service Technologies** (Meuter et al., 2000) .

Proposed variables for research affecting e-banking are -

- Perceived usefulness
- Perceived ease of use
- Need to Interaction
- Risk
- Compatibility
- Prior Computer and Technology Experience
- Attitude towards e-banking
- Intention to use e-banking

RESEAL MODEL



DATA COLLECTION

This research based on primary as well as secondary data. The primary data collected with the help of designed questionnaires. The secondary data will be collected from newspapers journals, magazine, periodicals, web data, and published research work through various scholars.

This research involved E-banking users as information on their attitudes towards e –banking and intention to use E banking.

In order to test the survey instrument a preliminary convenience sample of 1000 E-banking customers were asked to complete the survey. All of these people answered questions covering all selected factors included in this study. A total of 333 people answered all questions about E-banking adoption. The response rate is 33.3% for survey.

TOOLS FOR DATA ANALYSIS

Tools that have been used are:-

Independent Sample T-test: - The t-test assesses whether the means of two groups are statistically different from each other

ANOVA: - Analysis of variance (ANOVA) for comparing **means** of three or more variables.

Regression: - Regression analysis is usually used to compute multiple correlations.

SOFTWARE USED FOR DATA ANALYSIS

For this purpose of study, extensive use of a Statistical software known as the **Statistical Package for Social Sciences (SPSS) version 0.18** has been used to calculate various factors to know relations between variables in order to prove the hypotheses.

SCOPE

This research will be done on e banking users of Gwalior which includes students, business persons, working and non-working customers.

SIGNIFICANCE OF RESEARCH

○ To the banks (private and public)

This research will provide data to the banks regarding the loopholes in the system. Where they are lacking? And how much potential customers/users they have? With the help of this research they can remove or restructure their factors which are responsible for short comings and can increase the acceptance of customer.

○ To the researcher

This research will be helpful in further research in this field. In India lots of research required in this field for the betterment of the E- banking system.

○ To the customers/users

They will also get benefited after this research because they will find better quality product and services of E-banking.

DATA INTERPRETATION AND ANALYSIS**DESCRIPTIVE ANALYSIS**

In total there were 333 respondents and from which 228 were male and 105 were female, 96 from age group of 15-25, 119 from age group of 25-35 and this is big number from whole lot, 79 from 35-45 age group and 39 from 45-55 age group, this is the lowest number as reflects that the as the age increases the people are less adopter of technology. Mean age of users is 2.2 and δ (Standard Deviation) = 0.981.

Among the users there were 102 Graduates and 231 were Post Graduates. From the users 130 were Professionals, 66 were in Business and 137 in Services. In the category of income 98 respondents from up to 2.5 lac category, 103 from 2.5 to 5.0 lac, from 5.0-10.0 lac there were 96 respondents, and 36 from above 10 lac group.

Mean value for income 2.21 and δ = 0.986.

RESEARCH HYPOTHESES (DEMOGRAPHIC) AND RESULTS OF THE STUDY

Hypotheses	Sig(p<.05)	Results
H0 ₁ : There is no significant difference between attitude (ATT) towards e-banking on the basis of gender.	0.88	Not rejected
H0 ₂ : There is no significant difference between	0.30	Not Rejected

Behavioral Intention (BI) to use e-banking on the basis of gender.		
H ₀₃ : There is no significant difference in Attitude (ATT) towards e-banking among the different age group.	0.036	Rejected
H ₀₄ : There is no significant difference in Behavioral Intention (BI) to use e-banking among the different age group.	0.035	Rejected
H ₀₅ : There is no significant difference in Attitude (ATT) towards e-banking based on education.	0.000	Rejected
H ₀₆ : There is no significant difference in Behavioral Intention to use e-banking based on education.	0.000	Rejected
H ₀₇ : There is no significant difference in Attitude (ATT) towards e-banking based on occupation.	0.001	Rejected
H ₀₈ : There is no significant difference in Behavioral Intention to use e-banking based on occupation.	0.001	Rejected
H ₀₉ : There is no significant difference in Attitude (ATT) towards e-banking among different groups of income.	0.000	Rejected
H ₀₁₀ : There is no significant difference in Behavioral Intention to use e-banking among different groups of income.	0.001	Rejected

RESEARCH HYPOTHESES (SELECTED FACTOR) AND RESULTS OF THE STUDY

Hypotheses	Sig(p<.05)	Results
Ha ₁₁ . There is significant impact of Perceived Usefulness (PU) Perceived Ease of Use (PEU), Need for Interaction (NI) ,Perceived Risk (R) and Compatibility (CP) on Attitude (ATT) towards E banking	(PU) 0.003 (PEU) 0.028 (NI) 0.360 (R) 0.060 (CP) 0.000 (ATT) 0.000	Not Rejected Not Rejected Rejected Not Rejected Not Rejected Not Rejected
Ha ₁₂ . There is significant impact of Attitude (ATT) towards E-banking on Prior Computer Experience (PCE)	0.000	Not Rejected
Ha ₁₃ . There is significant impact of attitude towards E-banking on Prior Technological Experience (PTE)	0.000	Not Rejected
Ha ₁₄ . Attitudes (ATT) towards E-banking will have significant impact on Behavioral Intention (BI) to use E-banking	0.000	Not Rejected
Ha ₁₅ . Prior Computer Experience (PCE) will have significant impact on Behavioral Intention (BI) to use E-banking	0.000	Not Rejected
Ha ₁₆ . Prior Technological Experience (PTE) will have significant impact on Behavioral Intention (BI) to use E-banking	0.000	Not Rejected

RESEARCH FINDING AND CONCLUSION

The primary objective of the study is to study the impact of selected factors on e-banking adoption in the light of the technology acceptance model (TAM) and (TRA) added with new variables derived from e- banking acceptance literature on one hand. The model we developed proposed that online banking acceptance can be modeled with the variables derived from the TAM (PU and PEOU) and seven other variables referring to Need for Interaction (NI), Risk (R) Compatibility, Prior Computer Experience (PCE) and Prior Technology Experience (PTC). In the results section the model was tested with 333 respondents.

The multiple regression analysis conducted on the five factors indicate that PU, PEU, NI, R, CP was found to be the most influential factors explaining the attitude towards e-banking. This finding refers to the fact that attitude

towards e-banking for the benefits it provides in comparison to selected factors. This finding is in line with other TAM studies (e.g. Davis, 1989; Davis et al., 1989), which found that PU and PEOU has significant impact on attitude towards e-banking. This is explained by the fact that as users learn about PU and PEOU, its impact becomes instrumental. The third influential factor (Risk) indicates that attitude towards e-banking is significantly impacted by risk. Risk (R) was almost statistically significant variable in the model also support the study of (Dabholkar, 1996), (Meuter and Bitner, 1998) and (Gatignon and Robertson 1991). Another factor Need for Interaction (NI) was not found statistically significant variable for model and not suitable for it. It means an attitude towards e-banking is not influenced by direct interaction with bank employees. Compatibility is another influential factor which impacts the attitude towards e-banking significantly and also supports the review (Apostolos et.al 2012).

The results of the independent sample t-test and ANOVA test that men and women has no different attitude towards e-banking and no behavioral intention to use e-banking, while there is a significant difference among different age groups. It found that users of e-banking age between 25-35 are higher in number and 45-55 are the minimum user in targeted group. So companies can spread more awareness for the age group of 45-55. Education, occupation and income groups have different attitudes towards e-banking and behavioral intention.

LIMITATIONS AND FUTURE STUDY

The study had several limitations first of all, its relatively new concept for respondents. Another limitation concerns the sample. Although the sample size was quite small compared to sample sizes of other TAM studies, and representative, it consisted of Finnish (user) consumers only. This has an effect on the generalization of the findings. The other limitation of this work concerns the measures for user acceptance. TAM studies have found that PU, PEOU, NI, Risk, CP, PEC, PET are not the only predictors of technology acceptance there are many more variables and relationships. Legris et al. (2003) found that many TAM studies are not consistent or clear and lack many significant factors that influence adoption. Partly on this basis, the original TAM has been extended for example by Venkatesh and Davis (2000) who introduced the second version of TAM, labeled TAM2 to explain how subjective norms and cognitive instrumental processes affect perceived usefulness and intentions (see also Venkatesh and Morris, 2000). The discussed findings and their implications are obtained from one single study that examined a particular technology that is e-banking. Thus, need to exercise caution when generalizing the findings and discussion to other technologies or groups. On this basis, our model might also suffer from the fact that, for example, subjective norms and other possible factors influencing the acceptance of online banking were not included in the model. These limitations pave the way for future studies. Furthermore, another interesting avenue for further research could be a detailed study on online banking usage in firms. We should also measure e- banking acceptance with other possible factors derived from different sources of literature. An important area is to look more deeply on marketing literature and test acceptance with for instance innovation theory, self-efficacy of the consumers. Hence, there may be a need to search for additional variables that will improve our ability to predict usage intentions more accurately. Thus a future study should extend the survey to populations in other countries and compare users and non-users countries. Second, the study focused on four cultural dimensions believed to be closely related to the adoption of different technologies.

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A STUDY ON THE ROLE OF VARIOUS FINANCIAL INSTITUTIONS IN PROMOTING MICROFINANCE IN THE STATE OF RAJASTHAN

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ABSTRACT

Rajasthan is considered as one of the largest state in India in terms of area as well as population. As per census data still majority of its population resides in rural areas and is dependent on agriculture and allied activities for living. Out of the various models of Microfinance, the SHG- BLP Model is the most popular in the state which was initiated by NABARD. There is an extensive network of both public and private commercial banks, Regional Rural Banks and Co-operative Banks who are providing credit through the BLP. This paper focuses on the extent of involvement of various institutions in the promotion of SHGs. How they are helping the SHG members in improving the quality of life. It also includes the challenges faced by them in credit disbursement and collection of dues.

Keywords: Microfinance, Self Help Groups (SHGs), NABARD, SHG- BLP, Commercial Banks, Regional Rural Banks (RRBs), Co-operative Banks.

INTRODUCTION

Microfinance has been defined as “It is an economic development tool whose objective is to assist the poor to work their way out of poverty. It covers a range of services, which include, in addition to the provision of credit, many other services such as savings, insurance, money transfers, counseling, etc.” (Gangwani, 2011)

Microfinance has gained acceptance throughout the world as a small loan or a small saving can make a big difference in the lives of a low- income family. A small enterprise can be started leading to more income and safety against economic losses and setbacks. The savings can be used for getting more credit. More income ensures better health, house, education and nutrition for the whole family. Funds can also be saved for future planning. Micro Finance could be described as "provision of thrift, credit and other financial services and products of very small amounts to the poor in rural, semi urban or urban areas, for enabling them to raise their income levels and improve living standards". (Gupta & Ansari, 2014)

Starting from the pre-independence era, the finance sector has been aiming to achieve developmental goals. RBI established an Agriculture Credit Department to promote rural credit way back in 1935. Initially the government tried to promote credit to rural people through establishing the cooperative institutions and strengthening them. The All-India Rural Credit Survey which took place in 1954 reported that seventy percent of the credit came from unofficial sources, co-operatives 6.4% and Commercial banks just 0.9%. hence there was a need to support institutional credit and strengthen it.

The “Lead Bank Scheme”, started in 1969, introduced coordination amongst the different financial intermediaries and initiated the district credit plans process. The same year, fourteen commercial banks were also nationalized. Thus, there was a rise of 30% in the overall usage of rural credit in the formal financial sector in 1971. The government set up the RRBs in 1975 to bring financial services to the rural folks. Due to these steps, organised financial sector’s share in total credit crossed 60% as reported by the All-India Debt and Investment Survey conducted in the year 1981.

With the aim of providing more impetus to developmental goals the NABARD was setup in 1982. In the same year, the government also established the DWARCA scheme as a part of its Integrated Rural Development Program. Around this time with the help of local NGOs the Self-help Groups started emerging in India. The NGO MYRADA is considered as one of the initiators of the conceptualization of SHGs in India. MYRADA was the one that started linking these SHGs with banks in 1984- 85. The groups were big enough to have dealings with the banks. Also, these groups were very concerned and adaptable towards the various credit needs of its group’s people. Although, MYRADA directly did not get involved in credit taking process, it acted as a facilitator for banking with micro institutions that were set up and managed by the rural poor people themselves. The SHGs were a result of this and this is the way that the modern sector of microfinance emerged in the country.

When the government’s IRDP reached an estimated fifty-five million total of the poor families, in the year 1999 IRDP was converted to SGSY (Swarnajyanti Gram Swarozgar Yojna). Its long-term sustainability became a big

question mark due to the primary reasons being the low rate of loan repayments that created around forty million nonpayers along with the subsidy factor. The formal financial sector was criticized because it was driven by supply during this period (Sriram and Fisher, 2002).

In India, the availability of financial services to everybody is considered as a social obligation. Since the rates of non - payment were very high, the government announced a formal loan waiver in the year 1989. This was not taken well by the formal financial institutions. The impact was negative on the credit discipline and the banks held the view that offering loans to the poor is not going to be beneficial for them.

India had to face a severe crisis in its Balance of Payment in the year 1991. The foreign exchange reserves dropped to a record very low and it was not able to meet its foreign debt obligations. This forced the government to undertake stringent measures to support the economy and structural changes in the economy were introduced that are commonly called the Economic Reforms of 1991 in which the financial sector was given more autonomy. This led to the setting up of new generation banks in the private sector, which included ICICI Bank, IDBI and UTI Bank, that were established in the year 1994 and in the year 1995 the HDFC Bank was started.

The Narsimhan Committee was of the view that the subsidies given on interest rates should be slowly stopped. During this period the Brahm Prakash Committee also gave a suggestion that the state should decrease its intervention in Cooperative Banks.

The SHG – BLP (Self- Help Group Bank linkage Programme) that was launched by NABARD in the year 1992, guided the banks to provide finance to SHGs under a trial project that targeted five hundred Self Help Groups (SHGs) all over India through the formal banking structure. By March 1993, 600 SHGs had been given credit by banks and this number continued to grow with each passing year.

The success of this programme encouraged the Reserve Bank of India (RBI) to include financing to SHGs as a prominent activity of financial institutions in the year 1996. It was included as a priority lending sector. The Government of India also made it a top issue and gave recognition to microfinance. The Government of India also gave this programme a national priority by recognizing microfinance mentioning it in the budget presented in the year 1999. and it was mentioned in the union budget of the year 1999. With the aim of providing financial facilities to the poorest of the poor living in the remotest corner of the country, both the public and private sector banks along with RRBs and Cooperatives joined hands with development agencies both set up by government and private in the use of this mechanism of delivery.

As the phenomena of Microfinance was more popular in the southern states of India, the Mutually Aided Cooperative Societies Act (MACS Act) was passed in the assembly of Andhra Pradesh in the year 1995. This was followed by other states as well. This act led to new innovations in the area of microfinance that further gave impetus to this movement. Almost all the models of Microfinance whether it is SHG model or Grameen Bank model or JLG have been successful in different areas. They have become prominent weapons of helping the poor in saving and earning a decent level of income.

The year 2004 is considered as a remarkable year for the development of this sector as the largest private sector bank, ICICI, saw it as a profit-making opportunity and entered it. The financial institutions provided total loans of Rs. 1000 crores in the year 2003-04. ICICI partnered with other microfinance institutions to create innovative methods of lending and sharing risks. The bank also provided securitization to the microfinance portfolio of two prominent MFIs namely Share and Basix. It also led to the opening of the capital market in this sector.

Presently, this movement has become a huge industry in densely populated Indian sub-continent and involves thousands of NGOs, MFIs, SHGs and their federations, Cooperatives, RRBs and formal banks both private and public.

In the last ten years, there has been emergence of several MFIs (Microfinance Institutions) that are providing all kind of financial services to the poor at reasonable rates and helping them in breaking out of the circle of debt and poverty. The MFI model of Microfinance and the national level programme of the government, SHG- BLP, have been helping millions of poor throughout the country and promoting self-employment and socio economic upliftment.

The SHG Programme is the biggest microfinance programme in the whole world. The SHG- BLP is the leader amongst all the various tools being used for the social and economic upliftment of the economically weak. The primary reasons for its good results are it is directly linked with the downtrodden, the presence of mutual trust between its various participants and stake holders and continuous innovations. It is considered to be the largest

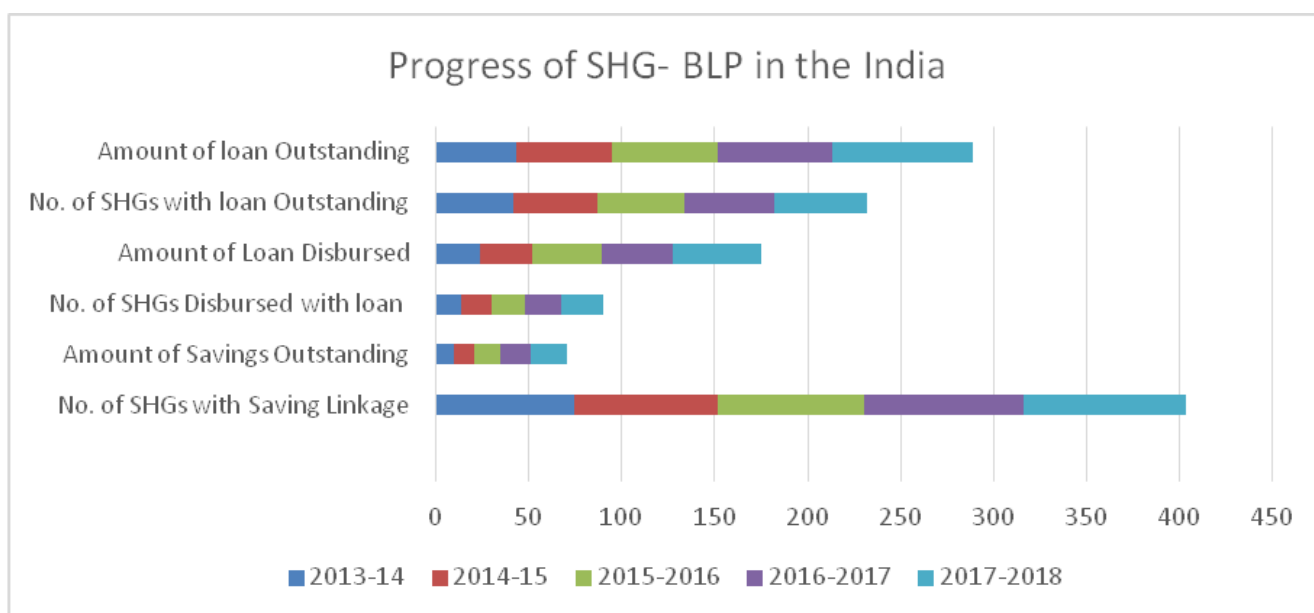
coordinated financial inclusion programme of the Government. As on March 31st, 2018, there are 8.7 million SHGs. Out of this total, there are 5.02 million SHGs with unsettled bank loans of Rs. 75598 Cr. The SHGs have a total deposits of are Rs. 19592 crores (Status of Microfinance in India- NABARD, 2018) with banks.

The success of this programme can be ascertained by the fact Self Help Groups currently are being promoted by over 100 Scheduled Banks, 300 DCCBs, 27 State Rural Livelihood Missions and more than 5000 NGOs.

Since 1992, 87.44 lakh SHGs have been added as on 31st March 2018 covering more than a hundred million rural households in India. As per NABARD, out of the total SHGs present in India in 2018, 85.4% are exclusively formed by women. (NABARD, 2018)

Table 1: Progress of SHG BLP in India during the last five years: (No. in Lakh, Amount in Rs'000 crore)

Description	2013-14	2014-15	2015-2016	2016-2017	2017-2018
No. of SHGs with Saving Linkage	74.3	76.97	79.03	85.77	87.44
Amount of Savings Outstanding	9.9	11.06	13.69	16.11	19.59
No. of SHGs Disbursed with loan	13.65	16.26	18.32	18.98	22.61
Amount of Loan Disbursed	24.02	27.58	37.29	38.78	47.18
No. of SHGs with loan Outstanding	41.97	44.68	46.73	48.48	50.2
Amount of loan Outstanding	42.93	51.55	57.12	61.58	75.60



The above graph represents five year data pertaining to the number of SHGs with saving linkage, amount of savings outstanding, number of SHGs disbursed with loans and credit disbursed every year. It also represents the number of SHGs with loan outstanding and the amount of loan outstanding. It is clearly evident from the figure that this programme is showing positive growth.

LITERATURE REVIEW

A lot of work has been done in various states of India to understand how microfinance is changing the lives of its participants and how the various financial institutions are doing their bit by promoting SHGs. But most of the studies focus on states like Andhra Pradesh, Tamil Nadu, West Bengal and Gujarat. Some studies have been undertaken in Rajasthan too.

Ahmad (1999) through a case study on Thrift Groups in Assam highlighted that women are coming to the administration directly for their just rights and to address their grievances boldly. It proved that Self Help Groups are successful in North East India even in the midst of insurgency. Puhazhendhi (1999) analyzed the functioning of SHG's, performance, sustainability, empowerment of women, economic impact on the members, future potentials etc. He observed that SHG's in Tamil Nadu are performing well towards social change and transformation. Datta and Raman (2000) highlighted that SHG's are characterized by heterogeneity in terms of social and economic indicators. The success of SHG's in terms of high repayment is mostly related to the exploitation of prevailing social ties and cohesion found among women members. Social cohesiveness among

members spring not only from their diverse background of knowledge base, skills occupations and income levels, but also due to the dynamic incentive system of progressive lending to the groups on the successful completion of loan repayment. However, SHG's are heavily dependent on external financial agencies for their lending operations. Satish (2001) in his paper raised certain issues related to the functioning of SHG's. Adequate care should be taken to ensure homogeneity of socio-economic status of the members, while forming SHG's. The process of SHG formation has to be systematic whether a Bank or an NGO forms it. He emphasized that SHG's experiment has to be spread throughout rural India rather than being concentrated in a few pockets of the country. S. Barbara and R. Mahanta (2001) in their paper maintained that the SHG's have helped to set up a number of micro-enterprises for income generation. Rastriya Gramin Vikas Nidhi's credit and saving programme in Assam has been found successful as its focus is exclusively on the rural poor. It adopted a credit delivery system designed especially for them with the support of a specially trained staff and a supportive policy with no political intervention at any stage in the implementation of the programme. N. Manimekalai and Rajeshwari (2001) in their paper highlighted that the provision of micro-finance by the NGO's to women SHG's has helped the groups to achieve a measure of economic and social empowerment. Veena Kumari (2010) conducted a research on Women Empowerment and Development through Micro Finance in India to study relationship between microfinance availability and economic development and to measure women empowerment through microfinance which suggests that microfinance institutions and SHGs are new means to reduce the poverty in general and empowerment of women in particular. Sarumathi, K. Mohan (2011) explored the role of microfinance in empowering women in the Pondicherry region. The main objectives of the study were to understand the performance of SHG's in Pondicherry region, to analyse the freedom women members get in SHG's, the problems women members face in SHG's and to offer suggestions for the betterment of women. . The study concludes that microfinance has brought psychological and social empowerment more than economic empowerment. Impact of micro finance is appreciable in bringing confidence, courage, skill development and empowerment. The SHG members feel free to move with their groups and leaders. They felt the need of more vocational training programs by NGOs. Jain, Dheeraj and Jain, Bhagyashree (2012) conducted an empirical study on the role of microfinance in the upliftment of women in the Udaipur district of Rajasthan. They concluded that there is a significant increase in women empowerment of the Self Help Groups members. However, social backwardness, indebtedness and presence of other microcredit programs in the same or nearby villages have a significant positive influence on women's participation in this program. Chippa, Dubey and Sharma (2014) have made an effort to study the impact of microfinance on women empowerment, poverty alleviation and employment security in rural areas of Rajasthan. Their work is primarily based on secondary sources. They have concluded that community based approach of microfinance and livelihood has high impact whereas MFI model has not impacted poverty to that extent. Gundappa (2014) has undertaken an in depth study and concluded that Microfinance program is one of the most important programs in India as developing countries are facing initial capital problem for investment. Micro Finance system is providing financial facility through SHGs. The results of his study show that such programs are growing through Commercial Banks, Co-operative Banks and Regional Rural Banks with the help of NABARD. Commercial Banks are playing vital role in providing loan facilities to SHGs through SHG-Bank Linkage Programs in India. But unfortunately, majority of SHG members are using loans for unproductive purpose, which leads to indebtedness. So the members should use loans for productive purpose so that their economic condition can improve. Ansari, Moazzam and Rehman (2015) have concluded that microfinance brings about changes in women's lives: household condition, family wellbeing and social status. It is improved by availing the services of microfinance institution and interest free loans further add to their well-being.

While reviewing literature it was observed that most of the studies conducted were qualitative in nature as they focussed more on how the life of SHG's members has changed post microfinance socioeconomically. To what extent it has improved the status of women within the family and in the society at large. This paper focuses more on the quantitative aspects. How the various financial institutions have played a crucial role in promoting SHGs and how much they have succeeded in improving the accessibility of funds to the economically weaker sections.

DEMOGRAPHIC PROFILE OF RAJASTHAN

Rajasthan is the largest state in India. It is located in the north-western part of the subcontinent. It is bounded on the west and northwest by Pakistan, on the north and northeast by the states of Punjab, Haryana, and Uttar Pradesh, on the east and southeast by the states of Uttar Pradesh and Madhya Pradesh, and on the southwest by the state of Gujarat. The state has an area of 132,140 square miles (342,239 square kilometers).

Rajasthan has diverse natural, social and economic features. The climatic conditions also vary within the state. The western Rajasthan is relatively dry and infertile. The southwestern part is comparatively wetter, hilly and

more fertile. The amount of rainfall also varies significantly within the state with the average rainfall in western area about 100 mm annually while the southeastern part receives about 650 mm annually. Hence the economic conditions also vary greatly. The population data is as follows:

Table-2: Population data of Rajasthan

Description	Rural	Urban
Total Population	51,500,352	17,048,085
Male Population	26,641,747	8,909,250
Female Population	24,858,605	8,138,835

(Source: Census report 2011)

It is evident from the above figures that more than 75% of the population resides in rural areas. The male female ratio in rural areas is 1.0717 and in urban areas it is slightly higher at 1.094. When we look into the literacy figures, we get the following data:

Table-3: Literacy data of Rajasthan

Description	Rural	Urban
Total literates	26,471,786	11,803,496
Male	16,904,589	6,783,823
Female	9,567,197	5,019,673

(Source: www.rajasthan.gov.in)

On analyzing the above data it can be observed that males are more literate in both rural and urban areas. The male female literacy ratio in rural areas is 1.76 and in urban areas it is, not surprisingly, narrower i.e. 1.35.

The main occupation of the people in Rajasthan is agriculture as majority of population resides in villages. But even the farmers cannot rely completely on the agricultural produce as a means of living as 33% of the crops fail even after sufficient rainfall. Besides agriculture the other main source of livelihood for rural people is animal husbandry.

Animal husbandry has become popular due to the difficult farming conditions. At present, there are ten times more animals per person in Rajasthan than the national average, and overgrazing is also a factor affecting climatic and drought conditions. Barmer district has the highest cattle population out of which sheep and goats are in majority.

Thar region of Rajasthan is the biggest wool-producing area in India. The sheep-wool from Rajasthan is considered best for carpet making industry in the world. Bikaner is the biggest mandi of wool in Asia.

THE PROGRESS OF SHG- BLP MODEL IN RAJASTHAN:

In order to assess the performance of SHG-BLP model four-year data has been taken into consideration. The banks are giving the much-needed impetus to the mission of financial inclusion by making credit cheaper and easier there by contributing their part in poverty alleviation and rural empowerment.

Table-4: Savings of SHGs with various banks at the end of 31st March'15, 16, 17 and 18: (Amount in Lakhs)

	Commercial Banks				Regional Rural Banks		Cooperatives		Total	
	Public		Private							
	No. of SHGs	Saving amount	No. of SHGs	Saving Amount	No. of SHGs	Saving Amount	No. of SHGs	Saving Amount	No. of SHGs	Amount
31-Mar- 15	82941	3593.16	23855	2096.35	64602	4569.51	74505	4120.41	245903	14379.43
31-Mar-16	66917	4865.3	27793	1673.62	81882	7098.37	87527	5021.77	264119	18659.06
31-Mar-17	98383	1107	3594	39	915	12116	908	5326.	3167	34640.2

		211	5	32.09	53	.38	48	34	29	4
31Mar-18	108651	11549.34	34658	452753	106138	12053.96	82065	5020.99	330912	31942.49

The above data shows that overall the number of SHGs with savings in Public sector banks has decreased in the Financial year 2015-16 as compared to 2014-15, but then increased in FY 17 and 18. But the number of SHGs with savings in Private Sector Banks has increased. This implies that the number of SHGs saving with Public Sector banks has gone down. The overall savings with Commercial banks has increased. The number of SHGs as well as the amount of savings with Regional Rural Banks and Co-operative Banks has gone up.

Overall the number of SHGs associated has increased but the amount saved with banks has slightly gone down in 2017-18.

Table-5: Bank loans disbursed (Amount in Lakhs)

		Commercial Banks			Regional Rural Banks		Co-operative Banks		Total	
	Public Sector		Private Sector							
	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount
FY 14-15	2228	1824.11	9310	18063.41	3735	2744.18	17317	6289.1	32590	28920.8
FY 15-16	1938	1330.83	10994	21808.29	3816	2841.57	8502	6196.5	25250	32177.19
FY 16-17	6541	4832.96	11568	22367.37	12472	11647.34	1619	1803.09	32206	40650.76
FY 17-18	9601	5442.79	9485	17483.86	9790	8239.01	1286	1428.30	30162	32593.96

The above data represents the amount of loan disbursed by various banks and the number of SHGs that have benefitted with the loan. It is evident that the number of SHGs that has been disbursed loans by Public Sector Banks has gone down in 2015-16 but then continuously increased.. The total amount disbursed has also gone down in the next year then increased. The Private Sector Banks have shown considerable progress with both the number of SHGs associated as well as the amount disbursed increasing in FY-16 and 17, but decreased in 2017-18. The RRBs have shown slightly better progress but decrease in 2017-18. When we consider the case of Co-operative banks the number of SHGs that have been given loans is going down along with the amount.

Table-6: Bank loans outstanding against SHGs position (Amount in Lakhs)

	Commercial Banks				Regional Rural Banks		Co-operative Banks		Total	
	Public Sector		Private Sector							
	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount	No. of SHGs	Amount
31Mar-15	69872	68776.19	14148	20595.06	17422	11118.33	18165	7529.47	119607	108019.05
31Mar-16	36578	20087.22	15498	19414.91	16536	9859.54	29495	15821.39	98107	65183.06
31Mar-17	30389	16104.80	15550	14937.56	18579	9902.52	21966	12009.37	86484	52954.25
31Mar-18	29002	13194.84	14198	15386.66	20221	10807.45	35865	10300.08	99286	49689.03

This data represents the amount of loan outstanding with various banks and the number of SHGs who had taken the loan. It can be observed that the number of SHGs with loan outstanding has decreased for Public Sector Banks with every financial year. The loan outstanding amount has also decreased. For the Private Banks the number of SHGs with loan outstanding as well as the amount of loan outstanding has gone up marginally for the first 3 years then decreased. For The Regional Rural Banks number of groups and the amount of loan outstanding, both gone down in the FY-16, then increased in the next two years. But the Co-operative Banks have performed in a mixed manner, rising, falling and again rising in 2017-18.

Table-7: NPAs of Banks against SHGs position (Amount in Lakhs)

	Commercial Banks				Reginal Banks	Rural	Co-operative Banks		Total	
	Public Sector		Private Sector							
	Gross NPAs	NPAs as % of loans O/S	Gross NPAs	NPAs as % of loans O/S	Gross NPAs	NPAs as % of loans O/S	Gross NPAs	NPAs as % of loans O/S	Gross NPAs	NPAs as % of loans O/S
31-Mar-15	5610.86	8.16%	467.02	2.27%	1727.51	15.54%	1256.59	16.69%	9061.98	8.39%
31-Mar-16	9366.71	46.63%	805.25	4.15%	4042.2	41%	2134.54	13.49%	16348.7	25.08%
31-Mar-17	7378.96	45.82%	298.10	2%	3348.81	33.82%	2401.29	20%	13427.16	25.36
31-Mar-18	5025.60	38.09%	475.47	3.09%	3264.40	30.21%	2649.06	25.72%	11414.53	22.97%

The above data shows that the total Gross NPA of Banks has raised significantly during FY2016 and then started to decrease.

Analysis of bank-wise data shows that the Gross NPAs of all banks have increased except for the Co-operative Banks in the next year. But for them also it started increasing in subsequent years. Performance of the Public Sector banks has been most disappointing as these banks recorded the maximum increase in Gross NPAs as well as %age of NPAs in relation to loan outstanding followed by Regional Rural Banks.

CONCLUSION

On the basis of findings it can be concluded that the various financial institutions are playing a significant role in promoting and nurturing Self-help Groups. This model of Microfinance is gaining good progress in Rajasthan. The Number of Self Help Groups as well savings in banks is continuously increasing.

The Public Sector banks being more resourceful and having a vast network of branches at the grass root level have more reach and figures. Even the Private sector banks are working zealously to increase the reach and role.

As the Regional Rural Banks and Co-operatives work at a smaller level but still doing commendable efforts to contribute towards financial inclusion and economic development.

However the NPAs is a big challenge for every agency especially the Public Sector Bank. Hence there is a need of better credit appraisal systems. The follow up and monitoring system also need to be strengthened.

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HAPPINESS AS A FUNCTION OF AGE

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ABSTRACT

Children are beautiful because they possess something that adults have all lost – the quality of unconditional happiness. A baby and a toddler get happy even when their parents just pay attention on them. It is a general perception that this characteristic of happiness gradually reduces with the growth of the child. This paper is an attempt to explore the individual differences on happiness in the later childhood and adolescent respondents. The Children's Happiness Scale by Dr Roger Morgan was used to assess the level of happiness in the respondents. The study has revealed that the level of happiness varies with the age.

Keywords : happiness, adolescents, children.

A) INTRODUCTION

Happiness is a state of well-being that covers living a good life—that is, with a sense of meaning and deep satisfaction. Happiness is mental or emotional states of positive or pleasant emotions including contentment and intense joy. The term can also be used in the context of life satisfaction, eudemonia, flourishing and well-being. Research shows that happiness is not the result of bouncing from one joy to the next; achieving happiness typically involves times of considerable discomfort. Money is important ingredient for happiness, but only to a certain point. Money brings in freedom from worry of basic necessities in life including housing, food and clothing. The other factors like genetic makeup, life circumstances, achievements, marital status, social relationships, even neighbors affect happiness. Psychologists estimate that the feeling of happiness is under personal control. Often involving in small pleasures, participating in challenging activities, setting and meeting targets, maintaining close social relationships, and finding purpose beyond oneself are all actions that increase life satisfaction. The children need to be facilitated to have more positive thoughts and emotions.

Kahneman (2018) has defined happiness as "what I experience here and now". Kahneman commented that happiness is more important to people than current experience. Happiness also has an important place in the moral philosophical literature. There are many new concepts of and arguments on happiness. Sumner (1996) gave a theory on authentic (informed and autonomous) happiness. However, the idea of happiness used is more of life satisfaction. Feldman (2004) propounded an intrinsic attitudinal hedonism theory based on leading a good life.

Happiness is the most straight word and most normally used. The meaning of happiness may be minimal well-being also could have number of meanings, including physical / psychological well-being or economic well-being. Still, just the concept of well-being, is not happiness. Happiness is the ultimate objective in one's life; life satisfaction is very closely associated to happiness. Haybron (2007) argued that a persons' attitudes toward life can reflect various virtues and vices, viz. gratitude, fortitude, ambition, pride, complacency, smugness, softness and low self-regard, these can be affected by the norm and perspectives of the society. Even in the lack of these problems, happiness and life satisfaction may still differ.

Morgan (2014) found that happiness is one of the main emotion that a person can have. It's opposite to feeling sad, angry, excited, upset, frustrated, lonely, shy, anxious, afraid, embarrassed, guilty and annoyed. The children described happiness as 'joy', 'achievement' and being 'cool, calm and collected'. Happiness is being satisfied with the things and situations, being with people you like, and not being depressed. Children get happy or unhappy by what happens to them. Money can help one to be happy, but money on its own cannot make an individual happy. A lot of what makes a person happy is not about money – for example, family. Children get unhappy by lack of trust, being bullied, people being biased against them, being treated unfairly, losing somebody who matters to them, not being cared for properly, not being listened to, being excluded from things, not being told things they needed to know, and being let down by people who should be supporting them. Children are becoming unhappier these days due to competitiveness, higher expectations from parents and teachers, increasing pressure and examinations at school.

Alexandrova (2005) identified that happiness is the final objective in life and it is very closely related to life satisfaction. There have been many surveys which provide similar results when happiness or life satisfactions were used interchangeably. Further, life satisfaction may be different from happiness. Since, life satisfaction is highly unstable and sensitive to changes in the context of inquiry cannot be termed as happiness. There can be various stages in an individual's life where a person can experience very high level of happiness but life

satisfaction is relatively lower. Similarly there can be situations where the life satisfaction is very high in comparison to the happiness.

Yew-Kwang (2015) argued that concepts like life satisfaction and subjective well-being are useful, but happiness should be given preference in most cases. Life satisfaction can come from shift in the level of aspiration. Life satisfaction is a concept of self and may differ from happiness due to a worry for the happiness of others. Happiness is the only rational ultimate objective as commented by most of the researchers. The results of the various experiments explained the effects on the happiness in the future. The answer of why to do happiness measurement instead of life satisfaction (or other concepts) was explained with examples. Why should happiness be the ultimate goal was explained in detail?

2) RATIONALE OF THE STUDY

In relation to the changing ideas about happiness over the time, there are several points of discussion that arise. It need to be examined that how the concept of happiness has changed over the time. Furthermore, It needs to be outlined that how the concept of childhood throughout the centuries has been constructed from the state of adolescence. A study is required for exploring the happiness of children and outlining the change in the recognition of childhood as a part of life span.

3) OBJECTIVES OF THE STUDY

The objectives of the present study are as follow:

1. To understand the difference in the happiness among the later childhood and adolescent respondents.
2. To open the new vistas of research.

B) RESEARCH METHOD

1. THE STUDY

The present study is an attempt to identify the happiness in later childhood (10-12 yrs.) and adolescents (15-17 yrs.). A semi projective technique is being used to analyze the results based on collected data.

2. THE SAMPLE

A final sample of 60 respondents was drawn on random basis. The distribution of the sample in the research design is given hereunder:

Later Childhood: 30

Adolescent: 30

3. THE TOOL

3.1 Tool for Data Collection

The Children's Happiness Scale by Dr Roger Morgan OBE was used to collect the data from respondents.

3.2 Tool for Data Analysis

MS Excel is used for applying the t test for data analysis.

3.3 Hypothesis

H0: There is no difference in the happiness level of later childhood and adolescent respondents.

C. RESEARCH FINDINGS

The means were compared using t-test. The findings of t-test are given hereunder:

	Later Childhood	Adolescent
Mean	3.192931371	2.256429281
Variance	0.091899898	0.028540686
Observations	30	30
Hypothesized Mean Difference	0.05	
Df	45	
t Stat	13.99116782	
t Critical one-tail	1.679427393	

Table 1.0

The null hypothesis gets rejected.

The t-stat 13.99 shows that there is a significant difference in the mean scores of later childhood and adolescent respondents in the level of happiness. The later childhood respondents have shown a significant more value of happiness than adolescent respondents.

D. DISCUSSION

Hurlock (2016) commented that later childhood is a period of happiness. There are various factors such as school responsibilities and homework, expectations from parents and siblings distract them and take them away from happiness. The factors of happiness change with time; the later childhood individuals no longer find happiness in the things which provide happiness to younger ones. Since in later childhood these individuals have developed most of their skills to be independent hence they no longer rely on their parents. Hence, they find more happiness in their peer group and not with caring adults. In this age children tend to find more and more opportunity to play and tend to find happiness in acquiring the tools required for their play. Since this age requires most of the time to be in school, it can also be the source of happiness. If the child performs well academically and is blue-eyed person then school becomes source of happiness else becomes source of stress.

Hurlock found that family relationships also act as key factor for happiness in later childhood. If the child has good relationship with the family members they feel that family loves them and treat them well they sense happiness. If the environment of the family is peaceful and cheerful the children feel happy. Children in this age feel happy if they get motivation and encouragement from their family and friends. Since this age gives the children a true sense of the world where there is no equality and rightfulness. This bare truth gives them inferiority and frustration and sense of social failure; they require a true friend to overcome these negative thoughts and make them happy. At this age achievement, acceptance and affection from others are the three most important aspects for happiness.

Hurlock further discussed adolescence as the age of unhappiness. Since this is the age of revolt and the adolescents tend to disagree with the norms of the family, school and society they remain unhappy with everything. Their tendency to make adjustments is very poor and this is the reason for biggest stress in their lives. These teens have unrealistic aspirations and want these goals to be achieved in no time. When their aspirations are not fulfilled they feel rejected and get unhappy. The teens that take the challenges in sporting spirit and tend to learn from their mistakes become confident of their skills and start finding happiness in milestones achieved. The teens that are given more independence and are given freedom to explore their goals tend to be relatively happier than others. The unhappy adolescents are dangerous and can harm themselves and can even commit suicide.

The present research is in tune with the findings of Hurlock where later childhood respondents have significantly higher level of happiness than adolescent respondents. The adolescent age is the most challenging age where the individual is always in a question mode with self and society. This contemplation creates a feeling of anxiety and unhappiness.

E. CONCLUSION

This research has its findings in line with the other theories on happiness where later childhood respondents have still not reached the level of stress and anxiety and are happy with small thing and achievements. While, the adolescents have a zeal to change the world. They always challenge the stereotypes which make them uncompromising thus, unhappy.

F. LIMITATIONS

The data is calculated on a sample of 60 respondents, there may be difference if the sample size goes beyond 1500. The data is collected from students of Indore and Jaipur CBSE school students. There may be different set of observations if the research is done in other parts of country / world.

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ANNEXURE

THE CHILDREN'S HAPPINESS SCALE

Here are 20 things children or young people might say about themselves. Just read each of them and tick all the ones that are right about you. Leave the others blank.

Life is good for me at the moment	<input type="checkbox"/>	3.64
I am treated fairly	<input type="checkbox"/>	3.13
I know what is happening next in my life	<input type="checkbox"/>	3.15
I have big problems but am dealing with them	<input type="checkbox"/>	2.55
I am quite proud of myself	<input type="checkbox"/>	3.65
I am trying to change some things about myself	<input type="checkbox"/>	2.57
I don't have any big problems at the moment	<input type="checkbox"/>	3.22
I have lots of friends	<input type="checkbox"/>	4.01
I get confused about what is going on	<input type="checkbox"/>	2.43
I never feel safe	<input type="checkbox"/>	1.74
I often get anxious	<input type="checkbox"/>	2.32
I get lonely	<input type="checkbox"/>	1.68
People are prejudiced against me	<input type="checkbox"/>	1.77
I learn from my mistakes	<input type="checkbox"/>	3.18
I am a shy person	<input type="checkbox"/>	2.63
I get bullied	<input type="checkbox"/>	1.68
I am good at learning new things	<input type="checkbox"/>	3.70
I am getting all the help I need	<input type="checkbox"/>	3.38
I have lots of fun	<input type="checkbox"/>	4.25
I am easily depressed	<input type="checkbox"/>	1.75

To find out your 'happiness score' on this questionnaire:

1. Add up the numbers next to all the items you have ticked
2. Next, write how many items you ticked
3. Now divide the number you wrote against (1) by the number you have just written against (2) and write the answer in the box

That is your happiness score for today on this questionnaire!

NEED OF BANKING INDUSTRIES TO BETTERMENT THE LIFE OF A COMMON MAN

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ABSTRACT

India is a wealthy nation but its residents are poor. In this environment where there is much inflation hovering on the heads of people, in the society the people belongs to the following class status and these are as follows: Upper Class, Lower Class and Middle Class .The distribution of wealth is not equal. The rich becomes richer and the poor becomes poorer. The life of the poor people is becoming very miserable and the rich people are living their lives in a very luxurious manner. Innovation in service industries is a new or significantly improved concept that is taken into practice. Credit schemes of banks are one of the examples in this series, these schemes are used by the people for the sake of meeting the needs of the family members and also for their own sake. Development of any country mainly depends upon the banking system. A bank is a financial institution which deals with deposits and advances and other related services. It receives money from those who want to save in the form of deposits and it lends money to those who need it. The banking is one of the most essential and important parts of the human life. In current faster lifestyle peoples may not do proper transitions without developing the proper bank network. In performing these functions financial intermediaries improve a lot and well-being of both saver and investor. In the real sense by improving economic efficiency banking raises the living standard of the people, of the society and of the nation also. Here researcher's objective is to study the "Need of banking industries to betterment the life of a common man".

Keywords: - Banking Industries, Banking services, Standard of living, Economical growth

INTRODUCTION**"INDIA IS A RICH NATION, BUT INDIANS ARE POOR"**

It is an ironical statement, India is a wealthy nation but its residents are poor. In this environment where there is much inflation hovering on the heads of people, in the society the people belongs to the following class status and these are as follows:-

UPPER CLASS, LOWER CLASS AND MIDDLE CLASS

The distribution of wealth is totally not equal. The rich becomes richer and the poor becomes poorer. The salary of the individual is not enough for surviving. One has to do a part time job or even has to go for taking loan for meeting the demands of the families. The life of the poor people is becoming very miserable and the rich people are living their lives in a very luxurious manner. The poor and even the middle class family is fighting for the basic needs of the day to day life, because the prices of the products are so expensive that everyone is not able to buy the products in an easy way. Mostly people used to borrow money from one another to meet their requirements of day to day. And after sometime they have to return back the money to the lender on the monthly bases with certain rate of interest, says EMI (Equated Monthly Installments). In short it may say that nowadays everyone is moving towards taking loans from different sources.

The Bank plays a very important role in providing the loan of different types, to the people so that they can fulfill their financial needs. One should know very clearly that which loans are good for the person. The individual should know and should very much aware about the updates of various loan schemes. The personal loans are sought of a variety of reasons and the size of a personal loan depends on individual needs.

Innovation in service industries is a new or significantly improved concept that is taken into practice. These credit loan schemes of banks are one of the examples in this series. Loans are now a day's very essential for the survival, as we can see that everybody is taking loan for the following purposes and these may describe are as follows:-

1. To buy their dream House
2. To buy different Products Like Home Appliances
3. To buy Property
4. To buy The Auto
5. To fulfill Education Need
6. To fulfill Personal Requirements

7. To go for family picnic
8. To meet the need of medical treatment of the family members etc.

Credit Schemes are used by the people for the sake of meeting the needs of the family members and also for their own sake. These are the loans which are secured and as well as unsecured, basically this term is very generic.

INDIAN BANKING INDUSTRY

Indian banking is the lifeline of the nation and for its people. Banking always helped in developing the vital sectors of the economy and its usher in a new dawn of progress on the great Indian horizon. This sector has completed the hopes, wishes and aspirations of millions of people into reality. Banks works as key financial intermediaries or institutions that serve as “middle man” in the transfer of fund and money from servers to those who invest in real assets as house, properties equipment and factories. In performing these functions financial intermediaries improve a lot and well-being of both saver and investor. In the real sense by improving economic efficiency banking raises the living standard of the people, of the society and of the nation also. Now a day the banking sectors are considered to be an important source of financing for the most businesses. Banks play always a very important role in the effort to attain the stable prices, to increase the employment for youngsters and those who want to growth in their career and sound economic growth of the country. Banking functions includes first to make funds available for meet the needs and requirements of the any one may be an individual's, a group of people for business purpose, any other businesses and to the government also. In doing this, Banking facilitates the flow of goods and services even maintain the balance between these and the activities of governments for economic growth of the nation.

LITERATURE REVIEW

In the research study of **James E- McDonald** Topic is "Asymmetric Information the Case of Bank loan Commitments", Journal of Financial and Strategic Decisions Volume 7 Number 3 Fall **1994**. He researched on the Bank Loan Commitments, explained Loan commitments have become an increasingly popular financing arrangement. While considerable theoretical literature on loan commitments exists, little empirical research has been undertaken until recently. This study is motivated by the lack of research about loan commitments in particular; he found that the most recent use of loan commitments comes under the financing for mergers and acquisitions. This study analyzed common stock return behavior around the announcement date of a bank loan commitment to a firm also. The purpose of this study is to analyze return behaviour around the announcement of a loan commitment. This study extends this research by considering the type of loan commitment. He found that if abnormal returns are observable, then the information contained in the announcements is useful to investors.

In the Study of **Himanshu Joshi**, Research work based upon housing: Market in India Topic "identifying Asset Price Bubbles in the Housing Market in India Preliminary Evidence" Reserve Bank of India Occasional Papers Vol. 27, No. 1 and 2, Summer and Monsoon **2006**. This study devoted to the analysis of housing market in India, the empirical evidence obtained in the paper suggests that the housing market in India at present remains fairly well equilibrated if seen in terms of the proximity of the actual housing prices and-the estimated long run equilibrium housing prices. Objectives of this study are to identifying asset price bubbles in the Housing Market in India. The empirical findings recorded in the study support the inference that amongst the various factors that have a bearing on housing prices, monetary conditions, viz., interest rate and credit growth play a critical role.

In the research study based upon housing finance in India has been done by **Ashwini kumar Bhalla, Parvinder Arora & P.S. Gilln** on the topic” Competitive dynamics of Indian housing finance industry” Vol. XIII, No.1 January –June **2009**. This paper recommended the growth of housing and housing finance activities in recent years reflects the buoyant state of the housing finance market in the country. The affordability' of housing loans clearly appears to have improved with fast-growing number of borrowers. The market has also witnessed change in lending practices in certain segments to accommodate customer needs, as an offshoot of increased competition and a buyers' market. There seems to be a high intensity of competition among different players of the housing finance industry. But this competition needs to be measured to obscene the efficiency of the provision of housing finance services, the quality of housing finance products, and the degree of innovation in the sector etc. The present paper is an attempt to measure the level of competition in Indian housing finance industry.

In the research paper published in Social Science Research Network Electronic Paper Collection: Working Paper Number 07-01 in **2006** topic is "Imperfect Competition in Auto Lending: Subjective Markup, Racial Disparity, and Class Action Litigation" by **Mark A. Cohen Owen** Graduate School of Management. The

market for auto lending at first appears to the highly competitive; many consumers lack the ability to obtain accurate information about price. In many markets, uninformed consumers can "free ride- off the knowledge of informed consumers. Price ultimately depends upon both the credit worthiness of the individual borrower and the details of the auto loan (e.g. term length-payment-to-income ratio, etc.). Auto dealers in this market act as agents of both consumers (identifying suitable auto lenders for them) and auto lenders (identifying prospective borrowers). Given the asymmetric information about prices facing consumers, this market has been characterized by a wide disparity in the prices paid by consumers. The empirical evidence on auto markets is authorized by lenders. Research methodology overall more than 10 million customer records were analyzed covering six captive auto lenders and five financial institutions between 1993 and 2004. The result this asymmetric information has allowed dealers to mark up certain, consumers considerably more than they might otherwise in a more competitive market.

RESEARCH OBJECTIVES

Research objectives define what is needed to be investigated and how it is to be done. Objectives are the single most important aspect of research design and implementation.

- ❖ The objective of the present study is to know about the growing interest of the customers regarding various credit facilities offered by the bank.
- ❖ In this era of higher studies when every organization is struggling for maintaining a very high standard of accuracy, how Banking policies are attaining such amazingly high (in fact, highest) degree of accuracy with amazing degree of consistency is definitely a matter of great curiosity.
- ❖ To make an in-depth study of bank methodology through which certain factors may emerge that can be applied in the bank for improving their quality of performance which may good to the society.

RESEARCH METHODOLOGY

It is a conceptual based research study. Loan commitments have become an increasingly popular financing arrangement. The present research study is concerned with descriptive research design. The procedure for collecting the information are carefully planned and formulating the objective of the study. There are many review of literatures has been used in it. Therefore, Secondary data has been obtain from different sources as reference books, news, magazines, Internet, published research papers in journals etc.

There are five categories have been designed to fulfill the need of the individual these are as follows:-

- Housing Loan.
- Auto Loan.
- Education Loan.
- Personal Loan.
- Other Loan.

Loans are generally granted against or in exchange of the ownership (physical or constructive) of various types of tangible items. Some of the securities against which the banks land are: - (I) commodities, (ii) debts, (iii) financial instruments, (IV) real estate, (v) automobiles, (VI) consumer durable goods, and (vii) documents of title.

Banks lend money as term loans when the repayment is sought to be made in fixed, predetermined installments. This type of loan is normally given for acquiring long-term assets,

Assets that will benefit to the borrower over a long period (exceeding at least one year) Financing for purchases of plant and machinery, constructing building for factory, and setting up new acts purchasing automobiles, and consumer durables, real estate and creation of structure all fall in this category.

HOUSING LOAN SCHEME

The quality of living is influenced by many factors. In the developing countries the housing problem are manifold and key factor in influencing quality living. The mainstream formal housing needs a faster production system of housing maintaining quality of houses and economy to overcome the huge shortage. Housing loan is the sum of money a bank or financial institution lends to help the buy of dream housing. By taking a housing loan from a bank or a housing finance company it pledge housing as the lender's security for repayment of the loan. The bank or financial institution will hold the title or deed to the property till the loan has been paid back with the interest due for it. The affordability' of housing loans clearly appears to have improved with fast-

growing number of borrowers. The Housing loans are generally taken for long tenures as the loan amount is usually a huge sum. A housing loan can be taken anywhere between 5 to 30 years.

AUTO LOAN SCHEME

The banks offers uniquely tailored auto loan products that take the pain and hassle out of buying an auto flexible, transparent, quick, and cost-effective. Auto loans put the joy back into owning an auto loan scheme. At the banks, it realizes that owning an auto has increasingly become a necessity. But it also realizes that the price tag of dream auto may be just outside their immediate grasp. The banks auto loans are just what the need to bridge the gap. However the market for auto lending differs from traditional markets. Price ultimately depends upon both the credit worthiness of the individual borrower and the details of the auto loan (e.g. term length-payment-to-income ratio, etc.). Auto dealers in this market act as agents of both consumers (identifying suitable auto lenders for them) and auto lenders (identifying prospective borrowers). The Banks for Auto Loans offers low interest rates, easy repayment options, total transparency, no processing charges, finance to include vehicle registration charges, insurance and one time road tax etc. In case of old Auto too loan is available but the vehicle should not be more than 5 years old.

EDUCATION LOAN SCHEME

The banks education loan aims to provide the much needed financial support to deserving students for pursuing higher professional or technical education in India and abroad. The education loan would be provided to those students who have obtained admission to career-oriented courses e.g. medicine, engineering, management etc., either at the graduate or post-graduate level. Banks believe, given the right tools and aid every child has the potential to be successful. Education loans aim to give the tool that will enable them to reach their goals in life. No more would a deserving student have to give away their pursuit of dreams due to lack of money. The quantum of finance under the scheme is Rs 10.00 lacks for studies in India and Rs 20.00 lacks for studies in abroad, which would cover tuition fees, hostel charges, cost of books, etc. The minimum amount of education loan would be Rs 50,000. The parent or guardian of the student would be treated as a co-applicant of the student loan. His or her role would be, necessarily, like the primary debtor.

PERSONAL LOAN SCHEME

If customer wants funds readily available to fulfil their desire or need, it may a sudden vacation that they plan with their family or urgent funds required for medical treatment of family member etc. The personal loan scheme gives the answer of these problems. The loan will be granted for any legitimate purpose whatsoever (e.g. expenses for domestic or foreign travel, medical treatment of self or a family member, meeting any financial liability, such as marriage of son/daughter, defraying educational expenses of wards, meeting margins for purchase of assets etc.). In shot it is very important loan scheme to make the life of their customers easy.

OTHER LOANS SCHEME

The loan against property is a secured loan. If customers own residential or commercial property they could utilize the value of the same by opting for an equitable mortgage loan. The property papers are taken as security for a loan at a much lesser rate than personal loan. The ownership of the property is retained by the bank. In case of inability to repay the loan the property could be disposed off to repay dues. Normally loan against property is taken for a long term for working capital, expansion, repay expensive personal loans etc. Loan amount could range from Rs.5 lacks to Rs.5 Cr. And Loan tenor could extend up to 15 years. Eligibility depends on our income and the market value of the property. It is important to understand that a loan against property is different from a mortgage. While a mortgage is a bank loan taken to buy a property, a loan against property is a loan secured from the bank by putting up your existing property as a security against the loan. Depending upon the existing market conditions, the paid up value of the property and other factors, the value of the loan against property can be anywhere between 40-60 % of the property value. Cash in on the smart investments of the past and build a safe future. Take a property loan today and use it for any kind of requirement.

VARIOUS BANKING SERVICES

All the functions are performing by the banks and beneficial to their customers known as Services of Banking Industries. As it knows banks are offered a lot of verity of services which may choose by the customers according to their need and desires. From the very first opening the accounts and after that also banks have lots of services to their customers to facilitates them. These are of any kinds like deposits the funds, saving their funds as well as increase with interest, give loan of various kinds, credit card, debit card, ATM facilities, Lockers facilities, bill of exchanges etc. The banking services are a lot of in numbers, which are described below in a number of account types and most of these services are offered by all the banks. One institution may offer a slightly different service than another, so the descriptions below are fairly general.

CHECKING ACCOUNT

For paying bills and making purchases these checking account works. Infact these two are the primary purpose of its kind of accounts. There are different types of checking accounts, including Basic, Free, Interest-bearing, express, and others. The services offered to their customers by the banks for each account depend on the type of it. And ultimately it is according to the need of the customers. While choosing any account, the various services are a matter to research which is offered by the bank with each type of accounts, also which will fulfil the need of the customers in future also.

SAVINGS ACCOUNT

To save the deposited amount in the bank by the customers is the main function and services offered by the Banks. To save money for the future is important to find hear. Actually savings account risk-free investment for any individual. There are various types of savings accounts offered by the banks, have a variety of interest rates. This interest rate depends on the amount and the time money is kept in the account. Two main types of accounts hear is short and long term accounts. Compound interest on the savings accounts is particularly desirable by the customers in which the interest from one financial term is added to the previous principal. This total is then used as the principal for the next term, so the amount increases exponentially.

CERTIFICATE OF DEPOSIT (CD)

One another service of banking is to provide certificate of deposit to their customers. The main feature of it's a long-term bank account. This long term bank account offers higher interest rates to their customers then a normal rate of interest of savings account, but it may change its fees in case if customers want these funds are withdrawn before a set time. CDs (Certificate of Deposit) mostly involve and can run from a single number of months to many years. The most important point to note hear is the length of Certificate of Deposit bank accounts direct impact on the total or the quantity of how much interest is offered by the bank to their customers.

SAFE DEPOSIT

The Safe deposit is also one another service of bank. It has been offered as a secure storage option at many bank locations. It includes for a small fee, it is available in various variety of sizes to store items such examples of these as family heirlooms, vital paperwork, or other valuables. These boxes generally are accessible during bank lobby hours.

CHECK CARD

It is one another service provides by the banks to their customers. To keep the cash so much in the pocket is not much safe for anyone, so to protect from this kind of high risk banks provides a check card facility available to basically make life much easier of their consumers. Nowadays From the use of ATMs to shopping, and daily banking becomes much easy, faster and more convenient for customers by the use of a check card. For easy shopping or gas station purposes, this helps a lot by simply swipe the card at the checkout line. One important thing is required for the use of its ATMs, a personal identification number, or PIN, is very required for the easily transaction of its.

CREDIT CARD

Credit card is also another one service provide by the banks. A credit card functions is much like a check card, it except cash immediately instead of withdrawing money from the customer's account. It allows by the customers to pay off the expenses at a later date. It should maintain properly by the holders of it, because if it managed efficiently, this credit card can be a safe and secure way of not only use of money but also handling easy of the money, and can help build one's credit rating. The most important is here to note that customers must be cautious to stay up to that date on the credit card payments. If funds are not paid up to the limit of time, it allowed to accumulate and left on the card for long periods of time also and its includes large interest rates and has to pay by the bearer of its in future it may apply in the end up to its cost or even more.

FOR THE YOUTH

Nowadays as everyone is aware about the various uses or facilities are offered by the banks to their all age of customers, in this era youth who are not so young even are not much matured enough wants to use Banking facilities. So for teenagers who are looking to get into banking early, or for their parents also who wants them to, in this concern many banks offer services for specially will help to them. A bank always works as parents to explain to those entire younger crowd to use of its facility and the best way to use of it's also that how to make deposits and withdrawals, and how to read statements, and even how to balance an account. Not only this but also gaining good financial habits early in their life, it will help to set up the youth with their knowledge and skills which ultimately will benefit to them for their lifetime in future.

ONLINE BANKING

As it knows the use of computer and with Internet access are growing day by day. And it is now available almost anywhere today, In this regard online banking is highly offered in order for the people to the bank according to their own schedule. This kind of modern techniques are using by all most all the customers of the Banks lived any ware to save their precious time and energy also. Sometimes all the services offered by the banks may be hard to make by the bank easily during its limited business hours, so most of their many services are offered via online banking through which their customers may avail and use of its services by their own convenience, including reordering cheque, paying bills, transferring money between accounts, viewing account balances, and to know any other information also. Even many others uses of it's also became easy by the use of its online banking.

USERS OF BANKING SERVICES

The general public involve in any work may be users of Banking services. The emerging trends in the level of expectation affect the formulation of marketing mix. Innovative efforts become essential the moment it finds a change in the level of expectations. There are two types of customers using the services of banks, such as general customers and the industrial customers.

- **GENERAL USERS**

Persons having an account in the bank and using the banking facilities at the terms and conditions fixed by a bank are known as general users of the banking services. Generally, they are the users having small sized and less frequent transactions or availing very limited services of banks.

- **INDUSTRIAL USERS**

The industrialists, entrepreneurs having an account in the bank and using credit facilities and other services for their numerous operations like setting up the plants or establishments, expansion, mergers, acquisitions etc. of their businesses are known as industrial users. Generally, they are found a few but large sized customers.

FINDINGS OF THE STUDY

From the above study of banking industries and its importance in the life of general public it may easy to say that banking industries performs well and continuously working toward the beneficial for the common man. without too much of advertisement, and publicity but genuine needs of people are served satisfactorily. That's way Indian banking industries directly affects to the life of general people, their standard of living as well as it directly affects to the growth of the country.

Some other findings are as follow:-

- Various banking functions of the highest order can be maintained even without any background of literacy.
- A business of large volume can be efficiently and effectively managed through innovative financial management practices.
- By the use of various banking facilities, living standard of people may increase.
- Revenue sharing can act as incentive and motivator.
- Banks plays tremendous job to fulfill the requirement of their customers.
- Banks plays vital role in the life of a common man of the society.
- Banking system directly lead to the economic condition of the country.

In shot the Indian banking industry plays very important and vital roles to growth and development of the developing countries and it is the most dominant segment of the financial sector also. Banks also helps to improves the channel of savings to investments for the better future and encourage economic growth by allocating their savings to investments in the effective manner through that they have potential to yield higher returns from their minimum investments.

CONCLUSION

It is generally mentioned that banking sector is becoming increasing global resulting from financial liberalization and economic integration. Some positive impacts of it adopt modernize practice to encourages country's banking system as it makes banking and financial system less fragile and less prone of crisis, it encourages adoption of best practice in the banking industry, particularly in risk management and emerging markets plays an important role in stable or increase overall loaning system of banking industries.

The globalization of the world is very rapidly changes of the banking services and different loan infrastructure. The procedure of loan is easy going for the industrial and for the global society. The banking service of our country is also depending on the different economical, educational and automobile industries of the world. The global world and these credit schemes are interrelating to each other. Without the effective credit scheme development of the modernistic society is not possible. Hence the use of effective banking policies and by the use of best services of these may minimize the economic loss and overall development of society and county may possible with the economical growth.

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EMOTION RECOGNITION USING FACIAL EXPRESSION ANALYSIS: AN ARTIFICIAL EMOTIONAL INTELLIGENCE BASED MODEL

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ABSTRACT

Emotion recognition is a concept which is a gift of god to human beings. But now with the upcoming and latest technologies it seems possible that this gift can also be given to machines by humans. Machines can be trained to analyze a person's face and detect the state of mind of that person from his/her expressions. Sometimes humans are not able to share their feelings and emotions with others so it will definitely be a good thing if a machines understand his/her state of mind without getting anything from the person itself and will be able to suggest things which will lighten his/her mood accordingly. There are several times when a person lives alone so, this module will act as a human in the absence of any near and dear one. The relationship between human and machine will become more productive with this concept.

A model for recognizing emotion using face expression analysis is proposed. The model will suggest positive ways to be relieved from any stressful or difficult situations. Even the people who are suffering from any mental disease or problem, the machine will help them to improve their state of mind and do positive things. We propose to analyze different types of emotions which includes anger, surprised, happy, sad, neutral, fear. Different machine learning algorithms would be applied to form this model. OpenCV library will be used for implementing image functions and work with images. Coordinates of some common face attributes like eye and mouth will be compared with the attributes of image in the database so that it can predict precise emotion according to them.

Keywords: Emotion recognition , face expression analysis, face attributes, machine learning algorithms

1. INTRODUCTION

“Emotion is a sensibility that outcomes in physical and psychological changes that impacts thought and actions” [1].

The analyzation of emotions is a rudimentary part of the affective computing “affect” means emotion and “computing “ means to calculate.

Different states of human emotions are:

- Temper
- Scared
- Cheerful
- Grief
- Surprise
- Disgust

“There are models to create classifier based model for simulating human emotions through emotion words”[2].

Thanks to artificial emotional intelligence, now human ability to recognize faces and distinguish them from among others is automated and even computers can do the same resulting in improved accurate face recognition and detection models[3]. Such models can be useful in various applications like healthcare, social media, criminal justice etc where such models can be efficiently implemented and help[4]. Expression of any person plays a vital role in verifying of emotions of that human. Expressions are also used as a means of communication and that communication is done by the face gestures. Human expressions are very essential in regular communication just like the tone of the voice of a person[5]. Expressions reveal the feelings of a man like in which emotional state they are[6].

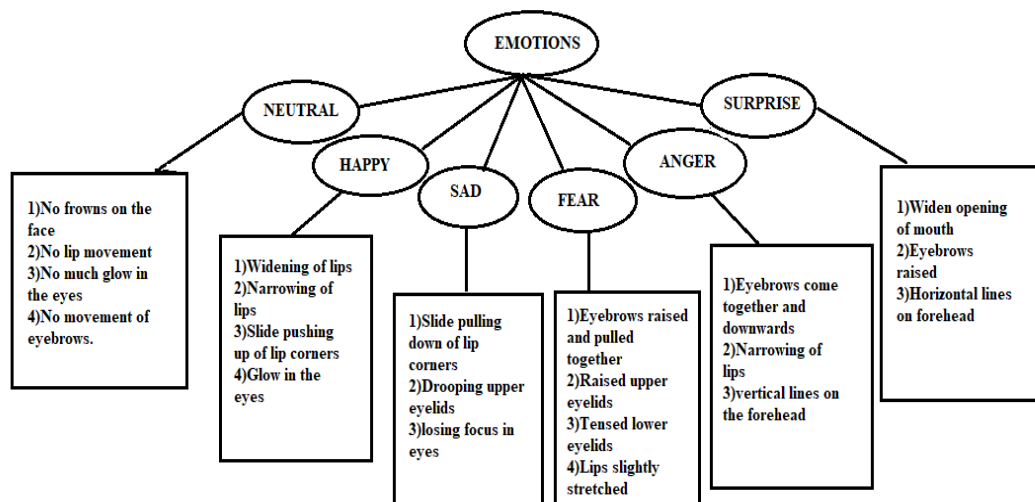
In this paper, we are proposing an artificial emotional intelligence based model for recognizing emotion using face expression analysis. The model will suggest positive ways to be relieved from any stressful or difficult situations for every one including those who are suffering from mental disorders and stress relating problems. The model aims at analyzing different types of emotions which includes anger, surprised, happy, sad, neutral, fear. Different machine learning algorithms would be applied to form this model. OpenCV library will be used for implementing image functions and work with images. Coordinates of some common face attributes like eye and mouth will be compared with the attributes of image in the database so that it can predict precise emotion according to them.

2. REVIEW OF RELATED WORK

Recently, some of the major works have been done by engaging automatically elucidation(annotated) of collection(corpora)[7] , thus eliminating the needs of judgements and agreements between them all .After elucidated the collection , we use these collection to train our classifiers under supervised learning technique[8]which gives a way to a new function for more classification. Children stories[10,11] , spoken dialogue[12-14] explained with emotion categories, web logs[15] explained with emotion categories and intensity , news headlines[16] explained with emotion categories and valence are the various Ekman's classes[3,9] explanations used in the related work done in this field . Other than the Ekman's classes, some other manual explained collections consider: [17] explanation with 14 emotion categories [18] explanation with 28 emotion categories,[19] includes explanation with 15 emotion categories and at three different levels of documents, sentence and elements. Various research works have utilized the use of hash-tags, emoticons and other emotion indicators, used for Automatic motion Classifier 567 annotating the data [20-22]. Example [23]annotates the data based on hashtags as keywords [24,25] annotates data based on emotions evaluating six primitive emotions of Ekman's classification based on expressions of face.



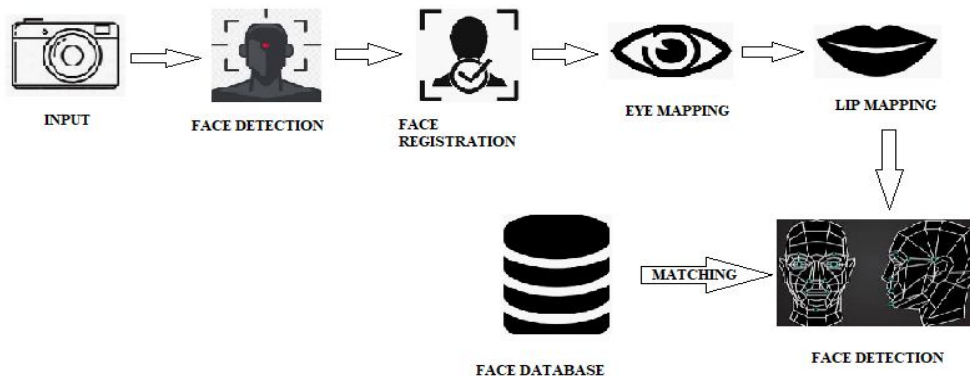
Whatever changes occur on our face are due to different activities of the muscles on our face which have been defined by EKMAN and FRIESEN FACS system(facial action coding system)in the form of different coefficients which are also known as action units[26][27].As we know the emotions of any person is recognizable by the attributes that are present on his/her face and those attributes are eyes, nose, lips, cheeks, lines on forehead etc[28].



3. FACE RECOGNITION

Facial recognition is a group of bio-metrics software that mathematically depicts the facial features and then accumulate the data as a face print.

The deep learning algorithms are used by this software to recognize the face expressions.

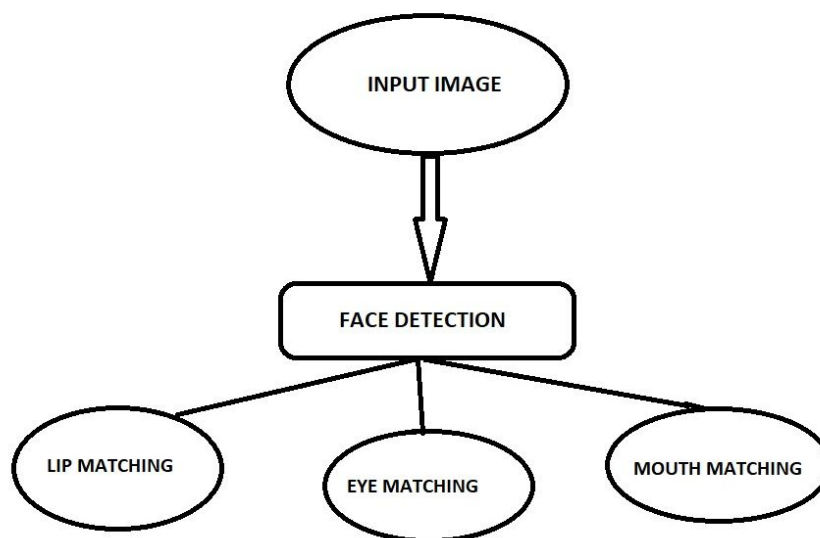


4. METHOD

Firstly we will analyze the input which will be taken by the camera. It will use the concept of face recognition to analyze the face and then consider it as an input.

Then it will analyze the face expressions and put them into one of the classifications that is lip, eye and mouth mapping.

It will then compare it with the image data for that particular emotion in the dataset and then final out that which emotion it is. The analysis will be done using KNN and NNM concepts[10].



5. FEATURE EXTRACTION

Eye Classifier: We will classify eyes of the person from its face so as to analyze the eye features.

Mouth classifier: We will classify the mouth from the whole face of the person in order to analyze some results from the mouth related attributes.

Lip classifier: In this lips of the person will be mapped and then analyzed in order to compare and final out the emotion.

6. FUTURE SCOPE OF WORK

The future scope of this field is to design a mechanism or a way that would be useful in various therapy treatments according to the emotion of the person in a certain situation like music therapy which provide a relief to the people suffering from excessive emotional disorders like anxiety depression ,mental stress so that this trauma can be reduced . This may be further implemented in

various real time applications to reduce the chances of the emotion detection failure due to bad light or poor camera situation.

7. CONCLUSION

The analyzation of emotions using facial recognition system discussed in this research paper represents an adaptable face which represents behavioral and physiological attributes. Physiological attributes express different human face expressions related with different face structure which are basic geometric structures which have base matching pattern for the recognition system. Every expression comes under every situation has a behavioral aspect which relates to the attitude of the one's towards every situation. The training set measures the expressional uniqueness of the person's face and provide the better model in the field of the emotions analysis based on the face movements. Experimental analysis and study shows the efficient recognition of face through expressions. The facial recognitional model is implemented in laptops for recognition process.

Emotion recognition has its various applications in real time scenarios where population's emotion must be recognized in real time. Emotions recognition has its use in fields where machine rules as an instructor, for lie detection using facial expression, for various activity recommendation according to the human mood and other application based on human emotion etc. Emotion recognition from the pictures has a limited real time applications.

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DYNAMICS OF DIGITAL PAYMENT ECOSYSTEM AND UNIFIED PAYMENT INTERFACE

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ABSTRACT

The emerging growth of cashless economy and demonetization has made the need of digital payment applications an imperative one. With the advent of the payment wallets, it is believed that Unified Payment Interface(UPI) is going to change the digital space forever. This study focuses on the changes brought by UPI in the payment ecosystem in India. Currently, there are a number of choices available for E- payments and hence the interesting thing would be to find out as to how the UPI has influenced the market share and has created a place among others and would carve out a niche in the virtual payment systems in India. The study tries to find out as to how the launch of UPI pay has had a far reaching effect on all the players in financial marketplace. Secondary data and various other secondary have been used for the analysis purpose.

Keywords: Unified Payment Interface(UPI), Digital Payment, Cashless society

1.0 INTRODUCTION

According to research firm **McKinsey**, the global payments space was worth \$1.9 trillion in 2017, and forecasts that the payments business would be worth \$2 trillion by the year 2020.

According to **Niti Aayog's** latest report on Digital Payments, it is estimated that by 2023, the digital payments space in India will touch the level of around \$1 trillion.

With a vision to transform India into a digitally empowered country, Honourable Prime Minister Shri Narendra Modi announced demonetization on November 8, 2016. To further bolster and speed up the engines of financial transformation, "Digital India" Campaign was also launched bringing a paradigm shift from a traditional economy into a cashless and paperless economy. The technological breakthroughs in the financial space have provided a much need support to the above initiatives of Government of India. A number of digital payment apps have been conceptualized and commercialized for the collection and payment of various transactions after obtaining due licenses. Some of these have gone a step forward converting themselves into small payment bank or virtual wallet itself.

Electronics Consumer transaction made at point of sale (POS) for services and products either through internet banking or mobile banking using smart phone or card payment are called as digital payment. Digital payments and receipts are those payments and receipts which are made by the sender to a receiver or vice versa, with the use of digital instruments. The digital payment system has the following phases, 1.Registration 2. Invoicing 3. Payment selection 4. Payment confirmation and the entire framework generally includes three electronic payment instruments namely, cash, cheque and card. As part of encouraging cashless transactions and transforming India into cashless society, various modes of digital payments are available.

The Government Initiated applications like UPI , BHIM app and other private digital payment methods like Paytm, Freecharge , Mobikwik, GooglePay etc have created a platform for other payment startups also to leverage and use technology for further creating economies of scale in a healthy competitive market.

To bring in to the context, UPI entered into a financial space linking already existing customer base with their digital payment systems. This as expected was bound to change the landscape since most of the customers never wanted to migrate to an altogether new payment systems creating a set of usernames and passwords but rather would continue to use the existing digital pay account saving them a lot of discomfort and inconvenience.

Mobile Wallets are specific apps where money is loaded to these apps in digital form. Just as we carry a wallet where we have currency in tangible form, in the same way we have mobile wallets loaded with currency in intangible form. Payment done through R code scan displayed in merchant establishments or phone number at shops, facilitate fund transfer among users. There are nearly forty companies which are offering there wallet service in India.

UPI which is unified payments interface is the fastest growing digital payment system in India. The advantage of this payment system is that it is highly efficient in making and receiving payments and also saves lot of time as it allows direct debit from account of sender and instant credit into receiver bank account. UPI transactions are done through either bank provided special apps, for example ICICI wallet, SBI YONO or through special

third party apps like Phonepe, Google pay, Amazon Pay BHIM etc. A special UPI address is given to each user for identification and transaction

2.0 REVIEW OF LITERATURE

Ambarish Salodkar (2015) in his research study emphasises that there are varied and digital payment applications such as Mobiquick, Freecharge, Paytm etc. Most of these are available on Google Play store and can be downloaded and can be used for processing online shopping and recharging phones and other services.

Most of these applications have gone a step forward and have their portals as well where the customer can login and can do the same transactions in a seamless manner. The interface available on apps is very convenient in itself which makes it easy for the customer to keep using it on their mobile phones itself. Most of these applications require the customer to link their accounts with the virtual wallets provided by these apps to continue using their full scale features. Further, it's the platform and safety of these apps which are the first criteria before anything else while deciding the payment app to do the financial transaction.

Pinal Chauhan (2013) explained in her paper as to how the digital wallets are going to churn out money and cash when most transactions would be more convenient and less cumbersome for the users. These apps are further used for point of sale transactions where the customer needs to make transactions at retail stores, petrol pumps etc. This also necessitated the registration of retail merchants and vendors growing their businesses all the very more. Further, the author talked about the server side and client side issues while making electronic transactions.

An encryption algorithm, known by the name RC4 is employed for providing a secure transaction in financial transaction. Even after having some demerits like interoperability, advantages outweigh the disadvantages.

Roopali (2016) emphasised upon how digitalization of payments can trigger the economy of the country and put it on growth path. Further a detailed investigation of various adoption patterns such as how customer react and adopt payment wallets. In the same analysis, it was concluded that the number of users had inculcated in themselves a habit of saving which in turn helped them to somehow use their payment wallets more judiciously. People find it a more convenient and less time consuming way for making the payments. The paper reiterated the cons of digital wallets when it does to security features and stressed upon the much needed security feature. A robust and full proof security mechanism needs to be in place to ensure that the transactions are safe and secure.

Trilok Nath Shulka (2016) mentions that with the advent of technology backed by smart phones and internet backbone, the entire landscape of financial payments have changed. It has become easier for customers to use web based applications more often. The reason is the convenient platform for users to transfer money in fraction of seconds. The praise goes to various government support systems that has motivated and reinforced people and their belief systems in digital payment system in India. Not to mention the telecom companies have also proved to speed up the transactions by providing 3G and 4G technology for faster transactions. Author also discusses different e-wallets available in India: open, closed, semi-open and semi-closed. Further, it was also emphasized that companies should offer incentives for making digital payments in the form of coupons, cash back, gifts to promote the habit of using m-wallets among users. More applications of payment applications are yet to be discovered.

Pawan Kalyani (2016) talks about the scope, usage merits and demerits of using virtual wallets in India specifically. Further, the recommendation for using time based technology has also been made to increase the usage of digital payment systems in the country. He categorizes virtual wallets into four frames: Open wallets, semi-open wallets, closed wallets and semi-closed wallets. Further, He also has talked about the issues and challenges that wallet companies are struggling with. The major concerns are data security, phone battery, dispute resolution, market penetration and user acceptance etc. Technology has to walk a long way ahead to educate people to increase the customer base. The paper also discusses about the transaction in ancient time and in modern world. Earlier people had barter system, then people started making use of cash now-a-days majority is drifting towards transaction through mobile devices. In current times, people are using credit cards, debit cards and m-wallets for payments. The author also discusses about advantages and risks that are associated with e-currency and also about types of e-wallets. The modern transactions make use of Debit and Credit Cards, and m-wallets etc. have been in demand more often. The paper discusses that customers are using e-wallets mostly for the purpose of collection and payment of bills. A lot of effort is required to make the customers aware about relevance and ease of using e-wallets to perform various operations.

Hem Shweta (2016) emphasised that smart phones have made waves across the markets and customers have now started to initiate different kinds of payments via mobile technology. Further, the various challenges in the use of digital wallets faced by the users have also been discussed. The entities in the form of Customers and financial institutions are getting benefitted by the use of Digital wallets.

Poonam Painuly and Shalu Rathi (2016) in their paper analysed that the effortlessness and simplicity in the nature of transaction, secured mode and convenience in handling application are apparent benefits of wallet money and it was also concluded that business sectors like banking ,retail, hospitality etc., were making use of wallet money and mobile payment instruments including contactless remote payment in the customers – business and customers to customers domain.

Rajesh Krishna Balan, Narayan Ramasubhu, Giri Kumar Tayi (2006) in their paper “Digital identified about usage of digital wallets in Singapore and evaluated the key challenges in consolidating and deploying a digital wallet.

Hem Shweta Rathore (2016) in her paper have examined about the factors that influence consumers in adoption of digital wallet and also studied the hurdles and challenges faced by consumers in usage of digital wallet. It was concluded that shoppers are adopting digital wallet mainly due to convenience and ease while using digital wallet which will gain much more widespread acceptance.

3.0 RESEARCH METHODOLOGY

The research design is a mix of conclusive and exploratory research framework and employs secondary data available on RBI Bulletins and survey reports by various tech magazines and journals. Descriptive statistics have been used to draw necessary inferences. The research objective is to study the current market scenario of the digital wallets in India and make an attempt to interpolate into the existing trend as to what has been the possible impact in terms of value and volume by UPI since the day it is commercialised in the mainstream digital payment systems worldwide.

4.0 DISCUSSION OF RESULTS

Market Share of Various Type of Digital Payment System

Table 1: Market share of various types of digital payment system

Year	Volume	Value
2017 – 18	44.6%	11.9%
2018-19	54.3%	14.2%

Source: RBI Annual report 2018-2019

Table 2: Share of electronic transactions in Total Volume of retail payments

Year	Contribution in Total Share
2018-19	95.4%
2017-18	92.6%

Source: RBI Annual report 2018-2019

The model above indicates that the total volume of retail payments increased to 95.4 per cent in 2018-19, up from 92.6 per cent 2017-18 and the volume and value growth was recorded at 54.3 % and 14.2 % respectively, which was an increase compared to 44.6 % and 11.9 %, respectively, of 2017-18.

Table 3: NEFT- Transaction details of online transactions in terms of Volume and Value:

Year	No. Of Transactions	Value of Transactions
2017-19	1.9 billion	₹ 172 trillion
2018-19	2.3 Billion	₹ 228 trillion
Growth Rate in 2018-19	19.1 %	32.3 %

Source: RBI Annual report 2018-2019

The above data indicates that the NEFT system handled 2.3 billion transactions valued at around ₹ 228 trillion in 2018-19, up from 1.9 billion transactions valued at ₹ 172 trillion in the previous year, registering a growth of 19.1 per cent in terms of volume and 32.3 per cent in terms of value.

Table 4: Model of Based on Payment system Indicators - Volume and Value Change in Usage of Traditional Payment Modes.

		Total Retail Electronic Clearing	ECS DR		ECS CR	
Volume & Percentage Change	Financial Year		Volume in Million	% age Change in Volume	Volume in Million	% age Change in Volume
Financial Year	2016-17	4222.9	8.8	-	10.1	-
	2017-18	6382.3	1.5	-70.87	6.1	-24.69
	2018-19	12466.7	0.9	-25	5.4	-6.09
Value and Percentage Change			Value in Billion	% Change in Value	Value in Billion	% Change in Value
Financial Year	2016-17	132324	39	-	144	-
	2017-18	193113	10	-59.18	115	-11.2
	2018-19	267515	12.6	11.5	132.35	7.01

Source: RBI Annual report 2018-2019

The above table indicates that there is a sufficient decrease in the usage in terms of value and value wise in last two years. The traditional payment methods using debit and credit cards have decreased and this is similar across both volumes and value.

Table 5: Model of Based on Payment system Indicators - Volume and Value Change in Usage of Electronic Payment Modes.

		Total Retail Electronic Clearing	NEFT		IMPS		UPI		NACH	
Volume & Percentage Change	Financial Year		Volume in Million	% age Change in Volume	Volume in Million	% age Change in Volume	Volume in Million	% age Change in Volume	Volume in Million	% age Change in Volume
Financial Year	2016-17	4222.9	1622.1	-	506.7	-	17.9	-	2057.3	-
	2017-18	6382.3	1946.4	9.09	1009.8	33.18	915.2	96.16	2503.3	9.78
	2018-19	12466.7	2318.9	8.73	1752.9	26.9	5353.4	70.8	3035.2	9.6
Value and Percentage Change			Value in Billion	% Change in Value	Value in Billion	% Change in Value	Value in Billion	% Change in Value	Value in Billion	% Change in Value
Financial Year	2016-17	132324	120040	-	4116	-	69	-	7916	-
	2017-18	193113	172229	17.86	8925	36.88	1098	88.17	10736	15.12
	2018-19	267515	227936	13.92	15903	28.11	8770	77.75	14762	15.79

Source: RBI Annual report 2018-2019

The above table indicates that there is a sufficient increase in the usage in terms of value and value wise in last two years in electronic payment methods in terms of NEFT, IMPS, UPI and NACH.

Paytm, PhonePe and Google Pay collectively process more than 90 per cent of all UPI transactions. Google Pay leads in transaction volume as well as amount transacted.

The share of BHIM in the total number of transactions on the UPI decreased from 41.36 per cent in January 2017 to 1.82 per cent in August 2019, and the amount transacted on BHIM came down from 21.49 per cent in January 2017 to 3.96 per cent in August 2019.

Two out of every three transactions on Google Pay take place outside of the top-six cities in more than three lakh towns and villages across the country.

PhonePe's July blog post said that PhonePe is accepted as a payment option across 50 lakh merchant outlets in India.

5.0 CONCLUSION

UPI has tied up with some of the largest banks in the country to make this service available to consumers. The payment system ensures fund transfers can be initiated without having to provide any more bank account number and IFSC code. The fund transfer process is fast, easy and can be done on a 24/7 basis on all 365 days in a year.

Unified payment interface is going to be the game changer in Indian digital payment industry. With more than 400 million subscribers, power of UPI will bring a new way of payment revolution as is evident in the analysis.

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ANALYZING THE IMPACT OF NON-PERFORMING ASSETS ON SBI & ICICI BANK

Puneet Pal and Shubham Batra

ABSTRACT

Non-performing assets are one of the major concerns for banks in India. NPAs reflect the performance of banks. A high level of NPAs suggests high probability of a large number of credit defaults that affect the profitability and net-worth of banks and also erodes the value of the asset. This paper analyzes the NPA levels of SBI Branch. The purpose of the project is to know how NPA levels will affect the profitability of bank. There is actual correlation between Priority Sector NPAs and Non priority Sector NPAs in contribution of Total NPAs of SBI bank in Indian branch during the study period, also the result showed the significant impact of Non Priority Sector Advances on Total NPAs of SBI bank in Indian branch during the study period. In this paper we will study about the non performing assets with reference to SBI bank.

Keywords- Economic Development, ICICI Bank, Non-Performing Assets, Stability, State Bank of India

1. INTRODUCTION

Banking in India began in the most recent many years of the eighteenth century. The primary banks were Bank of Hindustan (1770-1829) and The General Bank of India, set up 1786 and since outdated. The biggest bank and the most established still in presence is the State Bank of India, which began in the Bank of Calcutta in June 1806, which very quickly turned into the Bank of Bengal. This was one of the three administration banks, the other two being the Bank of Bombay and the Bank of Madras, every one of the three of which were set up under sanctions from the British East India Company. The three banks converged in 1921 to frame the Imperial Bank of India, which, upon India's freedom, turned into the State Bank of India in 1955.

For a long time, the administration banks went about as semi-central banks, as did their successors, until the point when the Reserve Bank of India was set up in 1935. A similar blue keyhole logo recognizes the State Bank of India and all its partner banks [1]. The State Bank of India word check, for the most part, has one Under the arrangements of the State Bank of India Act of 1955, the Reserve Bank of India, which is India's central bank, obtained a controlling enthusiasm for the Imperial Bank of India. On 1 July 1955, the Imperial Bank of India turned into the State Bank of India. In 2008 the administration of India procured the Reserve Bank of India's stake in SBI to evacuate any irreconcilable situation because the RBI is the nation's banking administrative authority. In 1959, the legislature passed the State Bank of India (Subsidiary Banks) Act, which made eight state banks partners of SBI.

OBJECTIVES

1. To analyse the impact of NPA on Indian banks
2. To examine and compare the NPA trends of State Bank of India and ICICI for past four years.
3. To study the recent trends in NPA.

2. NON-PERFORMING ASSETS

It has been argued by a number of economists that a well-developed financial system enables smooth flow of savings and investments and hence, supports economic growth (see King and Levine, 1993, Goldsmith, 1969). A healthy financial system can help in achieving efficient allocation of resources across time and space by reducing inefficiencies arising out of market frictions and other socio-economic factors. Amongst the various desirable characteristics of a well-functioning financial system, the maintenance of a few non-performing assets (NPA) is an important one. NPAs beyond a certain level are indeed cause for concern for everyone involved because credit is essential for economic growth and NPAs affect the smooth flow of credit. Banks raise resources not just on fresh deposits, but also by recycling the funds received from the borrowers. Thus, when a loan becomes non-performing, it affects recycling of credit and credit creation. Apart from this, NPAs affect profitability as well, since higher NPAs require higher provisioning, which means a large part of the profits needs to be kept aside as provision against bad loans. Therefore, the problem of NPAs is not the concern of the lenders alone but is, indeed, a concern for policy makers as well who are involved in putting economic growth on the fast track. In India due to the social banking motto, the problem of bad loans did not receive priority from policy makers initially. However, with the reform of the financial sector and the adoption of international banking practices the issue of NPAs received due focus. Thus, in India, the concept of NPA came into the reckoning after reforms in the financial sector were introduced on the recommendations of the Report of the Committee on the Financial System (Narasimham, 1991) and an appropriate accounting system was put in

place. Broadly speaking, NPA is defined as an advance where payment of interest or repayment of instalment of principal (in case of term loans) or both remains unpaid for a certain period. In India, the definition of NPAs has changed over time. According to the Narasimham Committee Report (1991), those assets (advances, bills discounted, overdrafts, cash credit etc.) for which the interest remains due for a period of four quarters (180 days) should be considered as NPAs. Subsequently, this period was reduced, and from March 1995 onwards the assets for which the interest has remained unpaid for 90 days were considered as NPAs. This paper attempts to provide an overview of the NPA problem in India concentrating on the various dimensions involved.

2.1 Factors Responsible For NPA'S

The following factors confronting the borrowers are responsible for incidence of NPAs in the banks:-

1. Diversion of funds for expansion/modernization/setting up new projects/helping promoting sister concerns.
2. Time/cost overrun while implementing projects .
3. External factors like raw-material shortage, raw-material/Input price escalation, power shortage, industrial recession, excess capacity, natural calamities like floods, accident etc.
4. Business failures like product failing to capture market, inefficient management, strike/strained labour relations, wrong technology, technical problem, product obsolescence, etc.
5. Failure, non-payment/over dues in other countries, recession in other countries, externalization problems, adverse exchange rate, etc.
6. Government policies like excise, import duty changes, deregulation, and pollution control orders, etc.
7. Wilful default, siphoning of funds, fraud, misappropriation, and promoters/management disputes etc.

2.2 Types of NPA

Gross NPA is an advance which is considered irrecoverable, for bank has made provisions, and which is still held in banks' books of account. Gross NPAs are the sum total of all loan assets that are classified as NPAs as per RBI Guidelines as on Balance Sheet date. Gross NPA reflects the quality of the loans made by banks. It consists of all the nonstandard assets like as sub-standard, doubtful, and loss asset. It can be calculated with the help of following ratio:

$$\text{Gross NPAs Ratio} = \text{Gross NPAs} / \text{Gross Advances}$$

Net NPA

Net NPAs are those type of NPAs in which the bank has deducted the provision regarding NPAs. Net NPA shows the actual burden of banks. Since in India, bank balance sheets contain a huge amount of NPAs and the process of recovery and write off of loans is very time consuming, the banks have to make certain provisions against the NPAs according to the central bank guidelines. It can be calculated by following:

$$\text{Net NPAs} = \text{Gross NPAs} - \text{Provisions} / \text{Gross Advances} - \text{Provisions}$$

3. LITERATURE REVIEW

Dr. Ganesan & R.Santhanakrishnan in their research paper „NON-PERFORMING ASSETS: A STUDY OF STATE BANK OF INDIA“ have made an attempt to examine the non-performing assets of State Bank of India over the past 10 years beginning from financial year 2002 to the financial year 2012. The researchers in this paper aimed to study the sources of deployment of funds for the chosen bank. They examined the gross and the net NPA of the bank and investigated the impact of NPA on the profitability of the bank. They've also suggested measures to improve NPA effectively in SBI. They have made use of both primary and secondary data in this research. SBI Annual reports and bulletins were made use of. The researchers have revealed the sources of working funds for SBI which include deposits, borrowings, reserves and surpluses & share capital. They've analysed the trends of each of the source over the past 10 years. They have shown the net and the gross NPA tables and it has been revealed that management of gross NPA is spectacular. The gross NPA slipped down from 9 in 2002-03 to 2.8 in 2008-09 and according to international standards the gross NPA must not exceed 2 to 3%. The paper's results and conclusion have been in favor of SBI as State Bank of India has very well managed to keep its non- performing assets under control. This may be a result of strict watch on various internal and external factors that could have hampered the overall growth of the bank

D.JAYAKKODI in her research paper titled- **A STUDY ON NON PERFORMING ASSETS OF SELECT PUBLIC AND PRIVATE SECTOR BANKS IN INDIA** aimed to examine and compare the Gross NPAs and Net NPAs of select Public and Private Sector Banks. This paper consists of four Public Sector Banks State Bank

of India, Punjab National Bank, Bank of Baroda, Bank of India and four Private Sector Banks- ICICI Bank, HDFC Bank, AXIS Bank, and federal Bank. The study is carried out on the basis of data for the period of 5 years from 2010-11 to 2014-15. Various statistical tools namely mean, standard deviation and coefficient of variance were used in the study. It was realized that Public Sector Banks have higher NPA ratio as compared to Private Sector Banks over the period of the study. Gross and Net NPAs ratio has shown an increasing trend in selected Public Sector Banks over the period of study. It was observed that the Gross NPA ratio has shown a declining trend in Private Sector Banks. It was observed that Net NPA ratio has shown an increasing trend in selected private sector banks over the period of study.

Priyanka Mohnani and Monal Deshmukh, in their paper titled as **A Study of Non-Performing Assets on Selected Public and Private Sector Banks** aimed to study the trends in NPA Level and to highlight the NPAs position of selected PSB's and Private Banks. They are also focused on assessing the comparative position of NPA in selected PSBs & Private banks and to assess the variation of NPA ratio in selected PSBs & Private banks. Selected PSBs are SBI & PNB, selected private banks are HDFC & ICICI bank. For their study, they focused on secondary data and it has been collected using annual report of Reserve Bank of India publication. In their study, measures of central tendency, frequency distribution, Standard Deviations, coefficient of variation and test have been used to analyze and interpret the data. Their study focused on examining the various aspects of NPAs in PSBs & Private banks of India (selected banks). Their study covers the period from 2002-03 to 2011-2012. To study NPA ratio variation data over the year 2011-2012 has been analyzed. To be concluding, Gross NPAs ratio of PNB is less and it has been reduced over the period in comparison to SBI. On the other side as far as Private Banks are concerned HDFC has better performance in comparison to ICICI. So, it is very necessary for bank to keep the level of NPA as low as possible. Because NPA is one kind of obstacle in the success of bank and affects the performance of banks negatively so, for that the management of NPA in bank is necessary.

4. RESEARCH METHODOLOGY

The present study is based on secondary data analysis. The data has been collected from various web sources like annual reports of respective banks, information bulletins and journals. And to compare various parameters, charts and tables have been made use of. Here, NPA is the independent variable and net profit is the dependent variable. So we see if due to any changes in the net NPA, the net profits change or not, if yes, whether positively or negatively. We have taken secondary data for the analysis of impact of NPA. we have chosen State bank of India and ICICI bank for the data analysis and taken the data from 2014-2017. A Descriptive Study" has been conducted to present the magnitude and impact of non-performing assets in India's banking sector. Excel has been used as a tool for statistical analysis.

5. DATA ANALYSIS

In the section of data Analysis, some parameters related to NPA are compared and then analyzed. Basically the total advances, net profits, gross NPA and net NPAs have been compared for State Bank Of India and ICICI Bank.

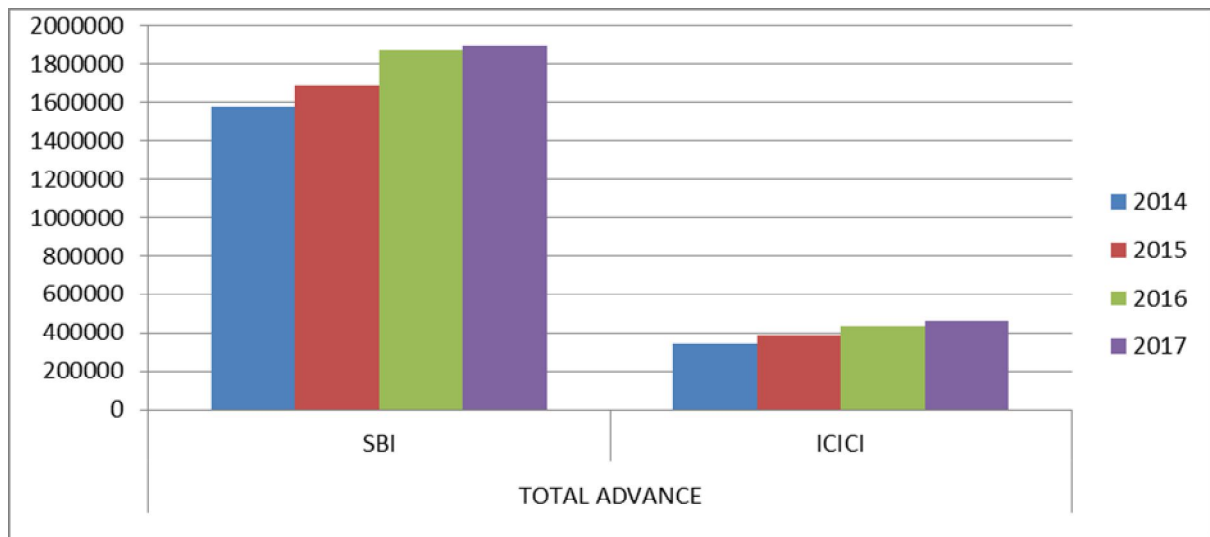
Table 1

YEARS	TOTAL ADVANCE		NET PROFIT		GROSS NPA		NET NPA	
	SBI	ICICI	SBI	ICICI	SBI	ICICI	SBI	ICICI
2014	1578277	338703	10891	9810	61605	10506	31095	3298
2015	1692211	387522	13102	11175	56725	15095	27591	6256
2016	1870261	435264	9951	9726	98173	25721	55807	13297
2017	1896887	464232	10484	9801	112343	13297	58277	25451

INTERPRETATION OF THE TABLE

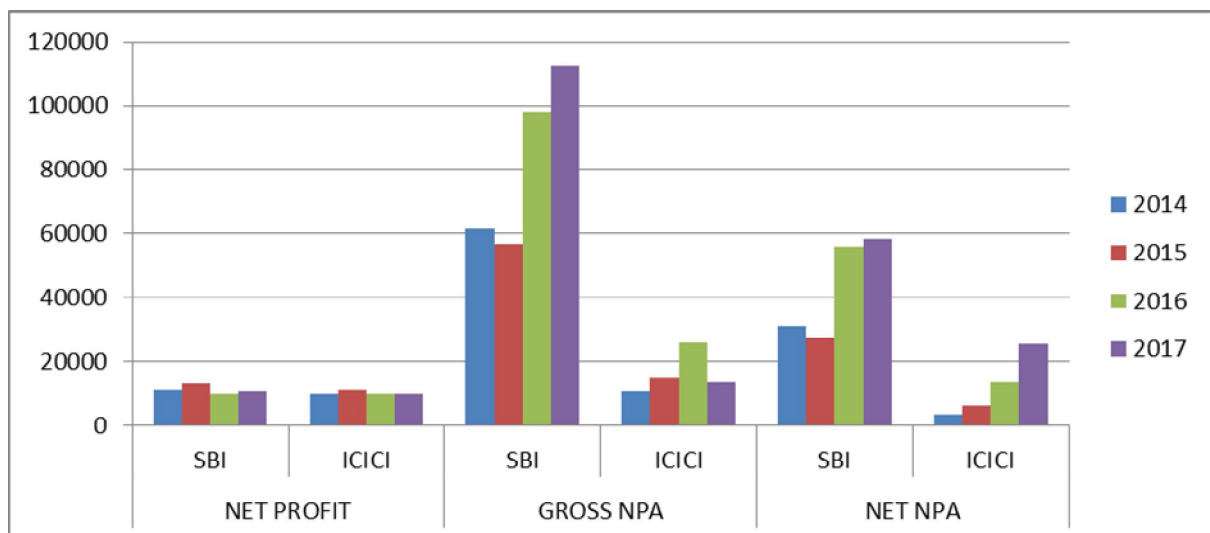
Table 1 is comparing the Total advances, NET Profit, Gross NPA & Net NPA of State Bank Of India and ICICI Bank. Here in this table we have all the data required of both the banks for comparison. By comparing this table we can get the scenario about the upgrading performance of both the banks. The first half of the table shows that the Total Advances and Net Profit of both the banks are increasing continuously since 2014 and which shows that the performance of both the banks is very good. But the second half of the table shows that Gross NPA and Net NPA of both the banks are increasing continuously and which shows that the performance of both the banks is decreasing since 2014 due to the mismanagement of the banks. But, if we observe thoroughly and compare all the parameters for both the banks with each other then we can easily see that ICICI bank is performing much better as compared to SBI as in 2017 net NPA for SBI is 58,277 and for ICICI bank is 25,451. Similarly, Gross NPA for SBI is 112,343 in 2017 and at the same time for ICICI Bank is 13,297.

Graph 1



Graph 1 shows the total advances given by the SBI and ICICI banks for the given years from 2014 to 2017.

Graph 2



Graph 2 shows the Net Profit, Gross Profit and Net NPA of SBI and ICICI banks for the years 2014-2017.

6. IMPACT OF NPA'S

The three letters "NPA" strike fear in the banking sector and business circle today. NPA is the short type of "Non-Performing Asset." The feared NPA administrator says this: when interest or other because of a bank stays unpaid for over 90 days, the whole bank advance naturally turns a non-performing asset. The recuperation of credit has dependably been a problem for banks and financial organization.

In the globalization period, banking and financial sectors get the high need. Indian banking sector is having a major problem due to non-performing assets. The gaining limit and productivity of the bank are highly influenced. While the essential capacity of banks is to loan funds as loans to different sectors, for example, farming, exchange, personal loans, lodging loans and so on, as of late the banks have turned out to be exceptionally cautious in expanding loans in view of the primary reason of expanding non-performing assets (NPAs). NPA is cleared as progress for which interest or reimbursement of essential or both stays remarkable for over 90 days. The level of NPA goes about as a pointer seeing the banker's credit risks and capability of the designation of the resource.

7. CAUSES OF NPA

- One of the most important reason behind the continuity in rising of NPA is the easy and relaxed lending norms of the banks especially for the multi-national corporation when their financial status and credit rating is not analyzed in a proper manner.

- Public Sector banks provide more than 80% of the credit to new forming industries and this is one of the biggest reason behind the rising of NPA.
- Public sector banks lending and extending loans to the agriculture sector which is making a substantial contribution in the rising NPAs of the banking industry.
- Inappropriate project handling, ineffective management, lack of adequate resources, day to day changing govt are the reasons which are causing in a large amount to the banks as Policies produce industrial sickness. Hence, the banks finance those industries that ultimately give them a low recovery of their loans reducing their profit and liquidity.

8. FINDINGS

The following findings were drawn from the above data analysis:

- The total advances are increasing continuously for both SBI and ICICI BANK.
- Net profits for SBI have been fluctuating every year whereas in case of ICICI bank it has largely been consistent to around 9000crore.
- In the case of % Gross NPA, performance of both public sector and private sector banks is approximately same.
- In case of % Net NPA, the performance of public sector bank-SBI is observed to be improving over the years and hence creating a less number of less non- performing assets as compared to ICICI bank. Percentage net NPA for ICICI Bank is observed to be continuously rising.
- The coefficient of correlation for SBI was found to be -0.78 that is high negative correlation between net profit and net NPA of the bank. This means that as NPA is increasing, the net profit will decrease.
- Similarly, coefficient of correlation for ICICI bank was -0.39 that is moderate negative correlation between net profit and net NPA.

9. SUGGESTIONS

- The banker should take utmost care by ensuring that the enterprise or business for which a loan is sought is a sound one and the borrower is capable of carrying it out successfully, he should be a person of high integrity, credibility and good character.
- The banks, instead of providing loans to small farmers, should make provisions to grant them insurance policies for crop protection and income security.
- Banker should examine the balance sheet which shows the true picture of business will be revealed on analysis of profit/loss a/c and balance sheet. While extending loans, banks should examine the purpose of the loan. Banks must grant loan for productive purpose only.

10. CONCLUSION

State Bank of India is the primary mainstay of the Indian Banking system, are stuck in an unfortunate situation with over the top labor, inordinate NPAs and exorbitant legislative equity, while then again the private sector banks are combining themselves through selection of most recent technology and systems. SBI, which at present account for more percentage of total banking industry assets are saddled with NPAs, falling incomes from conventional sources, absence of current technology and a monstrous workforce while the new private sector banks are progressing and modifying the customary banking plan of action by method for their sheer development and administration and reception of current technology. Private sector Banks have spearheaded internet banking, telephone banking, anyplace banking, and portable banking, platinum cards, Automatic Teller Machines (ATMs) and joined different services and integrated them into the standard banking zone. While New Private Sector Banks and Foreign Banks began with fresh start and most recent advancements, the Public Sector Banks and Old Private Sector Banks needed to defeat the old systems and worker protection and present the new systems and procedures and standards.

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ROLE OF CAPITAL BUDGETING DECISIONS IN PUBLIC SECTOR UNDERTAKINGS: A STUDY OF INDIAN RAILWAYS

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ABSTRACT

In Public Sector, Indian Railways is one of the world's largest organizations. My paper undertakes a analytical examination of railway procurement process to understand the process and institutional mechanisms which have derive over time for safeguarding institutional interests. The inspect issues such as institutional framework, acquisition institution, authority selection methodology, acquisition oversight, regulation and their result on the economy, ability, transparency and accountability aspects of acquisition. It is construct that a different combination of insight vigil, oversight oversight by independent group and organizational features contribute to robust acquisition processes.

In the light of the past revelations of discrepancies in acquisition in Indian Railways, this quick talk the acquisition patterns in the sector and reflects on the today's government reformative initiatives for the tendering processes in order to ensure departmental transparency and answerability. The existance of structural discrepancies in the sector mars the process of its acquisition through prevailing confining and autocratic practices. scrutinize cartels and other opposed acquisition practices in the sector, the little concludes with the proposal that an incremental and evolutionary explanation will not suffice to address centralization, non- transparency, inordinate delay and non-countable in business and other decision-making that the Indian Railways has reached. Rather, there is a requirement to shake the system out of its cultural position and to enthuse a new quintessence to reorient it to the path of sound and fast effective business like decision-making.

Keywords: Indian Railways, public sector organizations, network, traffic, public sector.

INTRODUCTION

In Public Sector, Indian Railways is one of the world's largest organizations. The Railway functions as a vertically integrated organization providing Passenger and Freight services. It is a single system which consists of 66,030 route km of track that criss-cross the country, on which more than 22,300 number of trains ply, carrying about 23 million passengers and hauling nearly 3.02 million tonnes of freight every day, thereby contributing to the economic growth of the country and at the same time promoting national integration. As compared to road transport, the railway has a number of intrinsic advantages as it is five to six times more energy efficient, four times more efficient in land use and significantly superior from the standpoint of environment impact and safety. Indian Railways, therefore, rightly occupies pride of place in the growth and development of the nation. The railway service is rendered through a nationwide rail infrastructure covering track, stations, sidings, freight terminals, locomotives, coaches and wagons and a myriad of infrastructure inputs like signaling, telecom, electrical installations, maintenance workshops etc. The output and outcomes achieved by the Railways in terms of Passengers and Freight carried results from the interwoven activities of the various infrastructure inputs comprising the Railway Infrastructure. While a direct one to one correlation in terms of inputs and outcomes of each activity is not easy to render in a transport sector like the Railways, the Performance cum Outcome Budget attempts to give a better insight in to the multifarious activities of the railways that, when combined, generate the outcome of transportation services.

REVIEW OF LITERATURE

The Indian Railway system, the second largest system in the world under a single management, and the fourth largest rail network with track length of over 64,600 kilometers is a public sector undertaking under the Ministry of Railways. 1 With a workforce of 1.4 million, it is the seventh largest employer in the world. Indian Railways is the lifeline of the country as it transports 25 million passengers and more than 2.8 million tonnes of bulk freight daily. 2 Railways commenced in India on 16th April 1853 when first train owned by Great Indian Peninsular Railway Company moved from Mumbai to Thana covering a distance of 22 miles. Rail traffic in Eastern India between Howrah to Hoogly was opened to public on 15th August 1854. In South India, the first railway line was opened on 1st July 1856 between Vyasarpadi and Wallajah Road, Arcot a distance of 63 miles. In the North, 119 miles of railway line was laid from Allahabad to Kanpur on 3rd March 1859. By 1880 Railways in India had a route mileage of about 9000 miles and were run by separate railway companies. The Railway Board was constituted in 1905 with the decision making power retained with the Viceroy of India. The Acworth Committee appointed in 1920 recommended nationalization of railway companies in India. In 1925

two big railway companies, The East India Railway Company and Great Indian Peninsular Railways were taken over by the state. The nationalization of entire railway system was completed in 1944. Electric Traction was first introduced in Railways in India in 1925. Air-conditioned coaches were introduced in 1936. By 1947 there were 42 rail systems in India with the total route length of railways as 543,760 kilometers. The Indian State Railways were added to Indian Railways in 1950.

After independence government regrouped the railways on zonal basis in order to secure economy, efficiency and uniformity in financial administration and control. The zones were further subdivided into divisions. At present there are 17 zones and 68 divisions. The Southern zone of Indian Railways was formed on 14th April 1951 with the merger of three state Railways - Madras and South Mahratta Railway, the South Indian Railway and the Mysore State Railway.

TRANSPORTATION

India has not given due importance to the development of transport infrastructure even after six decades of independence. Sreedharan E. (2010), stresses that if India need to have a place among developed nations, it is high time India gives adequate attention to its transport systems.

GoyalAshima (2008) examines the weaknesses in India's public transport systems. It is suggested that the solutions are possible not just with ownership changes, industry structure and competition, but with individual motivation, changes in management structure and institutional design.

Public transport is said to consume less space per passenger and leads to lower congestion. Misra Siddhartha (2006) recommends that both incentive and disincentive for private transport are needed to promote their use and sustainability of public transport in India. Incentives include better quality and more comfortable public transport with higher frequency of trips, low waiting time and a unified transport system. Disincentives for private transport must include higher working and toll charges.

India is on the threshold of entering into the group of developed countries. Its power in science, engineering and technology has been recognized the world over. In transport infrastructure the nation is far behind even after 65 years of independence. Murthy V.A. (2005, 2004), finds that transportation in urban areas is in a very poor condition without tackling high budget new projects are being implemented. The paper states that in order to resolve the existing transportation problems and to implement new transportation projects in the urban transport in the urban areas in a cost effective way, India has to rely on innovative and indigenous equipments and methods.

In view of the limitation of capacity expansion as a structural solution and the complexities of travel demand as a strategic solution, Intelligent transport systems can assure optimal use of existing transportation infrastructure in general and road capacity in particular. In the light of increasing congestion in urban areas, Intelligent Transport Systems (ITS) represents a set of tools which, can enable local governments achieve integrated transport solutions as well as to ensure better use of existing transport infrastructure. Gupta Sanjay (2005, 2004), provides an insight into the potential application areas of ITS, reviews global practices and suggests possible priority areas for Indian situation.

The main objective of demand management policy is alleviation of traffic congestion thus improving traffic flow efficiency. Other common objectives include limiting adverse environmental impacts, reducing traffic accidents and risks, providing services for the urban poor as well facilitating economic activities of the city. According to Sharma Rajiv (2005, 2004), the role of demand management should however cover not just the negative approach of restraining transport demand but also encompass a positive and realistic managerial role of accommodating increases in transport demand through favorable changes in road user behaviour and modal split balance.

Sustainable transports can be defined as supportive system which will bear the traffic volume for long time both quantitatively and qualitatively and is a key factor for socio economic development. Qualitative and quantitative sustainabilities are interdependent and interactive due to common traffic attributes. Deshpande V.K. and DalviAshwini (2004), present an integrated approach for developing the sustainable transport which includes solutions like improved travel choices, incentives for public transport usages, non pollutant fuel usages and technological innovations.

The problem of environmental degradation caused by growing vehicular traffic has been gaining both national and international attention. Pundir B.P. (2004) strikes a note of caution against adhoc and whimsical steps for controlling emission related problems. He calls for a studied and sustainable approach which can be

implemented effectively and monitored easily. He emphasizes the need to strengthen the handling and distribution facilities for alternative and non polluting fuels.

Feeder public transport system to High Capacity Transit System plays an important role in ensuring an integrated multi modal public transport operation. With the implementation of Mass Rapid Transit System (MRTS) in a metropolitan city, the existing road based public transport

PURCHASE OF TRANSPORT SERVICES

No policy or system of explicit payments exists for loss-making passenger Public Service Obligations (PSOs) in IR, but substantial internal cross-subsidy takes place for train operations within the passenger sector, as it does between individual ZRs. Also, most of the aggregate burden of infrastructure costs falls on freight customers. Therefore, the MOR (IRB) has accepted internal cross-subsidy of passenger services and an implicit tax on freight, rather than direct subsidy, to fund passenger service obligations. railway revenues covered railway operating costs and contributed about a third of capital investment. However, as of late, IR is facing difficulties balancing the budget. Passenger losses are placing an increasingly high burden on freight. Freight services in turn must compensate with high tariffs, reducing its competitiveness.

RAILWAY TRANSPORT MARKETS

IR is the world's second largest passenger railway and fourth largest freight railway after the U.S.A., China, and Russia. India's large and rapidly expanding population provided steady but relatively slow growth in railway passenger traffic during the last decades of the twentieth century as other modes gained market share. During the last decade, accelerated economic development increased purchasing power and, in combination with politically imposed low fares, boosted railway passenger traffic growth by nearly 100 percent. India has a mix of passenger services. Over the last 30 years, as cities have expanded, suburban passenger journey length has increased from an average of about 20 kms/trip to 34 kms/trip, and average journey lengths for inter-city services increased from about 87 kms/trip to 268 kms/trip. In terms of modal share, IR is estimated to carry about 15 percent of non-urban passenger traffic. Historically, IR's passenger transport services could be categorized as poor to middling quality, suffering from long ticketing queues, slow travel times, and limited journey comfort and amenities. However, a series of investments in faster lines and customer-services initiatives have resulted in continual improvement and customer satisfaction. Followed by grain, 10.1 percent, cement, 8.9 percent, and iron ore, 5.5 percent. Rapidly growing container traffic now constitutes 13 percent of traffic task. The average freight haulage length is 620 kms, and IR carries an estimated one-third of national inland freight task. Despite what appears as significant absolute growth in passenger volumes and a freight market that is on the surface conducive of rail transport, IR's market share since the 1950s has been severely eroded by a shift to road transport. While rail market shares of the 1950s are unlikely to be achieved, considerable potential exists to increase Indian Railways market share of freight. One of the major challenges for the freight rail market has been insufficient capacity for freight trains. Nearly two-thirds of the IR network is allocated to passenger trains, and freight trains are dispatched with no timetable and with the lowest operational priority. In addition, the fact is that investment in expansion of the rail network has not kept up with the immense growth of the Indian economy. The issue of insufficient capacity, combined with IR being slow in improving its service offerings, led to stagnated growth in both passenger and freight traffic.

GROWTH FOR INDIAN RAILWAYS

Revenue growth has been strong over the years; during FY07–17, revenues increased at a CAGR of 9.8 per cent to US\$ 25.62 billion in FY17. During April-December 2017, gross revenue of Indian Railways stood at US\$ 19.17 billion.

Revenues from the sector are estimated to reach to US\$ 44.5 billion by the end of FY20

Revenues would expand at a CAGR of 12.12 per cent during FY07– 20E

Indian Railway sector aims to boost passenger amenities.

In March 2017, Railways started a new segment of revenue generation channel through auctioning for advertising and branding contracts on 1000 trains. The front running brands are to sign this contract for 5 years.

CONCLUSION

India has one of the largest and busiest railways in the world, but also, IR is arguably the most traditional and monolithic in its basic structure. In fact, it closely resembles the archetypal railway described in this toolkit— prior to considering the alternatives. Traffic growth has underpinned management initiatives to attain steady and significant improvements in staff productivity and equipment utilization. Nevertheless, IR was historically not notably innovative in using modern rail technology, nor in transforming to more commercial management

structures, nor focused on service quality or market-responsiveness. Instead, when seeking commercial focus, it has tended to create semi-autonomous enterprises that bypass its own structures.

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ROLE OF ARTIFICIAL INTELLIGENCE IN SOLVING PUZZLES

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ABSTRACT

Artificial intelligence is the study of mental faculties through the use of computational models. Artificial intelligence is the branch of Computer Science which deals with computer with some form of intelligence so that computer can take decision and can come to certain conclusion on the problem around us. As the computer can not take decision, cannot think and learn from previous experiences, so scientist has a lot of work to do in this field. Scientist works on various problems areas and tried to find out the solution for various searching and matting patterns problems. They have designed various algorithms for this purpose Constraint Satisfaction is one among these methods.

HISTORY

Artificial intelligence work begins to mature in 1950's. Firstly in 1920 scientist worked to formalize methods for reasoning. At that time form of logic was known as predicate calculus and propositional logic. It transforms the ideas and fact from language like English to Mechanical language. In the period of 1940- 1950 cybernetics came into existence. It brought many parallel between human and machine. It gave stress on the study of communication between human and machine. After 1950 the period was known as chess playing period. Slowly the work on Artificial Intelligence was on progress and different methods for searching and matching the patterns came into existence like depth search method, breadth first search and constraint satisfaction method.

CONSTRAINT SATISFACTION

In this method objective is to find out the problem state which satisfy the given constraint. This method is used to solve the Crossword puzzles and Cryptarithmic puzzle for the decision makers who have to take decision under fixed resources.

CONSTRAINT SATISFACTION IS A TWO STEP PROCESS

- First constraints have to be found out and search should be propagated in a direction to get the solutions.
- If we are unable to find out solution then guess work should be done to assume the values for the constraint and that should be added as a new constraint.

Example we are provided with a word problem.

$$\begin{array}{rcccccc}
 & C & R & O & S & S \\
 + & R & O & A & D & S \\
 \hline
 D & A & N & G & E & R
 \end{array}$$

In the above problem we have to find out the values for each alphabet in such a way that the relation given must be satisfied. Conditions given are

- The value of each alphabets is between 0-9
- Each alphabet should have a different value.

SOLUTION

As the some of two numbers if greater than 9 then it will carry 1 to next so the problem will be reclassified as

$$\begin{array}{rcccccc}
 C5 & C4 & C3 & C2 & C1 & \\
 & C & R & O & S & S \\
 & R & O & A & D & S \\
 \hline
 D & A & N & G & E & R
 \end{array}$$

Here C5, C4, C3, C2, C1 are carry over.

Constraint Satisfaction constitutes of two phase:

a. Constraint Propagation

b. Making Guess

i. As $D = C5$, the value for D must be 1 as D is equal to C5 and value of carry is 0 or 1. But D cannot be 0 because it is an end carry.

ii. $C+R+C4=10+A$ Because $D=1$

iii. $R+O+C3=N$ If $C4=0$

OR

$R+O+C3=10+N$ IF $C4=1$

iv. $O+A+C2=G$ IF $C3=0$

OR

$O+A+C2=10+G$ IF $C3=1$

v. $S+D+C1=E$ IF $C2=0$

OR

$S+D+C1=10+E$ IF $C2=1$

vi. $S+S=R$ IF $C1=0$

OR

$S+S=10+R$ IF $C1=1$

Till this all propagation ends and from this stage guess work starts. For guess we have to choose the variable which is used more frequently. In this case S and R used more frequently. But by knowing the value of S we can get the value of R.

vii. Suppose the value is 2 then in that case $R=4$

From (v) $S+D=E$ as $C1=0$ so $E=4$ which is not possible so our guess has to be rechecked. Now take $S=3$

viii. If $S=3$ then $R=6$ and in this case $E=4$

ix. From (vi) $O+A=G$ or $10+G$

(viii) From (iii) $R+O+C3=N$ or $10+N$ so $R=6$ it become $6+O+C3=N$

(ix) From (ii) $R+C+C4=10+A$ so $6+C+C4=10+A$ as $C4$ can be 0,1

So $C \geq 10 - (6 \text{ or } 7)$ therefore $C \geq 3$ or 4

Now no more propagation is possible. So we can guess again. A and O are occurring 2 times each. So we can guess any of two.

x. Suppose $A=5$

xi. From (x) $6+C+C4=15$ $C4=0$ or 1

so C is 8 or 9 (Depending upon $C4$)

xii. From (ix) $O+5=G$ or $10+G$

Now O cannot 0, 1, 8, 9 because it will be result in any of these values for G (5, 6, 3, 4) these value we already have for (A, R, S, E) so we can give constraint.

$2 \leq O \leq 7$ excluding 6 therefore $O=6$ and $G=1$ but as a value for D is 1 so $O \neq 6$. Again we have to guess some value for O.

xiii. Let $O=3$

xiv. From (ix) $3+5=G \Rightarrow G=8$ and $C3=0$

xv. $C=9$ because $G=8$

xvi. From (iii) $R+O+C3=N \Rightarrow 3+6+0=N$ therefore $N=9$ which is not possible.

xvii. Again guess work start. Let $O=2$

Then $O+A=G$ so $G=7$

$C3=0$ so $O+A=G+10$ (Not possible)

And $R+O+C3=N \Rightarrow 6+2+0=N$ (As $C3=0$) $N=8$ and $C4=0$

As $C=8$ or 9 but as $N=8$ so C become 9

Thus solution is

$S=3, R=6, D=1, E=4, A=5, O=2, C=9, G=7, N=8$

We can check its correctness

9	6	2	3	3		
6	2	5	1	3		

1	5	8	7	4	6	and

Value for $D=1, A=5, N=8, G=7, E=4, R=6$ VERIFIED

David Waltz developed Vertex Constraint propagation on the same pattern to solve the vertex diagram problems. Constraint Satisfaction is a better approach to solve famous Eight Queen puzzle. In this problem Eight Queens' has to be replaced on chess board such that no two queens will be placed in the same row or in the same column or neither have they intersected diagonally. It will remain a better approach then depth-first search and breadth-first search. It can be a best method for managers to solve their day to day problems.

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A STUDY OF SOCIAL ENTREPRENEURSHIP IN INDIA

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ABSTRACT

Social enterprise has become the trendy expression in India and around the globe. Individuals have discovered this idea of altruism somewhat fascinating in nature. It has the best blend of social assistance and business enterprise; this mix makes it generally alluring thus novel in nature. Normally business enterprise is identified with financial exercises and being heartlessly benefit making and disregarding social advantages or cultural prosperity. In the present period of substantial industrialization and financial development, cultural additions have reclaimed situate or level out of the sight all around the globe, including India, with the idea of social business enterprise ascending in India and around the globe has helped in serving the general public in more significant way than any other time in recent memory alongside living the soul of enterprise with its fullest. Social business enterprise isn't a more current idea however the situating of the idea has ascended higher than ever lately. As administration of India has made CSR a more reasonable obligation than a minor convention, corporates are currently searching for their grater jobs in helping the general public in a way that is both monetarily and socially gainful. As the meaning of social business itself explains that its fine mix of enterprise and cultural increases. As of late, the idea has taken new personalities and shapes, and has been acknowledged among more extensive territories. A portion of the noticeable associations in India has acknowledged this type of working together and molded the general public in an exceptionally positive way. This is the goal of social business enterprise that business visionaries are currently progressively answerable for society and its prosperity than procuring benefits as it were. This idea additionally addresses social need and social advancements in its totality, in the assessment of specialists; social business enterprise is only distinguishing proof of social need and tending to that need with a novel social development. This is the place the social and financial enterprise separate with one another, monetary business enterprise centers around monetary need, on different hands, social business centers around social needs. This paper is a nitty gritty examination on assortment of themes identified with social business, including the theoretical system and procedure of social enterprise. This examination paper likewise incorporates the different difficulties looked by social business people and puts advances its suggestions to improve the general circumstance of social enterprise/business visionaries in India. Research paper further talks about likeness and complexity among social and monetary business enterprise alongside clarifying the attributes for a social business person. The paper additionally clarifies the ideas like social needs and social advancements from business enterprise's perspective. Social business has expanded its extension and significance as of late, this paper incorporates the two regions too. Finally, how social business enterprise can change or effect on the social arrangement and social fiber in India and other created countries explicitly at the base of the pyramid level is likewise underlined now

Keywords: *Social entrepreneurship, Social Innovation, Social needs, social entrepreneurs, economic entrepreneurs, Bottom of the pyramid.*

1. INTRODUCTION

Business enterprise is the center power of financial development; the monetary advancement which one encounters is simply due the common power of enterprise. The shared trait between all the created countries all around the globe is the nearness of business. Monetary advancement is completely founded on the development of business enterprise and more the enterprise is developed, framework just as all the pointers of improvement has likewise developed. In extremely limited ability to focus time, legislature of different expresses all around the globe, have comprehended and underlined the significance of business enterprise. Accordingly governments have begun dealing with the fundamental foundation/framework required for the efficient advancement of business in their particular nations. India additionally comprehended the significance of business and worked a ton in the general advancement of enterprise. The exceptionally essential component of in general advancement including social, can be added to business enterprise's point by point improvement. For comprehension, enterprise was first utilized for business/monetary setting in eighteenth century by a French financial specialist Richard Contillon, who related enterprise with business dangers and vulnerability bearing. The enterprise has numerous different kinds also; it is separated on various characteristics and criteria, one of the criteria being Social. This kind of enterprise is one of a kind in nature and has various mixes of parts. The prime goal of social business enterprise stands not the same as the typical destinations of business enterprise; here social advantages are clubbed with monetary advantages. The vast majority of the occasions, social business is utilized in synonymous with social assistance/work. The likenesses are there, yet the greatest contrast is presence of

benefits. In social work, NGOs or social laborers just spotlight on work which is being accomplished for poor people or denied area; it isn't for benefits, however for administration. Despite what might be expected, social business remembers benefits for social assistance together and puts non individual advantages in center. The Indian diasporas really required something like this where the general public gets limit of advantages from enterprising characteristics. Social business is an exceptionally valuable marvel as it tends to the base of the pyramid of market by offering items and administrations, which are both imaginative and modest. Making the products accessible to denied area of the market and winning benefits from them. The purchasers of social undertakings are extremely low salary individuals, who have least pay yet greatest requests, social business visionaries gadget such an item or administrations which can address both the

criteria of this market segment which is generally referred to as bottom of the pyramid market. In a nutshell, social entrepreneurship fills the gap which is left unattended by economic entrepreneurship. It makes its profits against social work/services by selling a unique and innovative product/service to neglected section of customers, helping them grow and develop the standards of living, while social entrepreneurs make money out of it. One can put it like this as well; social entrepreneurship is just another type of entrepreneurship with certain characteristics, including making profits, selling, and innovation. But difference is, it is not totally depended or stresses upon the profit making, rather it focuses on social changes and social gains over personal gains. Societies who are experiencing social inequalities can benefit a lot from socialist form of entrepreneurship. The entire mechanism of social entrepreneurship remains same as economic entrepreneurship, except few distinctions, which set apart this from conventional economic entrepreneurship. India has been in need of social entrepreneurship for a very long time and could be benefited more. Some social enterprises which are established in India are changing the very face of society by balancing the social imbalance. Government of India also encourages such initiatives by motivating them and awarding them time to time along with some private institutions doing the same. There are some examples of social entrepreneurship which clears that touches the very basic of the society. The most prominent example include micro financing, educational institutions, medical institutions etc. The prime objective of social entrepreneurship is to bring changes in the society rather than earning money for themselves. But they are still financially clubbing their activities.

2. OBJECTIVE OF THE STUDY

The present study is based on specific objectives, which it justifies also. The objectives have been selected to keep the importance and rationality of the research title in mind. Following are the objectives which this research study intends to achieve-

1. To examine social business with its fundamental system .
2. To underline the job and duties of social business visionaries in Indian society.
3. To study the overall contribution of social business enterprise and social endeavors in India. To list out the challenges faced by social entrepreneurship in India.
4. To run down out the difficulties looked by social business enterprise in India.
5. To offer proposals to confront winning difficulties for social business enterprise in India.

The examination will cover all the goals with legitimate clarification, it is essential to take note of that, however this exploration paper has said destinations, yet it appropriately covers the general feeling of social business enterprise in India.

HYPOTHESIS TO BE USED IN STUDY

The present study is based on the following hypothesis

H1 Social Entrepreneurship contributes in the upliftment of society in India.

H0 Social Entrepreneurship does not contribute in the upliftment of society in India.

H1 Social Entrepreneurship faces challenges in India.

H0 Social Entrepreneurship does not face any challenges in India.

3. RESEARCH METHODOLOGY

The research methodology which is applied during the explore study is graphic in nature. The information assortment of information is done on optional premise and the exploration is carefully done to meet the targets set already for the present research. The information and data which is outfitted in the investigation is taken from the different optional sources. Different reports and studies, books on social business enterprise have been referred in the present research. The goal of the examination is to locate the exceptionally essential thought in

regards to social enterprise; the information assortment and research strategy have been chosen to remember the essential destinations. The sources from where the information has been gathered for the present examination is recorded underneath

1. Reports of different mechanical organizations like CII, ASSOCHAM, FICCI and so on has been properly alluded for the investigation.
2. Published reports from government bodies like service of business and ventures
3. Research papers on related themes have been taken for the sources of info
4. Web assets identified with the theme have been utilized for the data
5. Websites and distributed material of social endeavors working all over India and all around.
6. All the other distributed material on social enterprise or business enterprise has been alluded during the exploration.

5. LITERATURE REVIEW-

The writing audit contains the work previously done on the region of research close by. Writing survey is additionally required for understanding the idea of the examination theme in subtleties so that as indicated by that, specialist can shape his methodology for the exploration point. The writing audit for the present examination is as per the following-

1. Daru , Mahesh and Gour, Ashok in their research paper title“Social entrepreneurship-Away to bring social change” (2013) write that “In the developing world, the Millennium Development Goals (MDG) might provide a valid operationalization of social needs. The MD Greferto the most pressing social problems to be addressed in the immediate future. They include goals such as eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and empowering women, reducing child mortality, improving maternal health, and combating HIV/AIDS, malaria and other diseases (<http://www.developmentgoals.org>). In the developed world, opportunities for social entrepreneurs might arise, for example, from gaps in the social welfare system. More empirical studies are needed to map the opportunity space for social entrepreneurs and to examine whether and how the nature of social opportunities affects the entrepreneurial process. Research on social entrepreneurship has grown rapidly in recent years. Given its importance for society and today’s economy, the subject has received considerable attention in different streams of research”
2. Earnest and Young in their report title “Social entrepreneurship-Emerging business opportunities”(2014) state that “Creating value for society in many countries the role of the government in the socio-economic domain is shifting towards privatization of public responsibilities. As a result, charities receive less public funds and social entrepreneurship is gaining momentum worldwide. Research in the fields of activity of social enterprises in Europe shows that social entrepreneurs focus on social services, employment & training, the environment (including cleantech and bio-systems), education and community development.1 hence, the increasing number of social enterprises may result in widespread gains for public budgets. The attractiveness of social enterprises as employers is increasing as well. The number of FTEs working in Dutch social enterprises increased by 12% between 2012 and 2014.2 Young professionals in particular, value the reputation of social enterprises above traditional companies that strive for profit maximization only”
3. A report title “Young Social Entrepreneurs in Canada” prepared by Canadian Centre for Social Entrepreneurship (2003) state that “Social entrepreneurship is characterized by an emphasis on ‘social innovation through entrepreneurial solutions.’ Socially entrepreneurial activities blur the traditional boundaries between the public, private and non-profit sectors, and emphasize hybrid models of for-profit and non-profit activities. Cross-sectoral collaborations are implicit within this model, as is the development of radical new approaches to address long-standing and complex social/economic problems. In the last decade, both the concept and practice of social entrepreneurship have been embraced in the U.S. and Britain. Subsequently, significant organizational and institutional resources have materialized in both these countries to encourage and support nascent social entrepreneurs and their activities.”
4. Singh, Partap, Dr. in his research paper title “Social Entrepreneurship- A growing trend in Indian economy”(2012) underline that “Social entrepreneurship is the recognition of a social problem and the uses of entrepreneurial principles to organize, create and manage a social venture to achieve a desired social change.

While a business entrepreneur typically measures performance in profit and return, a social entrepreneur also measures positive returns to society. Thus, the main aim of social entrepreneurship is to further broaden social, cultural, and environmental goals. Social entrepreneurs are commonly associated with the voluntary and not-for-profit sectors, but this need not preclude making a profit. Social entrepreneurship practiced with a world view or international context is called international social entrepreneurship. A well-known modern social entrepreneur is Muhammad Yunus, founder and manager of Grameen Bank and its growing family of social venture businesses, who was awarded a Nobel Peace Prize in 2006."

5. Report by Swissnex India titled "Social Entrepreneurship in India Unveiling the unlimited opportunities" (2015) underlines that "Social entrepreneurship in terms of operation and leadership could be applicable to nonprofit organizations as much as for-profit social enterprises although in terms of activities and legal entity they are very different." Models for social entrepreneurship in India are Social for-profit enterprise, non-profit and hybrid model, which are discussed in detail in the following sections. In addition to the above-mentioned models, other ways of creating impact in India are through philanthropy and through Corporate Social Responsibility. India has been regularly receiving global philanthropic money. Recently there has been a rise in local contributions from wealthy individuals with short and long-term vision. A new breed of high-net-worth individuals from the corporate sector is looking at investing philanthropic money in the form of grants and impact investments. Currently strategic philanthropy in India is still at a nascent stage."

6. MEANING AND DEFINITION OF SOCIAL ENTREPRENEURSHIP-

Social entrepreneurship is one of the important tributaries of entrepreneurship, it is more than just philanthropy and has deeper and immense impact on social changes/upliftment in developing nations. Government has started encouraging social entrepreneurship to great extent so that the social inequalities can be handled and an ideal society can be achieved as well. Social entrepreneurship is meant by special sort of initiatives, which is both social work and economic in nature. Wikipedia defines social entrepreneurship as "Social entrepreneurship is the work of a social entrepreneur. A social entrepreneur is someone who recognizes a social problem and uses entrepreneurial principles to organize, create, and manage a venture to make social change. Whereas a business entrepreneur typically measures performance in profit and return, a social entrepreneur assesses success in terms of the impact she/he has on society." This definition of social entrepreneurship clearly puts forward the basic components of social entrepreneurship; they are-

1. It is undertaken by special group of people referred as social entrepreneurs.
2. It is situation where social problem is identified and solved using entrepreneurial principles.
3. The main purpose stands at bringing social changes, rather than making individual profits.
4. Social entrepreneurship is successful in terms of not the big profits, but the unquantifiable social impacts.
5. The venture established by social entrepreneurs is called as social enterprise and prime focus is on social innovations for prevailing social problems.

"Social entrepreneurship is the process of recognizing and resourcefully pursuing opportunities to create social value for society. Social entrepreneurs are innovative, motivated for resolving social issues, resourceful, and results oriented. They prepare a mind-set after best thinking in both the business and non-profit worlds to develop strategies that maximize their social impact by addressing social inequalities and social problems. These entrepreneurs exist in all kinds of organizations: large and small; new and old; religious and secular; non-profit, for-profit, and hybrid. Such organizations comprise the 'social sector'"

7. WHO IS A SOCIAL ENTREPRENEUR?

Social business visionaries are those business visionaries who essentially attempt social enterprise. They have all the qualities of monetary business person, with the exception of the persuasive power they have which is gotten from social imbalances and social deficiencies. Social business visionaries are the individuals who embrace any social issue or inadequacy and convert that into an answer cum item. They focus on non-individual benefits as opposed to a benefit, the essential destinations of their reality is to serve the general public instead of acquiring benefits. They likewise enhance; their advancement is alluded as "Social Innovation"

'Social business people are not substance to simply give a fish or instruct how to angle. They won't rest until they have reformed the angling business.'

Bill Drayton, CEO, Chair and founder of Ashoka.

In simple terms “Social entrepreneurs Identify and relentlessly pursue opportunities to create sustainable solutions to social problems continuously innovate, adapt, and learn boldly, not constrained by resources currently in hand, and hold them accountable for-

- Achieving their predetermined social impact; along with
- Using resources at their optimum levels, the important thing to note down is that all characteristics' are similar to economic Entrepreneur.

8. CONTRIBUTION OF SOCIAL ENTREPRENEURSHIP / ENTREPRENEURS IN INDIA-

The social business enterprise is generally appropriate in countries which have formative issues. India being a creating country has its own social difficulties and social formative issues. Social business can resolve all the social disparities which are winning in India. As of late, a few new companies/new pursuits has created remembering social premiums and giving supportable answer for social issues and acquiring their benefits also. Since the idea of benefit is every one of, this has the effect in financial and social business enterprise. Social business in India has more extensive degree than financial enterprise. The need of social business enterprise in Indian setting is an extremely indispensable also, as the greater part of the items and administrations are engaged at the better quality clients and the individuals who have constrained methods are denied from their requirements because of absence of assets. Social enterprise takes cares of this denied segment of market and give products/administrations to them at their terms and conditions. Such society needs satisfying turns out to be trying also, because of no or less benefits regardless. There are numerous models where individuals have settled on social business enterprise than financial business, government and different variables have played a ton in doing as such. Any place the cultural holes are wide and cultural disparities are persevering, social business turns out to be important like in India. Following are contentions which concrete the requirements for social business in India and spots like India everywhere throughout the world.

FOLLOWING ARE THE COMMITMENT MADE BY SOCIAL BUSINESS IN INDIA

1. Social entrepreneurship focuses on deprived/weak section of society, India has over 27 crore people living under such conditions. So social entrepreneur ship be comes relevant and it is needed the most for uplifting this section of people.
2. Social entrepreneurship sees social benefits as primary and profits as secondary. This helps in getting great products/services on quite affordable prices.
3. Social entrepreneurship address the social problems, such problems may include illiteracy, girl child abuse, financing, health, potable water etc. Social entrepreneurship helps in meeting these social problems by capitalizing the local resources and applying entrepreneurial principles. In that case we need social entrepreneurship, so that we can minimize the impacts the social problems.
4. Social entrepreneurship also innovates like any other branch of entrepreneurship, but this innovation is slightly different. This innovation is termed as social innovation, as they are focused upon the social problems. The social innovation is nothing but finding out the most innovative and unique solution of social problems.
5. One of the most important needs of social entrepreneurship is towards bottom of the pyramid. This bottom of the pyramid referred to the people who have minimalistic income, but high acceptance for social innovations. There are many social enterprises who have prepared their products and services for bottom of the pyramid as well. Social entrepreneurship is the only way to fulfil the needs and demands for bottom of the pyramid, this argument is the strongest for the existence of social entrepreneurship in India.
6. Social entrepreneurship like any other economic activity provides employment the people having basic skills. This also makes social entrepreneurship needed in Indian context as India has the maximum number of people unemployed and this problem can be solved by social entrepreneurship effectively.

9. 1 SOCIAL ENTREPRENEURSHIP IN INDIA

1. In Maharashtra, Zero Miles is building multi-utility drinking water centres to bring people together for community development.
2. Aadhan builds classrooms—and a host of other spaces—from discarded shipping containers.
3. Traditional Indian crafts and artistry can benefit greatly through access to online and urban markets via social enterprises. Ziveli is such a social enterprise, bringing the kauna craft-work of Manipur to the world.

5. DivyaRawat is using mushroom cultivation as a way of curbing migration and providing livelihoods to people in Uttarakhand. This is also helping repopulate many 'ghost villages' in the state.
6. In a country where women often have to walk miles to find and collect drinking water for their families, the Water Maker project to produce water from thin air is no less than magical. It is, in the words of one grateful recipient, "khudakapaani."

These are the few examples of social entrepreneurship in India, which are into different domains of working. The majority of this social entrepreneurship is focused on rural and semi urban areas. As the need for social entrepreneurship is growing, the social enterprises are growing as well. The social entrepreneurship has a wide area of coverage from cottage industry to village produced goods, farm produced to handicrafts etc. Social entrepreneurship is also spreading over education and health sector as well to provide cheap education and health care to people. It is also a way to uplift the way and conditions of living of people.

10. 2 SOCIAL ENTREPRENEURS IN INDIA

As per the Asian entrepreneurs "Social entrepreneurs are those adventurous, dare devils who drive deep into the pressing problems of society and try to find solutions to them, not by leaving the responsibilities in the reins of the government or business, but by trying to change systems as a whole and persuading societies to take new initiatives". The definition itself clears out the basic concept and fundamentals of social entrepreneurs; it also clears the characteristics and traits of social entrepreneurs as well. Situations which are prevailing in India, set a good tune for social entrepreneurs in regions like India. There are few distinctions between an economic and social entrepreneur, the primary being their domain of working and the client base they are catering to. Although basic characteristics and core functions remain the same. Following are some examples of social entrepreneurs in India, who are working in different domains of social entrepreneurship-

1. Jeroo Billmoria- Jeroo Billmoria is an accomplished social entrepreneur and the founder of several international NGOs. Her pursuits have earned her accolades with Ashoka Innovations for the Public, the Skill Foundation and the Schwab Foundation for Social Entrepreneurship.
2. Ajaita Shah- Business Week ranks her as the most influential leader under 30, working for a tenure of 5 years in SKS Microfinance and Ujjivan Financial Services. Frontier Markets organisation is her brain child. Being a 2012 Echoing Green Fellow is to be of aid to 30 million rural households in the next 3 years.
3. Harish Hande- Founder of SELCO, he has a reputation of installing 120,000 systems in Karnataka, his aim being making renewable resources the predominant source of energy in rural India. Stressing as an observer of minute details, he later grew into an innovator and a social entrepreneur.
4. Sushmita Ghosh- She deals mainly with craft and restore from rural India, contributing to the present success of Rangasutra (a for-profit venture) and retailing from FabIndia. She collects, what she calls 'priceless' products from these talented and dedicated villagers and helps them earn their living they deserve.
5. Trilochan Shastri- Often a simple act of bravery can move mountains. That is the story of this social entrepreneur. He filed a PIL which later turned into a judgement coaxing politicians to confess to their misdeeds. His efforts led to the form of ADR (Associations for Democratic Reform) responsible for scrutinising the elections every 5 years. Politicians now are more answerable and it is also spreading awareness among the public as to what the Fundamental Rights by the Constitution of India really entail.
6. Hanumappa Sudarshan- Winner of the Indian Social Entrepreneur of the year 2014, awarded by Finance Minister Arun Jaitley. He is the founder of the Karuna Trust, associated with health care services. The award is under the reputed Schwab Foundation for Social Entrepreneur.
7. 3Sanjit "Bunker" Roy- One of the most celebrated and well known social entrepreneurs of India. He is an Indian social activist and educator who founded the Barefoot College. He was selected as one of Time 100's 100 most influential personalities in 2010 for his work in educating illiterate and semi-

literate rural Indians. Bunker is a founder of what is now called Barefoot College. After conducting a survey of water supplies in 100 drought prone areas, Roy established the Social Work and Research Centre in 1972. Its mission soon changed from a focus on water and irrigation to empowerment and sustainability. The programs focused on sitting water pumps near villages and training the local population to maintain them without dependence on outside mechanics, providing training as paramedics for local medical treatment, and on solar power to decrease dependence and time spent on kerosene lighting. He was recognised in 2010 in Time for the programs of the college which have trained more than 3 million people in skills including solar engineers, teachers, midwives, weavers, architects and doctors.

These social entrepreneurs are changing the vary face of social upliftment in India by the exceptional work they are doing in the various spheres. These social entrepreneurs are making significant differences in the quality of lives of people in rural and semi urban areas, mainly by transfusing innovation and exploitation of business opportunities available locally.

11. BASIC TRAITS/CHARACTERISTICS OF SOCIAL ENTREPRENEURSHIP-

The social entrepreneurship has basic traits of looking for ways to dealing with social issues/problems in more innovative and entrepreneurial manner. Social entrepreneurship begins with identification of social problem/shortcoming then it moves to systematically analyzing the identified problem, considering all the possible aspects. Then social problem is solved by using innovative approach by social entrepreneurs through their social enterprises. The basic trait of social entrepreneurship is in seeing the social problem and solving it by local expertise. Following are the traits of social entrepreneurship, which are commonly existing in social entrepreneurship-

1. Social entrepreneurship has risk taking capacity like any other branch of entrepreneurship, it takes risks and uncertainties in setting up a social entrepreneurs.
2. Social entrepreneurship has vision and foresights as well, it sees the problems and finds the solution like nobody can imagine about.
3. Social entrepreneurship provides leadership and direction to people who are working in social enterprise for achieving a common goal.
4. The biggest and probably the unique feature of entrepreneurship is creativity, which also exists in social entrepreneurship as well. Social entrepreneurship looks for creative solutions for social problems.
5. Creating social values is one of the most important and distinctive trait of social entrepreneurship. This trait also keeps it apart from economic entrepreneurship. Unlike economic entrepreneurship, social entrepreneurship focuses on creating social value along with economic value. Social value referred to social benefits which are visible as well.
6. Social entrepreneurship keeps on providing social innovations; social innovations are the unique solution for prevailing social inequality or social problem. One of the most important traits of social entrepreneurship is social innovation, which is available in social entrepreneurship only.
7. Social entrepreneurship is primarily focused on non-personal gains sometimes referred as social gains. This is the trait which defines social entrepreneurship, as economic entrepreneurship only focuses on personal gains and profits by exploiting an opportunities in the market, unlike social entrepreneurship.
8. Social entrepreneurship must not be confused with social work at all, as it has profit motive too. But the profit comes secondary rather than primary like economic entrepreneurship.

Apart from these characteristics/traits of social entrepreneurship, there are several other traits which set it apart from rest of the branches of entrepreneurship. In true senses, social entrepreneurship enables the societies and people for taking up the challenge to uplift the living standards of theirs. Social entrepreneurship is not purely social work; social entrepreneurship earns profits by their tools/products offered to societies.

12. ROLES AND RESPONSIBILITIES OF SOCIAL ENTREPRENEURS TOWARDS INDIA SOCIETY

As mentioned earlier as well, India and similar societies provide best grounds for social entrepreneurship to prevail and grow to its best. Developed societies have limited scope for social entrepreneurship, as the social inequalities are minimalistic. On the other hand, social inequalities are at its maximum in underdeveloped, developing and least developed nations. The responsibility of any entrepreneur is highly and prominent in nature, but when it comes to social entrepreneurship or social entrepreneurs, they are inevitable for social upliftment. As our experience has told us again and again that social value creation, social gains and social changes can only be achieved by selfless people, who apply entrepreneurial skills along with managerial skills for societal gains and non-personal profits. These selfless people are termed as social entrepreneurs. The roles and responsibilities of social entrepreneurs are given as under with reference to India's society-

1. Social entrepreneurs have the capacity to influence the society by their unique product/service aimed at the social upliftment. Their role begins with identifying the social

problem which concerns everybody rather than certain sect of people in society. So identifying an appropriate social issues/problem is very important.

2. Social entrepreneurs in India face certain problems related with mindset of people who do not want to change their way of doing things. The biggest role of social entrepreneurs is pursuing them to make fundamental changes, which will reflect in overall society.
3. Social entrepreneurship depends upon social innovations; the challenge is to create such innovation which can resolve the social problem completely by using minimum resources.
4. Social entrepreneurs have the role to reach at the remotest corner of country for targeting the social sections, which are deprived to basic facilities. The responsibility of social entrepreneurs is to reach such people and serve them positively.
5. Social entrepreneurs are supposed to provide employment as well with their unique approach. Providing employment to local people having minimum skills and qualifications is biggest responsibility of social entrepreneurs.
6. One of the important roles which social entrepreneurs have to play in India society is to make visible changes in societies with social balancing approach.
7. Social entrepreneurs have to make the society's inequalities go away using positive methods. This can be done by doing proper and adequate research of the section of the society where the product/services have to be introduced.

Aside from the jobs and obligations referenced above, there are sure different jobs and duties also which are carried by social business visionaries. With changing time and measurements of society, the necessities and prerequisites are likewise changing alongside it. Social business people must be in line with evolving social orders. India additionally one of the social orders which are quickly changing and patching up towards more prominent movements. These progressions and advancements are close enough to not many and away from a ton, this distinction must be satisfied by the social business people and that is their most prominent job.

13. CHALLENGES FACED BY SOCIAL ENTREPRENEURSHIP IN INDIA

Social entrepreneurship, like any other branch of social entrepreneurship also faces challenges. All the challenges are either controllable or non-controllable, but all the challenges are manageable. Social entrepreneurship is slightly and somehow fundamentally distinct to economic entrepreneurship, so are the challenges of social entrepreneurship. In India particularly social entrepreneurship is subjected to many challenges. These challenges are preventing the growth and spread of social entrepreneurship in India as against to other regions and nations, who have made the social entrepreneurship a mission. The interesting thing to note down is this; all the challenges which are faced by social entrepreneurship are very different in nature. These all are concerned with mindset rather than based on some physical attribute. People are mentally blocked towards the social entrepreneurship in India. Some of the prominent challenges faced by social entrepreneurship in India are given below-

1. Confusion with social work- Social entrepreneurship is mostly in India is confused with social work, hence it is unable to make a mark as an individual entity in India. This is starting of challenge for social entrepreneurship.
2. The problem of creativity- The next problem which is faced by social entrepreneurship is lack of creativity regarding thinking great ideas for betterment of society and earning profits as well. This fusion is very hard to think and implemented particularly in India.
3. Arranging finance- One of the challenges for entrepreneurship in India remains lack of financial sources. The social entrepreneurs offering a unique product and set of services make it even harder to get financial aid from the established financial institutes. This is a very dire situation and a considerable reason for the under development of social entrepreneurship in India.
4. Shortage of talented/dedicated workforce- This is an exceptionally extraordinary test looked by social business enterprise solely. For the most part individuals land into positions to get an attractive pay and advantages, however with social enterprise this turns into somewhat hard. Since the prime goal of social business is to get social increases/benefits instead of individual additions/benefits. Under these condition it is exceptionally difficult to get individuals to work for the firm.

5. Setting and communicating value objectively- The important challenge of social entrepreneurship is to setting and communicating values clearly. Usually what happens is, value may differ from society to society based upon their exclusive needs. But social entrepreneurs have to set common values, which can be communicated easily.
6. Elevating the individuals- The most noticeable and unmistakable test before the social business is to raise individuals from their present spot of remaining by making positive and significant changes. Right now individual must be taken into account their individual necessity as opposed to as a general public all in all. This represents an alternate kind of challenge for social business people.
7. Lack of an ethical framework- Since social entrepreneurs are very concerned about the societal changes and upliftment of people, sometimes they adopt a less ethical way of conducting their business. This challenge is very rarely visible yet exists in some extreme cases in India. Since society to society the ethical parameters shift.
8. The commercial assumption- Social entrepreneurship does not take commercial viability or assumption as their priority. This is one of the biggest challenges when it comes to commercial assumption of facts and ideas. Since socially things may be accepted but financially/commercially they may not. This creates a dilemma for social entrepreneurship in India. Commercial non viability also makes firms less motivated for the getting in to social benefiting projects.
9. Lack of evidence- Unlike economic entrepreneurship, social entrepreneurship has fewer evidences of changes they have pioneered in society. Such changes are very hard to keep a track of, as people move from one place to another frequently for several reasons.
10. Lack of Planning and appropriate structure- This is the challenge which is haunting the entrepreneurship for many decades and still does to some extent. Lack of planning is very crucial and it is normally the cause of failure of social enterprises. The proper and adequacy of infrastructure including the training, finance, consultation, and research are not in place for social entrepreneurship in India.

14. MEASURES TO FACE CHALLENGES EFFECTIVELY-

There is no doubt that social entrepreneurship is subject to many challenges and these challenges are growing with time and dynamics of society. Social entrepreneurs have to take care and keep note of tiny details to face the prevailing (above mentioned) challenges. Although the list of challenges faced by social entrepreneurship is not completed, some other challenges are there apart from the listed ones. The important preposition is, how to overcome the challenges which are faced by social entrepreneurship in India. There are few steps /measure which can be practiced to face the prevailing challenges of social entrepreneurship in India-

1. Proper training and development institutions- Government must open some particular sheets and foundations for proficient headway of social business venture. A segment of the foundations are working in the zone of money related business endeavor; some must be opened for social business as well.
2. Inclusion of social entrepreneurship in course syllabus- Government must open some particular sheets and foundations for proficient headway of social business venture. A segment of the foundations are working in the zone of money related business endeavor; some must be opened for social business as well.
3. Creation of mass awareness- Steps ought to be taken to make the mass mindful towards the social business, with the goal that individuals don't get confounded between social enterprise and social work. Media, online networking, different vehicles can be sent for the equivalent.
4. Providing infrastructure and basic facilities- Government and other partners must chip away at the fundamental offices to the social business enterprise. These offices can pull in individuals towards turning out to be social business people, along these lines the spread of social enterprise will increment to multi folds.
5. Social entrepreneurship development programmes- Like business enterprise improvement programs, social business programs must be composed time to time to support social business enterprise. Such association will help in expanding the general inspiration of social business visionaries.
6. Funding to social entrepreneurship- If the funding issue of social entrepreneurship is resolved, the maximum level of challenges faced by social entrepreneurship can be managed properly.
7. Government projects should be given to social entrepreneurs- Governments of several states time to time plan different programmes for rural and semi urban areas. If the priority of such programme allocation is given

to social entrepreneurs, they will flourish in no time. Government machineries and other sophisticated mechanism do not understand the social issues more accurately but social entrepreneurship does understand the social issues/inequalities better.

1. Awards and public felicitation- Time to time on proper and prestigious platforms social entrepreneurs must be publically awarded for their exception/distinct contribution as a social entrepreneur.

15. CONCLUSION AND FINDINGS OF THE STUDY

Social business enterprise can change the substance of society in India, there have been numerous such models and ventures which run under the pennant of social business enterprise and end up being life changing for individuals of that region. In India particularly social business has better possibilities as the social issues are at full swing here. Social business enterprise is a special blend of innovative characteristics and generosity. In social business enterprise items and administrations are intended to have greatest social effect alongside making extensive benefits for the firm. Here the working zone of firm is regularly the zone/locale which are commonly overlooked by huge firm of financial business. In a manner the item and administration contributions of social business enterprise is very remarkable and cooks the cultural necessity better than monetary prerequisites. This is careful of enterprising qualities being executed for a social reason/issue. Other than that all the essential components of business are like its parent enterprise. On the off chance that the legislature and other partners can work out the difficulties of social enterprise viably, at that point social business enterprise is without question is the most significant instrument which has the full ability to change the very essence of society in India. The examination has the accompanying discoveries

1. Social entrepreneurship is a best combination of social service and entrepreneurial skills to look for social problems.
2. Social entrepreneurship has the capacity to socially innovate. These innovations are the exact and creative answer to social issues/problems which are prevailing in India.
3. There are many examples of social enterprises which are working in India and changing the very face of society in India by their unique offerings, which involves the local expertise to create social values.
4. The growth of social entrepreneurship has reflected upon the employment and infusion of skills among people at the bottom level. The best example in this regard is barefoot college of Rajasthan.
5. The level of education and healthcare has also increased due to social enterprises and their growth in recent times in India.
6. Social entrepreneurship is facing a lot of challenges in India and these challenges are very evident as the growth of social entrepreneurship is very low as compared to the other regions in developed nations. Government is slowly realizing the worth and impacts of social entrepreneurship in India and taking proper action to increase the aptitude of people towards social entrepreneurship.
7. Since all the social entrepreneurship ventures are set in such areas as where economic entrepreneurship does not wish to operate, thus we can say that the social upliftment of those backward areas are made due to such ventures only. The best of such incident can be exemplified in Grameen Bank's endeavour.
8. The study further underlines that the attitude towards the social entrepreneurship is growing that is despite of all the challenges which they face.
9. Finance has been identified as one of the most important element in the growth of social entrepreneurship in India. Government is making special arrangement for it. Some venture capitalists, angel investors, crowd funding etc. are being used for filling the funding gaps.
10. It also observed during the study that social entrepreneurship is subject to challenge and those challenges can be addressed by proper and substantial planning and measure, which are mentioned in the research paper.
11. The research paper also underlined the roles and responsibilities of social entrepreneurship, which have been duly mentioned using various aspects.
12. The study also underlines and identifies the basic/fundamental traits/characteristics of social entrepreneurship.
13. The study was based on certain objectives; all the objectives have been fulfilled successfully.

14. The future potential of study can also have some suggestions to improve the overall status of social entrepreneurship in India, along with that there are several domains where the research can take place in future.

The hypothesis of the study have been tested on secondary data basis and it is found that-

15.A) Social entrepreneurship is contributing in the upliftment of society in India.

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WEB LINKS

- 1 <http://www.thebetterindia.com/topics/social-enterprise/>
- 2 <http://www.asianentrepreneur.org/top-10-social-entrepreneurs-of-india/>
- 3 https://en.wikipedia.org/wiki/Bunker_Roy

B) Social entrepreneurship is facing challenges in India.

Hence, both the alternative hypotheses have been proved, and null hypothesis have been rejected.

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IMPACT OF AUGMENTED REALITY ON CONSUMER'S BUYING BEHAVIOR

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ABSTRACT

Augmented reality (AR) is an interactive experience of a real-world environment where the objects that reside in the real-world are "augmented" by computer-generated perceptual information, sometimes across multiple sensory modalities, including visuals, auditory.^[1]

Augmented reality (AR) adds digital elements to a live view often by using the camera on a smartphone. Examples of augmented reality experiences include Snapchat lenses and the game "Pokemon Go".

The research was done to understand the impact of Augmented Reality based product and services on the buying behavior of people. Does this technology change the way of purchasing and selling of goods in the market? Whether Augmented Reality based mobile based applications are actually the future.

Awareness of AR business and consumer solutions has reached a crescendo — resulting in optimistic projections for the market opportunity and a growing list of applications across industries. As SMAC stack (social, mobile, analytics and cloud) technologies democratize computing power and information access, AR hardware and software will strengthen enterprise-to-employee and enterprise-to consumer connectivity and interactions, including employee collaboration, training and marketing as well as buying decisions of the consumers.

Technology was traditionally confined largely to operations and execution, its digital expression now informs all aspects of business, from idealization to delivery. From blockchain and augmented reality to the Internet of Things and the socially responsible applications of technology, these trends embody the macro forces fueling innovation: digital, analytics, cloud, and the changing role of IT within the enterprise. We balance our coverage of each trend by also considering the implications of cyber risk in the areas of security, privacy, regulatory mandates and compliance.

INTRODUCTION

Augmented Reality (AR) is a concept of bringing parts of the virtual world into people's perception by using a device to enhance their environment. AR is sometimes misunderstood with the idea of Virtual Reality (VR). Unlike VR that requires a user to inhabit a completely virtual environment, AR uses the user's natural environment and overlays virtual information on it, thus enhances the real world. Hence, AR is closer to the real environment, as opposed to VR.^[2]

The implications of AR have increased during the recent years due to the accelerated technological advancement and the higher accessibility of users to smart devices, compared to before. AR is not only introduced in fields such as tourism, education, medicine and military but also in businesses; where it has been used as a marketing tool to deliver products to consumers. Moreover, by using the technology of AR customers can try different products and assess alternatives on various platforms, therefore, saving time and efforts while having the ability to compare prices.

AR is considered to be one of the smartest and most recognised approaches that have the potential to create value for both retailers and customers. The smart technology is said to add value to retailers by influencing customer engagement and customer decisions. Nevertheless, applying this technology to retail industries boosts online customer experiences, giving them a unique and meaningful involvement by allowing them to make decisions with more information and hence more certainty. The lack of knowledge and inadequate product specifications restricts customers from making risky purchases, but AR can atone for this inadequacy of inputs, by creating a three-dimensional augmented stimulation of the products integrated with the shopper's environment, which allows buyers to better evaluate desired products. Moreover, for many different products AR gives customers the possibility of trying on products that they never tried on before since the technology allows for fast and easy application, this offers customers the opportunity to experiment many more options that they would not normally consider while shopping. Lastly, other previous research has shown that AR can significantly increase the user's willingness to buy and hence influence their purchasing decisions in a way the traditional shopping platforms cannot attain.

RESEARCH OBJECTIVE

The objectives of this study are as following:

- To check and spread awareness of the Augmented Reality technology.
- To view the impact of AR on buying decisions of the customers.
- To understand the need and scope of AR implementation in companies.
- Marketing through AR will be able to boost the sales and profits.

RESEARCH METHODOLOGIES

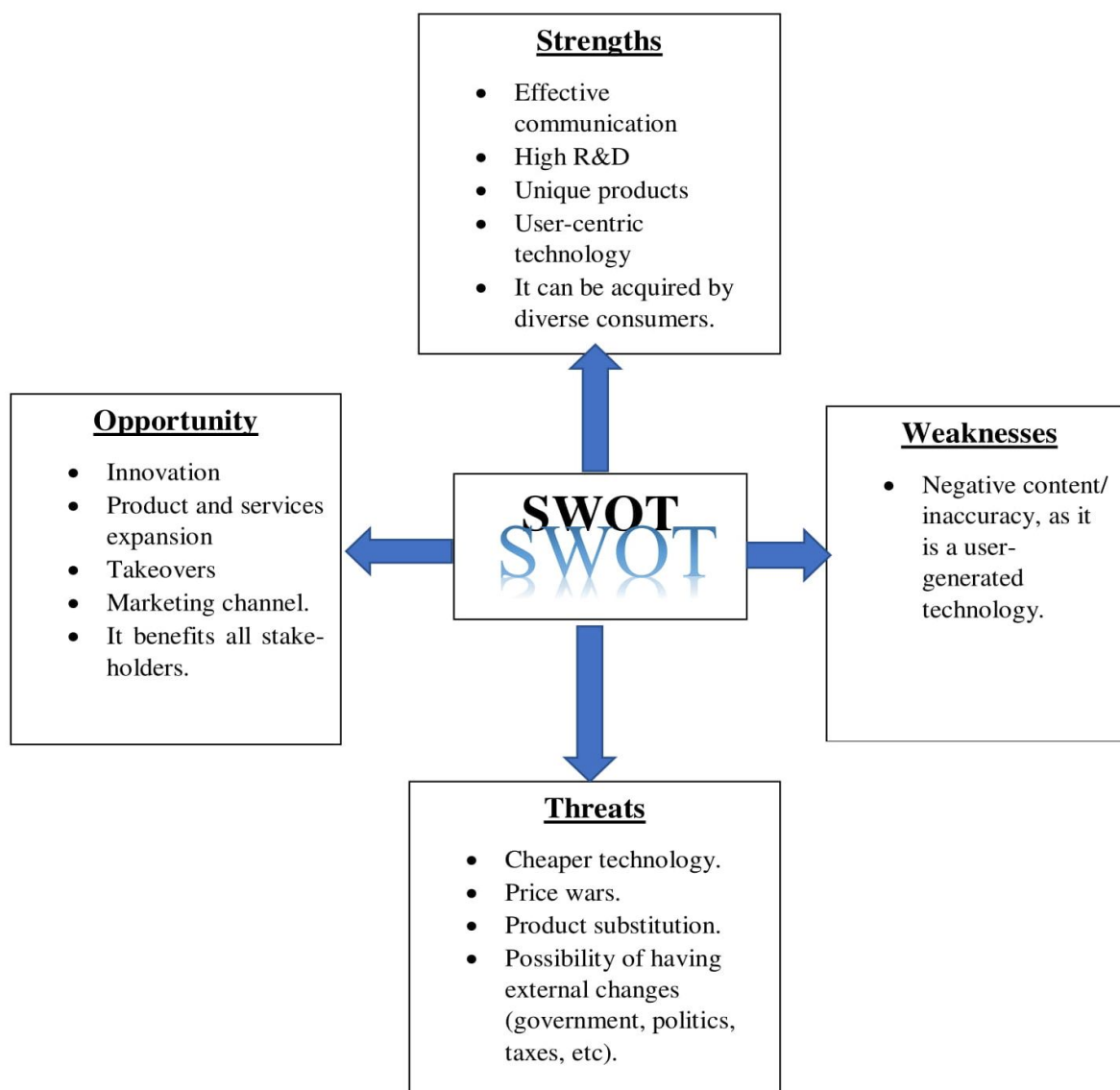
Research Design	Descriptive Research
Research Method	Survey Method
Research Instrument	Structured Questionnaire
Sample Size	200(Approx..)
Sample Area	Delhi-NCR
Sampling Method	Non-Probability/Convenience Sampling
Data Analysis Software	Microsoft Excel
Data Collection Method	Primary Sources Only

Pre SWOT Information about AR/VR/MR

The Alternative Reality Landscape

	VIRTUAL REALITY	AUGMENTED REALITY	MIXED REALITY
WHAT IT DOES	Changes reality by placing the user in a 360-degree imaginary world.	Visible world is overlaid with digital content.	Like AR, but virtual objects are integrated into and respond to visible surroundings.
WHERE IT STANDS	Has been around for a long time; most famous example is Oculus Rift. Hundreds of companies are working on prototypes.	Introduced in the form of Google Glass. Now several companies are developing prototypes.	Magic leap and HoloLens are leading research and development.
MARKET OPPORTUNITIES	Videogames, theme parks, entertainment apps, video, collaboration, employee training, simulation exercises.	Games, theme parks, simulation exercises, employee training, commerce.	Enterprise-focused applications
BIGGEST PLAYERS	Google, Oculus, HTC VIVE, Samsung Gear VR.	Niantic, Microsoft, INDE.	360 degree camera, Magic Leap.

SWOT analysis of Augmented Reality



OBSERVATIONS AND LIMITATIONS

This report is the results of survey of people of Delhi NCR. This results of the survey has been obtained in a multi-attribute and multi-dimensional context. The results show the views and opinions are less negative for technologically simpler products (like television) than for technologically complex products (like computers & Mobile phones).

People are generally using social media platforms for the exploration of goods and services they can buy instead of visiting the market, therefore there is an urgent need of adaptation of AR in the e-commerce applications available on the smartphone to make buying more interesting and convenient for the consumers. Integration of AR is necessary with the current available technology in the market.

From this empirical study, I have observed some of the behaviors of the consumers which are as following:

- People are not aware and have not experienced such technology.
- AR is an immersive and interesting way of purchasing and selling.
- Based on survey analysis, there is a huge scope for marketing through AR.

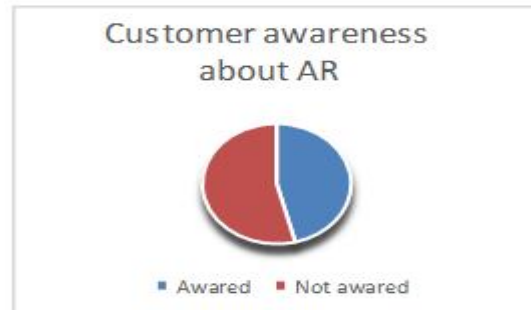
The Limitations for this study are as follows:

- Less availability and awareness, AR not touching the routine lives of the people.
- AR implementation is costly at initial stage, which requires huge investment.
- Companies using traditional ways of marketing their product and services.

ANALYSIS OF SURVEY QUESTIONNAIRE

1. Are you familiar with Augmented Reality technology?

- Yes
- No



Only **46%** people in Delhi NCR know about AR technology and **54%** people don't have idea about AR technology.

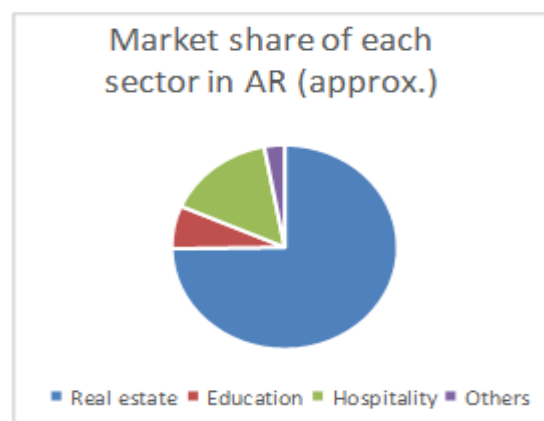
2. Have you ever experienced any augmented reality product or service?

- Yes
- No



3. What are the sectors where you have experienced AR technology?

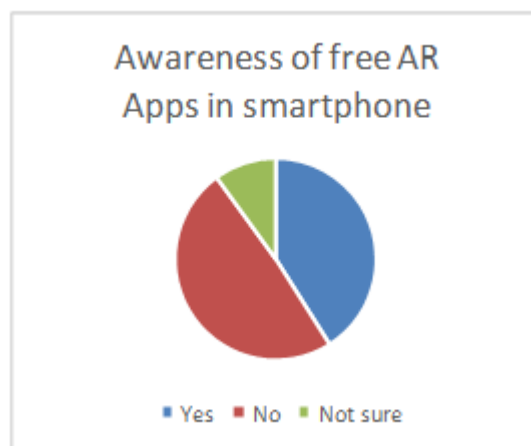
- Real estate
- Education
- Hospitality
- Other



People in Delhi-NCR do not think that AR technologies can have a greater significance in education sector when compared to the Real Estate and hospitality sector.

4. Are you aware of the AR apps which are available for free on smartphone platforms for learning and fun purpose?

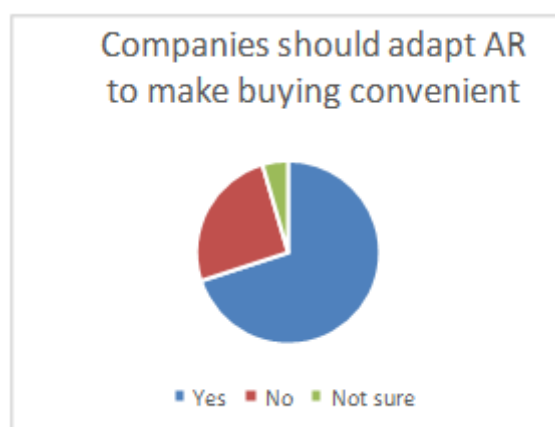
- Yes
- No
- Not sure



We have understood that out of those 46% people who were aware of AR, only **08% people** in Delhi-NCR have ever used any AR product or service. However, the results were not that shocking for us because this requires investment and knowledge.

5. Based upon your experience, do you think companies should adapt AR to make buying more convenient?

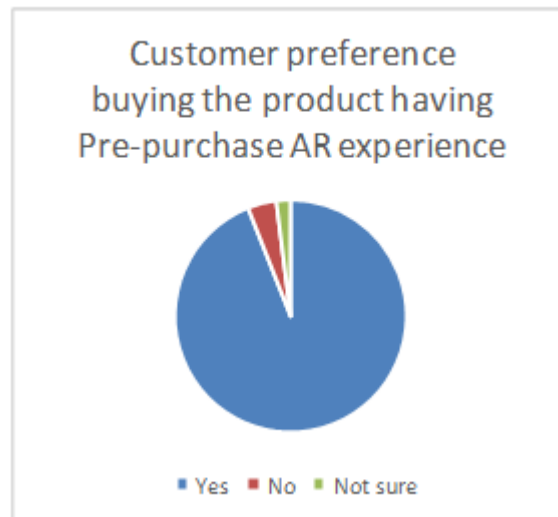
- Yes
- No
- Not sure



Majority of people in Delhi-NCR think that companies should adapt the AR technologies. Marketers should start investing in such kind of technologies which are highly engaging and helpful for the people in making their buying decisions quick and easy.

6. Would you prefer buying the product having pre-purchase AR experience compared to the product without AR?

- Yes
- No
- Not sure



In malls and garden spaces where walk-ins are more, in big cities we have seen companies doing advertisements using AR, involving kids especially. People with high education level in metropolitan cities do have knowledge of the apps available on play store.

CONCLUSION

Emerging technology such as Augmented Reality already radically changing the way we consume experiences. Augmented Reality uses our existing environment and enriched it with virtual objects.

“India is one of the fastest growing region in AR technology. Through our cutting-edge creative offerings, we are giving creators and developers power to build for tomorrow with emerging technologies like AR without using any expensive hardware or specialized apps”. Satyajeet Singh, Head of Platform Partnerships, Facebook India and South Asia, said in a statement.^[2]

The research and survey for 2 months in Delhi-NCR was short but it has been a good experience for me as a management student.

The awareness of AR technology in Delhi-NCR is less but still is the demand of time to invest in AR technologies, this should be a crucial marketing tactics a company should adapt to provide live experiences which highly effects the buying decisions of the consumers. These days consumers are not laggards they are more inclined to try new products and services to make their life better and AR is the tool to match the pace of changing buying behaviour of the customers.

94% people in Delhi-NCR, will preferably go for the product which they have already experienced, but here with the AR, the marketer can give a live demo to the customer at the time of purchase through such rich experience of AR.

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RESPONSIVENESS TO E-GOVERNMENT DEVELOPMENTS WITH THE CAUSAL FACTORS: AN EMPIRICAL STUDY ACROSS ASIA

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ABSTRACT

E-government allows governments to use innovative information and communication technologies (ICTs)-specifically web-based internet applications - so that citizens and businesses are able to conveniently access government information and services. It is also directed towards improving quality of services as well as encouraging participation in democratic institutions and processes.

This paper tries to examine the development of e-government initiatives across a cross section of Asian countries. Towards this end it utilises tools like correlation coefficients, pooled regression and panel regression analyses. The results suggest that factors like economic development and transparency of information may play an important role in the effectiveness of e-government systems.

Keywords: E-Government, Correlation Coefficient, Pooled Regression, ANOVA, Panel Regression.

I. E-GOVERNMENT - AN INTRODUCTION

The evolution of Information Technology (IT) has majorly impacted citizens' interaction with their governments; this in turn has affected their expectations from the government (Dodd 2000). While e-commerce has resulted in changes in dealings on the private sector, e-government has done the same for next generation developments in the public sector. Governments in different parts of the world are actively introducing e-government initiatives as a way of reducing costs, providing better services to the citizens and raising effectiveness of delivery at local, regional, and national levels. As many as 179 out of 192 UN members have reported on strategy development for implementation of e-government systems; naturally e-government has emerged as one of the top priorities for governments throughout the world (UN 2008).

E-government has been variously described as Electronic Government, Electronic Governance, Digital Government, Online Government, e-Gov, etc. (Gronlund 2004). There are many definitions for the term e-government, thereby reflecting the priorities of the government in its strategies. According to Fang (2002), e-government allows governments to use innovative information and communication technologies (ICTs)-specifically web-based internet applications - so that citizens and businesses are able to conveniently access government information and services. It is also directed towards improving quality of services as well as encouraging participation in democratic institutions and processes. E-government is not necessarily only about businesses and processes. The focus is on using ICTs for transforming structures, operations and the culture of government (Alshchri and Drew 2010). According to the OECD, e-government can be an important vehicle for any kind of reform process since it serves as a tool of reform, regenerates interest in public management reform, focusses on internal inconsistencies and realigns commitment to good governance objectives (OECD 2003). According to the World Bank (2001) e-government is the system of information and communication technologies owned or operated by the government which transform relations with citizens, the private sector and/or other government agencies in order to encourage empowerment of the citizens, raise delivery of services, improve accountability, increase transparency and increase efficiency of the government (Nodu 2004).

Many countries around the world have launched e-government initiatives with a view to effective delivery of services to the citizens. However there has been a noticeable difference in the extent to which such initiatives have been implemented across different nations. While the developed countries have expectedly taken far more effective strides in this direction, the experience in the developing world has left a lot to be desired. With this in mind it was intended that the present work would examine how the development in e-government in the 47 Asian countries chosen for the study is reflected across the parameters employed for this purpose. It is hoped that the policy implications arising from such a study will help to fine tune the e-government interventions in this nations, thus facilitating more effective implementation.

The rest of the paper has been organised as follows:

Section II details the major research literature in this area and provides the justification for the study. Section III explains the data and methodology utilised for the present work. Section IV lays down the results and their interpretation. Finally section V provides the conclusion.

II. LITERATURE SURVEY AND JUSTIFICATION FOR THE STUDY

It is relevant to consider some of the recent literature in this area.

Kossaket. Al. (2001) has considered the suitability of HCI research for such applications in the form of a case study. They concentrate on the development of large data sensitive software systems. They base this on their experiences in a project dealing with administration software for the health insurance sector, where they developed a HCI prototype

Moon (2002) has chosen a more micro approach as he focuses on the application of e-government in municipalities. For this purpose he has employed the 2000 E-Government Survey by the International City/County Management Association and Public Technologies Inc. Apart from evaluating the current situation, the author has also identified size and type of government as the two main factors that influence adoption of e-government at this level. The conclusion is that e-government being at a nascent stage, has not delivered on many of its promised benefits. Some of the barriers in this regard have also been identified.

Finger and Pecoud (2003) have dealt with a conceptual, but nevertheless interesting topic. They first examine the existing changes in statecraft. Next they couple this with the new information and communication technologies. Finally on this basis they have tried to predict future trends. In doing so they have also considered the evolution towards e-governance and its impact - both positive and negative - on the State and society at large. Lastly they have provided a comparison of their models with existing definitions and conceptualisations of e-governance and e-government.

Scapin (2009) provides a review of current issues in e government in literature with a view to highlighting cases where there is a genuine prospect for research in HCI applications in e-governance. In this connection mention is made of software tools for mass production of e-government software, security and trust, personal information management and internationalisation.

There has also been some work on HCI and MIS, which is not surprising, considering the symbiotic relationship between the two. However this has not always been accepted. Thus Zhang and Dillon (2003) have tried to show why developments in these two areas should be studied together. While the two areas share common concerns, literature, theories and results have traditionally been different. The authors have briefly outlined the history of both areas and have tried to explain why they have developed independent of one another.

Wobbrock (2006) tries to draw attention to mobile phone research in HCI. Apart from the general popularity and convenience of mobile devices at the expense of PCs, the author is also of the opinion that mobiles need to be configured for use by aged people and those with special abilities. In addition, they can also be utilised for computer education and medical aid in developing countries.

An important work that provided a major backdrop for the present effort involves a comparative study by Farooque (2011) into the state of preparedness with regard to e-government initiatives in UAE and India. The situation in these two nations is compared with other parts of Asia. This was done on the basis of surveys on e-government conducted by the United Nations. The unsurprising finding was that India was significantly behind other Asian countries, while the UAE was well above the world average. Another important finding was that the economic structure in a country had a significant bearing on its readiness for e-government.

Considering some of the preceding literature in this field, it was felt that there was a dearth of work based developing and/or Asian countries. With a view to making up for this lacuna, the present work concentrates on some of the main parameters with regard to the e-government initiatives across a cross section of 47 Asian countries. The parameters considered in this connection include E-Government Development Index (EGDI), GDP per capita (GDPPC), the Gini Coefficient of Income Inequality (GINI) and advancement with regard to information access (EPI). It is hoped that this effort will be a significant addition to the current literature on the subject.

III. DATA AND METHODOLOGY RELATED TO HCI AND E-GOVERNMENT

E-government deals with the relation between the individual citizen and the government, and provides a platform for enabling the citizen to fulfil her duties towards the state. For example the citizen can use it to file her tax returns, linking of aadhaar details, paying utility bills, etc. At the same time if she has any grievances that she wants to bring to the attention of the appropriate government authority that can also be done through this platform.

At a broad level the website design may follow the same path as was done for e-commerce, but there will be obvious differences. At a primary level the design must be in conjunction with the relevant laws, rules and

regulations. Furthermore it is necessary not to make the processes appear more complex than they already are for the citizen.

To provide an empirical dimension to the present work vis-a-vis the practice of e-government, we have tried to make a comparative analysis between the level of development of e-government in India vis-a-vis the rest of the world. For this purpose, we have utilised the periodic reports published by the United Nations based on survey on e-government carried out by the UN's Department of Economic and Social Affairs. Specifically we have sought the help of the report on the survey of e-government practices in different countries brought out by the UN in 2016. Using the data provided by these reports we have categorised the countries into four groups based on income data, viz., - high income, middle income and low income. One of the elements considered in these studies is the E-Government Development Index (EGDI), which indicates the degree of progress achieved by each country in the area of e-government. The value of EGDI has been determined individually for each country as well as on a GroupWise basis, depending on different means of categorisation. The study has followed a threefold format:

(i) Use of correlation analysis

As we know that,

$EGDI = 1/3 (OSI_{normalized} + TCII_{normalized} + HCI_{normalized})$, some amount of correlations among those indices are expected.

Telecommunications Infrastructure Index (TCII) based on data provided by the International Telecommunications Union (ITU), Human Capital Index (HCI) based on data provided by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and Online Service Index (OSI) based on data collected from an independent survey questionnaire, conducted by UNDESA, which assesses the national online presence of all 193 United Nations Member States.

For this reason, Correlation coefficient(r) has been found out and their strengths and significance have been judged by the usual 't' test. Here EGDI and its components have been considered for the year 2018 of the subject countries.

(ii) ANOVA Technique

In order to determine whether the different countries with different income groups have any significant effect on EGDI or not, we have performed one-way analysis of variance (ANOVA) test.

For this purpose the subject countries has been categories into three groups of economies, i.e, High, Middle and Low Income group countries as per the UN definitions.

The EGDI for the year 2018 of the subject countries under each group enters the analysis as the dependent variable.

All total 47 Asian countries, comprising 12 High, 32 Middle and 3 Low income group countries have been considered.

(iii) Panel Data Regression:

The goal of this effort is to study how the interaction between EGDI and its causal elements (Socio economic factors, i.e, GDPPC, GINI and advancement with regard to information access, i.e, EPI) plays out across different countries with different income groups.

For this purpose data has been collected on EGDI and its causal factors for the periods 2008 - 2014 of the subject countries.

Here the dependent variable is EGDI and the independent variables are EPI, GDPPC & GINI Coefficient and U_{it} is the random disturbance term.

The baseline econometric model for determining the impact of socio-economic factors and EPI on EGDI has been taken as:

$$EGDI_{it} = \beta_0 + \beta_1 EPI_{it} + \beta_2 GDPPC_{it} + \beta_3 GINI_{it} + \varepsilon_{it}$$

Where, subscript i= 1,, N indicates the country and subscript t= 1,, T indicates the time period. ε_{it} is the error term. Here we have obtained data on 36 Asian countries both for dependent and independent variables for the above mentioned period.

¹United Nations E-Government Survey 2016 - E-Government in support of sustainable Development, Department of Economic and Social Affairs, United Nations, 2016.

The use of the panel data method allows for country specific effects. Thus the empirical process is made up of a number of steps. First a pooled regression has been performed by ignoring both time and space. Then the fixed effect model has been applied as

$$\varepsilon_{it} = \mu_i + \eta_{it}, \mu_i$$

being the country specific fixed effect, which in turn is correlated with the regressors. In this way, the fixed effect has been estimated within the estimation.

The assumption here is that μ_i is a random term that is uncorrelated with the independent variables. The resultant model is the random effect model, and the parameters are estimated using GLS.

Finally, the Hausman specification test has been applied for selecting the final model.

IV. RESULTS AND DISCUSSIONS RELATED TO SECONDARY DATA ANALYSIS

4.1 Results of Correlation Analysis

Since in our study the EGDI has been composed of TCII, OSI, and HCI, some correlations among the four indices are expected. Pearson coefficients of correlation has been estimated to find the strength and significance of such correlations.

Table 1: Covariance Analysis: Ordinary

	EGDI	HCI	OSI	TCII
Correlation	1			
EGDI t-Statistic				
Probability				
N	47			
Correlation	0.828152	1		
HCI t-Statistic	9.911480			
Probability	0.0000			
N	47	47		
Correlation	0.902892	0.601032	1	
OSI t-Statistic	14.08990	5.044697		
Probability	0.0000	0.0000		
N	47	47	47	
Correlation	0.910299	0.732492	0.691325	1
TCII t-Statistic	14.75170	7.217796	6.418361	
Probability	0.0000	0.0000	0.0000	
N	47	47	47	47

Here the null hypothesis is there is no linear association among the four indices and that has been tested against the alternative hypothesis that there may exist some kind of association (either positive or negative) among them. Based on the EGDI, HCI and OSI for the year 2018 of all the 47 countries in question, the correlations are found and presented in Table-1. The findings show that all correlation coefficients are highly positively significant at 1% level. The EGDI has got the strongest relationship with the TCII, followed by OSI and HCI. Moreover, the relationship between HCI and OSI has been found to be moderately high, whereas the link between HCI and TCII is found to be quite high, i.e., 0.732492. Again in case of OSI and TCII the association between them is also rather high.

Table 2: Analysis of Variance

Descriptive					
Group	Obs	EGDI Mean	Std. Dev.	Min	Max
Low-income	3	0.3164	0.1388222	0.2159	0.4748
Middle-income	32	0.5248562	0.1430823	0.2154	0.7597
High-income	12	0.78465	0.0773172	0.6846	0.901
Analysis of Variance(ANOVA)					
Source	Sum of square	df	Mean Square	F	sig
Between groups	0.808129958	2	0.404064979	24.06	0.0000
Within groups	.738949186	44	0.0167943		
Total	1.54707914	46	0.033632155		

4.2 Results of ANOVA

As a means of determining whether different countries and diverse income levels had a significant impact on EGDI the one-way ANOVA test was carried out. In order to do so, the subject countries were divided into three income levels as per the World Bank's definition, viz high, middle and low income levels. The EGDI of 2018 under each income group for each country was taken as the dependent variable. In all 47 Asian countries were taken into consideration, consisting of 12 in the high levels, 32 in middle income and 3 in low income.

From the results of descriptive statistics it is clear that for the low-income group mean EGDI is 0.3164, its maximum EGDI is 0.4748 where as its minimum EGDI is 0.2159, for the middle-income group countries these values are 0.5248562, 0.7597 and 0.2154 respectively and for the high-income group countries these values are 0.78465, 0.901 and 0.6846 respectively. Now coming to the ANOVA, the null hypothesis was set as $H_0 : \mu_1 = \mu_2 = \mu_3$, i.e, there is no statistically significant difference between the group means on EGDI. This was tested against the alternative hypothesis, i.e, $H_1 : \mu_1 \neq \mu_2 \neq \mu_3$, i.e, the groups means are statistically significantly different. The results of ANOVA table indicates that observed 'F' value (=24.06) is significant at 1% level of significance. Hence the null hypothesis i.e, equality of three population means is rejected. This means that there exists the significant impact of economy on EGDI. In other words, it can be clearly said that categorisation of countries among different income levels has significant impact on EGDI.

4.3 Results of Panel Data Regression

This technique was utilised to find the degree of interaction between EGDI and its causal elements, viz. socio economic factors like GDPPC, GINI, EPI, which expresses advancement vis-à-vis information access, specially how this interaction plays out across various countries and income groups.

The data has been collected for this purpose with regard to EGDI and the causal factors over a period from 2008 to 2014. EGDI is the dependent variable here, while EPI, GDPPC and the GINI coefficient are the explanatory variables with U_{it} being the random disturbance term.

The baseline econometric model for determining the impact of socio-economic factors and EPI on EGDI has been taken as:

$$EGDI_{it} = \beta_0 + \beta_1 EPI_{it} + \beta_2 GDPPC_{it} + \beta_3 GINI_{it} + \varepsilon_{it}$$

Where, subscript $i = 1, \dots, N$ indicates the country and subscript $t = 1, \dots, T$ indicates the time period. ε_{it} is the error term. Here we have obtained data on 36 Asian countries both for dependent and independent variables for the above mentioned period.

The use of the panel data method allows for country specific effects. Thus the empirical process is made up of a number of steps. First a pooled regression has been performed by ignoring both time and space. Then the fixed effect model has been applied as

$$\varepsilon_{it} = \mu_i + \eta_{it}, \mu_i$$

being the country specific fixed effect, which in turn is correlated with the regressors. In this way, the fixed effect has been estimated within the estimation.

The assumption here is that μ_i is a random term that is uncorrelated with the independent variables. The resultant model is the random effect model, and the parameters are estimated using GLS.

Finally, the Hausman specification test has been applied for selecting the final model.

Let us now consider the following regression results:

Table 3: Estimation Results of Pooled Regression

Source	SS	df	MS	Number of obs = 144		
Model	2.82826078	3	.942753594	F(3, 140) = 120.82		
Residual	1.09241731	140	.007802981	Prob > F = 0.0000		
Total	3.92067809	143	.027417329	R-squared = 0.7214		
				Adj R-squared = 0.7154		
				Root MSE = .08833		

egdi	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
epi	.3764927	.031363	12.00	0.000	.3144863	.4384991
gdppc	4.73e-06	5.84e-07	8.10	0.000	3.58e-06	5.89e-06
gini	-.1222674	.0970321	-1.26	0.210	-.3141051	.0695702
_cons	.3587786	.0431367	8.32	0.000	.273495	.4440621

The above table shows that epi and gdppc are statistically significant with expected signs whereas gini becomes insignificant. This can be explained by the fact that while economic development is an obvious contributor to the success of e-government initiatives, greater transparency in terms of easier access to information can facilitate the effectiveness of e-government systems. On the other hand, income differentials may not have a major impact as it is not a major contributor to the success of e-government efforts.

The assumption of pooled regression eliminates region specific effects and the existence of specification bias prevents the model from capturing such information, thus rendering almost all variables as significant. In contrast, if we choose not to ignore it, the error term captures the unobserved component for each country; this is the reason for preferring the FE model and hence by using it we have estimated the results, which are shown in Table 4.

Table 4: Estimation Results of Fixed-Effect Model

Fixed-effects (within) regression		Number of obs	=	144
Group variable: countrycode		Number of groups	=	36
R-sq: within	= 0.4072	Obs per group: min	=	4
between	= 0.6535	avg	=	4.0
overall	= 0.6339	max	=	4
corr(u_i, Xb) = 0.2104		F(3,105)	=	24.04
		Prob > F	=	0.0000

egdi	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
epi	.1651082	.0212185	7.78	0.000	.1230359	.2071806
gdppc	6.30e-06	2.75e-06	2.29	0.024	8.42e-07	.0000118
gini	.0321113	.0678609	0.47	0.637	-.1024443	.166667
_cons	.3474428	.0415856	8.35	0.000	.2649863	.4298993
sigma_u	.09704363					
sigma_e	.04087717					
rho	.84930725	(fraction of variance due to u_i)				

F test that all u_i=0:	F(35, 105) =	15.68	Prob > F = 0.0000
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Table 4 confirms unlike pooled regression, in case of fixed effect regression also both epi (at 1 percent level) and gdppc (at 5 percent level) are found to be statistically significant and both of them have positive impact on the egdi. Here also again gini becomes statistically insignificant. As we know that the error term captures the spatial effect in the RE model. Therefore we have estimated the results by using Random Effects model which is shown in the following Table 5.

Table 5: Estimation Results of Random-Effect Model

Random-effects GLS regression		Number of obs	=	144
Group variable: countrycode		Number of groups	=	36
R-sq: within	= 0.4044	Obs per group: min	=	4
between	= 0.6920	avg	=	4.0
overall	= 0.6651	max	=	4
corr(u_i, X) = 0 (assumed)		Wald chi2(3)	=	163.26
		Prob > chi2	=	0.0000

egdi	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
epi	.2028092	.0223437	9.08	0.000	.1590163	.246602
gdppc	6.12e-06	8.91e-07	6.87	0.000	4.37e-06	7.87e-06
gini	-.00614	.0712166	-0.09	0.931	-.1457221	.133442
_cons	.3527012	.0342724	10.29	0.000	.2855284	.4198739
sigma_u	.06482396					
sigma_e	.04087717					
rho	.71549166	(fraction of variance due to u_i)				

The above results depict that except Gini all other regressors are statistically significant.

The obvious question now is whether to go for the FE model or the RE model. At an overall level it can be said that if there is no correlation between the error term and the explanatory variables, then we can choose the RE model; otherwise the preference will be for the FE model.

One way out is to opt for the Hausman test. This test operates on the basis of the null hypothesis that there is no significant difference between the estimators for the FE and RE tests; it utilises the asymptotic χ^2 distribution. Acceptance of the hypothesis will lead to mean we will have to opt for the RE test, and vice versa.

Table 6: Results of Hausman Specification test

	(b) Fe	(B) Re	(b-B) Difference	$\sqrt{\text{diag}(V_b - V_B)}$ S.E.
Epi	-.3048617	.030361	-.3352227	.0153112
gdppc	7.13e-06	7.62e-06	-4.89e-07	2.94e-06
Gini	.0161789	-.0374224	.0536013	

b = consistent under H_0 and H_a ; obtained from xtreg

B = inconsistent under H_a , efficient under H_0 ; obtained from xtreg

Test: H_0 : difference in coefficients not systematic

$$\chi^2(2) = (b-B)'[(V_b - V_B)^{-1}](b-B)$$

$$= 464.95$$

$$\text{Prob} > \chi^2 = 0.0000$$

As it is seen from the results in Table 6, the value of $\chi^2(2)$ is 464.95 at 1% level of significance. Hence the null hypothesis should be rejected at this level; in other words, we should opt for the FE model. Thus the acceptance of FE model enables us to conclude that the concerned subject countries have country specific fixed effect on EGDI which is quite natural, as all countries cannot be expected to have a similar level of development with regard to e-government systems. Nations with stronger economies, like those in the Gulf, or in the Far East, will expectedly have more matured e-government systems compared less economically favourable ones.

V. CONCLUSION AND POLICY PRESCRIPTIONS

The preceding analyses revealed that EGDI has the strongest relationship with TCII, followed by OSI and HCI. Different levels of economic progress had a significant impact on EGDI, thus proving the hypothesis laid out initially. EPI and GDPPC are found to have important effects on EGDI, though GINI does not exhibit such kind of impact.

The implication of these results is that from the technocratic point of view the foundation for proper e-government infrastructure should take the form of adequate infrastructure for telecommunications as well as an online framework. As is well known, a country like India still has some way to go before it can match international standards in this regard. While on the one hand telecom tariffs are on the rise without corresponding improvements in call quality, the online experience similarly leaves a lot to be desired. Improvements in human capital can similarly contribute to better e-government. This should not be difficult to understand, since an educated citizen is expected to be more aware of her rights, which in turn can make the government more responsive in the long run. This adds another justification for why the government needs to invest more in educational initiatives at different levels so as to make it more accessible and universal in nature.

Coming to the socio-economic aspects, better access to information and improved economic performance can help in better development of e-government. Both are obvious as on the one hand, one of the guiding principles of a good e-government is transparency of information, while on the other, better economic strength can lead to robust investment in e-government initiatives. Hence the government needs to be proactive in terms of reducing opaqueness of its processes vis-à-vis the citizen, while taking steps for their economic upliftment.

While it is not as popular as e-commerce or experiencing as fast growth, e-governance is one area that goes a long way in improving the lives of citizens in any country. It incorporates some obvious advantages over the traditional ways of interaction between the government and the governed, like transparency and accountability. Elements that come into play during these operations include user involvement, consistency across applications and appearance of the Graphic User Interface (GUI).

There should be considerable scope for introducing innovations that encourage better task performance and improved quality of life. In turn, this could facilitate the process of reducing the deficit as far as India's presence in IT manufacturing is concerned. The lack of substantial presence in the manufacturing space in the industry has been a cause for concern for quite some time. This could also have the added effect of greater number of patents emerging from this country.

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DIGITALIZATION IN INDIAN ECONOMY: ISSUE, CHALLENGES AND PROSPECTS

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ABSTRACT

The paper attempts to put together the concept of digital economy in India discussing at length the technical issues, historical issues, social issues involved. The challenges posed by the thrust on digital payments and the prospects of the same are reviewed. Given the overall resourcefulness of the concept the paper advocates for large scale reach of the same. Digital economy is the new productivity platform that some experts regard as the third industrial revolution. Digital revolution, also known as 'The Internet Economy' or Internet of Everything (IOE), is expected to generate new market growth opportunities, jobs and become the biggest business opportunity of mankind in the next 30 to 40 years. Today there are 7.6 billion people in the world of which only 4.1 billion use Internet. Today India's population is 133.92 Cr. 500 million Indians are already connected to the internet. The Department of Electronics & Information Technology of India released Internet of things policy estimating industry in India growing up to INR 940 billion, by 2020. Focus areas being Agriculture, Health, Water Quality, Natural Disasters, Transportation, Security, Automobile, supply chain management, smart cities, automated metering of utilities, waste management, oil and gas. The government also focused on the e-payment which served to maintain cash flow in the country and ensuring lawfulness in all transactions. Currently 1230 million Indians possess digital identities in the form of Aadhaar Cards. And there are 1210 million mobile phones and 560 million internet connections. The paper in this manner discusses four essential attributes of the advanced economy. Understanding the rising advancements right now the establishment of the meaning of new and appropriate plans of action. Indian economy is one of the fastest growing economies of the world.

Keywords: digital economy, technology and transaction, cashless economy

INTRODUCTION AND STATEMENT OF THE PROBLEM

Indian economy is one of the fastest growing economies of the world. Despite different global turbulences of economic conditions, Indian economy has been continuously focusing upon development. In the recent past, there are significant developments which have been taking place; Digital Economy is one of them. Though the government of India has been focusing on the digital transactions and e-payment initiatives since last few years, the major change or we can say actual effect of online transaction has taken place in India in effective manner after the demonetization period. Only when digital payment methods become an integral part of rural economic development, digital initiatives could be considered as successful. India has historically been a cash driven economy and culturally the deep rooted trends of cash based purchases especially in rural areas has largely been the economic scene. Hence, the major factor which needs to be taken in to consideration is how effectively the digital system is adaptable in the payment system of the country, considering the issue and challenges experienced in the existing scenario or changing patterns. The Digital India mission of the present Indian government is envisaged to lead economy towards progress and transparency. It is expected that there will be fruitful change in the economy, growth opportunity will also rise after full adoption of cashless economy. Digital India as the outcome of many innovations and technological advances is anticipated to emerge as new progressions in every sector and innovative endeavors for next generation. This will give rise to uniformity between the people and the government in relation with money and can also attract more foreign investment.

One of the major challenges in digital transaction is the lack of technology and e-payment awareness in people and also the reach of technology to all locations. Though, it is being planned that every corner of India shall have technology services in place, still in many of the locations the availability is found to be adequate, but services are not available for the customer. Most of the Indians with their long history of cash based transaction habits, may not move to digital payments system either through using debit card or credit card. For decades India has been cash based economy, making people accept cashless economy is not expected to be that easy. Mobile Internet penetration or networking remains weak in India as compared with other country. Further there is poor connectivity in rural areas as lower literacy level in poor and rural parts of the country makes it problematic to push the use of plastic money on a wider scale. As from customer point of view, lack of awareness of the customer, costs of smartphones and laptops and the challenge of gaining the trust of customers constitute the key challenges facing the mobile wallets, digital transaction service providers like banks, fin-tech companies etc. To make them agree upon using these online services is also a big challenge as they are not literate enough to understand the advantages of digital transaction or cashless economy. The cost of transactions that are levied

on the customer is also a major concern. For example, over every debit card transaction, some retailers or service provider (mainly the intermediaries between service provider and customer) are charging transaction cost from customers and it is additional burden to them.

REVIEW OF LITERATURE

Cash may no longer be king as the adoption of digital payment solutions is picking up at a furious pace. Everyone from vegetable vendor to tea seller is moving towards digital payment solution. Digital platforms like E-wallet, debit card are testimony to it but the burning question is “are we really equipped to make the switch”? ET Wealth Jan 02, 2017, conducted an online survey to find out the level of adoption of digital payment solutions and user habits. The findings reveal that while people are getting comfortable with cashless payments, some mindset issues are holding back many from embracing the newer platforms (especially in rural areas). Even those who have taken cashless are having security threats. Cash continues to be the preferred mode of payments... more so in rural India. This may be because digital payments have not reached smaller cities and village.

A study conducted on Demonetization has widened scope for digitization among retailers. A Study (2017) released on the eve of the one year anniversary of demonetization, noted 63% of retailers are inclined to accept cashless payments. It found that rural consumers are equally enthusiastic about cashless payment. They are ready to accept the change. This willingness, however, did not reflect in actual transaction. Till March, cashless transaction was recorded as only 11% (November 7, 2017 .financialexpress.com > Economy). But it was found that higher numbers of people were planning to adopt cashless economy although, they were resorting to cash transaction frequently.

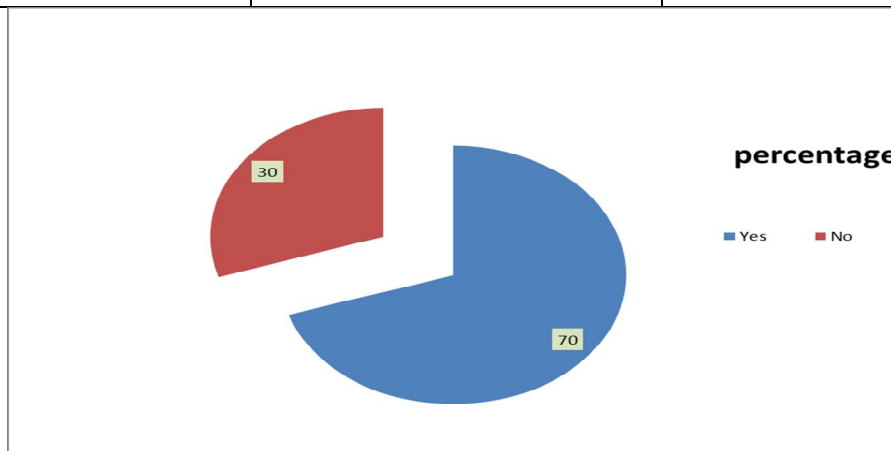
RESEARCH METHODOLOGY

The study is based on primary and secondary data (newspaper, journals, article, paper, internet etc.). India is a large country with huge population of 1,339,180,127 as per 2017 figures out of which 67.2 percentages is rural. The primary data was collected through survey, at Jagdar village, district Sitamarhi (population of Sitamarhi is 3,889,256) in Bihar and the total population of Bihar is 119,237,851 out of India's population.

A sample size of 100 was selected using the convenience sampling procedure out of which 90 copies were retrieved in usable form. This represents 90% response rate. The sample included both educated and uneducated population. Survey method was used for collecting the data with the help of questionnaires. The responses to the questions are presented below graphically and in tabular form.

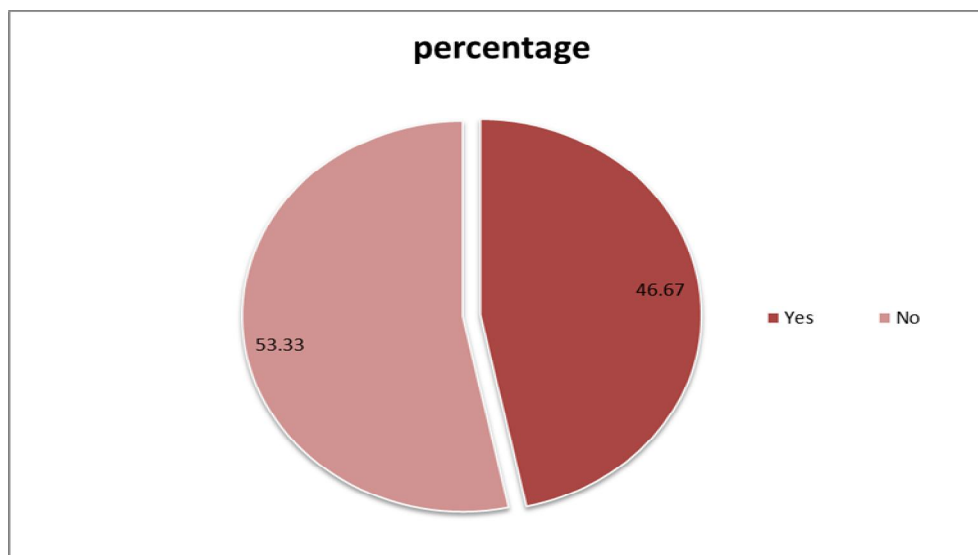
1. Are you aware about Digital Economy/Cashless Economy?

	Frequency	percentage
Yes	63	70
No	27	30
Total	90	100



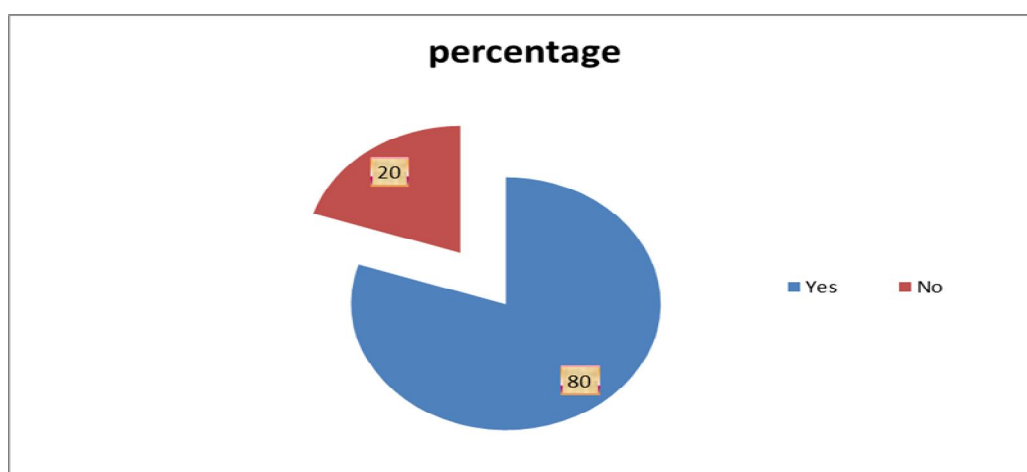
2. Are you aware about Digital payment system and E- wallet?

	Frequency	percentage
Yes	42	46.67
No	48	53.33
Total	90	100.00



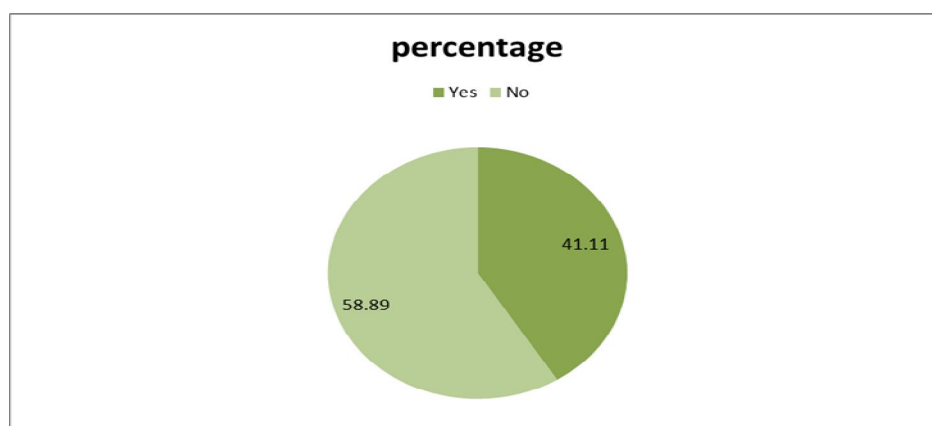
3. Do you have smart phones?

	Frequency	Percentage
Yes	72	80
No	18	20
Total	90	100



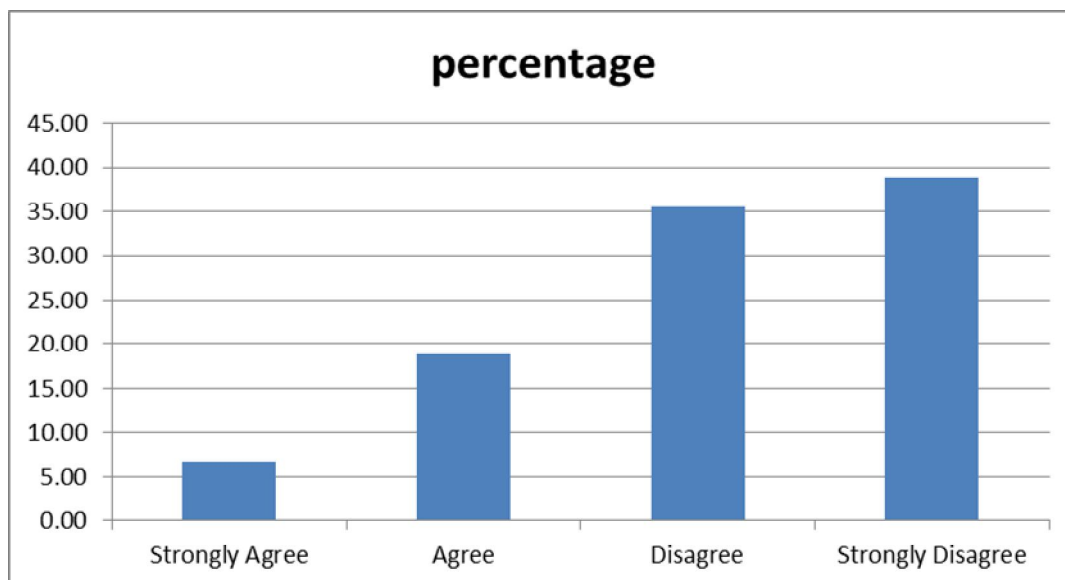
4. Do you have a Debit and Credit Card?

	Frequency	Percentage
Yes	37	41.11
No	53	58.89
Total	90	100.00



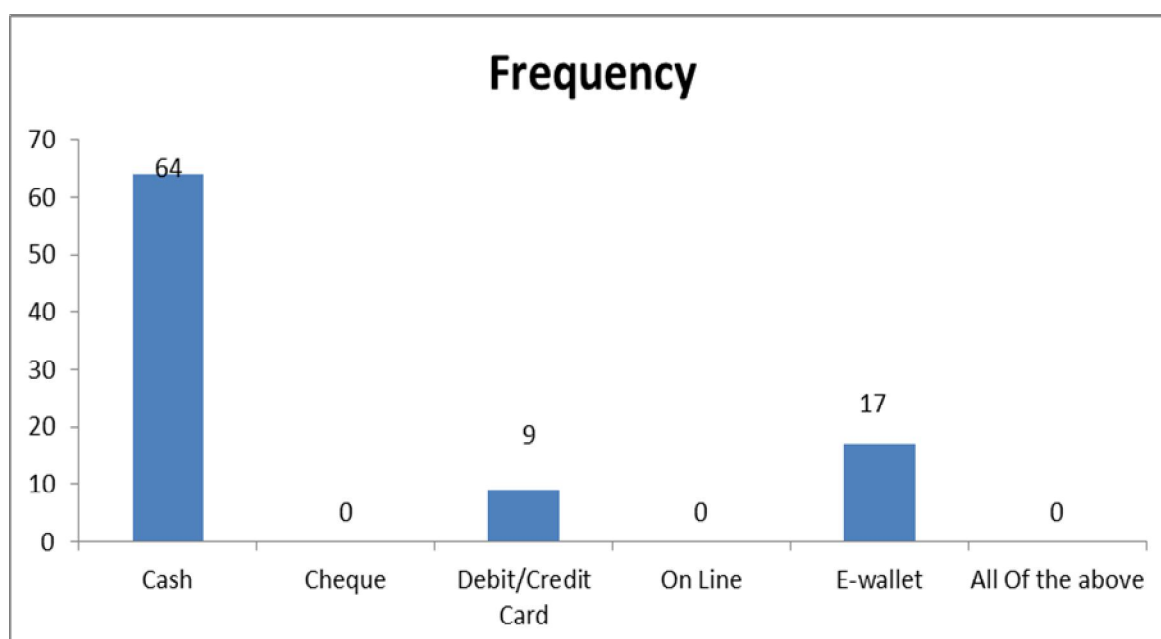
5. Do you use E- Wallet for Financial Transaction?

	Frequency	Percentage
Strongly Agree	6	6.67
Agree	17	18.89
Disagree	32	35.56
Strongly Disagree	35	38.89
Total	90	100.00



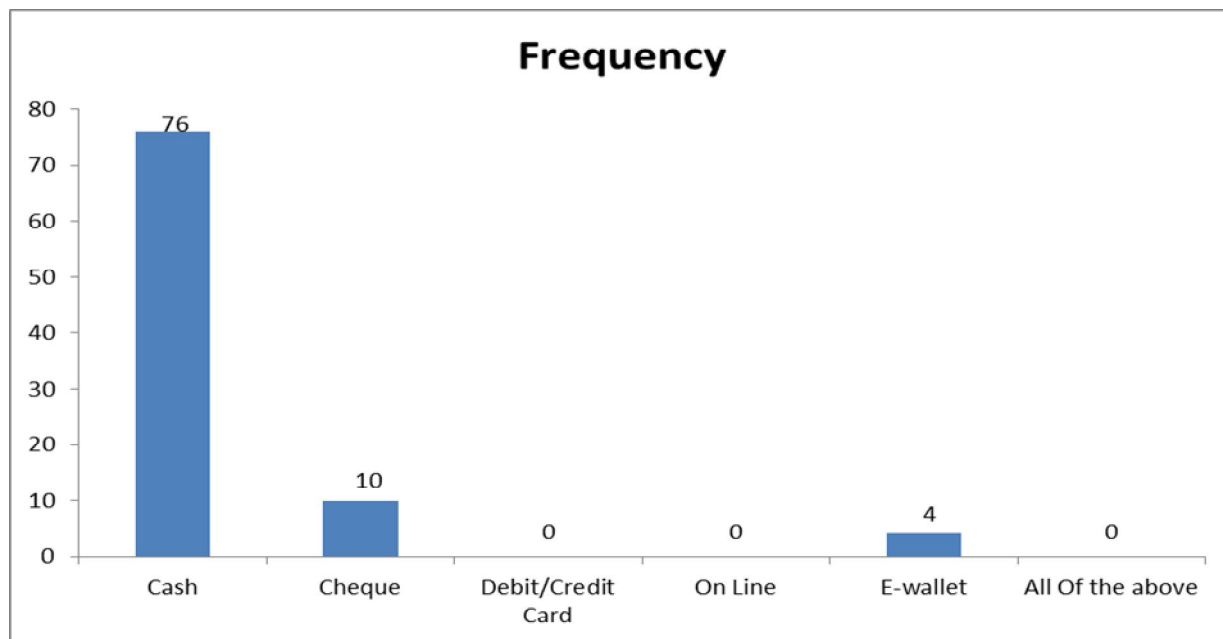
6. Which of the following payment method are used when you buying the good/ services?

	Frequency	percentage
Cash	64	71.11
Cheque	0	0.00
Debit/Credit Card	9	10.00
On Line	0	0.00
E-wallet	17	18.89
All Of the above	0	0.00
Total	90	100.00



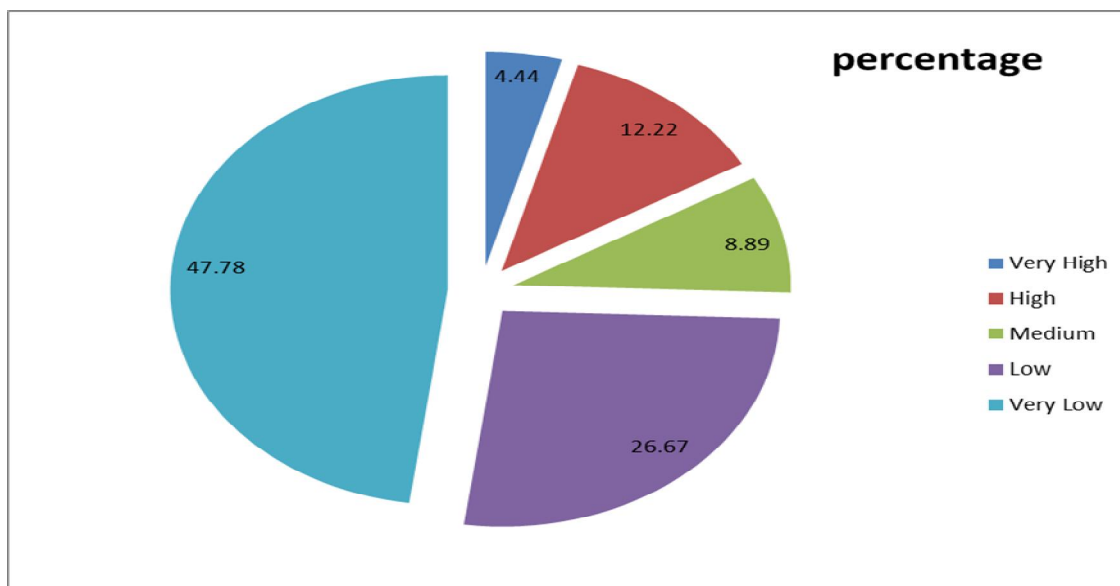
7. When making payment of different value which payment method is used?

	Frequency	Percentage
Cash	76	84.44
Cheque	10	11.11
Debit/Credit Card	0	0.00
On Line	0	0.00
E-wallet	4	4.44
All Of the above	0	0.00
Total	90	100.00



8. Do you trust E Payment System?

	Frequency	Percentage
Very High	4	4.44
High	11	12.22
Medium	8	8.89
Low	24	26.67
Very Low	43	47.78
Total	90	100.00



ANALYSIS

In India where a major chunk of economy depends upon rural sector, we really need to start things from root level. Those at the bottom of pyramid or socioeconomic ladder need to understand the advantages of digital economy very thoroughly and the system ought to work painstakingly to make this possible. The findings and observations of the research make it evident that people from rural India are aware about the concept of digital economy but they are not aware about details like what is digital payment or E- wallet. Even though they have their account in banks they are not acquainted with debit and credit card affecting the chances of taking recourse to digital payment systems. 72% people are using smart phones still they are using cash as their preferred mode of payment for purchase of goods or for services rendered.

The study with confidence can report that people are willing to change but are facing problems at root level or operation level. There is a need to make them aware about online system and its application. There is also need to win their trust that this payment will be safe in transaction. Sooner or later cashless economy will be successful and profitable in long-term if all the pressing issues surmounting the implementation process are addressed. Towards this end the following suggestions should go a long way in ensuring execution of a full proof successful and purposeful digitization module of money transfers.

- There is a need to make proper electricity facility available in order to ensure smooth functioning of digital payment.
- Availability of smart phones is not enough. They should be educated and made aware about different applications also.
- Internet should be available at affordable price with strong network.
- Concerning authorities and ground level officials need to establish strong trust factor among the villagers so that they easily trust upon digital payment.
- Awareness in only some people will not lead to change, there needs to be a proper chain to accept digital payment system.

CONCLUSION

India is emerging as fast economy, but for this development in the long term, there needs to be put in place a more transparent and strong base system for cashless economy. Considering the opportunities that are unfolding for market dynamics of digital payments, if the challenges that are discussed are addressed and improved solution offered we may make forwards leads in the path of cashless economy which can have its own positive repercussions on national income and wealth.

It can be concluded that there is immense scope that rural economy of India can go cashless or accept digital payment. People from rural segments more or less appear willing to accept the innovation of cashless economy or digital transaction if they are trained enough in that and trust is established between them. Even if there consumption pattern or payment mode of purchases is different, they are prepared to accept the recent change. The concerning authorities need to ensure basic support system like; undisturbed internet connectivity, awareness about technology driven economy, education and training on online transactions. Financial literacy through digital transactions at all levels is needed. It's not that rural masses are reluctant to change, they simply require to get sensitized to adapt themselves best to the recent impending change. Another thing which needs attention is the need to strengthen proper chain of digital transaction through management system concerning institutional bodies and government authorities. Cashless economy through its inherent features of transparency and involvement of service sector has an integral role in augmentation of national income and wealth. More studies of this nature on large scale populations throughout the length and breadth of the country can serve to chalk out the magnitude of this gain besides pinpointing the details of issues impacting effective rollouts.

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A STUDY ON EFFECTIVENESS OF RECOVERY OF NPAS OF COMMERCIAL BANKS A CASE STUDY ON LOK ADALAT METHOD OF RECOVERY IN INDIA

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ABSTRACT

The purpose of current was to study the status of Non Performing Assets of commercial banks and effect of various debt recovery techniques implemented by commercial banks in India. The research design adopted a descriptive survey design. The data collected for the study was analyzed by the use of descriptive statistics and inferential statistics. This includes the use of descriptive statistical methods to analyze data consisting of frequency, mean and standard deviation. At Present, recovery is risk of credit on banks, it is also known as credit risk. A bank credit risk has two distinct faces, quality of risk and quantity of risk It is observed that the recovery is carried out in the selected banks by adopting numerous general mechanism. First of all banks apply the primary measures to persuade the defaulting borrowers to repay their over dues like writing letters and sending representatives of the banks to the borrowers. Through literature review it is found that all the commercial banks in India operated certain legal mechanism to the maximum extent which includes Debt Recovery Tribunals (DRT), Lok Adalat, Securitization Act, and Compromises (OTS), Write off, Up-gradation and Cash recovery. The present study specifically focus on Lok Adalat method of recovery of NPAs implemented by commercial banks in India. This study analyze the last five years data related to the recovery of NPAs of commercial banks through Lok Adalats.

Keywords: Collateral, Debt recovery, Customer-Supplier, Credit monitoring

INTRODUCTION

A Bank is a financial institution whose primary objective is to act as a payment agent for customers and to borrow and lend money to needy persons. It is a financial institution which receives keeps, and lends money in hopes of repayment as required by persons. The name bank derives from the Italian word Banco "desk/bench". However, there are evidences available of banking activity even in ancient times also. An asset becomes nonperforming when it stops to generate income for the bank in the form of interest and principal or both. Experts define a 'non-performing asset' (NPA) as a credit facility in respect of which the interest or installment of principal has remained 'past due' for a specified period of time which is currently 90 days.

FACTORS CONTRIBUTING FOR RISE IN NPAS

There are many reasons which are converting loans as a bad loan or non performing asset. For a business, it may be because it fails get success or startup in initial years. Such a situation may arise because of sudden health expenditure or job loss or death of individual borrowers or it can be because of over-debt, when consumers borrow against most of their assets. In such a case, any hit on income can disturb all repayments loans of borrower. They, however, can file for bankruptcy under the Bankruptcy Code. In India, the situation of NPAs has worsened due to banks aggressively issuing loans, even unsecured loans, to individuals and business organization. President and founder of International Consumer Rights Protection Council, an NGO, says most customers in India are not financially educated and banks are luring them to take more and more loans without any strong requirement even without checking their financial position. Some of the major factors which are responsible for conversion of loans into NPA are discussed as follow.

EXTERNAL FACTORS

Ineffective Recovery Tribunal: The Government has formulated a numbers of recovery tribunals, which works for recovery of loans and advances for banks. Due to negligence and ineffectiveness of Recovery Tribunal in their work, the bank suffers the consequence of non-recover of NPAs, which affects the profitability and liquidity of Indian commercial banks.

Willful Defaults: There are borrowers who are able to pay back loans but they are intentionally avoiding the repayment it because they expect some sort of reliefs from government. Which is again a big cause of NPAs in developing countries.

Natural Calamities: This is the major factor, which is responsible for rise in NPAs of commercial banks not in India but whole of world. India is hit by major natural calamities which make the borrowers unable to pay back their loan installments basically farmers and others who are dependent on agriculture and related activities.

Industrial Sickness: Improper project handling, ineffective management for projects, lack of adequate financial and other resources, lack of modern technology, changes in government policies give birth to industrial sickness. Hence the banks that provide finance to industries ultimately end up with a low recovery of their loans.

Lack of Demand: Entrepreneurs in India, without predicting the demand of their products start production which ultimately piles up their product thus making them unable to pay back the money they borrow to operate these activities.

Change in Government Policies: Changing in government policies also responsible for increase of NPA in Indian banking sector. The fallout of handloom sector is continuing as most of the weavers Co-operative societies have become default largely due to withdrawal of state patronage. The rehabilitation plan worked out by the Central Government to revive the handloom sector has not yet been implemented. So the over dues due to the handloom sectors are becoming NPAs.

INTERNAL FACTORS

Defective Lending process: due to one or other reasons any wrong selection of loan client by bank can create a multiple problems for commercial banks. The banker should, therefore take utmost care in ensuring that the enterprise or business for which a loan is sought is a sound one and the borrower is capable of carrying it out successfully.

Inappropriate Technology: Due to lack of modern technology and management information system, market driven decisions on real time basis cannot be taken by commercial banks in India. Proper Management Information System (MIS) and financial accounting system is not implemented in the banks, which leads to poor credit collection, thus it leads to increase in NPAs.

Improper SWOT Analysis of Clients: The improper strength, weakness, opportunity and threat analysis is another reason for rise in NPAs. While providing unsecured advances the banks depend more on the honesty, integrity, and financial soundness and credit worthiness of the borrower. Banks should consider the borrowers own capital investment. It should collect credit information of the borrowers from bankers; enquiry from market/segment of trade, industry, business and from external credit rating agencies.

Analyze the Financial Statements: True picture of business will be revealed through the analysis of financial statement of who want to borrow. When bankers give loan, it should analyze the purpose of the loan. To ensure safety and liquidity, banks should grant loan for productive purpose and secured loans only.

Poor credit appraisal: due to poor credit appraisal the banks give advances to those who are not able to repay it back. Which is again a big cause of rise in NPAs? They should use good credit appraisal to decrease the NPAs.

Impact of NPAs ON Banks Economies

The three letters “NPA” strike terror in banking sector and business circle. The impact of NPAs on banks and economy is significantly visible in the following areas:

1 PROFITABILITY: NPAs means blocking of funds in terms of bad asset. Because of the money getting blocked the profitability of bank decreases but NPA increases opportunity cost also as that much of profit invested in some return earning project/asset.

2 LIQUIDITY: Because of NPAs money gets blocked, provisions are made, decreased profit lead to shortage of cash and which lead to borrowing money for short period of time which increases additional cost to the banks. Which ultimately affects liquidity and profitability of banks?

3 TIME COST OF MANAGEMENT: Time and efforts of management is another major hidden cost which banks have to bear due to rise in NPAs. Time and efforts of management in handling and managing NPAs consume time and cost.

4 LOSS OF CREDIT: Bank is facing problem of NPA then it adversely affect the value of bank in terms of market credit. It will lose its goodwill and brand image and credit which have negative impact to the people who are putting their money in the banks.

LITERATURE REVIEW

Barge (2012) Found that early monitoring and management of lent funds is the necessity of the current scenario. The study suggested a number of measures like better supervision of end use of funds, information about the credit history of the borrower and assisting the borrowers to develop entrepreneurial skills to ensure that the asset does not become a non-performing asset.

Gupta (2012) made a comparative study of the position of NPAs of public sector banks. The researcher concludes that for evaluation of the solvency of borrowers, commercial banks should set up a separate credit rating agency. Study also suggested the need for a committee comprising of financial experts to supervise and monitor the issue of NPAs.

Shalini (2013) has examined the major causes and suggested mechanism for reducing NPAs of public sector banks with special reference to the agricultural sector loans. The analysis of the different problems faced by the Indian farmers deduces the conclusion that banks should follow some measures before lending the loan.

Bhaskaran et al. (2016) This paper have compared the NPAs of public sector banks and private sector banks over a period of ten years during 2004 to 2013. It revealed that private sector banks are doing better than public sector banks in reducing the level of NPAs or recovering of NPAs.

Thomas and Vyas (2016) in a recent study on loan recovery strategy of Indian banks suggests two measures, preventive and corrective. The paper also discusses several corrective measures – legal, regulatory and non-legal that are to be taken to recover the non-performing loans.

Singh (2016) in another recent study on NPAs and recovery status find that the problem is more severe for the public sector banks compared to the private sector banks. The academic review points to the need to have strict lending policies for speedy recovery of loans.

Meher (2017) in the post-demonetisation period looks into the impact of the government's notebandi decision on the NPA of Indian Banks. The researcher finds both positives and negatives of the event on the banking industry.

Sahni and Seth (2017) study the different causes responsible for rising NPAs and the impact it has on the operation of banks. The authors have mentioned several preventive and curative measures to control the NPAs. They have suggested that proper assessment regarding the credit-worthiness of the borrower should be done to ensure the speedy recovery of loans.

Banerjee et al. (2018) have examined the status of gross NPAs and net NPAs in private sector banks and public sector banks to study their effect on the asset quality of the banks. Deliberate loan defaults, poor credit management policies, sanctioning of loans without analysing the risk-bearing capacity of the borrowers are the main reasons for piling up of NPAs.

Dey (2018) in a very recent research paper looks at the recovery aspect of recovery of poor loans of the Indian commercial banks. The author finds the role of DRTs to be much better compared to the recovery through Lok Adalats and SARFAESI Act.

RESEARCH METHODOLOGY

Current study is based on Non Performing Assets in Scheduled Commercial Banks which includes public sector banks, private sector banks and foreign banks which are listed in the Second Schedule of the Reserve Bank of India Act, 1949. The study is based on secondary data. The paper discusses the conceptual framework of NPA and it also highlights the trends, status and impact with special focus on recovery channel of NPA implemented by scheduled commercial banks. This paper is based on Lok Adalat system of recovery of NPAs in scheduled commercial banks in India. Several reputed research journal including research paper and articles have been used by the researchers. Moreover, RBI Report on Trend and Progress of Banking in India for various years, websites and a book on banking has been referred during the study.

SOURCES OF DATA

The data collected is mainly secondary in nature. The sources of data for this paper include the literature published by Indian Bank and the Reserve Bank of India, various magazines, Journals, Books dealing with the current banking scenario. Last five years data of recovery NPAs through Lok Adalat system have been taken for this study.

OBJECTIVES OF THE STUDY

To study the status of Non Performing Assets of Indian Scheduled Commercial Banks in India.

To study about recovery channels of NPA used by commercial banks in India

To study and compare the performance of Lok Adalat method of recovery of NPA.

To suggest some measures for effective recovery of NPAs.

RECOVERY CHANNELS:

Some measures are formulated and implemented to increase the NPAs recovery in Indian banking system. The Central government and RBI have implemented strict policy for controlling incidence of fresh NPAs and creating legal and regulatory environment to facilitate the recovery of existing NPAs of banks. Which are as follow:

Debt Recovery Tribunals (DRTs)

Debt Recovery Tribunals were established to facilitate the debt recovery of commercial banks and other financial institutions. DRTs were set up after the passing of Recovery of Debts due to Banks and Financial Institutions Act (RDBBFI), 1993. The Debt Recovery Tribunal is also the appellate authority for appeals filed against the proceedings initiated by secured creditors under the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act.

Securitization and SARFAESI Act

Securitization is considered an effective tool for improvement of capital adequacy. Securitization can also help in reducing the risk arising out of credit exposure norms and the imbalances of credit exposure, which can help in the maintenance of healthy assets. The SARFAESI Act intends to promote Securitization, pool together NPAs of banks to realize them and make enforcement of Security Interest Transfer. The SARFAESI Act - 2002 is seen as a booster, initially, for banks in tackling the menace of NPAs without having to approach the courts.

Lok Adalats

Lok Adalat institutions help banks to settle disputes involving account in “doubtful” and “loss” category, with outstanding balance of Rs. 5 lakh for compromise settlement under Lok Adalat. Debt recovery tribunals have been empowered to organize Lok Adalat to decide on cases of NPAs of Rs. 10 lakh and above. This mechanism has proved to be quite effective for speedy justice and recovery of small loans. The progress through this channel is expected to pick up in the coming years. According to RBI guidelines, banks can use Lok Adalats to recover loans up to Rs 20 lakh. Recovery through award of Lok Adalat is the easiest and fastest mode of recovery. The literal meaning of Lok Adalat is people’s Court. The concept comes under the ‘**Alternative Disputes Redressal Mechanism**’ like arbitration, conciliation etc. The pre-litigation up to Rs.20 lacs and suit filed accounts where plaint amount does not exceed Rs.20 lacs can be settled through Award of Lok Adalat. The Lok Adalat is constituted under section 19 of Legal Services Authority Act, 1987

Method of organizing Lok Adalat:

The manager of the Bank shall contact the borrowers and negotiate with them the terms of settlement. The Manager should convince the borrowers about the benefits of settling the matter via Lok Adalat. The branch office has to take their higher office permission/sanction wherever necessary, with regards to proposed terms of settlement.

The Legal Service Authorities shall be approached by the bank to conduct Lok Adalat along with a list of the accounts where settlement is feasible. The Legal Service Authority fixes the date of Lok Adalat and informs the same to the bank. The bank in turn shall serve notice to all the parties concerned. The concerned branch of the bank should personally contact the borrowers and ensure that all parties be present at Lok Adalat on the date fixed.

The Lok Adalat will be convened on the date fixed and **same day award will be passed**. The award is final and binding on all the parties.

1. Every award of the Lok Adalat is equivalent to a decree of a Civil Court.
2. OTS (One Time Settlement) can be put through Lok Adalat, so that on default, the award could be executed by the Court (Like execution of decree).
3. No appeal will be entertained against the award of Lok Adalat.
4. No case could be instituted in any Court with regard to case decided by Lok Adalat.
5. Entire Court fee paid for filing suit will be returned back and no lawyer fee is payable.
6. The award can also be passed on a holiday

Lok Adalats Performance in Last 5 years (Amount in billion)

Item	2014-15	2015-16	2016-17	2017-18	2018-19
No. of cases referred	91,31,199	44,56,634	35,55,678	33,17,897	40,80,947
Amount involved	887	720	361	457	53,5
Amount recovered	43	32	23	18	2,8
% of amount recovered	4.8	4.4	6.3	4.0	5.3

NPA issue in India is a matter of concern if we analyze the above table in 2014-15, 91,31,199 cases of NPA dispute transferred by banks to Lok Adalat which involves amount of Rs. 887 billions, which again a matter of concern. In this year amount recovered is only Rs. 43 billions. If we see success of Lok Adalat in terms of percentage in between 4% to 6.3% in last 5 years. It is 4.8% in 2014-15 and 5.3% in 2018-19, which seems to very constant

SUGGESTIONS TO IMPROVE RECOVERY OF NPAs

Improve Recovery Act: Many State Governments have very effective recovery act such as M., P. State Recovery Act which is very effective and enjoy a useful record for banks. Some State Governments give target for recovery to official of revenue department and simultaneously gives incentive for recovery also. This issue was discussed in the state level forum about the improvement in state recovery act. The modifications to the act are still awaited. The act in the present form is not very effective.

Awareness: The officials are well aware of the benefits of Lok Adalat but had no occasion to present the cases in the forum. The officials were not aware whether lok Adalats were held in the district. So awareness about the Lok Adalat should be increased.

Filing Civil Suits: As regards filing civil suits for recovery, these cases take time to settle as they are treated as like any other litigation and do not get any priority. Further, proving documents by oral evidences of previous discussions is also cumbersome and times consuming. The security obtained is also deteriorated due lapse of time. Additionally, the branch has to take permission to file suit, engage lawyer and spend the money to obtain and execute decree. Filing civil suit is therefore the last resort.

Recovery Camps: The recovery camps are organized by the revenue officials for recovery under government programs in the district. Such camps were arranged in the block where the branches under study are located. However, the Branches under study did not have opportunity to participate in such camps. So commercial banks should also organize recovery camps.

Specific powers to Lok Adalats: Lok adalats may be a very effective way of recovery of NPAs. But for further proceedings and related to adjustments certain authorities should be provided to Lok adalats

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INTERNAL CORPORATE GOVERNANCE MECHANISMS AND FIRM PERFORMANCE: A PANEL LEVEL ANALYSIS IN EMERGING MARKET

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ABSTRACT

This paper seeks to examine the relationship between internal corporate governance mechanisms and firm performance of NSE listed Companies. Firm performance has been measured using Tobin's Q and MBVR as market-based measures and ROA and ROE as accounting-based measures. Econometric Analysis is performed using Fixed Effect with-in and Least Square Dummy Variable model, Random effect model and Feasible Generalized Least Square model on a panel of 178 non-financial NSE listed firms for a period of eight years from 2011-2018. The results concluded that Board parameters are the important internal corporate governance mechanisms impacting firm performance in Indian context. Board size, Board Composition, Board independence and CEO Duality have a significant negative impact on firm performance measures; on the other hand, Chairman Identity has a significant positive impact on firm performance. However, Board Activity has no impact on firm performance. The results provided a comprehensive analysis of various board parameters based on the various theories of corporate governance viz. agency, stewardship, stakeholder and resource dependency theory backed by the extensive empirical literature on corporate governance and firm performance studies which would be great help for researchers and academicians.

*JEL Classification: G32, G34**Manuscript Type: Empirical*

1. INTRODUCTION

Corporate Governance issues gained attention of governing bodies as well as public in large because of the apparent importance of economic and social health of the organization especially after the corporate scandals of the big giants Enron, WorldCom, One.Tel, Tyco, Satyam and others in the recent times. This eventually has led to the need for corporate governance mechanisms in recent years. The fundamental insight for the current corporate governance framework was found in the classical work of Berle and Means (1932) who argued that the separation of ownership and control reduces management's incentives to maximize the corporate efficiency of modern corporations resulting in agency problem. Corporate Governance evolved as a mechanism to deal with the agency problem and has been defined by Shleifer and Vishny (1997) as, "Corporate governance deals with the ways in which the suppliers of finance to corporations assure themselves of getting a return on their investments"

Corporate governance standards and practices evolved over the years in India are in line with the best practice followed in US and UK. Based on the principles of agency theory, these standards and practices primarily focused on enhancing firm performance and thereby shareholder's wealth.

There are large numbers of studies on different aspects of corporate governance in developed markets (Jensen and Meckling, 1976; Perace and Zahra, 1992; Daily and Dalton, 1992; Jensen, 1993; Yermack, 1996; Hermalin and Weisbach 2001). However the studies in emerging markets are sparse. Emerging markets have different characteristics such as different political, social and economic, legal environment which limits the application of empirical findings of studies pertaining to developed markets in developing markets.

In the present study the relationship between the Corporate Governance Board Parameters and Firm Performance of 178 non-financial companies listed in NSE CNX 200 index is analysed using panel data of eight years from 2011-2018. Board parameters are seen as the most important internal corporate governance mechanism as board of directors is responsible for monitoring and advising the top management in performing their responsibility to protect the shareholders' interest. Board of directors occupies a unique position in the corporate form of business organization. It is mandated by law to have board of directors in order to govern the organisation be it large or small. The Cadbury Committee (1992) also placed board of directors at the center stage of corporate governance system.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Board Size and Firm performance

Board size refers to the total number of directors in the board of directors of a firm comprising of executive (insiders) and non-executive (outsiders) directors. The relationship between board size and firm performance is supported by different corporate governance theories. Agency Theory and Resource Dependency Theory supports board with large number of directors. On the other hand stewardship theory supports smaller board size for the effective management.

The perusal of the empirical studies showcased that the relationship between board size and firm performance has mixed results. Lipton and Lorsh (1992) argued the preference of smaller board size and recommended limiting the number of directors to seven or eight. Jensen (1993) believed that when board size goes beyond a certain number the directors are less likely to perform their function due to coordination problem and rather become difficult for CEO to control. Yermack (1996) provided empirical evidence for a negative relationship between board size and firm performance for a sample of US firms. Similarly for a sample of 230 Malaysian firms, Mak and Kusnadi (2005) find a negative and significant impact of board size on firm performance measured by Tobin's Q. Guest (2009) found that the negative relationship is not stronger for large firms in UK, which tend to have larger boards. A number of other researchers also documented a negative relationship (Kota and Tomar, 2010; Ghosh, 2006; Garg, 2007; Guo and Kga, 2012). Contrary to this there are strong evidences of positive relationship between board size and firm performance in the literature (Jackling and Johl, 2009; Pearce and Zahra, 1992; Katuria and Dash, 2009; Sahu and Manna, 2013). Pearce & Zahra (1992) believed that larger board size enhances firm's ability to understand and respond to diverse stakeholders and hence increases firm performance. Anderson, Mansi and Reeb (2004) recommended larger board as they argued that institutional investors believe that firms with larger board size have more monitored financial accounting structure which in turn reduces their cost of borrowing. Bennedsen, Kongsted and Nielsen (2008) in Denmark found that there is no effect on firm performance when the board size was varied at levels below six directors.

Based on the extensive literature, the following hypothesis is thus proposed:

H₁: Board Size has no significant impact on the performance of companies listed in India.

2.2 Board Composition and Firm performance

Board composition measures the proportion of non-executive directors to the total number of directors in the firm. Whether board composition has a positive and negative impact on firm performance has been a subject of significant study. Agency theory proposes positive influence as non-executive directors possess specialist skills which help management in strategic planning and they also bring transparency and objectivity in the decision making. Rashid, Zoysa, Lodh and Rudkin (2010) analysed a panel data set of Malaysian companies and found that firms with more number of non-executive directors on their board results in better performance. Peng (2004) also concluded that outside directors are able to make a difference in the performance of companies for a sample of Chinese firms. Some researchers (Kota and Tomar, 2010; Hermalin and Weisbach, 1991; Agarwal and Knoebar, 1996) are of the opinion that there cannot be a positive influence of board composition on firm performance as non-executive directors lacks specialist knowledge about the day-to-day functioning of the business operations. Guest (2009) concluded that board composition has a significant negative influence on ROA, Tobin's Q and share returns analysed using OLS, Fixed Effect and GMM model. McIntyre, Murphy and Mitchell (2007) found that firms with high average proportion of outside directors results in decreased levels of performance. Baysinger & Butler (1985) empirically supported and advocated a mix of insiders and outsiders on the board to enhance firm performance. They concluded that before deciding on the issue of non-executive directors it is sensible to assess the firm's profile and roles of the expected directors.

The following hypothesis is thus framed based on the impact of board composition on firm performance:

H₂: Board Composition has no significant impact on the performance of companies listed in India.

2.3 Board Independence and Firm Performance

Proportion of Independent directors to the total directors is referred as board independence. Provisions of Clause 49, made it mandatory that at least one third of the board should comprise of independent directors if the Chairman of the board is a non-executive director, if he is an executive director then at least half of the board should comprise of independent directors.

Prior literature on board independence and firm performance studies could not found any clear relationship between the two. Kumar and Singh (2012) examined the efficacy of outside directors on the corporate boards of 157 non-financial Indian companies and found that independent directors have a positive but insignificant

impact on firm performance. It was concluded that the companies with a greater proportion of independent directors have more market value. Thus independent directors require a greater representation on board in lieu of other non-executive outside directors. Contrary to this, in a similar study of listed firms in India, Dey and Chauhan (2009) found that board independence has an insignificant impact on firm performance across all categories of companies. Besides, Agrawal and Knoeber (1996) and Bhagat and Black (1999) find there is a negative relationship between the proportion of independent directors and a company's performance when measured using Tobin's Q. Hermalin and Weisbach (1991) found that the proportion of independent directors tended to increase when company's performance is poor. Lehn, Patro and Zhao (2009) argued that larger firms require more outside independent directors because the large size of the board gives rise to significant agency problems. In a similar line, Coles, McWilliams and Sen (2001) proposed that more diversified firms with wider operations, require more of independent directors to monitor the operations.

In light of the mixed evidence in support of relationship between Board Independence and firm performance, the hypothesis is thus framed as:

H₃: Board Independence has no significant impact on the performance of companies listed in India.

2.4 Board Activity and Firm Performance

Board activity is measured in terms of frequency of board meetings i.e. the number of board meetings in a financial year. Companies in India are required to hold at least one meeting in a quarter i.e. a minimum of four meetings in a year.

Board meeting frequency is considered as an important determinant of board activity affecting the firm performance (Vafeas, 1999). The nature of relationship between board meeting frequency and firm performance is however ambiguous in literature (Lipton and Lorsch, 1992; Jensen, 1993).

One proposition is that since frequency of board meetings measures the intensity of board activities and the effectiveness of their monitoring, thus higher the number of board meetings, higher will be the performance. A higher frequency of board meetings results in higher quality of managerial monitoring and thereby increases the firm performance (Ntim, 2009). Further, frequent meetings provide informal side-line interactions helping in strengthening the relationship among directors (Lipton and Lorsch 1992). Sahu and Manna (2013) concluded that more number of meetings helping in prompt decision and reducing inconsistencies in opinion of the board members. An opposing view is that board meetings more often serve as fire-fighting device rather than providing directions for future course of action thus are not necessarily beneficial to shareholders. Executive directors who often do not interact with other fail to discuss and exchange their ideas. Vafeas (1999) argues that the time directors spend together in the board meetings is not used for the meaningful exchange of ideas among themselves. Instead most of the meeting time is usually absorbed in routine tasks of the meetings, thereby reducing the time of outside directors which could be otherwise used in effective monitoring of the management (Jackling and Juhl, 2009). Vafeas (1999) also highlighted that Board meetings are costly in terms of managerial time, travel expenses, refreshments and directors' meeting fees which can negatively influence corporate performance. Jensen (1993) suggested that in order to be more profitable, corporate boards must organize board meetings responsive to the specific challenges rather than organizing frequent board meetings.

The following hypothesis is thus proposed for analyzing the relationship between Board Activity and firm performance:

H₄: Board Activity has no significant impact on the performance of companies listed in India.

2.5 CEO duality and Firm Performance

CEO duality refers to the board leadership structure in terms of whether the CEO and the chairman is the same person or not. The existing literature on CEO Duality and firm performance relationship found that both CEO Duality and non-duality perspectives have related benefits and costs. Jensen (1993) favoured the separation of CEO and chairman role to increase board independence from management resulting in better performance due to better monitoring in line with agency theory. Stewardship theory of corporate governance however favoured CEO Duality in order to unify the roles of Chairman and CEO and to remove ambiguity from firm leadership. Empirical literature also offers differing views in this regard. Some studies (Kiel and Nicholson, 2003; Pi and Timme, 1993; Lipton and Lorsch, 1992; Shleifer and Vishny, 1997) criticize the role dual role of CEO, as centralized leadership authority may lead to management's domination of the board impacting firm performance negatively. On the other hand various researchers (Donaldson and Davis, 1991; Kota and Tomar, 2010; Peng et al., 2010; Lin, 2005) claimed that CEO duality facilitates greater understanding and knowledge. Vafeas and Theodorou (1998) proposed that CEO duality will help in reducing the costs pertaining to extra managerial

remuneration. There are several other studies that found the relationship between CEO Duality and firm performance insignificant (Daily and Dalton, 1992; Baliga, et al., 1996).

Given the evidence of the impact of CEO duality on firm performance, the following hypothesis is thus proposed:

H₅: CEO Duality Size has no significant impact on the performance of companies listed in India.

2.6 Chairman Identity and Firm Performance

Chairman Identity refers to whether the chairman is executive or non-executive director. The need to evaluate the Chairman identity is that according to the provisions of Clause 49 of listing agreement, at least one third of the board should comprise of independent directors if the Chairman of the board is a non-executive director, if he is an executive director then at least half of the board should comprise of independent directors.

The relationship between Chairman Identity and firm performance is not evaluated much in the existing literature. In Indian context, Sahu and Manna (2013) reported a significant negative relationship between chairman's identity and firm performance when measured various performance indicators. Saat, Karbhari, Heravi and Nassir (2011) also found the relationship negative and significant. Mura (2007) and Peng (2004) however found the relationship positive and significant. The following hypothesis is framed after reviewing the limited literature:

H₆: Chairman Identity has no significant impact on the performance of companies listed in India.

3. OBJECTIVES AND METHODOLOGY

3.1 Objectives

The main objectives of the study are:

- To identify the nature of internal corporate governance mechanisms of NSE listed Indian companies.
- To analyze the impact of such corporate governance mechanisms on the performance of NSE listed Indian companies.

3.2 Methodology

3.2.1 Variables

Dependent Variables: The performance of the firm is considered as dependent variable. It is measured using the Market based performance measures-Tobin's Q and Market to book value ratio (MBVR) as well as the Accounting based measures-Return on Assets (ROA) and Return on Equity (ROE). The formula used for Tobin's Q in the present study is a modified version of Tobin's Q. The modifications are incorporated to make it compatible with the manner of reporting in the Indian context. Accounting based measures are the indicator of the firm's profitability.

Control Variables: In order to analyze the relationship between internal corporate governance and firm performance, the paper employed several other variables that may impact the relationship. The Control Variables include Risk, Firm Size, Firm Age, Firm Growth, Leverage, Advertising Intensity, Research Intensity, Industry Dummies and Year Dummies. Since the sample companies belong to 15 different industries, 14 Industry Dummies were used to avoid multicollinearity trap. Similarly 7 year dummies were used for 8 years.

Table 1 below provides the details of the variables used in the study:

TABLE-1: Description of Variables

Variable	Symbol	Description
Independent Variables		
Board Size	BS	Total number of directors on the Board
Board Composition	BC	Proportion of non-executive directors in the board i.e. Non-executive directors /total directors
Board Independence	BI	Proportion of Independent directors in the board i.e. Independent directors/total directors
Board Activity	BA	Number of Board meetings in a financial year
CEO Duality	Dual	Dummy Variable showing 1 if Chairman is also the CEO, 0 if chairman doesnot hold the position of CEO
Chairman Identity	CI	Dummy Variable showing 1 if Chairman is Non-executive, 0 otherwise

Variable	Symbol	Description
Performance Measures (Dependent Variables)		
<i>Market Based Measures</i>		
Tobin's Q	Tobin's Q	Market value of equity(Market Capitalization) + Book value of preference shares and borrowings divided by total assets
Market-to-Book Value Ratio	MBVR	Ratio of Market value of equity to Book value of equity
<i>Accounting Based Measures</i>		
Return on Assets	ROA	Ratio of profit before depreciation, interest, tax and amortization (PBDITA) to Total Assets
Return on Equity	ROE	Ratio of profit before depreciation, interest, tax and amortization (PBDITA) to Shareholders' Equity
Control Variables		
Firm Size	FS	Natural logarithm of total sales
Firm Age	FA	Natural Logarithm of difference between the financial year and the incorporation year
Leverage	Lev	Ratio of total debt to shareholders funds
Firm Growth	FG	Ratio of difference between current year sales and previous year sales to previous year sales
Research Intensity	RI	Ratio of Research and development expenditure to total sales
Advertising Intensity	AI	Ratio of Advertising expenditure to total sales
Risk	Risk	Value of Beta of the firm
Industry Dummies	Ind_dummies	Dummy variable carrying value 1 for a particular industry and 0 otherwise
Year Dummies	Year_dummies	Dummy variable carrying value 1 for the respective year and 0 otherwise

3.2.2 Sample and Data

The sample of the present study corresponds to NSE CNX 200 Companies. During the period from 2011-2018, the composition of the Index has undergone changes. Thus, we have added 45 companies that were changed in the NSE CNX Index during the period. From the 245 companies, thus selected, all the banking and financial companies were excluded being governed by The Banking Regulations Act, the number of companies thus reduced to 205. Also the companies which were merged during the period from 2011-2018 were excluded. Further 23 companies were excluded due to non-availability of data with respect to corporate governance reports of the companies or the financial data. These screening criteria thus reduced the final sample consisting of 178 companies belonging to different industries. The companies are divided into 15 different industries.

3.2.3 Statistical Articulation

The study employed the panel data of 178 companies for 8 years. The analysis of Data is performed using Panel Data Regression.

A typical panel data regression equation is as follows:

$$y_{it} = \beta_0 + \beta_1 x_{it1} + \beta_2 x_{it2} + \dots + \beta_k x_{itk} + \mu_{it}$$

Where

Y is the dependent variable

i denotes the number of firms and t denotes the time period

x_1, x_2, \dots, x_k are the independent and control variables.

β_0 is the constant term (intercept parameter of the regression)

$\beta_1, \beta_2, \dots, \beta_k$ are the slope parameters that represent the partial effects of x_i on y keeping all other factors constant

μ represents the unobserved factors that change over time and affect y.

Multiple regression analysis is performed using Panel Data Models-Fixed Effect With-in, Least Square Dummy Variable and Random Effect to capture the effects of firm and time specific heterogeneities. Hausman Test is

used to find the appropriate model between the Fixed Effect and Random Effect Model. The null hypothesis of Hausman Test is that the individual effects are uncorrelated with the other regressors. If null hypothesis is rejected, a fixed effect model is considered appropriate against Random effect otherwise Random effect model is preferred. The present study also employed FGLS regression to analyze the impact of board corporate governance on firm performance. The study also examined the specification tests (testing for multicollinearity, heteroskedasticity and autocorrelation) that might impact the standard errors and biases the results.

STATA 14 Version has been used for Analysis.

4. ANALYSIS AND RESULTS

4.3 Regression Analysis

4.3.1 Panel Model Tests

In order to analyse the relationship between the Corporate Governance variables and Firm Performance this study used panel data. In panel data analysis certain econometric issues are needed to be addressed. The results of F test for Fixed Effect for goodness of fit between the Fixed Effect Models and Pooled Ordinary Least Square Model (OLS) rejects the null hypothesis for all the dependent variable concluding that there is significant fixed effect and therefore Fixed Effect model is better than Pooled OLS. Also the results of Breush Pagan Lagrange Multiplier Test for Random Effect reject the null hypothesis of poolability for all dependent variable used and conclude that Random Effect Model is preferred over Pooled OLS. However in order to choose between the Fixed Effect and Random Effect Model, the study employed Hausman Test. Hausman Test rejects the null hypothesis for all variables except for Market to Book Value Ratio (MBVR). Table-2 shows the results of F-test, Breush-Pagan Test and Hausman Test.

TABLE-2: Panel Model Tests

Specification Tests	F test For Fixed Effect		Breusch-Pagan Lagrange Multiplier (LM) Test for Random Effects		Hausman Test	
	F Stats	p-value	Chi bar sq	p-value	Chi square	p-value
Tobin's Q	6.94	0.0000***	339.12	0.0000***	220.61	0.0000***
MBVR	5.73	0.0000***	99.04	0.0000***	398.62	0.0000***
ROA	9.66	0.0000***	786.87	0.0000***	112.93	0.0000***
ROE	3.56	0.0000***	159.11	0.0000***	47.85	0.0017***

*** Statistically Significant at 1% Level

4.3.2 Specification Tests

4.3.2.1 Multicollinearity Test

Multicollinearity has been checked using the Variance Inflation factor (VIF). Table 3 shows the VIF statistics. VIF values are found very less with the mean VIF of 1.46 for all independent and control variable. This signifies that there is no multicollinearity among the variables since as a rule of thumb VIF value less than 10 ignore the presence of multicollinearity.

TABLE-3: Collinearity Statistics

Variable	VIF	Tolerance
BS	1.57	0.6379
BC	1.75	0.5701
BI	1.5	0.6668
BA	1.38	0.7264
Dual	1.17	0.8547
CI	1.49	0.6707
FS	2.49	0.4009
FA	1.5	0.6652
Lev	1.04	0.9581
FG	1.82	0.5487
RI	1.17	0.8577
AI	1.21	0.8273
Risk	1.55	0.6436
Mean VIF	1.467647	

4.3.2.2 Heteroskedasticity Tests

Heteroskedasticity tests have also been employed to detect the presence of heteroskedasticity in the panel data as these biases the standard errors and thus lead to misleading results. Likelihood ratio test for testing the panel level heteroskedasticity was employed for all the dependent variables. The results of the test confirm the presence of heteroskedasticity at 1 percent level of significance as shown in Table-4.

TABLE-4: Heteroskedasticity Tests

Specification Tests	Likelihood Ratio (LR) Test for Panel Level Heteroskedasticity		Modified Wald Test for Groupwise Heteroskedasticity in Fixed Effect Model		Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Variables	Chi square	p-value	Chi square	p-value	Chi square	p-value
Tobin's Q	2829.71	0.0000***	1.50E+05	0.0000***	9864.28	0.0000***
MBVR	4717.1	0.0000***	1.40E+06	0.0000***	15353.25	0.0000***
ROA	1305.93	0.0000***	1.20E+05	0.0000***	115.73	0.0000***
ROE	2643.56	0.0000***	7.10E+05	0.0000***	200.08	0.0000***

*** Statistically Significant at 1% Level

4.3.2.3 Autocorrelation Test

Testing for Autocorrelation has been done using the Wooldridge test for serial correlation as devised by Drukker (2003). The null hypothesis of first order autocorrelation is accepted for Tobin's Q, MBVR, and ROE having probability value less than 5 percent. However for ROA, the hypothesis of serial autocorrelation is rejected. The results of the Wooldridge test are shown in Table-5 below.

TABLE-5: Autocorrelation Test

Specification Tests	Wooldridge Test for Autocorrelation in Panel Data	
Variables	F Stats	p-value
Tobin's Q	4.303	0.0395
MBVR	3.945	0.0486
ROA	0.219	0.6406
ROE	2.964	0.0869

*** Statistically Significant at 1% Level

Following the results of the heteroskedasticity and autocorrelation, the panel data regression models use cluster robust standard errors to control for heteroskedasticity and autocorrelation in case of Tobin's Q and MBVR and robust standard error to control only for heteroskedasticity for ROA and ROE as there is no autocorrelation. Also the FGLS models are devised accordingly. Table 6 shows the summary of the regression used in the study.

TABLE-6: Regression Summary

Tobin's Q and MBVR	Fixed effect Model (With-in) adjusted for "cluster robust" standard error.
	LSDV adjusted for "cluster robust" standard error.
	FGLS model adjusted for heteroskedasticity and first order autocorrelation.
	FGLS model adjusted for heteroskedasticity and first order autocorrelation.
ROA and ROE	Fixed effect Model (With-in) adjusted for "robust" standard error.
	LSDV adjusted for "robust" standard error.
	FGLS model adjusted for heteroskedasticity and no autocorrelation.

REGRESSION EQUATIONS

In Model 1 only independent corporate governance variables are regressed as explanatory variables with firm performance measures as dependent variables. On the other hand in Model 2, Regression is performed along with control variables.

FIXED EFFECT WITH-IN ESTIMATES EQUATION

MODEL 1:

$$(Tobin'sQ/MBVR/ROA/ROE)_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BC_{it} + \beta_3 BI_{it} + \beta_4 BA_{it} + \beta_5 Dual_{it} + \beta_6 CI_{it} + \mu_{it}$$

..... (1)

MODEL 2:

$$(Tobin'sQ/MBVR/ROA/ROE)_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BC_{it} + \beta_3 BI_{it} + \beta_4 BA_{it} + \beta_5 Dual + \beta_6 CI_{it} + \beta_7 FA_{it} + \beta_8 FG_{it} + \beta_9 FS_{it} + \beta_{10} Lev_{it} + \beta_{11} Risk_{it} + \beta_{12} AI_{it} + \beta_{13} RI_{it} + \beta_{14} (Ind_dummies)_{it} + \beta_{15} (Year_dummies)_{it} + \mu_{it}$$

..... (2)

LEAST SQUARE DUMMY VARIABLE (LSDV) EQUATION

MODEL 1:

$$(Tobin'sQ/MBVR/ROA/ROE)_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BC_{it} + \beta_3 BI_{it} + \beta_4 BA_{it} + \beta_5 Dual_{it} + \beta_6 CI_{it} + \alpha_1 + \alpha_2 C_{2i} + \alpha_3 C_{3i} + \dots + \alpha_n C_{ni} + \mu_{it}$$

.....(3)

MODEL 2:

$$(Tobin'sQ/MBVR/ROA/ROE)_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BC_{it} + \beta_3 BI_{it} + \beta_4 BA_{it} + \beta_5 Dual + \beta_6 CI_{it} + \beta_7 FA_{it} + \beta_8 FG_{it} + \beta_9 FS_{it} + \beta_{10} Lev_{it} + \beta_{11} Risk_{it} + \beta_{12} AI_{it} + \beta_{13} RI_{it} + \beta_{14} (Ind_dummies)_{it} + \beta_{15} (Year_dummies)_{it} + \alpha_1 + \alpha_2 C_{2i} + \alpha_3 C_{3i} + \dots + \alpha_n C_{ni} + \mu_{it}$$

.....(4)

Where C_{2i} =1 for Company 1 and 0 otherwise. A total of 177 dummies have been employed for 178 companies to avoid dummy variable trap.

4.3.3 Results with Tobin's Q as a Measure of Firm Performance

Table 7 presents the regression estimates using Tobin's Q as firm performance measure. The results of the regression analysis showed that Board size has a negative and significant impact on Tobin's Q irrespective of the regression technique employed. In both the models (without and with control variables) Board size showed a negative relationship with Tobin's Q. Board composition and Board independence indicate a negative relationship with firm performance measure Tobin's Q. The relationship between Board Independence and Tobin's Q is significant in case of FGLS method. Board Composition, however is significantly related in all regression techniques. The impact of Board activity on Tobin's Q is negative and significant in FGLS but only negative in Fixed Effect and LSDV. CEO duality is negatively associated with Tobin's Q. Chairman Identity indicates a positive and significant impact with FGLS.

TABLE-7: Regression Results Using Tobin's Q as Firm Performance Measure

Variables	(1)	(2)	(1)	(2)	(1)	(2)
	Fixed Effect with Cluster Robust Standard errors		LSDV with Cluster Robust Standard Errors		FGLS with Panels Heteroskedastic and First order Auto-Correlation	
BS	-0.0195*	-0.0164*	-0.0195*	-0.0164*	-0.0404***	-0.00239*
	(0.0322)	(0.0308)	(0.0322)	(0.0308)	(0.00797)	(0.00902)
BC	-1.959*	-2.401**	-1.959*	-2.401**	-0.510**	-1.307***
	(1.133)	(1.083)	(1.133)	(1.083)	(0.221)	(0.244)
BI	-0.453	-1.041	-0.453	-1.041	-0.00528	0.382*
	(0.754)	(0.836)	(0.754)	(0.836)	(0.173)	(0.206)
BA	-0.0140	-0.00485	-0.0140	-0.00485	-0.00992	-0.0235**
	(0.0395)	(0.0327)	(0.0395)	(0.0327)	(0.00807)	(0.00932)
Dual	-0.133	-0.0697	-0.133	-0.0697	-0.250***	-0.0383
	(0.230)	(0.253)	(0.230)	(0.253)	(0.0746)	(0.0711)
CI	0.107	0.145	0.107	0.145	0.183***	0.0755*
	(0.230)	(0.193)	(0.230)	(0.193)	(0.0609)	(0.0660)

	(0.0901)	(0.0728)	(0.0901)	(0.0728)	(0.0128)	(0.0130)
FS		1.265*		1.265*		0.150**
		(0.671)		(0.671)		(0.0676)
FA		3.954		3.954		0.0187
		(6.495)		(6.495)		(0.152)
Lev		0.00368		0.00368		0.00354
		(0.00696)		(0.00696)		(0.00444)
FG		-6.95e-07**		-6.95e-07**		-2.40e-07**
		(2.78e-07)		(2.78e-07)		(1.04e-07)
RI		-2.624***		-2.624***		-1.854*
		(0.214)		(0.214)		(1.900)
AI		0.174**		0.174**		0.0227*
		(0.0790)		(0.0790)		(0.0121)
Risk		-1.298***		-1.298***		-1.175***
		(0.283)		(0.283)		(0.0769)
Industry Dummies	NO	NO	NO	YES	NO	YES
Year Dummies	NO	YES	NO	YES	NO	YES
Constant	1.231	-7.614	1.231	-7.614	2.060***	2.962***
	(1.671)	(10.67)	(1.671)	(10.67)	(0.259)	(0.415)
Observations	1424	1424	1424	1424	1424	1424
R-squared	0.025	0.129	0.632	0.657		
Number of Firms	178	178	178	178	178	178

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

4.3.4 Results with MBVR as a Measure of Firm Performance

As shown in Table 8 Board size shows a negative relationship with MBVR as in case of Tobin's Q but it is significant only in case of FGLS. Board composition is negatively and significantly associated with MBVR. Board independence and CEO Duality are negatively and significantly related with MBVR using FGLS. But the relationship is not significant in case of Fixed Effect and LSDV Effect Model. Board Activity depicted a negative relationship in models with control variables and positive in models without control variables. The R-squared value is 57.2 %.

TABLE-8: Regression Results MBVR as Firm Performance Measure

Variables	(1)	(2)	(1)	(2)	(1)	(2)
	Fixed Effect with Cluster Robust Standard errors		LSDV with Cluster Robust Standard Errors		FGLS with Panels Heteroskedastic and First order Auto-Correlation	
BS	-0.118	-0.0959	-0.118	-0.0959	-0.155***	-0.0422*
	(0.186)	(0.213)	(0.186)	(0.213)	(0.0191)	(0.0234)
BC	-4.511	-9.827*	-4.511	-9.827*	-1.489**	-3.779***
	(7.067)	(5.551)	(7.067)	(5.551)	(0.622)	(0.696)
BI	-3.715	-0.359	-3.715	-0.359	-0.938	-0.535*
	(6.245)	(4.325)	(6.245)	(4.325)	(0.604)	(0.578)
BA	0.168	-0.00495	0.168	-0.00495	-0.00572	-0.0508**
	(0.212)	(0.187)	(0.212)	(0.187)	(0.0226)	(0.0241)
Dual	-1.747	-2.014	-1.747	-2.014	-1.128***	-0.413*
	(1.339)	(1.447)	(1.339)	(1.447)	(0.253)	(0.222)
CI	4.080	3.961	4.080	3.961	0.816***	1.086***
	(3.570)	(2.953)	(3.570)	(2.953)	(0.197)	(0.214)
	(0.228)	(0.203)	(0.228)	(0.203)	(0.0344)	(0.0382)
FS		3.557		3.557		0.0283
		(2.232)		(2.232)		(0.204)
FA		-14.89		-14.89		-0.430

		(16.38)		(16.38)		(0.442)
Lev		1.068***		1.068***		0.791***
		(0.267)		(0.267)		(0.0477)
FG		8.50e-07		8.50e-07		1.49e-07
		(2.01e-06)		(2.01e-06)		(2.57e-07)
RI		-43.34***		-43.34***		9.345**
		(2.329)		(2.329)		(4.634)
AI		0.407*		0.407*		0.0430
		(0.227)		(0.227)		(0.0674)
Risk		-0.979		-0.979		-2.516***
		(2.676)		(2.676)		(0.219)
Industry Dummies	NO	NO	NO	YES	NO	YES
Year Dummies	NO	YES	NO	YES	NO	YES
Constant	6.404	17.19	6.404	17.19	4.377***	5.781***
	(7.145)	(21.78)	(7.145)	(21.78)	(0.746)	(1.275)
Observations	1,424	1424	1424	1424	1424	1424
R-squared	0.015	0.246	0.436	0.572		
Number of Firms	178	178	178	178	178	178

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

4.3.6 Results with ROA as a Measure of Firm Performance

6.8.2 Regression Analysis

As discussed earlier since there is no autocorrelation when ROA was used a firm performance measure, so the regression models are adjusted only for heteroskedasticity using robust standard error in FE and LSDV model and only heteroskedasticity adjusted model in FGLS.

The relationship between ROA and Board size is significant and negative in all the cases like Tobin's Q. Board Composition and Board Independence significantly negatively impact the firm performance measure-ROA. However, in the case of Board Composition, the relationship is significant only with FGLS. Board Activity is positively related with ROA under Fixed effect and LSDV but the relationship is negative and significant with FGLS. The R-squared value is 69.6% in LSDV model with independent and control variables (Table 9).

TABLE-9: Regression Results Using ROA as Firm Performance Measure

Variables	(1)	(2)	(1)	(2)	(1)	(2)
	Fixed Effect with Cluster Robust Standard errors		LSDV with Cluster Robust Standard Errors		FGLS with Panels Heteroskedastic and First order Auto-Correlation	
BS	-0.00207*	-0.000620	-0.00207*	-0.000620	-0.00246***	0.000429
	(0.00117)	(0.00140)	(0.00117)	(0.00140)	(0.000508)	(0.000469)
BC	-0.0322	-0.0176	-0.0322	-0.0176	-0.0528***	-0.0289**
	(0.0331)	(0.0341)	(0.0331)	(0.0341)	(0.0143)	(0.0135)
BI	-0.0460	-0.0559*	-0.0460	-0.0559*	-0.0195	-0.0402***
	(0.0318)	(0.0306)	(0.0318)	(0.0306)	(0.0148)	(0.0143)
BA	0.00314**	0.00243	0.00314**	0.00243	-0.00218***	-0.00227***
	(0.00159)	(0.00194)	(0.00159)	(0.00194)	(0.000616)	(0.000608)
Dual	-0.0103	-0.00846	-0.0103	-0.00846	-0.00193	-0.00654**
	(0.0108)	(0.0114)	(0.0108)	(0.0114)	(0.00401)	(0.00331)
CI	0.00543	0.00504	0.00543	0.00504	0.0271***	0.00169
	(0.00739)	(0.00715)	(0.00739)	(0.00715)	(0.00443)	(0.00384)
	(0.00139)	(0.00136)	(0.00139)	(0.00136)	(0.000878)	(0.000773)
FS		0.0610***		0.0610***		0.00412
		(0.0202)		(0.0202)		(0.00294)
FA		0.0816		0.0816		0.0283***
		(0.0654)		(0.0654)		(0.00542)
Lev		-0.000604		-0.000604		-0.000971*

		(0.000452)		(0.000452)		(0.000504)
FG		-1.06e-08		-1.06e-08		-2.25e-08***
		(6.89e-09)		(6.89e-09)		(3.25e-09)
RI		-0.294***		-0.294***		-0.206***
		(0.0396)		(0.0396)		(0.0236)
AI		0.00535**		0.00535**		0.00286**
		(0.00259)		(0.00259)		(0.00141)
Risk		-0.00948		-0.00948		-0.0834***
		(0.00875)		(0.00875)		(0.00410)
Industry Dummies	NO	NO	NO	YES	NO	YES
Year Dummies	NO	YES	NO	YES	NO	YES
Constant	0.228***	-0.145	0.228***	-0.145	0.207***	0.189***
	(0.0342)	(0.108)	(0.0342)	(0.108)	(0.0176)	(0.0218)
Observations	1424	1424	1424	1424	1424	1424
R-squared	0.015	0.136	0.654	0.696		
Number of Firms	178	178	178	178	178	178

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

4.3.8 Results with ROE as a Measure of Firm Performance

The regression estimates are shown in Table 10. Board size is negatively and significantly associated with the accounting based firm performance measure-ROE under all econometric models. However the level of significance varied. BI and BC have a significant negative impact on ROE under FGLS estimation. Board activity is positively associated under Fixed Effect Model but negatively and significantly associated under FGLS methodology. The R-squared value in case of ROE is 50% with LSDV model.

TABLE-10: Regression Results Using ROE as Firm Performance Measure

Variables	(1)	(2)	(1)	(2)	(1)	(2)
	Fixed Effect with Cluster Robust Standard errors		LSDV with Cluster Robust Standard Errors		FGLS with Panels Heteroskedastic and First order Auto-Correlation	
BS	-0.00786*	-0.00401	-0.00786*	-0.00401	-0.00399***	-0.00236**
	(0.00403)	(0.00541)	(0.00403)	(0.00541)	(0.00100)	(0.00117)
BC	-0.0716	-0.0929	-0.0716	-0.0929	-0.182***	-0.0148
	(0.134)	(0.104)	(0.134)	(0.104)	(0.0316)	(0.0347)
BI	-0.192	-0.0174	-0.192	-0.0174	-0.0616**	-0.160***
	(0.117)	(0.0896)	(0.117)	(0.0896)	(0.0313)	(0.0330)
BA	0.0135***	0.00538	0.0135***	0.00538	-0.000328	-0.00204
	(0.00429)	(0.00423)	(0.00429)	(0.00423)	(0.00143)	(0.00155)
Dual	-0.00468	-0.00742	-0.00468	-0.00742	-0.0290***	-0.0460***
	(0.0258)	(0.0294)	(0.0258)	(0.0294)	(0.00771)	(0.00872)
CI	0.0280	0.00811	0.0280	0.00811	0.0297***	0.0121*
	(0.0215)	(0.0198)	(0.0215)	(0.0198)	(0.00837)	(0.00949)
	(0.00459)	(0.00424)	(0.00459)	(0.00424)	(0.00187)	(0.00204)
FS		0.133***		0.133***		0.0415***
		(0.0453)		(0.0453)		(0.00745)
FA		0.438*		0.438*		0.0605***
		(0.244)		(0.244)		(0.0150)
Lev		0.0439**		0.0439**		0.0307***
		(0.0188)		(0.0188)		(0.00436)
FG		4.17e-08*		4.17e-08*		-3.40e-08***
		(2.47e-08)		(2.47e-08)		(7.72e-09)
RI		0.523**		0.523**		-0.325**
		(0.239)		(0.239)		(0.129)
AI		0.00899*		0.00899*		-0.00115*

		(0.00535)		(0.00535)		(0.00322)
Risk		-0.0893**		-0.0893**		-0.127***
		(0.0434)		(0.0434)		(0.0109)
Industry Dummies	NO	NO	NO	YES	NO	YES
Year Dummies	NO	YES	NO	YES	NO	YES
Constant	0.426***	-0.744**	0.426***	-0.744**	0.467***	0.241***
	(0.107)	(0.352)	(0.107)	(0.352)	(0.0374)	(0.0541)
Observations	1,424	1424	1,424	1424	1424	1424
R-squared	0.015	0.245	0.349	0.5		
Number of Firms	178	178	178	178	178	178

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

5. CONCLUSION

In present study we have analyzed the relationship between Corporate Governance Board Parameters and Firm Performance of 178 NSE listed non-financial companies for eight years. Firm Performance was measured using Market Based measures-Tobin's Q & MBVR and Accounting Based measures- ROA and ROE. Using various statistical tools and regression methodologies based on the significance test on panel data, we concluded that:

- Board Size is negatively and significantly associated with firm performance measures. With firm performance measures Tobin's Q, ROA and ROE the relationship is significant across all econometric models. However, in case of MBVR, the relationship is significant with FGLS only. The results rejected the Hypothesis 1 of positive and significant relationship in line with the stewardship theory. Thus it can be stated that board size is an important corporate governance mechanisms impacting firm performance negatively. The results supported the recommendations of Lipton and Lorsh (1992) and Jensen (1993) to limit the board size to lesser number of directors. The results are in line with the initial empirical findings of Yermack (1996), which concluded an inverse relationship between Board size and firm performances. Similar results are found in a number of Indian studies (Ghosh, 2006; Kota and Tomar, 2010; Garg, 2007).
- The impact of Board composition on firm performance is strongly negative and significant in case of firm performance measures- Tobin's Q and MBVR. With other variables- ROA, and ROE, the impact is though negative but found significant only with FGLS methodology. The hypothesis 2 of positive and significant relationship is again rejected in line with stewardship theory. The negative relationship between board composition and firm performance is owing to the lack of specialist knowledge of the non-executive directors about the day-to-day internal business operations of the firm. The negative impact of Board composition on firm performance is also found in other studies from developed and developing economies (Kota and Tomar, 2010; Kumar and Singh, 2012; Agarwal and Knoeber, 1996; Rashid et al., 2010). The negative relationship between Board composition and Firm performance may be due to the fact that in India most of the business are family managed where the independence of outside directors is suspect.
- Board Independence is found negatively and significantly associated with firm performance measures. The regression estimates of accounting based measures-ROA, and ROE found a strong significant negative relationship between Board independence and firm performance. However in case of market based measures-Tobin's Q & MBVR, the relationship is significant only in case of FGLS. The results are consistent with the earlier studies of Agrawal and Knoeber (1996) and Bhagat and Black (1996). Hypothesis 3 is thus rejected. These results suggest that Independent directors in India have so far failed to perform their responsibilities of monitoring the board functions effectively due to the lack of training to function as an independent director. Thus merely adding Independent directors to the board is not sufficient; there is a need for providing training to the independent directors regarding the tasks, procedures and responsibilities expected out of them.
- Board Activity has no impact on firm performance as the relationship is found ambiguous with different performance measures used. This ambiguous relationship between board meeting frequency and firm performance is also supported by Lipton and Lorsh (1992) and Jensen (1993). Hypothesis 4 is rejected owing to ambiguous impact of Board Activity on firm performance. The results are indicative of the more complex relationship between Board meetings and firm performance as concluded by Vefas (1999). The quality of the Board meeting in terms of outcome is more important than the quantity of meetings.
- Duality is negatively associated with the firm performance measures. Hypothesis 5 is rejected. The results reinforce the theoretical underpinning of the board's monitoring function derived from agency theory, which

supports the idea of separation between the CEO and the chairman, to increase board independence from management, resulting in better performance due to better monitoring and overseeing (Jensen, 1993).

- f) Chairman Identity considering the presence of non-executive chairman on the board is found to have a positive and significant impact on firm performance. Mura (2005) and Peng (2004) also found the relationship positive and significant. Hypothesis 6 is accepted focusing on the growing importance of non-executive chairman on the Board as a new driver of systemic change.

Thus we can conclude that Board parameters are the important corporate governance mechanisms impacting firm performance in Indian context. Board size, Board Composition, Board independence and CEO Duality have a significant negative impact on firm performance measures; on the other hand, Chairman Identity has a significant positive impact on firm performance. However, Board Activity has no impact on firm performance.

6. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The study has certain limitations. First and foremost, the study is restricted to a limited number of companies for a period of 8 years. The findings may be different if a larger sample was included for a longer time period. Secondly, the qualitative aspect of corporate governance mechanisms was not used, the study only focused on the quantitative component. Corporate governance variables were recorded based on the information disclosed in the annual reports and it is thus assumed that the information is fair and accurate. Lastly, there are large number of variables that influence corporate governance and firm performance relationship but all of them could not be controlled in the study.

The Study focused on the direct relationship between the corporate governance mechanisms and firm performance relation, thus there is also potential for evaluating the indirect relationship between the corporate governance mechanisms and firm performance relationship via other corporate governance mechanisms. The present study evaluating the corporate governance mechanisms and firm performance relationship is limited to non-financial companies listed in NSE CNX Index. Banking and other financial companies have been excluded due to non-comparability of the applicable regulations as these companies are governed by the Banking and Regulations Act as against Companies Act. Thus an attempt could be made in future studies to cover these companies as the financial sector is of pertinent and vital importance for the economic development of the country.

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PROSPECTIVE CUSTOMER SEGMENTATION AND CRM STRATEGIES IN E-COMMERCE BUSINESS

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INTRODUCTION

People today have a vast array of digital options. Therefore brands need a digital platform preposition to articulate why the online users should engage with the brand, via their website on a regular basis. The buying behaviour and pattern of Indian consumers are changing rapidly. India is one of the key growth countries when it comes to e-commerce, but it is still at a nascent stage and has a huge potential for growth. E-commerce companies have transformed the way business is being done in India. The first E-commerce website in US was launched in 1994, but India got its first e-commerce only in 1999, hence the Indian market is still small but has a huge potential. The largest E-commerce companies in India are Flipkart, Amazon India, Snap deal and Paytm. Although India has the second largest Internet user base in the world, right after China, the number of e-commerce users is low compared to markets such as the US, China, France etc. Having said that, India is the fastest growing e-commerce market in the world and as per the study conducted by India Brand Equity Foundation (IBEF) India is expected to surpass US and become the second largest e-commerce market in the world by the year 2034. In today's virtual world it is becoming priority to understand the shopping behaviour of customers. Online marketers can impact the decision making process of the virtual consumers by connecting with physical showcasing devices, however chiefly by making and conveying the proper online experience. Today for marketer it is important to understand the mixture of online functionality like emotions, cues, stimuli for recent, frequent and monetary customers. The prime medium for conveying the Web experience is the interfacing stage between the firm and its online customers. Challenging marketers understand the importance of understanding their customers instead of just focusing on generating more clicks or CTR (Click-Through Rates) to retention, loyalty and thus building customer relationships. The most customer fragmentation strategy widely used is RFM analysis. Frequency and Monetary value affects a customer lifetime value and recency is an engagement metrics which affects the retention value.

Churning RFM through Software's like R and Python are very essential for Industry. However a very little research paper or evidence are there in fragmenting and segmenting the analyzed customer segment for potential market analysis.

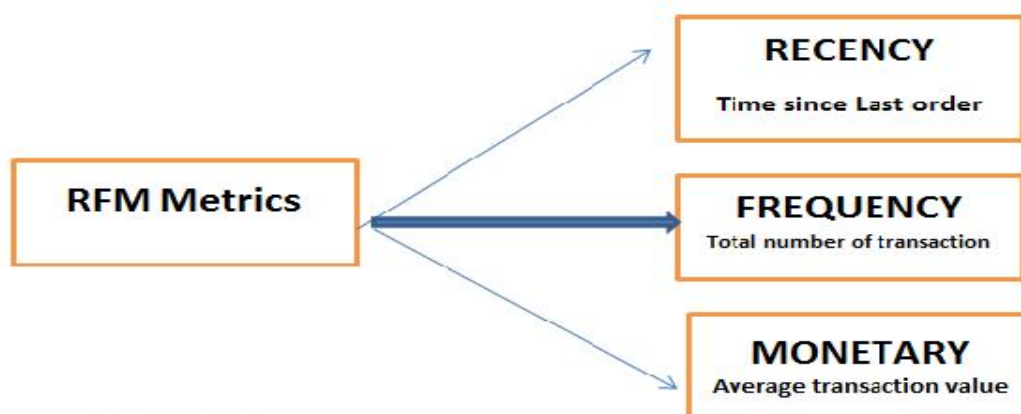


Figure 1: (RFM)

There are researches which are done on developing an RFM patterns like to develop RFM patterns from customer purchasing data in Taiwan (Chen et.al, 2009). Most of the papers proposing model for new clustering method like by Cho, 2013, Hu & yeh .2014 outside.

METHODOLOGY

The data is collected from Millennial from India's giant online retail store Purchase i.e. Amazon. The dataset includes the customer variables which belong to the period from January 1, 2016 to January, 2019. The dataset consist of total of 2300 transactions from Amazon register customer. The data was proposed after removing duplicate transactions from the same customer ID. In order to conduct the RFM analysis on the consumer data of Amazon, Data was imported with the following information about the consumer:

- ✓ Customer ID
- ✓ Transaction Price
- ✓ Date of Purchase

R-Studio as a data analysis tool to determine the desired result of, RFM applying.

RFM values from transaction history of 2300 transactions were assigning a score from 1 to 5. 5 is the highest value and 1 is the lowest. Data was churned in R studio by downloading didroo software.

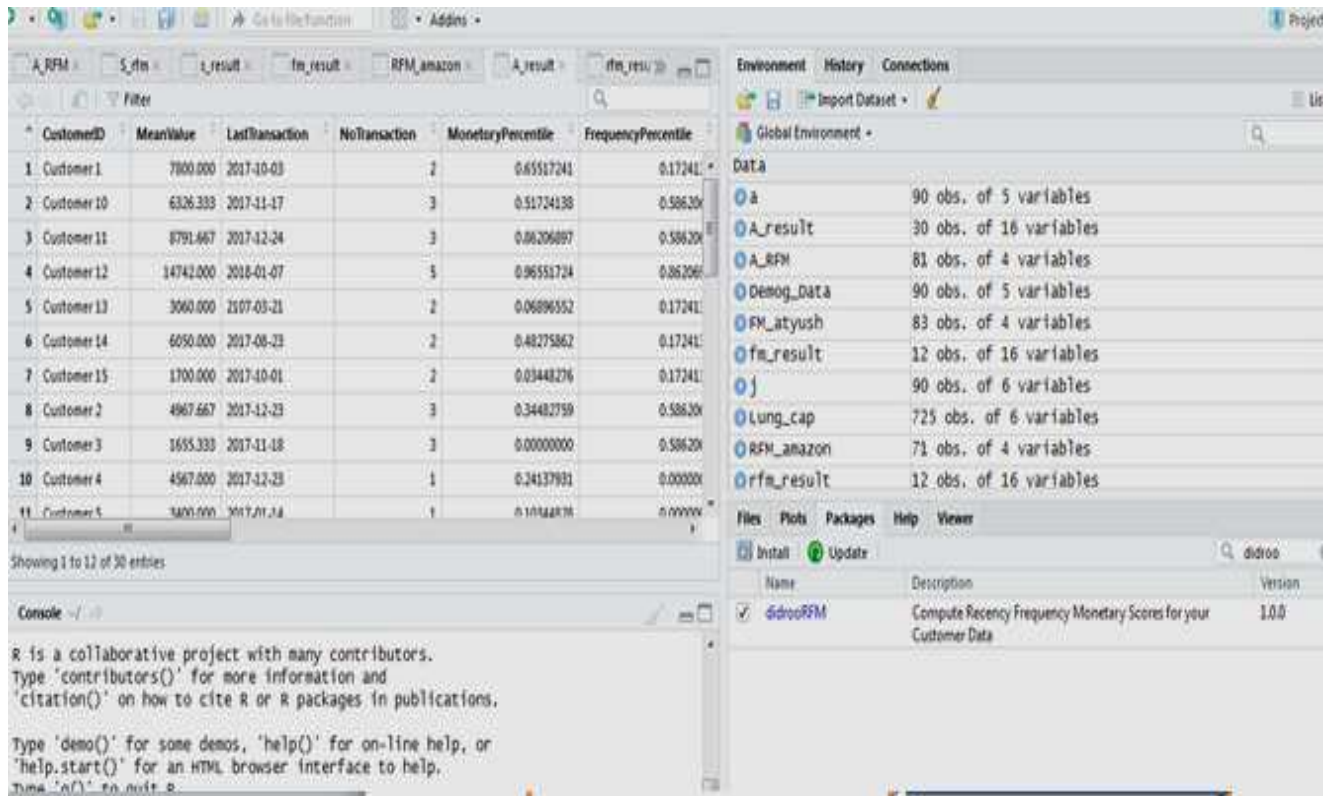


Figure 2: (R studio RFM_amazon, Self)

R studio Codes for churning RFM:

```
Library ("didrooRFM", lib.loc="/Library/Frameworks/R. framework/Versions/3.5/
Resources/library")
```

```
> Library (readxl)
```

```
> RFM_analysis <- read excel ("Desktop/BI deliverables/RFM analysis.xlsx",+ sheet =
"Sheet 1", col_types = c("text", "text", "date", "numeric"))
```

```
> View (RFM_analysis)
```

```
> RFM_analysis `Date of Purchase`<-as.Date (RFM_analysis$`Date of
Purchase`,`%d/%m/
%y`)
```

```
In as.POSIXlt.POSIXct(x, tz = tz) : unknown timezone '%d/%m/%y'
```

```
> result<-findRFM(RFM_analysis)
```

```
➤ View(result)
```

```
➤ View(RFM_amazon) > View(rfm_result) > View(A_RFM) > View(A_result)
```

Most of Amazon's customers are falling under class 2 and class 3. Under this category there are who are frequently purchased but not spending much and customers who are not frequently purchase but spend a lot when we will adapt a few marketing strategies to acquire the class 2 and 3 customers of Amazon's.

RESULTS

RFM	Final Customer Class	Segment	Description	Marketing strategy
251	Class-2	Loyal Customer	Spends good money, Responsive to promotions	Personalized touch with customer, offers free subscription, In the festival send them gifts,
133	Class-2	At risk of competitors	Spent big money, purchased often but time ago	Send personal message and email to reconnect with customer, Give Them updates of the collection,
114	Class-2	Hibernating	Bought more recently but not often	Give them Special discounts and membership cards
415	Class-3	Promising	Recent shoppers, but haven't spent much	Create brand awareness, offer free trial
541	Class-3	Champions	Bought recently, buy often and spends the most	Send them gifts and arrange special meeting with designer, ask for a Snacks and lunch
222	Class-2	About to sleep	Below average recency, frequency, monetary	Give them Special discounts and membership cards
352	Class-3	Loyal customers	Spends good money, Responsive to promotions	Personalized touch with customer, Product recommendation, In the festival send them gifts,
233	Class-2	Need Attention	above average recency, frequency, & monetary values	Send personal email and messages, offers discount
444	Class-4	Loyal customer's	Bought recently, buy often, and spend the most	Personalized touch with customer, Product recommendation, In the festival send them gifts,

FINDINGS

The paper provides customer segments by churning RFM through R. It was found that highest number of customers comes in the category of loyal customers. An up selling higher value product is required for engagement. Potential customers need to be given personalized loyalty program. The research helps to monitor the diversity of online customers in terms of their shopping patterns. It was also found that the analysis of diverse groups and their purchasing power has helped marketer in Prospective which customer will be potential and what all strategies should be floated for each segment. A data centric prediction model has been presented to demonstrate CRM strategies for online retailer. The distinct customer group churned will help the business better understand its customers and thus will adopt appropriate marketing strategies.

Practical Implications: This paper has practical implications for business and researchers. From a managerial perspective, e-Commerceers can establish early warning systems by mapping customers spending patterns and thus defining individualistic personalized marketing strategies. The customer segmentation about the ten determinants of classification of CRM will help to take remedial actions for creating customer loyalty. Moreover, e-Commerceers can use these segmentation scale items to chart their strategies vis-à-vis their competitors to build the largest loyal customer base in the industry. From the research point of view, this paper can form the basis for studying the monetisation or measuring the direct impact of customer loyalty on the top line and bottom line of a business vis-à-vis its competitor for defining better marketing strategies churned from R software.

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ROLE OF SOCIAL AWARENESS IN EMPLOYEE COMMITMENT AND PERFORMANCE

Tanushree Sanwal and Dr. Puja Sareen

ABSTRACT

Employee Performance has become an essential requirement for technology-based organizations to survive in modern economy. The growth of an organization depends upon the commitment and performance of an employee. Engaged employees are willingly ready to put in extra efforts when the organization needs. According to various surveys, overall employee performance has gone down tentatively compared to last years. Hence, organizations have been adopting various measures to increase employee performance levels, social awareness being one of them. Thus, this paper is an attempt to look into the role of social awareness in employee performance through strategy/ model.

Keywords: Employee Performance, Social awareness, employee commitment.

INTRODUCTION

“Employees look forward to a good working atmosphere where meritocracy is respected, employee performance activities are practiced, good talent is recognized and opportunities are provided to grow.” (Priya.C Nair, 2010).

The employee performance has considerable focus of researchers over the past few years, due to a variety of factors including the positive psychology movement and business's needs to maximize the impact of their employees. The positive psychology movement was initiated through Seligman and Csikszentmihalyi's (2000) research into exploring the optimal performance of human beings at work place. The business in today's era is facing intense and global competition, which in turn requires the employees to be physically, emotionally and cognitively committed towards company, customers and work. Performance of each and every employee has become necessary for every organization for its sustainability and growth.

Employee performance is the level of commitment and involvement an employee has towards organization and its values. Performance at work was initially conceptualized by Campbell, (1990) as ‘harnessing of organizational members’ selves to their work roles. In performance, people employ and express themselves physically, cognitively, and emotionally during role performances. An employee who performs in an organization is a person who is fully involved in, and enthusiastic about work. These employees care about the future of the company and are willing to invest the discretionary effort (Seijts, and Crim 2006). They also feel a strong emotional bond to the organization that employs them. Further they work with passion and feel a profound connection with company. However, researchers claim that only 29% of employees are actively engaged and perform good in their jobs (BlessingWhite, April 2008). People who are actively involved, help to move the organization forward. These employees are aware of business, and work with colleagues to improve performance within the job for the benefit of the organization.

EMPLOYEE PERFORMANCE

Employee performance has become a burning issue today. There has been practically no empirical research in the organizational behavior literature.

Performance is a precursor to job involvement. The individual, who experience deeply perform in their roles, comes to identify with their jobs. Kanungo (1986) said that job involvement is a Psychological phenomenon. It results from a cognitive judgment about the needs satisfying abilities of the job. Furthermore performance entails the active use of emotions and make employees more engaged.

Employees are also said to be engaged when they show a positive attitude toward the organization and express commitment to remain with the organization.

An organization's productivity is measured not in terms of employee satisfaction but by employee performance. Further, organizations, with good culture, promote employee performance and organizational commitment. Dimensions of organizational culture are significant predictors of organizational commitment and performance. (Shannawaz and Hazarika, 2004). Organizational culture also plays a critical role in motivating innovative behaviour, as it can create commitment and develop performance among employee of an organization in terms of believing in innovation as an organizational value and accepting innovation-related norms prevalent within the organization. (Hartmann Andreas, 2006).

IMPORTANCE OF EMPLOYEE PERFORMANCE

Employee performance is required for higher turnover, customer satisfaction – loyalty, safety and to a lesser degree, productivity and profitability criteria (Harter, Schmidt & Hayes, 2002). Organizations that focused on employee performance fared better in terms of company focus, engagement, staff retention, morale and, profitability. (Smythe, 2007). Hence, the organization must work to develop and nurture performance, which requires a two-way relationship between employer and employee. Latter's commitment and loyalty depends on good leadership, social awareness, recognition and training, (Gilbert 1996). An organization's capacity to manage employee is closely related to its ability to achieve high performance levels and superior business results.

There is a significant link between employee performance and profitability too. Further employees will stay with the company, be an advocate of the company and its products and services, and contribute to bottom line business success. They normally are better engaged and are more motivated. They form an emotional connection with the company. This impacts their attitude towards the company's clients, and thereby improves customer satisfaction and service levels. Employee Performance also builds passion, commitment and alignment of an employee with the organization's strategies and goals. Moreover; it increases employees' trust in the organization and creates a sense of loyalty in a competitive environment. It also provides a high-energy working environment and makes the employees effective brand ambassadors for the company. (Employee Performance, 2009).

An employee's good performance is an asset in any organization who can deliver unexpected results. The following can be noted as advantages of employee performance:-

- The employee whose performance is good stays longer period of time in organization. Therefore it works as mouth advertisement for organization's image, product and service. Over and above the contribution in the bottom line for its success cannot be ignored.
- These employees are highly motivated.
- These employees are also attached emotionally with the organization and stays for a longer period.
- The employee who performs better are highly engaged and develops trust and respect for the organization.
- The employee performance helps in the creation of highly energetic work environment.
- It's a linked with profitability of organization.
- It enhances the growth and image of the organization.

"Employee performance is highly important in various Industries especially where everything revolves around employee's skill and knowledge. When employees are committed and positively engaged with the organization, their attitude and commitment towards the company's client also grows and this directly impacts the customer service level and satisfaction. Thus a successful employee performance plan helps to create the building blocks at the work place and not just a workforce." Notes Mr. Darakshan Ali, founder, D-Sys Data Solutions. (Times of India, Ascent Global, Jan 6, 2010) He has also suggested the following advantages of employee performance:-

- The lower attrition rate.
- Boost business growths
- Spread positive information and keep up the company's image
- Create a healthy work environment in peer groups.
- Build employee commitment, trust towards the organization and help to achieve the organization's goal.
- Increase productivity and foster organizational growth.

METHODS TO INCREASE EMPLOYEE PERFORMANCE

The following measures may be adopted by organizations to increase employee performance:

Good Culture: It consists of a foundation of leadership, vision, values, effective social awareness, a strategic plan, and HR policies that are related with employee.

Continuous Reinforcement of People-Focused Policies: Continuous reinforcement exists when senior management provides staff with resources to accomplish the work, and empowers them. This in turn increases employee's performance and commitment.

Meaningful Metrics: They measure the factors that are essential to the organization's performance. Because the performance of organization's is depended upon people greatly. These metrics will naturally drive the people-focus of the organization and lead to beneficial change.

Employee Engagement: It ultimately leads to high levels of trust, pride, satisfaction, success and increases performance and commitment.

Enhance Social Awareness: People having good social awareness in a company generally perform well and has high commitment. Management generally desires to utilize these skills and employee's social interests in social as well as economic activities. (Holmes, 1977)



ROLE OF SOCIAL AWARENESS IN EMPLOYEE PERFORMANCE

Social awareness is a personal process which occurs between people. It involves change in behaviour and it is a method to influence others. It is also the expression of thoughts and emotions through words & actions. Thus it is a social and emotional process. Effective social awareness during service encounters helps in organizational development as it goes a long way in contributing to the quality of the service and satisfaction of the customer.

The dimensions of social awareness are needed in modern business environment for an employee to perform and, to be satisfied socially and emotionally and also to facilitate task accomplishment. Further, these components of social awareness also help to maintain employer-employee and employee-customer relationship. An organization in search of higher growth must focus on manager's interpersonal social awareness skills, clarity and frequency of their messages. The ways messages are sent, especially their clarity, and a leadership style that can engender the trust. These are some of the highest important when HR managers wants to enhance employee commitment and performance in an organization. The ability to actively interact and the ability to lead in a collaborative way are most important. (Bambacas and Patrickson 2008)

Greenspan's (1979, 1981a) model of social competence viewed social competence as being part of personal competence which includes physical and academic competence (Greenspan and Driscoll,1997). He said social competence represents a combination of affective and everyday competence which includes temperament, character and social awareness. Temperament refers to physiological responses to social stimuli such as impulsivity, emotionality, frustration tolerance. Character reflects the model quality of an individual's response to social stimuli and concern for the rights and feelings of others. Social awareness is an individual's ability to understand and effectively deal with people in various social situations and the processes involved in regulating various social events. Social incompetence leads to job failure. (Greenspan & Shoultz,1981).

Employee Performance means physically energized, emotionally connected, mentally focused and spiritually aligned. It can be better achieved through effective social awareness skills. The characteristics of social awareness significantly affect the elements necessary to build technological innovation. (Prasad and Martens, 2008, Ebadi and Utterback, 1984) And innovations can only be done when process of employee performance exist.

Studies have shown that social awareness as a critical factor of social competence and can lead to effective performance. Performance is linked with social awareness dimensions such as sensitivity, insight and

communication of people. (Black & Rojewski, 1998) These dimensions also has strong ties to the very core of organizational existence. Organizations cannot exist without social awareness. Social Exchange mediates the positive relationship between employee organizational strategy awareness and employee commitment for organizational success. (Gagnon, et al. 2014). Each and every employee in the organization has social awareness to some extent. It is rapidly gaining popularity and importance in the workplace and impacts organizations in many ways. Employee performance emphasizes the importance of employee social awareness in the success of a business.

We convey a thought or feeling to someone through social awareness. How it is received depends upon a set of events, stimuli, person exposes to. "How does one say", "What does one say" play an important role in social awareness. It is the art of transmitting informations, ideas and attitudes from one person to another. Social awareness is the process of meaningful interaction and interface among human beings.

PATTERN OF BEHAVIOUR OF PEOPLE HAVING SOCIAL AWARENESS

It is claimed that people with high social awareness skills adopt the following patters of behaviour:

- Establish eye contact
- Show an interest in what has been said by a nod of the head an appropriate facial expression.
- Avoid distracting actions and body gestures.
- Seeks clarification by asking questions of what has been said in order to aid understanding and avoid confusion if any.
- Does paraphrasing of what the speaker has said.
- Do not over talk.

Thus we can say social awareness skills is responsible for performance of an employee and profit of an organization. Developing social awareness skills in an effective manner can also help in the growth and development of employee which in turn would help them to be successful in their work.

HR PROBLEM CAUSED BY POOR SOCIAL AWARENESS

It appears that the managers in Indian organization do not give importance social awareness. Social awareness basically involves many factors. One is the clear thinking, experience and ability to articulate based on personality of an individual. All play a vital role and are interrelated. In fact any problem/ failure at HR front will reveal poor social awareness as a cause. Therefore the social awareness can never be paid scant attention to keep the employee committed and engaged in organization.

The growth of an organization depends upon the commitment and performance of employee. The level of commitment and performance of an employee is basically towards organization and its values. The committed and engaged employees know and are socially aware about their surroundings, colleagues, duties and responsibilities. Thus the accomplishment of the job becomes quite easy. Vinit Durve, VP-Corporate HR, ZICOM Electronic Security Ltd put it as, "An engaged workforce results in lower level of management that assist in ensuring talent retention. Also an engaged workforce is more effective and efficient and work towards continuous improvement. (Times of India, 2010)

SOCIAL AWARENESS SKILLS HELP TO INCREASE PERFORMANCE AND COMMITMENT

In general we can say that effective social awareness skills will help to increase the performance and commitment in employee which in turn will:-

- Increase organization profit and turnover rate (Mowday et. al., 1982), (Angle & Perry 1981).
- Increase trust, job involvement, and job satisfaction, (Loui 1995).
- Increase job involvement, (Wiener & Vardi 1980).
- Increase motivation, organizational citizenship behaviour and organizational support, (Kwon and Banks, 2004).
- Increase self-awareness and self-confidence in employee
- Understand customer needs in a better way
- Help to work in a group
- Decrease prejudices and discriminations in the organization

- Increase technological innovation and creativity, (Mohanty 1999 and Coleman, 1996).

SUGGESTED ESSENTIALS OF SOCIAL AWARENESS FOR EMPLOYEE PERFORMANCE

Following are the essentials of social awareness which are needed for employee performance:-

- Always think before you say.
- Use simple words and phrases that can be understood by every body.
- Enhance your knowledge on the subjects you require speaking to.
- Speak clearly and audibly.
- Check with the listener whether one has understood accurately
- In case of an interruption, always does a little recap of what has already been said.
- Always pay proper attention to the speaker while listening.
- While listening, make notes of important points if necessary.
- Always ask for clarification if you fail to grasp other's point of view.
- Repeat what the speaker has said to check whether you have understood accurately.
- Social awareness is at the heart of many interpersonal problems faced by the employers during full performance. Understanding the social awareness process and working at improvement provide managers a recipe for becoming more effective communicators.

FACTORS OF EFFECTIVE SOCIAL AWARENESS

In a study of companies with very good performance at critical time, a number of factors associated with the effectiveness of social awareness were identified, as follows:

- CEOs showed effective social awareness skills.
- Words were backed by actions.
- There was balance between colleagues.
- There was an emphasis on face to face interactions.
- Managers and supervisors at all levels were actively sharing information with their work groups.
- The employees were encouraged to share good and bad news as well.
- Messages were relevant and appropriate to the need of the target audience.
- The employees were made aware of the facts as quickly as possible and give them opportunities to draw conclusion.

CONCLUSION

Today, the impact of globalization of business and liberalization of trade has brought immense opportunities along with challenges. And, to face these challenges one must perform well in his organization. Employee Performance has become an essential requirement for technology-based organizations to survive in modern economy. Performance is a highly practical, scientifically based approach to managing energy more skillfully. Commitment to long-term objectives and learning are considered as indispensable for employee performance. Social awareness plays a crucial role in this aspect. Social awareness is a dynamic process. Thus, we can say, effective social awareness skills are prerequisite for employee performance which in turn is responsible for technological innovation, higher turnover rate and better relationship between employee, employer and customer. One can engage his spirit, mind, heart and body through effectual social awareness skills. It helps to fully ignite our talent and agility in workplace.

The techniques of social awareness need to be kept opened. Its imperative for employee to appreciate and understand the following aspect of the organization:-

- Policies
- Rules
- Procedure
- Practice and deeds/ Action

Unless the employees understand above mentioned aspects of organization, it is very difficult to get the whole hearted cooperation from them. It is prerequisite for better health of any organization. At the same time it falls on the incumbency of management to be proactive in approach and anticipate the problem of employee well in advance rather than reacting on happening.

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HUMAN BRAIN, CONSUMERS & DESIGN: A NEUROPSYCHOLOGICAL APPROACH TOWARDS BUILDING BETTER CONSUMER EXPERIENCES

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ABSTRACT

Neuromarketing is an emerging field that bridges the study of consumer behavior with neuroscience (Morin 2011). The beginning of computer science and establishment of cognitive neuroscience led to the diversification of psychology into many uncharted territories. Neuromarketing, although a recently established term, is gaining rapid momentum in both management studies and psychology. Each year, roughly 400 billion dollars is invested in advertising. Yet conventional approach of testing designs and user experience is often flawed as they are based on conventional methods of data collection where the dataset is dependent upon consumer's introspective reports of their experiences related with a said product, advertisement or service. Neuromarketing being an interdisciplinary approach enables us to the possibilities of reaching for consumers' unbiased physiological responses to their physical environment. This paper discuss the applications, benefits and limits of neuromarketing for small scale businesses with context towards achieving better efficiency.

Keywords: neuroscience, fMRI, EEG, GSR, consumer experience

INTRODUCTION

Neuromarketing is a combination of neuro and marketing. 'Neuro', in this context imply to fields such as clinical psychology, neuropsychology, neuroscience, cognitive science and computational neuroscience. While marketers have forever been in search of methods to gain consumers' attention and tap into their buying patterns, behavioural observations can only take us so far. Such observations are usually made in the form of verbal or written surveys. The fundamental problem with such a method of indirect/introspective response is the nature of human perception and memory. While for most of our daily chores, our memories serve their function of maintaining time and other valuable information readily available to us, neuroscience has demonstrated how fragile and susceptible our memories are to environmental cues and triggers. Psychologists have tried for decades to understand mechanisms behind human decision-making in the form of various behavioural theories, insights from neuroscience enabled them to investigate the relationship between brain and behaviour leading to theories of consumer behaviour to be more robust. While the term neuromarketing cannot be attributed to an individual, research communities started observing the term occur rather more organically in the year 2002 (Morin 2011). The year was 2008 and a team of scientists in Germany published a study revealing how the brain unconsciously prepares our decisions: meaning, several seconds before we make a conscious decision about what we are going to do, its outcomes can be predicted by looking at the grey matter of the participants. This path-breaking discovery set a milestone in the direction of consumer neuroscience. A majority of marketing firms and advertising agencies do not have dedicated neuroscience departments, and few U.S. companies like Brighthouse and SalesBrain became the pioneers offering neuromarketing research facilities to their clients belonging from various different sectors. While most of the technology being used in neuromarketing emerged from medical sciences, their applications in understanding consumer are remarkable.

TOOLS AND TECHNIQUES IN NEUROMARKETING

Common tools used in neuromarketing are:

1. Electroencephalogram (EEG)
2. Eye tracking
3. functional Magnetic Resonance Imaging (fMRI)
4. Galvanic Skin Response

EEG, also commonly known as electrocardiogram, is a device used to measure electrical activity of the brain is widely used to understand brain's response to various cognitive tasks as it undergoes different types of information processing stages while creating perception of the physical world around it. Our brain's can be divided into four major lobes; frontal lobe, parietal lobe, occipital lobe and temporal lobe. Pyramidal neurons beneath these lobes leak the cortical electrical activity on to the scalp which makes the electrodes of an EEG device pick up and amplify these faint electrical signals into readable useful data. Frontal lobe is associated with

Executive Functions (EF) such as working memory, decision making, response inhibitions and reward anticipation; few of the important functions in context with neuromarketing studies. Parietal lobe is associated with sensory motor integration and formation of multidimensional spatial representation of our world. Occipital lobe is associated with visual information processing such as color, shape & motion, and Temporal lobe is mainly responsible for memory, auditory processing, and language processing. As neuromarketeers, EEG data from these locations provide invaluable insights into consumers' mind. Benefits of using EEG includes higher temporal resolution, faster application times & non-invasive nature that enables it to be worn for hours at a time. Generally, the measure of alpha-band waves (8–13 Hz) in the left frontal lobe indicates positive emotions. It is further speculated that such activity is a good predictor of how motivated we are to act. On the other hand, electrical activity in the right frontal lobe is typically correlated with negative emotions. Such emotions generally prepare us to withdraw from an experience.

Eye Tracking uses either monocular or binocular Infrared (IR) sensors pointed at the iris to capture the reflected IR light from the cornea. As we track or focus attention on an object that we are interacting with through a digital or physical medium, our eyes focus between objects in a fashion that appear as jumps between fixations, called saccades. Neuromarketing studies rely heavily on eye tracking data for establishing correlation between EEG data and mental status of the consumers. Eye tracking helps in understanding areas of interests, gaze points, trajectory, fixations, heat maps and fog maps of visual world as traced by our eyes.

fMRI, also commonly known as functional Magnetic Resonance Imaging, is basically a giant magnet with ratings ranging from 1.5 tesla to 7 tesla broadband spectrum imaging capable of tracking Blood Oxygen Level Dependent signatures in brain. Whenever, one of the four aforementioned lobes, nuclei, or multiple lobes gets activated the brain's resources start demanding more oxygen supply, this change although slower in temporal resolution provides great spatial resolution making it easier to locate the source of activity within deep subcortical levels. Studies conducted using fMRI leads to structural and functional imaging and modeling of human neurobiological responses.

GSR stands for Galvanic Skin Response. Our skin produces more sweat in conditions of increased arousal. This emotional arousal could be either a positive valence or a negative valence. When combined with other neuromarketing tools, GSR helps in understanding emotional stages and states that often goes unnoticed because of their complex nature and consumers' inability to assess these emotions in real-time.

Technologies such as these have enabled us to look into the neural action happening behind the curtains of unconscious mind. Few case studies where neuropsychological insights have proven to be of great value to consumer insights. A study conducted by Dragoș Cîrneai, Alin Valentin Angheluță, and Delia Gheorghe was to see if there is a correlation between declared consumption of a food product and the activation of specific brain regions measured with fMRI when consumers are presented images with package of their preferred product. The study included 50 participants divided into approximately equal age groups and sex categories. They found that hemodynamic changes in the precuneus area of the brain were found to be positively correlated with whether or not participants consumed a certain brand, suggesting the brand triggered personal relevance. They also found that there was a significant association between cerebral activations in the caudate nucleus and participants' responses on the consumption questionnaire, proving the brand's capacity to generate emotions. Studies like these help in better decision making and product designing at the prototyping stage, essentially helping in making the process efficient and more targeted at the clients.

CONCLUSION

As some might argue that making products using neurophysiological data might be in a sense tricking the brain to buy products of the brand designing services or products using such techniques, in other words, taking away a conscious decision making of the consumer, rendering them fall into a buying pattern might be considered against the fundamental expression of freewill. On the contrary, the decision to purchase a commodity or not, remains largely in conscious control of consumers as the frontal lobe's executive functions ensures that the final call to purchase or not to purchase is a lucid decision of the individual. By using these technologies brands ensure to deliver the best quality services and customer experience by gaining insights from neuropsychology and neurophysiology which otherwise would not be available to the designers. Neuromarketing should not be considered as a bio-hack, rather it is similar to what neuropsychology is to traditional psychology. Neuromarketing is aimed at providing unbiased, quantifiable, neural correlates of unique consumer insights.

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A COMPARATIVE ANALYSIS OF BANKING SERVICE STANDARDIZATION IN PUBLIC AND PRIVATE BANKS IN INDIA

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ABSTRACT

There is dynamic changes in banking sector in the past decades. There is multiple folder changes tool place in banking service standardization in international operation physical banking to digital banking. We can say that simple paper work in branches to branchless banking these days. In 2018 the Indian banking sector consist of 27 public sector banks, 21 private sector, 45 foreign banks, 56 regional rural banks, 1589 urban cooperative banks and 93,550 rural cooperative bank (Rushworth, 2018). The average coverage by the commercial banks increased from 14,000 in 2010 to 13,466 in 2011 to 12,921 in 2012 (Sharma, 2018). In the financial year 2018 the total lending increased at a CAGR of 10.94% while the total deposits increased at the CAGR of 11%. With the Indian credit market being the fourth largest among the emerging economies. The banking industry has recently witnessed the innovative models like payment and small finance banks. The process of service standardization in international operation do faces certain challenges like cultural challenges, political and legal challenges. Finally the paper reviewed the performance of the banking industry on the basis of certain parameters like return on assets, capital adequacy ratio, net interest margin and cost to income ratio. Where private bank performed better in terms of return on assets and cost to income ratio.

Keywords- Public and Private Bank, Service Standardization in International Operation, RBI, CAGR,

INTRODUCTION

There are dynamic changes in banking sector in the past decades. There is multiple folder changes tool place in banking service standardization in international operation physical banking to digital banking. We can say that simple paper work in branches to branchless banking these days. In 2018 the Indian banking sector consist of 27 public sector banks, 21 private sector, 45 foreign banks, 56 regional rural banks, 1589 urban cooperative banks and 93,550 rural cooperative bank. The expose of commercial banks increased from 14,000 in 2010 to 13,466 in 2011 to 12,921 in 2012. In the financial year 2018 the total lending increased at a CAGR of 10.94% while the total deposits increased at the CAGR of 11%. Indian credit market became fourth largest. The banking industry has recently witnessed the innovative models payment system and etc. Today is become essential for bank to service standardization in international operation. The process to service standardization in international operation, expansion of firms through involvement in international operations. The service internationalization of bank include 2 dimensions: international banking which is direct cross border lending to foreign party and global banking where banks can open up subsidiaries or either have ownership of foreign banks. The banks tend to service internationalize because of ownership advantage, advantage of international diversification, defensive expansion, beachhead expansion and off shore banking argument. The banks service internationalize in order to diversify risk, strategic asset seeking that is entering a financial center in order to access a currency or knowledge, market seeking to increase the customer base on international level or either to follow their clients in order to protect existing bank client relationship. Banks are motivated by enlargement of the revenue by expanding the market served, improvement in the bank's reputation and hence its competitive position and overcoming the restriction of single market.

OBJECTIVE

The objective of the study is to analyze the various internal factors and how they influence the service and its process and hence provide the comparison between public and private in India.

1. Advantage and challenges of service standardization in banking sector.
2. Different internal factors impacting the service standardization in banking sector
3. Comparing the performance of public and private banks in India

Service standardization is seen as an important growth strategy now days which expands the size of operations and profitability. The difficult part is that firms are not able to recognize the internal factors that mainly influence service standardization and thus exploit those advantageous resources to attain the growth. So this necessitates a larger number of studies sector wise, sub sector wise and industry wise. Moreover most of the

studies have confined to the manufacturing sector, very few in service sector and hardly in the banking sector. Thus this missing literature necessitates the need for the present study.

LITERATURE REVIEW

The concept of service standardization is based on the strategic behavior theory, international product life cycle, transaction cost theory and the eclectic theory (Panda and Reddy, 2016). The incentives determining the internationalization process includes geographic area, regulations, perception of the market and others to name. The methods that bank generally adopt to service standardization are selected on the basis of factors like the bank size for example larger banks are more likely to venture in larger economies since they have the capacity to overcome limits in destination country (Sist, 2018). The main motives for banks to service standardization are their endeavor to diversify their risks and parallel to increase their profits and access to financial centers (Howcroft, Ul-Haq and Carr, 2011).

(Boyen and Ogasavara, 2013) stated certain patterns of service standardization followed by banks: entry mode, market, product and timing. Two other key pattern of service standardization is temporal and geographical dimensions. The temporal dimension is important for service standardization since every company's history of international expansion occur at a specific point. The geographical dimension relates to the decision regarding the target market. (Slager, 2005) showed that first some of the generic communalities and differences in internationalization are discussed, clients are reviewed and after which the organizational form and the pattern of internationalization is decided. (Slager, 2015) in his another article banking across the border again talked about the pattern of internationalization in which he divided the pattern in four steps, first being accelerating internationalization followed by moderate service standardization then imploding internationalization and finally retreating internationalization.

(Karamala and Anchula, 2016) presented the study that focused on different strategies adopted by banks to sustain their business and also to find out determinant factors for their service standardization. The studies refer for the time period 2006-2014. The study concluded that factors such as host country, trade cross borders, host trade freedom, ownership advantage and location advantage have significant influence on the service standardization in banking sector.

(Imelda and Kilemba, 2015) studied the process of service standardization and the factors influencing service standardization. The research design used was exploratory in nature and used the case of KCB limited. The results of the following study showed that factors such as political factors, technology and competition play a major role in influencing the banks to go for service standardization.

(Panda and Reddy, 2016) wrote the paper on resource based view of service standardization. The study was carried for commercial banks and the purpose was to understand the factors that influenced the internal resource drivers on service standardization of commercial banks. The study included 46 Indian commercial banks for the time period 2008 to 2012. The paper concluded that factors such as higher asset size, higher human resource, private ownership and higher organizational age lead to service standardization of the Indian commercial banks.

(Roman *et al.*, 2015) presented the study on service standardization and bank risk. The time period for the study was from 1986 to 2010. The sample of 15,988 commercial banks was used. The author constructed several measures of service standardization for internationalization. The main measures were foreign asset ratio, foreign loan ratio and foreign deposit ratio. The study concluded that internationalization had negative influence on bank performance leading to increase in risk and the effect seems to be more pronounced during the market crises.

(Mbogo florid kananu, 2013) presented the case study investigating the challenges of service standardization in internationalization process experienced by the bank of Kenya. Primary data was used the interview was conducted with the senior employees from the Barclays bank Kenya. The study came up with three main challenges namely cultural challenges, political challenges and legal challenges. Under the cultural challenge the variables such as values, beliefs, customs, religion and language were included. Unlike in the domestic market where the cultural taste are shared, in international market cultural differences requires serious consideration as it can affect the taste and the consumer preferences.

(Mostafa Khan and Jamal Uddin, 2013) The author studied the market of arc pita in terms of service standardization international operation though it has become internationally successful within short time period however it has also faced certain internal challenges with respect to international operation in service standardization. Being an Islamic country, Islamic banks and charities since they are often viewed as the

organizations that fund terrorist and this problem seems to plague many banks in the process of service standardization in international operation.

(Boso *et al.*, 2019) Their study presented the challenges that the African firms faced in service standardization. The main challenges that were discovered are as follows first the limited management and cross cultural capabilities, second being the risk of over international operation and thus losing the focus on home market and the third is the global competitive challenges.

RESEARCH METHODOLOGY

The paper explored the influence of internal factor that affect the process of service standardization international operation and to compare the performance of Public and private banks in India. The study is quantitative in nature and has used both the primary and secondary sources for data. To analyze the factors that influence the service standardization in international operation process a close ended questionnaire was prepared which focused on the factors such as beachhead expansion, host country freedom, opportunity factor, off shore banking, and the ratios like the higher capital adequacy ratio. These factors focus that banks are more likely to meet the financial obligations and thus provide stability to the financial sector which is important for the service standardization in international operation process (Salgotra and Wadhwa, 2012). Similarly net interest margin ratio is used as an indicator to measure the profitability of the banks and thus the most appropriate criterion for evaluating the effectiveness and stability of bank operations (Saksonova, 2014). The survey questionnaire was distributed amongst the employees of different banks in Delhi NCR like Punjab National Bank (PNB), Yes Bank and Standard Chartered bank. Initially the permissions of the HR and the bank managers were taken for the conduction of the study. A total of 150 employees participated in the study. Data collection and compilation was done using MS Excel and primary analysis was done using SPSS 21. Analyses comprised of descriptive and inferential analyses. On the other hand, the analysis of the secondary data was based on the performance of the banks measured on the basis of variables like deposits, advances, return on assets and total assets. The data was gathered from the annual reports of banks. The study was conducted for the time period 2013-2017, hence the secondary data from the annual reports were considered for the years 2013 to 2017. Analysis comprised of trend based comparisons to show how these internationalized banks have fared over the years. To measure the reliability of the primary data, Cronbach's alpha test was used. The results showed that the variables that have influence on the process of service standardization in international operation like beachhead, freedom, opportunity etc. were highly reliable with value of .913 and similarly the variables that had influence on the bank performance were also reliable at .855. The values show that there is consistency across the separate items within the measure.

ANALYSIS

Primary descriptive analysis

The study included 150 bank employees as the respondent out of which 64% were male and 36% were females. In addition, majority of the employees from the chosen banks was from the age group of 31- 40 years (36%). In this study, majority of the male and female respondents (42.4%) belongs to Yes Bank, followed by people working in the Standard Chartered bank (39.2%). Moreover, it was also found that, majority of the employees (32.8%) from the three banks believe that their banks has international presence for over 5 years, whereas 25.6% said that their banks has international presence for more than 10 years. The main destination that the banks preferred to off shore was the European region (44%). This is evident from the fact that PNB has majority of its branches in the European countries as well as for Yes Bank it opened up two more branches in London and Singapore respectively (Punjab National Bank, 2018; Yes Bank, 2018). Another reason due to which banks go for service standardization in international operation in European countries are the size of the banks, degree of service standardization in international operation and its product and distribution channels (Simon, 2006).

Primary Inferential analysis

The relationship between the process of service standardization in international operation of banks and the internal factors influencing it and the relationship between the bank performance and the factors affecting it was accessed using the questionnaire and by performing the statistical analysis that included correlation and regression. The correlation results between the service standardization in international operation of banks and the internal factors influencing them and the factors affecting the bank performance are as in table 1. It was found that factors such as beachhead expansion (.797), technology (.738) and exploit (.834) were highly correlated with the process of internationalization of banks. Further the factors like macroeconomic condition, vision, orientation, environment and ratio are highly correlated with the job performance. However among all the factors macroeconomic conditions (.706) and business orientation (.771) represents the most significant correlation with the job performance.

The ANOVA analysis was conducted for both the models i.e. the factors affecting service standardization in international operation of banks and the factors that have influence on the bank performance respectively. The regression indicated the adjusted R Square as (.826) which indicates that 82.6% variation in dependent variable is explained by the independent variable moreover the significance value is 0.00 which is quite high thus the internal factors do influence service standardization in international operation of banks. Similarly for the second model the adjusted R value is equal to .646 which again shows that 64.6% variation in dependent variable (bank performance) is explained by the independent variables.

Table: ANOVA table

R	R Square	Adjusted R	F	Significance
.915	.837	.826	74.375	0.00
.812	.660	.646	46.221	0.00

Hypothesis testing

H01: There is no impact of extrinsic factors on the service standardization in international operation of banks.

In order to determine the extent of influence each factor had on service standardization in international operation of banks the coefficient of regression was calculated. It can be seen in table 3 that factors like beachhead expansion (.000), technology (.002) and exploit (.000) are significant and effective towards the process of service standardization in international operation of banks as the significance value is less than 0.05. the most significant is the beachhead expansion and exploit. Further, the coefficient of regression analysis of the bank performance showed that the two factors i.e. macro-economic conditions and business orientation are the most significant one as the significance value is less than 0.05.

Comparison between public and private banks in India

The following section is concerned with the analysis of comparative profiles of Punjab National bank, YES Bank and Standard chartered bank during the period of 2013-2017. The variables on the basis of which performance of the banks will be compared are return on assets, capital adequacy ratio, net interest margin ratio and cost to income ratio.

Table 1: Return on assets

Year	PNB	YES Bank	SCB
2013	1.00	1.5	2.47
2014	0.64	1.6	1.20
2015	0.53	1.6	2.31
2016	-0.61	1.7	0.77
2017	0.19	1.8	1.68
CAGR	-0.28262	0.037137	-0.07419

The above table presents the data on return on asset for the public and private banks during the period 2013-2017. The return on asset is the indicator of bank profitability and shows the ability of banks to utilize the financial and real investments to generate profit. (Sirisha S, 2015). Here the private bank has the higher ROA than the public and foreign bank which shows that private bank is using its assets efficiently.

Table 2: Capital adequacy ratio

Year	PNB	YES Bank	SCB
2013	13	18	13
2014	12.11	14	12
2015	12.89	16	12.49
2016	11.28	17	12.98
2017	11.66	17	14.05
CAGR	2.1995	1.1497	-1.541

Banks in today's modern time period always face an inherent risk of insolvency. Since banks are highly leveraged it could call for the run on bank at any moment if there reserves are considered to be inadequate by the market. Hence this makes necessary for the banks to hold rather maintain adequate capital in their vaults if they want to survive. The banks with higher capital adequacy ratio are considered safe and are more likely to meet the financial obligations and thus they promote the stability and efficiency of financial system around the world. If we consider the capital adequacy ratio of public and private banks for the year 2013-2017 as shown in the table we can clearly see that PNB have better capital adequacy ratio in all the years as compared to Yes

Bank and SCB. This means that the public bank had more capital in their vaults thus have edge over the other banks.

Table: Net interest margin ratio

Year	PNB	YES Bank	SCB
2013	3.33	2.23	4.18
2014	2.93	2.49	4.11
2015	2.74	2.56	4.23
2016	2.29	2.76	4.51
2017	3.08	2.69	3.70
CAGR	1.571	-3.681	2.4696

The net interest margin measures the difference between weighted average of yields on interest revenue and the interest expense. The business of the bank is to accept the deposit and lend the advances. Hence to judge the profitability it becomes important to know the spread between them. Thus net interest margin works as an important indicator that needs to be watched while analyzing the banking stocks. If we compare the data of public and private bank as shown in the table we find that foreign banks Standard chartered bank have better net interest margin ratio all the years thus have better profitability than PNB and Yes bank.

Table: Cost to income ratio

Year	PNB	YES Bank	SCB
2013	31.06	22.77	40.88
2014	36.36	24.09	52.93
2015	37.13	25.91	43.30
2016	48.18	29.17	57.04
2017	40.22	32.18	45.55

The cost to income ratio is yet another indicator for determining the profitability of the banks. It gives a clear picture of how efficiently the bank is being run and thus lowers the ratio the more profitable the bank is. The change in the ratio highlights certain potential problems that may arise like if the ratio rises from one period to next, it indicates that the cost are rising at a rate higher than the income. Thus we can conclude that there is inverse relationship between cost to income ratio and bank profitability. The cost to income ratio is lower in Yes Bank and SCB as compared PNB.

CONCLUSION

The present study deals with the service standardization in international operation of banks. The paper tried to answer the questions such as the benefits and the challenges that banks generally face in the process of service standardization in international operation, the different internal factors that influence the process of service standardization in international operation, factors that have influence on the bank performance and finally how well the public and private banks performed. Through the literature review we were able to find the factors that have influence on the service standardization in international operation some of them were beachhead expansion, freedom in host country, need to diversify technology, exploiting opportunities and trade however out of all these beachhead expansion, technology and exploit were the most significant. On the other hand the factors such as macroeconomic conditions and business orientation mainly influenced the banks performance. The process of service standardization in international operation do faces certain challenges like cultural challenges, political and legal challenges. Finally the paper reviewed the performance of the banking industry on the basis of certain parameters like return on assets, capital adequacy ratio, net interest margin and cost to income ratio. Where private bank performed better in terms of return on assets and cost to income ratio.

LIMITATION AND FUTURE SCOPE FOR STUDY

The study was broadly based on the secondary sources. So the study only considered the financial factors but since the service standardization in international operation of the banks can also be governed by factors such as leadership, broad members experience and expertise, the organizational structure, these variables were missed out from the study. The other factors such as influence of employee size on the service standardization in international operation of banks was missing, the quality of employee etc. thus we can encourage the researchers to take the study further by commissioning survey to gather primary information also on the missed out variables so as to completely measure the impact of internal resources on the service standardization in international operation of banks.

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DIGITAL REVOLUTION & TRANSFORMATION

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➤ INTRODUCTION

In today's world it's hard to imagine our lives without technology! We rely on technology for almost everything, its difficult to find an example of an area where technology doesn't play a role. But how has that been even possible ? How did technology become a ubiquitous part of our lives and society ? The answer to these questions lies in understanding how the world has been changing by what many classify as the fourth Industrial revolution, the "Digital Revolution".

The First Industrial revolution used water and steam power to mechanize production. The Second used electric power to create mass production. The Third used electronics and Information Technology to automate production. Now a Fourth Industrial Revolution is building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres. The Digital revolution is the shift from mechanical and analogue electronic technology to digital electronics which began in mid-20th century and has continued till today in the 21st century with unprecedented speed and scale. We are in a technological revolution that is fundamentally altering the way we live, work, and even relate to one another.

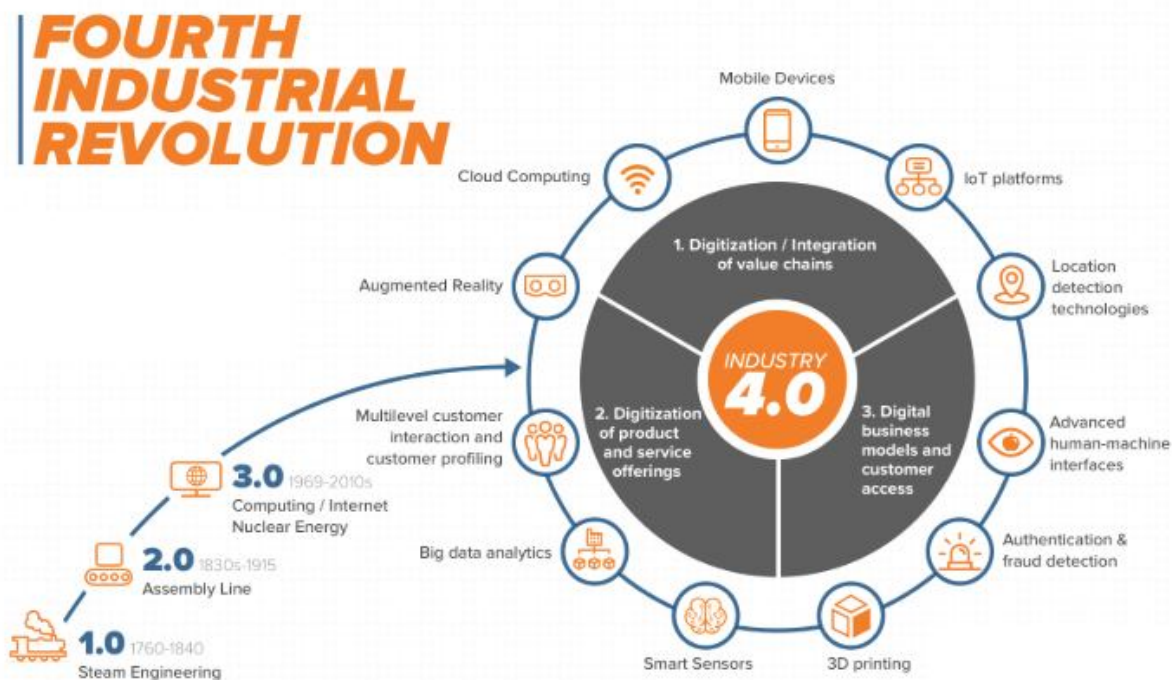


Image reference : from Shockoe, Enterprise mobile solution

But is this digital revolution bringing in the required digital transformation which can help the whole society and not just the business & corporates in increasing their revenues ? Is digital revolution and transformation empowering and expediting the social innovations to solve the problem which today's world faces at larger such as the issue of environmental change, education, health or the food crisis ? Well in most cases the answer is Yes, but we need to work towards ensuring that we have Sustainable development goals and do not take the positive outcome for granted. We need international bodies to collaborate if we are to achieve the full social and economic potential of digital technology, while avoiding unintended consequences.

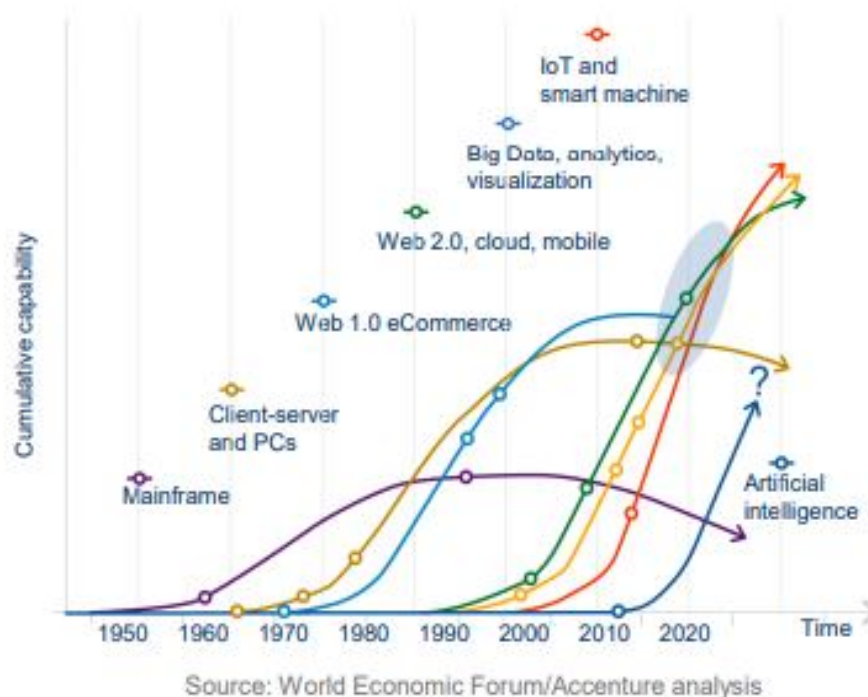
This paper will provide more details on the various questions raised above and will shed light on the current trends in the digital revolution and transformation and how this transformation will help solve various societal issues while positively impacting the World economy.

➤ TRENDS IN DIGITAL REVOLUTION & TRANSFORMATION

If we look at the past few years, the pace of digital revolution has drastically increased which has had a profound impact on the various aspects of our day to day life. The invention of internet was a major steppingstone which not only brought the world closer but also helped in accelerating the pace of innovation through exchange of ideas, global collaboration and availability of information at the figure tip. It would be appropriate to say that Internet has been the guiding technology for this fourth industrial revolution (or Digital Revolution) like what electrical engine was for second industrial revolution. Ever since its introduction for public use in 1990's Internet has been helping in bringing innovations which are helping us in many ways. From buying groceries online to finding a partner on a dating website or to avail basic facility like booking transport using your smartphone, all these have been possible by the invention of Internet. While we have come a long way in digital revolution & transformation by the use of Internet, it is just the beginning of technological advancement and we are at the brink of technological revolution that is going to change the way we see the world today.

“8 billion devices are now connected to the internet; by 2030, that number is forecast to grow to 1 trillion”

Looking back at the last 2 years we can see how the world has embraced new and exciting technological breakthroughs. We can see companies like Uber and Tesla testing the autonomous taxis and self-driving car respectively which will transform the way we commute. The introduction of devices like Google Home or Amazon's Alex demonstrated a leap forward in artificial intelligence while the usage of big data analytics and cloud is helping the business transform the way consumers shop and even gives them the ability to predict the future possibilities. But what is pushing the acceleration of this digital revolutions ? There are various reasons which are attributing to this cause such as better computing capabilities which have been developed and are providing outputs to various analysis way faster than just 5 or 10 years back. However, one of the most important reason for this rapid acceleration in digital revolution and transformation has been “Combinatorial Effects of Technology”. A report published by World Economic forum on Digital transformation initiative talks about the Combinatorial effect of technology and provides insight into how the combinatorial effect of base technologies such as mobile, cloud, sensors, analytics and Internet of Things (IoT) are accelerating progress exponentially while reducing the cost of using technology.



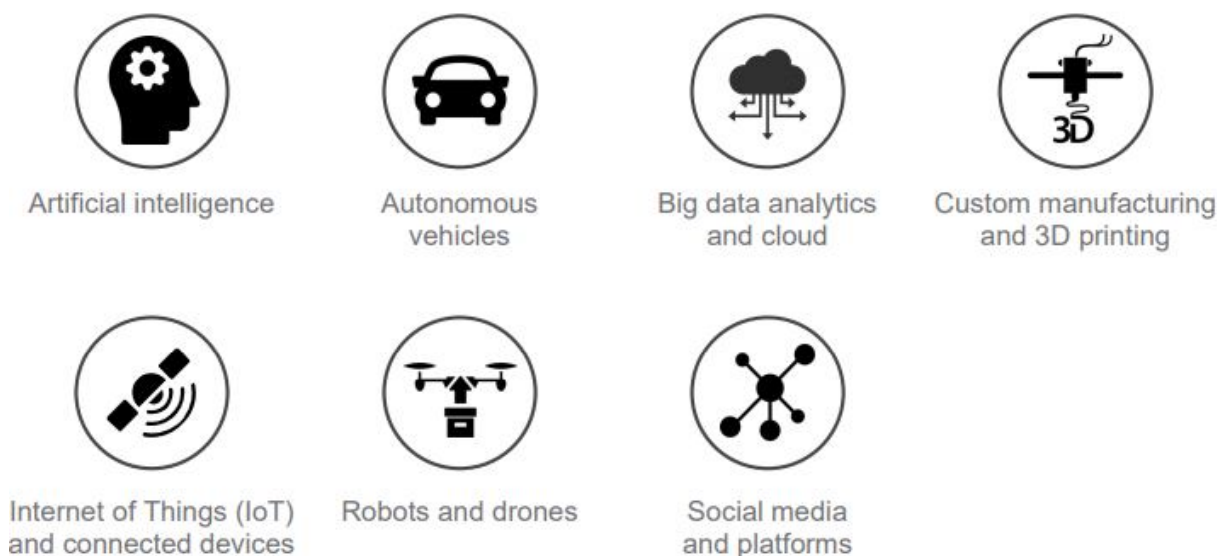
The rapidly falling cost and increasing availability of advance technologies is in a way designing and defining the characteristics of digital revolution and is playing a major role in digital transformation by accelerating the pace of innovation. Below are just few examples of the falling cost :

Examples of the falling cost of key technologies



➤ So, what's the current and future trends in digital revolution ? What do the experts say ?

Various reports published by eminent organizations such as World Economic forum, International Institute of Applied systems analysis etc. have identified seven key technologies that are expected to have the most impact on various industries in the next 3 to 5 years. Below is the snapshot of these seven technologies :



The above list is not a comprehensive list and can include emerging technologies such as Blockchain, but the above seven technologies are forming the base for the digital transformation and for initiatives driven under the digital transformation umbrella across the industry and these are also helping in the formulation of these emerging technologies.

➤ How Digital Revolution trends are helping Business to Transform ?

Organizations are investing heavily in digital transformation to stay competitive and relevant in their industries since if they lack the willingness and courage to invest in this digital revolution effort they have high chances of losing their market shares and even getting out of the business itself. There have been numerous companies in the last decade itself which have been pushed out of their businesses due to the lack of their top leadership's vision in investing in digital transformation and adopting to this new IT age. Companies like Blockbuster, Kodak, Nokia etc are classic examples of companies which lost their share of market or went out of business because of not adopting to and investing enough in digital transformation effort.

Organizations are investing in new technologies **to create new efficiencies, enhancing customer experiences and build new business models**. New efficiencies are one of the major factors of why the companies invest in digital transformation and new technologies. They use these technologies to improve their existing business models and processes and optimize their resource utilization which helps in reducing their costs and helps in increasing the savings for their customers. On the other hand, these technological digital transformation also helps them to improve Customer experience, for example – Walmart Introduced “self-checkout” options for their customers shopping in store, this was a different and much improved customer experience as now customers don't need to rely on the store employee to get their billing completed instead they can complete their billing themselves at a faster pace and exit the store thereby saving their time. Another such example of enhancing customer experience was the introduction of “Hand held Checkout Devices”, many retailers including Walmart, Nike, Target etc have provided their Store employee with handheld devices which have the capability of billing the customers on the fly, anywhere within the stores which saves time for the customers and they don't even need to go to the checkout lanes and they can complete their transaction just anywhere in the store, thereby saving time & effort. Companies like Walmart are implementing mobile technologies that feed data and

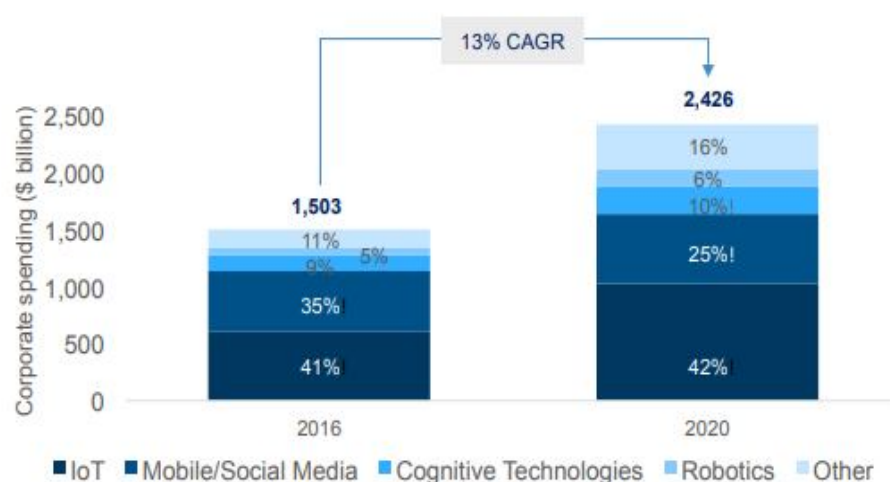
analytics to store associates to help them better serve customers. These are just few examples of an enhance customer experience by companies which are constantly innovating and driving digital transformation.

Organizations are heavily investing in digital transformation & technologies to accelerate growth as well as productivity.

Total new technologies spend is expected to touch around \$2.4 Trillion by end of 2020.

The return on investment in new technologies and digital transformation effort has been positive overall. The **productivity increase is three times higher when technologies are deployed** in combination. The Digital revolution trends and use of combinatorial effect of technologies is helping business improve their revenues by improving their predictability of customer behavioral pattern and providing customers with excellent services, product offerings and also the ability to shop or consume services at their figure tips by use of smart technology devices. It would be safe to say that today **“Technology is the major multiplier for Business growth”**.

Corporate Spending on New Technologies, \$ billion (2016-2020)



Note: CAGR = compound annual growth rate

Source: World Economic Forum/Accenture Analysis based on IDC estimates, excluding cross-industry spend (\$80 billion in 2016 and \$166 billion in 2020)

➤ DIGITAL REVOLUTION & TRANSFORMATION - SOCIETAL IMPLICATIONS

The world is going through a remarkable digital revolution which is helping ordinary people to realize their dreams of starting their own business by using Internet technology and combining it with other digital innovations. The US was home to 30.7 million small business in 2019 most of which were driven by use of technology or were by themselves technology startups. These numbers show how digital transformation is redefining industries and making new business models possible. We can clearly see that digitalization has huge potential to deliver great benefits for business, consumers, society and environment. But the key question that is yet to fully answered is what's the real value to society from digital revolution and transformation ? Digital transformation has generated a fierce debate among economist and industry leaders abouts its societal impact which needs to be addressed and steps should be taken to continuously review how this fourth industrial revolution can help societies to benefit from its implementation rather than suffer from its unintended negative consequences.

As digitalization is disrupting the normal course of various industries and societies, concerns are growing about how it is affecting a wide range of issues, including jobs, wages, inequality, health, resource efficiency and security. One of the studies published by World economic forum highlights that **“Current estimates of global job losses due to digitalization range from 2 million to as high as 2 billion by 2030”**, their analysis also suggests that **“Digitalization has the potential to be a net creator of jobs in the logistics and electricity industries, creating up to 6 million jobs worldwide between 2016 and 2025”**, these two analysis are certainly alarming for many people as this clearly means that automation will displace many tasks and activities traditionally performed by humans. Its time that businesses help their employee to upskill so they are ready with new capabilities and can take up better tasks.

“Education can really help to alleviate the challenge of job losses; both in terms of up-skilling those at risk of automation and providing a meaningful occupation for people in the future” Andrew Moore, Carnegie Mellon University

But, what does Digitalization means to our Environment ? And does this relation have any societal implication as well ? - The answer is Yes! , the various studies published by prominent institutions such as Accenture and World Economic forum suggest that **Digitalization can certainly help in boosting sustainability efforts !** There report suggest that *“In the electricity sector, if smart asset planning and management, and energy storage integration were universal, we estimate that up to 8.8 billion metric tons of CO₂ emissions could be saved by 2025, creating \$418 billion of new value for the economy.”* One of the recent reports published by major oil company Shell shows that they are improving the performance and efficiency of their liquefied natural gas carriers and gas plants by using advanced digital data. For example, by letting captains know exactly what the optimal sailing conditions for their ships are, fuel consumption (and therefore CO₂ emissions) can be reduced by as much as 8%. Major players in other industries are also using Digital transformation to reduce their Carbon footprints, for example in Automobile industry, one of the major player Toyota worked on reducing CO₂ emissions from there vehicles through improved fuel efficiency and the use of hybrid technology as well as electrification. There are numerous studies & reports which shows how various organizations are using digital transformation as a tool to implement new technologies to increase their operational efficiency which has positive impact to the environment and society as whole.

In 2015 United Nations came up with 17 Sustainable Development Goals (SDG's) and these goals are intended to be achieved by the year 2030. To successfully achieve these goals, use of digitalization is imperative not only at organization level but across countries. Digitalization can help realize the UN's Sustainable development goals and bolster the three pillars of development on which they are built : Improving people's quality of life, fostering equitable growth and protecting the environment. Below figure shows a high-level benefit of using digitalization while aiming at achieving the SDG's

The 12 UN SDGs that digital solutions can help realize



Potential impact of digital solutions in realizing UN SDGs

1.38%

GDP growth generated from a 10% increase in broadband penetration in developing regions.

25 billion

Equivalent number of barrels of oil saved in 2030 – a reduction of 70% on consumption today.

300km³

Volume of water saved in 2030 through reduced consumption.

12.1 gigatons

Volume of CO₂e cut from global emissions annually in 2030.

Source: Accenture / GeSI

➤ CONCLUSION

This paper provides high level overview about Digital Revolution and transformation also popularly knows as the Fourth Industrial Revolution and its relation and potential impact of society and environment. We discussed about the current technology trends and how these organizations are investing in these new technologies to gain competitive advantage and attain their sustainability goals.

The details shared in this paper are also pointing us to new era which is called “Digital Economy”, with the digital revolution helping technological advance, we now have capability to capture huge amount of data and also have the ability to process that data into meaningful information that can be used to enhance products, services and operational efficiencies. The Digital data can be used for development purposes and for solving societal problems, including those related to the SDGs. It can thus help improve economic and social outcomes and be a force for innovation and productivity growth. From a business perspective, the transformation of all sectors and markets through digitalization can foster the production of higher quality goods and services at reduced costs. Furthermore, digitalization is transforming value chains in different ways, and opening new channels for value addition and broader structural change.

I would like to conclude this paper by emphasizing on the fact that Digital revolution is here to stay and we need to ensure that we all adapt to this fast paced revolution and develop skills to become more productive by using digital technologies and add more value to our society by providing solutions which are essential to the human civilization by using the power of new technologies.

Thank you

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THE INDIRECT TAX INFORMATION SYSTEM: IMPORTANT FACTORS OF PRESENT SCENARIO

Amit Sharma

ABSTRACT

Government's primary sources of revenue in India are direct taxes and indirect taxes. Taxes paid directly to the Government by the persons on whom the tax is imposed/levied are referred to as Direct Taxes. These includes income tax, wealth tax etc. Indirect taxes attach themselves to the cost of supply of goods/services and are, in this sense, transaction specific rather than person specific. The major indirect taxes/ duties levied under acts of parliament are listed below;

- a) Central Excise Duty: Duty is levied on manufacture or production of goods in India.*
- b) Customs duty: Duty is levied on import of goods into India and on exports of certain goods out of India.*
- c) Taxes on Services: service tax is levied on services provided within the taxable territory.*

Central excise duty on goods manufactured/ produced in India and custom duties on imported goods constitute the two major sources of indirect taxes in India. However, revenue receipts from custom & excise have been constantly declining due to World Trade Commitments and rationalization of commodity duties.

tax has been started to levy from 1994 onwards. Before this there is no tax on services and now services sector has been pushing back the contribution of traditional contribution by traditional contributors like agriculture and manufacturing sectors to GDP.

As from last few decades, construction activities in India has increased substantially, service tax on service portion involved in these contracts is now contributing a major share of total service tax revenue. There are various reasons for this, they may be because of increase in living standard, desire to have an own house, easy housing finance and government policies to encourage the constructional activities for development of infrastructural facilities in India such as construction of Dam, Roads, Bridges, Hospitals, Metro or Railway projects or many more.

Key Word : Information of taxation , tax collection , policies , Economics , Noncompliance , trade , Research , Excise duty , Sales tax , per unit tax , value added (VAT) , Goods and Services Tax (GST) , Excise duty , Elasticity , supply and Demand etc.

INTRODUCTION

Indirect Tax is a tax collected by an individual by 'indirect means' in a pecuniary term on his sale and purchase by the authority of law under Indian constitution. Indirect tax is one of the branches of tax laws and another is direct tax. Indirect tax is also known as consumption tax because they are based on the ability to pay principle which means a tax which is not levied directly on the incomes of earner or consumer. Collection of indirect was custom earlier then afterwards it becomes a law under which state obliges us to pay the tax. For this collection of tax (whether direct or indirect tax) is collected either by government which is authority of law under constitution of India. All these collected taxes are utilized for the development of country as a whole by its distribution based on need of that central, state or local authority's laws to carry on all his activities. Indirect tax is also known as consumption tax because they are based on the ability to pay principle which means a tax which is not levied directly on the incomes of earner or consumer. Collection of indirect was custom earlier then afterwards it becomes a law under which state obliges us to pay the tax.

Indirect Tax and Direct Tax

In case of direct tax, tax is to be collected in pecuniary term by an individual directly out of income they have earned. But in case of indirect tax, tax is paid indirectly by the consumer out of rest of amount of income earned. In case of direct tax, assesses is bound to pay the tax whether his willingness is there or nor but in case of indirect tax, consumer pays the tax voluntarily. Assessess can only be a person who earns his income under income tax act whereas, in case of indirect tax, a 5-year-old child can also be the consumer who pays the tax indirectly. In case of direct tax, assesses pays the tax @ x at income earned and he may not pay the tax if he is exempted from paying tax in that financial year under tax slabs whereas in case of indirect tax no exemption if provided by the authority of law and consumer has to pay the tax separately from the amount of actual cost of the product which makes the product more costlier.

Paid tax can be claimed back or adjusted in income tax whereas normally it is not always possible in all indirect tax cases. In direct tax, assesses assess his tax to be paid at the end of financial year whereas in case of indirect tax, consumer pays the tax at the time of purchase or sell or rendering of services. As assess directly pays the tax, there is no question of shifting of burden of tax in future but in case of indirect tax, if the goods are transferred from one consumer to the another, the burden of tax is shifted to the subsequent consumer. Indirect tax is a wider concept with regard to direct tax. Indirect tax affects only an individual which does not affect the price or demand of goods directly whereas in case of indirect tax it affects the whole country as well as global market and if the price of goods is increased, the demand of that good may fall down which will indirectly hinder the healthy development of country. Tax evasion is more in direct tax whereas it is comparatively very low in indirect taxation.

Extent of Taxation under Constitution of India

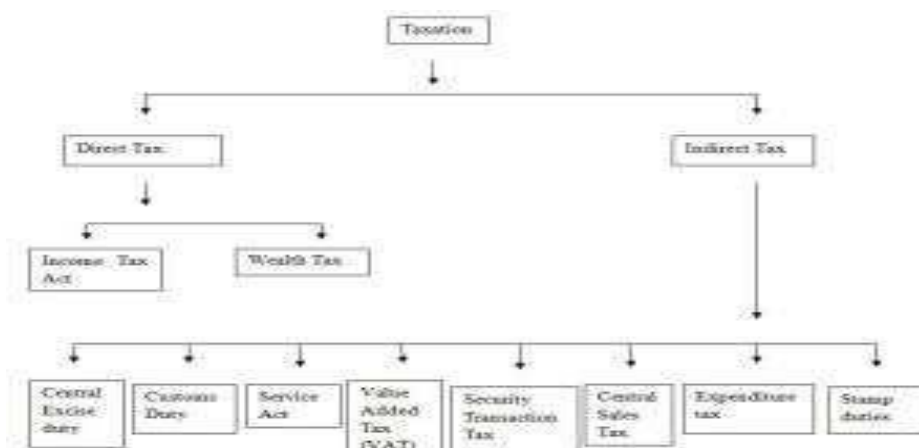
Under Article 246, the authority can levy tax on various subject matter enumerated under Schedule VII of the constitution Central Government under three list that is union list, state list and concurrent list. Union[5] has right to levy tax on Income Tax (Except on Agricultural Income), Excise (Except on Alcohol and Tobacco) and customs. State Government shall levy tax revenue from sales tax, excise from alcoholic and liquor drinks, and tax on agricultural income. The local self-government levy tax from entry tax and house property tax.

When union list is inconsistent with the state list, union list will prevail. Under Article 249, parliament can make laws on state list either when $2/3^{\text{rd}}$ member of Rajya Sabha gives its consent or in case of emergency. Even doctrine of eclipse is also applicable in taxation case, which states that all those British laws which were prevailing before independence are not illegal. Only those provisions which are inconsistent with our constitution will be struck down for the time being and other will be applicable in same manner. Under Article 255, when there is a controversy between international law and municipal law, international law will prevail in India.

Constitutional Amendment empowers the Panchayat to levy tax. A State may by law be able to authorise a Panchayat to levy, collect and appropriate taxes, duties, tolls etc. Similarly, municipalities are also empowered to levy the taxes.

Types of Indirect Tax

We all knew that Tax law is divided into two parts that is direct and indirect tax. This direct and indirect tax are further classified as Direct tax includes Income Tax Act and Wealth Act, whereas Indirect tax is classified as Central Excise duty, Customs duty, Service tax, Value added tax, Security Transaction Tax, Central Sales Tax, and miscellaneous. Almost each and every branch of law is classified into different sub-heads, likewise taxation is classified as follows in form of this chart: -



It is an indirect tax levied and collected on the excisable goods manufactured or produced in India (excluding alcohol and tobacco) which has its marketability and which is known to the market or which already exists in the market. Central excise duty is also being levied to ores and minerals which are extracted from the earth. Manufacturer of marketable goods is liable to pay the excise duty to the government on the day when the goods are taken out the door of manufacturing unit[8]. He is bound to pay to pay duty on all goods manufactured or produced in India unless and until it is exempted by the law. Exemption is given to develop the country is that; manufacturer is not bound to pay the excise duty on the goods exported out of India provided that specified quantum of quality and quantity is too maintained. This was done to increase the exportation in India. The duty of Central Excise is levied if the following conditions are satisfied:

- (1) The duty is on goods.
- (2) The goods must be excisable.
- (3) The goods must be manufactured or produced.
- (4) Such manufacture or production must be in India.

Unless and until these above conditions are not satisfied, excise duty cannot be levied upon excisable goods. Manufacturer is liable to pay the duty and for this he need not necessarily be an Owner of raw material. Law related to central excise Act:

1. Central Excise Act, 1944(CEA): The basic Act which provides the constitutional power for charging of duty, valuation etc.
2. Central Excise Tariff Act, 1985 (CETA): This classifies the goods under 96 chapters with specific codes assigned.
3. Central Excise Rules, 2002: It deals with the procedural aspects of excise duty. The rules given under rules are implemented or come into force after issue of notification.
4. Central Excise Valuation (Determination of Price of Excisable Goods) Rules, 2000: This rule deals with the provisions of valuation of excisable goods.
5. Central Excise Credit Rules, 2004: This rule deals with provisions relating to Central Excise Credit and its utilization.

The Central Excise Tariff Act 1985 defines the term “excisable goods” which means the goods which are specified in the First Schedule and the Second Schedule. It is mandatory to pay Excise duty on the goods manufactured, unless and until exempted by law. Other exemptions are also notified by the Government from the payment of duty by the manufacturers. The following persons shall be liable to pay excise duty:

1. A person, who produces or manufactures any excisable goods,
2. A person, who stores excisable goods in a warehouse,
3. In case of molasses, the person who procures such molasses,
4. In case goods are produced or manufactured on job work,
 - i. The person on whose account goods are produced or manufactured by the job works, or
 - ii. The job worker, where such person authorizes the job worker to pay the duty leviable on such goods.

• Service Tax

The interesting thing about Service Tax in India is that the Government depends heavily on the voluntary compliance of the service providers for collecting Service Tax in India. When it was introduced initially there were three services which were liable but over the years various other services have been added and today more than a hundred services are liable under service tax. One of the main reasons for the services to be taxed is the fact that the manufacturing sector can be taxed only to a certain extent and if we want to maintain the healthy completion and growth, all the activities are to be taxed which is also important for justice and equity. The service providers in India except those in the state of Jammu and Kashmir are required to pay a Service Tax under the provisions given in Chapter V and VA of the Finance Act of 1994 for the time being. Service Tax Act enacted on 1994. Under this Act, service tax is levied on gross or aggregate amount of service on receiver by the service provider. Under rule 6, tax is to be paid on the value received and central government can also grant exemptions along with making rules under this rule with the span of time for the time being.

The service tax act is not applicable to the state of Jammu and Kashmir. This act has defined service provider as well as service receiver. This tax can only be levied if the service transaction takes place between these two defined service provider and service receiver and not in another case. The concept of service receiver has been widened to cover all kinds of service receivers in last couple of years as many service providers have been emerged in this global market and now it is a matter of academic interest. The service provider is bound to pay the tax on the service provided by him to the service receiver, when he collects value of service from service receiver

• Value Added Tax

VAT is kind of indirect tax. It is paid at each stage of sale on the value added to a product. Value Added Tax Act is enacted to levy VAT. For an instance, A extracted iron ore, so A will pay tax on quantum of iron ore sold to B. This iron ore becomes raw material for B and if B manufactures steel sheets, then a new product is invented

with new purpose and if b sells this sheet to C and c manufactures steel good then again a new product with new use is invented. In this case B and C both have to pay VAT at different rates as their final product is different. Thus, it can say that VAT is imposed if a new goods is invented which has different purpose, different name and different characteristics. If any of these essential elements is not fulfilled then, VAT cannot be imposed. Thus, it is multi point levy of VAT on supply chain upon each entity. VAT rates vary from state to state on petrol, tobacco, alcohol etc. VAT rates are administered by state governments and it is similar to sales tax. VAT is levied or charged as soon as some value is added to the raw material. The value addition in the hands of each of the entities is subject to tax. VAT can be computed by using any of the three methods:

1. Subtraction method: Difference between the value of output and the cost of input is taken out and tax is applied on that difference.
2. The Addition method: All the payments that is payable to the factors of production are added and thud value added is computed.
3. Tax credit method: This entails set-off of the tax paid on input.

VAT helps in avoiding problem of double taxation of goods and services. There is no incidence of cascading effect in VAT as it is imposed on value added at every stage. Thus, final consumer pays tax only on the value added which tend to make this tax system simple with absolute transparency.

□ **Central sales Tax**

Central sales tax is levied upon a dealer on sale of all goods during their transaction in inter-state trade or commerce or in outside state trade transaction. This transaction can be inter-state sale even if the seller and buyer are from same state but goods are transferred from one state to another under contract of sale during their transition by transfer of documents. The state from where the goods are moved out, tax will be levied on that sate based on that state sales rate. Sales tax cannot be levied upon the sale or purchase of good outside that state and import and export of any goods outside the India. If sale is made to reseller and tax exempted institutions are two conditions where this Central Sales Tax is exempted

Sales Tax are of two kinds- Central Sales Tax which is to be levied on inter-state sale and purchase of goods by the parliament and another is Sales Tax which is to be levied on commerce trade sales at various rates under Sales Tax Act by the State government who can also impose additional tax charge as purchase tax, turnover tax etc. Thus, Sales Tax helps in generating major revenue for different State governments. In India, most of states have supplemented their Sales Tax with VAT. There are some instances wherein the goods are moved out of the selling state and yet they are not considered interstate sales: -

1. Intra-state sales
2. Stock transfer from head office to branch & vice versa
3. Import and Export sales or purchases
4. Sale through commission agent / on account sales
5. Delivery of Goods for executing works contract

□ **Customs duty**

In India, Custom duty is one of the most important branches of Indirect Tax. Customs Act and Foreign Trade Order are two main acts under Custom duty. This Act was enacted to prevented illegal imports and exports of the goods. It is also subjected to secure Indian Currency exchange rate by minimizing imports in India and to secure indigenious industries. The rate at which this custom duty is to be levied upon imported or exported goods from India are specified under Custom Tariff Act.

Under the custom laws, the various types of duties are leviable.

1. Basic Duty:
2. Additional Duty (Countervailing Duty) (CVD)
3. Additional Duty to compensate duty on inputs used by Indian manufacturers
4. Anti-dumping Duty
5. Protective Duty
6. Duty on Bounty Fed Articles

7. Export Duty
8. Cess on Export
9. National Calamity Contingent Duty
10. Education Cess
11. Secondary and Higher Education Cess
12. Road Cess
13. Surcharge on Motor Spirit

Central Government has power to issue any notification regarding import and export in port and airports in India by deciding the routed of goods to be imported or exported inside or outside India respectively. Central Board of Excise Customs (CBEC) has issued “Indian Customs Tariff Guide” where Custom duty goods have been classified and various tariff rulings are included. It also includes imported and manufactured goods of warehousing. If a person brings any baggage from abroad, he has to pay tax on that baggage.

• Expenditure Tax

Expenditure tax is levied to hotels having room charges of more than Rs 1,200 per day per person under Expenditure Tax Act, 1987 and not below that. It is collected at the rate of 10 percent towards food, room, beverages and other services from customers and the collected amount is deposited by owner to the central government.

• Stamp Duties

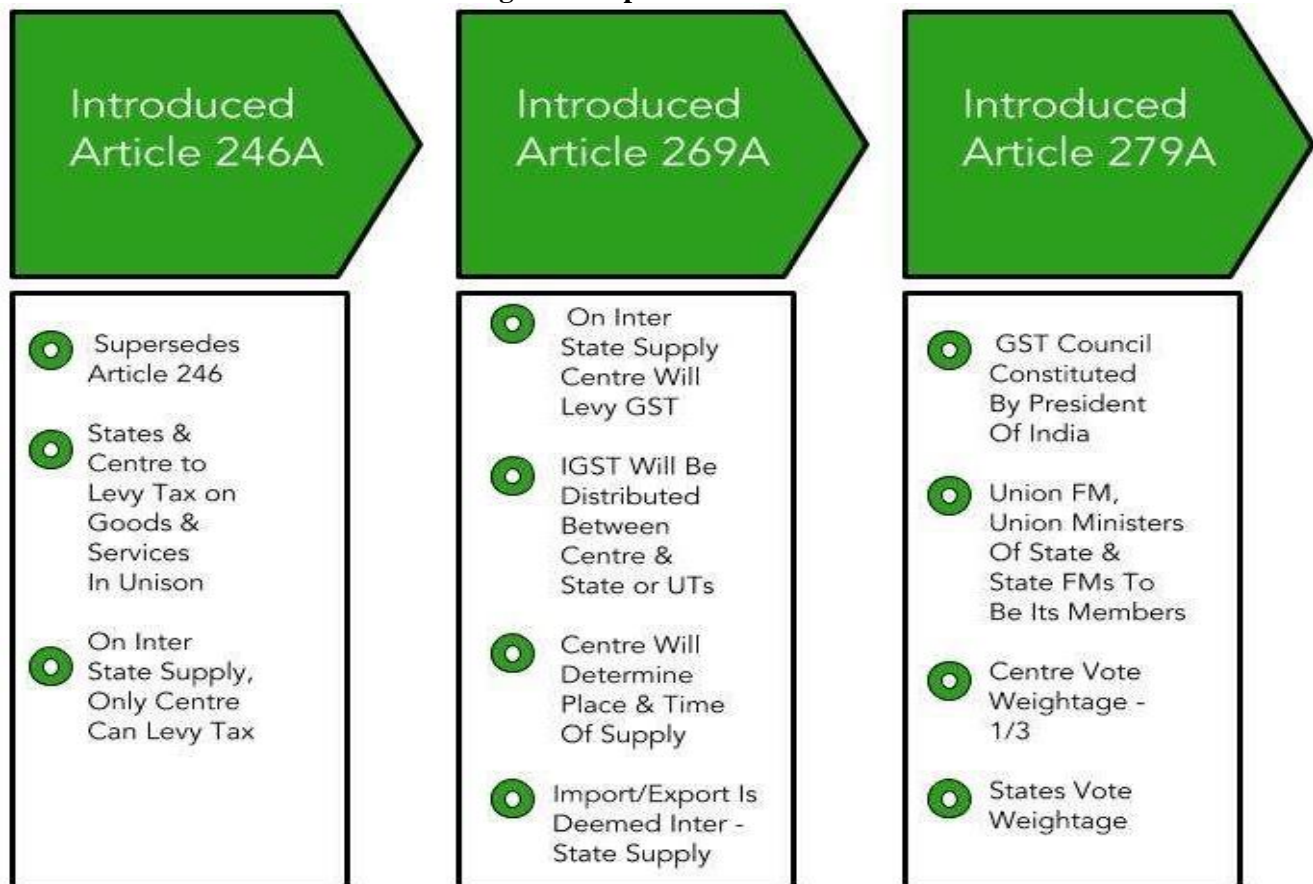
Stamp duties are paid on rates basis. This “rates” are mainly prescribed by central government legislation under The Indian Stamp Act 1899, and some documents rates are revised by state government legislation. This duty is levied on documents (promissory notes, insurance policies, bill of exchange etc.), contracts affecting both transfer of shares and transfer of immovable property. Purchaser normally pays stamp duties contracts affecting transfer of shares and transfer of immovable property.

• Securities Transaction Tax (STT)

STT is the stock exchange transaction-based tax. It is applied in case of purchase and sell of equity (equity shares, equity-oriented funds and equity oriented mutual funds) and derivatives. Person has to pay the STT only in one condition, whereby he becomes investor. He only has to pay the STT @10 % flat on gain by selling his shares before 12 months which is short term capital gain. If he sells his shares after 12 months, then it is long term capital and he is not required to pay the tax. However, these gains are treated as business or trading tax and it can be claimed back or can be adjusted in tax to be paid.

Fig. 1 : Components Of Taxes

Taxation under our Constitution	
Union List (List I)	State List (List II)
Entry No. 82 - Taxes on Income Except Agriculture income	Entry No. 46 - Taxes on Agriculture income
Entry No. 83 - Duties of Custom	Entry No. 51 - Excise duty on Alcoholic Liquors, Opium and Narcotics
Entry No. 84 - Duties of Excise	Entry No. 52 - Entry tax or Octrio
Entry No. 85 - Corporation Tax	Entry No. 54 - Tax on sale or purchase of goods where such sales takes within state (VAT)
Entry No. 86 - Taxes on Capital Value of Assets	Entry No. 56 - Tax on goods and passengers carried by road or inland waters
Entry No. 92A - Taxes on sale or purchase of goods between two states	
Entry No. 92C - Taxes on Services	

Fig-2 : Components Of Taxes

Fig-3 : Components Of Taxes

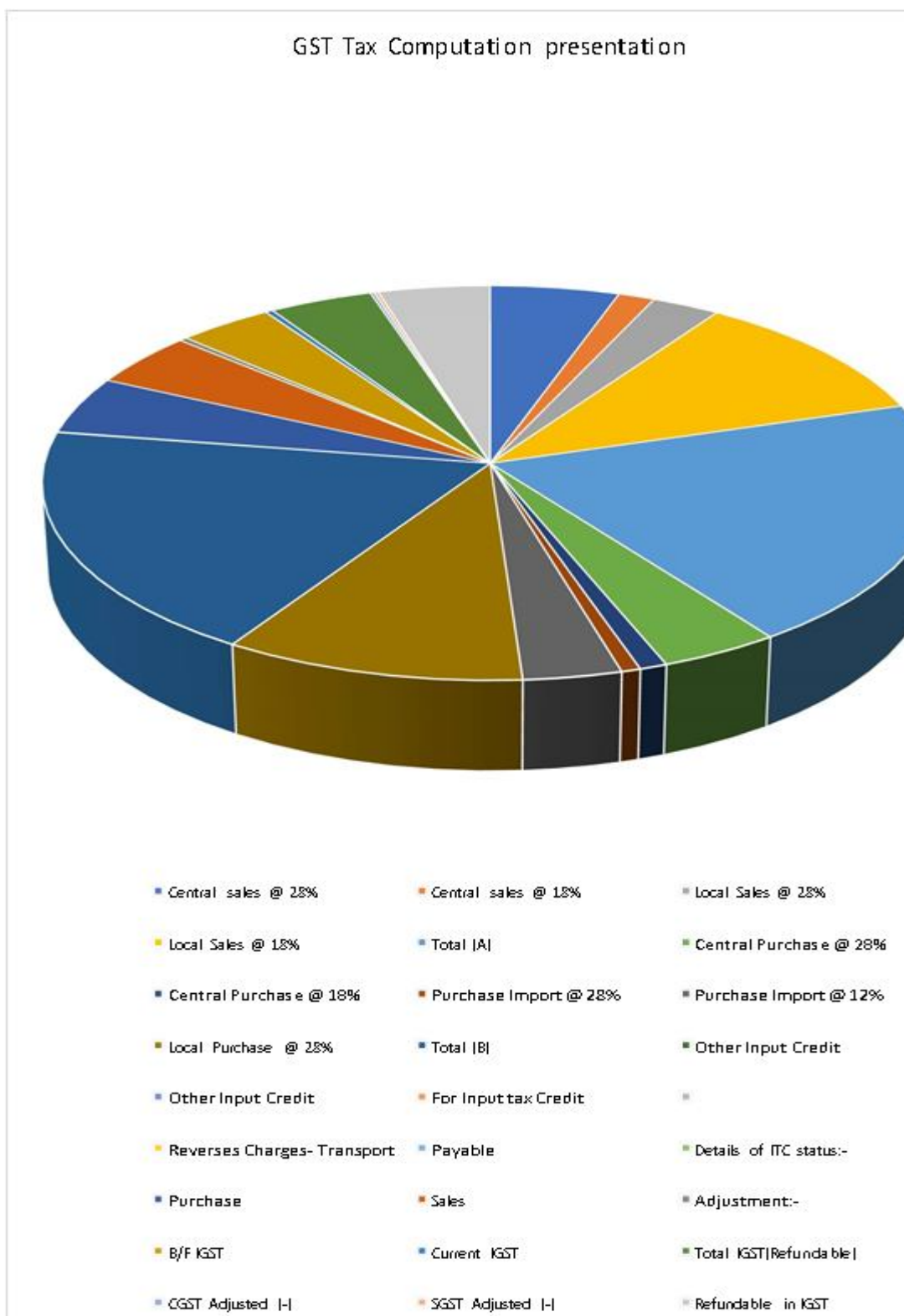
Tax	Tax Law	Taxable Event	Tax Collection Authority
<ul style="list-style-type: none"> Customs Duty 	<ul style="list-style-type: none"> Customs Act 1962 	<ul style="list-style-type: none"> Import/Export 	<ul style="list-style-type: none"> Central Govt.
<ul style="list-style-type: none"> Central Excise Duty 	<ul style="list-style-type: none"> Central Excise Act 1944 	<ul style="list-style-type: none"> Manufacture /Production 	<ul style="list-style-type: none"> Central Govt.
<ul style="list-style-type: none"> Central Sales Tax 	<ul style="list-style-type: none"> Central Sales Tax Act 1956 	<ul style="list-style-type: none"> Inter State Sale 	<ul style="list-style-type: none"> State Govt.
<ul style="list-style-type: none"> Service Tax 	<ul style="list-style-type: none"> Finance Act 1994 	<ul style="list-style-type: none"> Taxable Service 	<ul style="list-style-type: none"> Central Govt.
<ul style="list-style-type: none"> VAT 	<ul style="list-style-type: none"> Sales VAT Act 	<ul style="list-style-type: none"> Sales Within The State 	<ul style="list-style-type: none"> State Govt.

COMPUTATION OF INDIRECT TAXES

Details of GST Tax Computation				
Particulars	Amount	IGST	CGST	SGST
Central sales @ 28%	2835500.00	793940.00	396970.00	396970.00
Central sales @ 18%	800000.00	144000.00	72000.00	72000.00
Local Sales @ 28%	1500000.00	420000.00	210000.00	210000.00
Local Sales @ 18%	6000000.00	1080000.00	540000.00	540000.00
Total (A)	11135500.00	2437940.00	1218970.00	1218970.00
Central Purchase @ 28%	2200000.00	616000.00	308000.00	308000.00
Central Purchase @ 18%	500000.00	90000.00	45000.00	45000.00
Purchase Import @ 28%	350000.00	98000.00	49000.00	49000.00
Purchase Import @ 12%	1800000.00		216000.00 108000.00	108000.00
Local Purchase @ 28%	5500000.00	1540000.00	770000.00	770000.00
Total (B)	10350000.00	2560000.00	1280000.00	1280000.00
Other Input Credit	40000.00	3500.00		3500.00
Other Input Credit	3500.00	25000.00		25000.00
For Input tax Credit		2603500.00	1308500.00	1308500.00

Reverses Charges- Transport	26967.00	4854.06		0.00	0.00
Payable	0.00	4854.00		0.00	0.00
Details of ITC status:-	IGST	CGST	SGST		

Purchase	2603500.00	1308500.00	1308500.00
Sales	2437940.00	1218970.00	1218970.00
Adjustment:-	165560.00	89530.00	89530.00
B/F IGST	2114436.41		
Current IGST	165560.00		
Total IGST(Refundable)	2279996.41		
CGST Adjusted (-)	89530.00		
SGST Adjusted (-)	89530.00		
Refundable in IGST	2459056.41		



CONCLUSION

At last I would like conclude this article by stating that taxation is a branch of law which is connected with our day to day life. Taxation law is branch of law which changes every year with introduction of new finance budget. Tax revenue collected by authority of law is deposited into government fund which if used for maintenance of law and order, Défense, social/ health services, administration etc. Taxation is not only the source of government fund indeed it is the main source. Justice Holmes of US Supreme Court had said that tax is the price which we pay for a civilized society. The Central Excise Department (CED) levy and collects tax from both direct as well as indirect taxation. These officers have all power for enforcement of law. Although taxation have many branches and sub- branches, but in all kinds of indirect tax, tax levy and collection procedure are almost similar.

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MONEY LAUNDERING, FRAUDS MENACE IN THE INDIAN BANKING

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ABSTRACT

In the times of extravagant living standards, getting fast money attracts people to adopt unfair means like corruption, black marketing, smuggling, drug trafficking, tax evasion, and the buck does not stop here it goes to the extent of sex tourism and human trafficking (a human selling another human in the era of human rights. This erodes the financial services industry in the international arena. The vulnerability of the Indian banking system stems from a host of factors such as the presence of a large number of international banks, growth of alternative asset classes like hedge funds, private equity and commodities being fuelled by a low interest regime, and, most importantly, the abysmal monitoring of illegal activities. This paper attempts at estimating the scope and challenges of money laundering in the Indian Banking System using the latent variable approach with money laundering being the latent variable estimated by regressing the observable causes (or change in causes) on the observable effects (or change in effects). Accordingly, the present study attempts to assess the practices of AML/CFT in commercial banks and understand their challenges faced in implementing it through the smelling of money laundering in PNB by Nirav Modi.

Keywords: FATF, Terrorism, money laundering, latent variable approach, factor analysis.

JEL Classification – C38, G18, H26, K42, O17

INTRODUCTION

Anti-money laundering or AML is defined as “a set of procedures, laws or regulations designed to stop the practice of generating income through illegal actions” (Financial-dictionary, 2008). These illegal actions refer to behaviors of businesses or individuals that use tactics to create an illusion that their money is coming from legitimate sources when in reality, it comes from illegal or unethical sources. The practice of money laundering is not new; it dates back prior to the year 0 BC. However, attention to money laundering activities increased significantly following increased terrorist attacks, where the catch-phrase “follow the money trail” accompanies pursuit of the persons involved.

The steps involved in Money Laundering are

Placement: This is the first stage in the washing cycle. Money laundering is a "cash-intensive" business, generating vast amounts of cash from illegal activities (for example, street dealing of drugs where payment takes the form of cash in small denominations). The monies are placed into the financial system or retail economy or are smuggled out of the country. The aims of the launderer are to remove the cash from the location of acquisition so as to avoid detection from the authorities and to then transform it into other asset forms; for example: travelers cheques, postal orders, etc.

Layering: In the course of layering, there is the first attempt at concealment or disguise of the source of the ownership of the funds by creating complex layers of financial transactions designed to disguise the audit trail and provide anonymity. The purpose of layering is to disassociate the illegal monies from the source of the crime by purposely creating a complex web of financial transactions aimed at concealing any audit trail as well as the source and ownership of funds.

Typically, layers are created by moving monies in and out of the offshore bank accounts of bearer share shell companies through Electronic Funds' Transfer (EFT).

Integration: This is the final stage in the process. It is this stage at which the money is integrated into the legitimate economic and financial system and is assimilated with all other assets in the system. Integration of the "cleaned" money into the economy is accomplished by the launderer making it appear to have been legally earned. By this stage, it is exceedingly difficult to distinguish legal and illegal wealth.

There are three primary drivers behind enhanced concerns about money-laundering as a form of corruption.

1. the globalization of markets,
2. the rise in terrorism and

3. the establishment of initiatives leading to formation of the Financial Action Task Force (FATF)

As the globalization of markets has enabled businesses to expand more easily and quickly into foreign markets, it has created new problems that complicate anti-money laundering initiatives. For example, the two parts of a transaction can be performed in two different countries with each part of the transactions falling under a different set of laws, thus making illegal activities harder to prevent or detect. This threatens markets in a number of ways including establishing underground economies that stifle legitimate business, creating downward pressure on integrity of financial sectors and institutions, promoting public corruption, and increasing crime.

The second driver – the rise in terrorism – has led to cries worldwide for re-framing international anti-money laundering activities as counter-terrorist-financing activities. (Clunan, 2006, Winter). This need for re-framing activities is primarily an outcome of the increasing availability of formal and informal mechanisms used by the terrorists who raise money through money laundering activities. As noted in a recent US Department of State report “The difficulties inherent in tracking terrorist finance in the formal financial system are multiplied many times over as terrorists move to informal financial systems, using money remitters and hawaladars, who, in turn, may engage in trade-based money laundering” (U.S. Department of State, 2004-2005; Clunan, 2006).

The third driver is the establishment of groups such as the Financial Action Task Force (FATF). This initiative is important, in part because the national or regional anti-money laundering standards have been changed to make them consistent with the 2003 revision of the FATF recommendations on money laundering and terrorist financing. Recognition by world leaders of the problem of money laundering led to the establishment of the Financial Action Task Force (FATF) during the 1989 Paris G-7 Summit. Today, the FATF describes itself as a policy-making body whose charge is as “an inter-governmental body whose purpose is the development and promotion of national and international policies to combat money laundering and terrorist financing” (FATF Home, n.d.).

THE BANKING SYSTEM

The transfer of value feature often relies on banking structures to a greater or lesser degree. Even where the true, laundered, value is transferred indirectly via goods and services, these systems are often used to reconcile the relevant accounts. The banking system is also often used to transfer value even when launderers utilize other methods or features such as those available in the securities and insurance sectors.

Bank transfers allow value to be moved electronically and relatively quickly in a relatively highly regulated environment. It is a high volume activity, with millions of legitimate transactions taking place globally each day across thousands of banks, involving an even greater number of counterparties. Access to the banking system can be over the counter, or by using the internet or telephone, by the owner of the funds or by instructed third parties, such as lawyers, accountants or private bankers.

The 2009 FATF Strategic Surveillance Survey noted wire transfers involving cash deposits and withdrawals as a primary technique for moving terrorist funds. The 2009 survey also noted that the financial systems in a number of jurisdictions have been used as a part of a train of transactions, with funds linked to terrorism moving in and then directly out of their countries.

The abuse of the banking sector to transfer value by criminals and terrorists can undermine confidence in the integrity of the financial system and damage the reputation of the system and businesses within it, with the potential result in damage to business, markets and even whole economies. This can drive away legitimate business and make institutions more reliant on criminally sourced funds. An additional harm would be the difficulty of tainted institutions’ gaining access to the global financial sector.

This abuse of the banking sector is enabled by factors such as the sheer size and scope of the global financial sector, complexity of banking arrangements and products which allows concealment. Banking systems in those jurisdictions with weak preventive measures also enable the abuse. The abuse of the banking system is often also enabled by the use of false or stolen identities which are used to avoid being identified through application of CDD requirements or to gain access to accounts. Widespread use of false and stolen identities to access the banking system could also result in a lack of confidence in public sector and financial sector data-sets and processes.

Another enabler is the possibility of transferring the right to access bank/deposit accounts to third parties. In some cases access to an account may be granted to a third party upon presentation of the accountholder’s details (account number, name of the accountholder), an identification document and the power-of-attorney. Also customers’ ability to remotely access deposited funds means that illegal funds integrated into the banking

system can be managed without the physical presence of the account owner, through a bank-customer system (operated via the internet or telephone) from virtually any place of the world. When a bank's internal control service detects a suspicious transaction, getting in touch with the customer to clarify the nature and goal of the transaction may be difficult. The bank's customer, being physically far away from the bank, may continue to conduct the suspicious transactions remotely before access is eventually discontinued.

The factor that drives criminals and terrorists to use the banking sector to transfer value for ML/TF is their need to move funds securely, quickly and with the appearance of legitimacy. There is also a need to convert funds into various other products and to move funds away from predicate offences. Another identifiable driver is the need to move funds to where they may be needed /accessible including for the commission of more criminal activity or to separate funding for terrorist logistics from other funds. Funds are also transferred to locations with weaker AML/CFT regimes because the activity is less likely to be identified, reported and investigated, while the proceeds are less likely to be confiscated and offenders less likely to be prosecuted.

The most important measures for mitigating the ML/TF threats relating to the transfer of value associated with the misuse of the banking system are those which require customer identification, the monitoring of transactions by financial institutions and the inclusion of meaningful and accurate originator information with funds transfer. For the latter, beneficiary financial institutions should take measures to identify wire-transfers that are not accompanied by complete originator information. A related issue involves cover payments, which are used to facilitate funds transfers on behalf of a customer to a beneficiary in another country, and typically involve the originator's and beneficiary's banks not having a relationship with each other that allows them to settle with each other directly.

Further measures include freezing and blocking bank and deposit accounts. These measures relate to the transfer of value in that effective freezing mechanisms result in the termination of terrorist cash flows by shutting down the pipelines used to move terrorist related funds or other assets. These measures also force criminals and terrorists to use more costly and higher risk means of financing their activities, which makes them more susceptible to detection and disruption. Furthermore, these measures are efficient as they deprive the criminal of the funds acquired by criminal methods and undermine the financial basis for criminal activities.

Emerging issue – money mules

Law enforcement is increasingly seeing the use of "money mules" as a new means of transferring value. This is reflected in the results of the 2009 FATF Strategic Surveillance Survey. Money mules are used to launder the proceeds of fraud schemes (e.g., phishing and identity theft). Criminals who gain illegal access to deposit accounts recruiting innocent third parties to act as "money mules." In a money mule transaction an individual is recruited to receive and then send wire transfers from deposit accounts to individuals overseas, minus a certain commission payment (perhaps between 5-10%).

Money mules are recruited by a variety of methods, including spam e-mails, advertisements on genuine recruitment web sites, social networking sites, instant messaging and advertisements in newspapers. Once recruited, money mules will receive funds into their accounts. Mules are then asked to take these funds out of their account and to forward them overseas (minus the commission payment).

As well as the harm caused to the victims of the fraud, when caught, money mules often have their bank accounts suspended, causing inconvenience and potential financial loss.

INDIAN SCENARIO

The AML/CFT regime in India is relatively young. The Prevention of Money Laundering Act, 2002 (PMLA) came into force in 2005 and was amended in 2009. The Unlawful Activities (Prevention) Act, 1967 (UAPA) was amended in 2004 to criminalize, inter alia, terrorist financing. The UAPA was further amended in December 2008 to broaden its scope and to bring the legislation more in line with the requirements of the United Nations Convention for the Suppression of the Financing of Terrorism (FT Convention).

Money laundering (ML) methods are diverse. India has several mechanisms in place for domestic co-ordination and co-operation at both the policy and operational levels to identify new and emerging trends and to formulate appropriate responses. Since mid-2009, India has increased its focus on money laundering and the use of the ML provisions and has progressively expanded and strengthened its preventive measures for the financial sector, which now apply to all but one (casinos which operate only in the State of Goa) of the financial activities required to be covered under the FATF standards.

Reserve Bank of India (RBI) has issued regulatory guidelines on Know Your Customer (KYC) norms / Anti Money Laundering (AML) Standards / Combating of Financing of Terrorism (CFT) from time to time with the objective of preventing banks from being used, intentionally or unintentionally, by criminal elements for money laundering or terrorist financing activities. KYC procedures also enable banks to know/understand their customers and their financial dealings better which in turn help them manage their risks prudently.

RBI has asked the banks not to alert the customer about the suspicious transactions being reported to the FIU-IND. Pointing out that customers may abandon the transactions on being asked to provide details, the notification said, Banks should report all such attempted transactions in STRs (Suspicious Transaction Reports), even if not completed by the customers, irrespective of the amount of transaction.

The central bank further clarified that banks should include transactions in the STRs if they have reasonable ground that these involve proceeds of crime, though the amount may be below threshold limit prescribed by the Prevention of Money Laundering Act. Tightening the anti-money laundering norms, RBI made it mandatory for banks to report all suspicious transactions, including those of over Rs 10 lakhs, to the directorate of financial intelligence. In addition to suspicious transactions, all cash transactions of more than Rs 10 lakh (or its equivalent in foreign currency); series of connected transactions with aggregate value of Rs 10 lakh; and cash transactions where forged currency notes are used are included.

LITERATURE REVIEW

Field and Case Studies- Outside of economics, particular mention should be made of ethnographic field study efforts to “research into the shadows” (Nordstrom, 2004), and criminological case studies about launderers who have been caught. In the Netherlands, criminologists Meloen et al. (2003) analyzed 52 criminal cases wherein property had been confiscated. The problem with this kind of approach is that it is unclear how representative the data are. Do the 52 money launderers who were caught represent 0.5 percent, 5 percent, 10 percent or 50 percent of the money launderers in the Netherlands? Are those money launderers caught representative of all money launderers, or are only specific offenders caught?

Surveys and Interviews- In 1992 John Walker was commissioned by the Australian Financial Intelligence Unit, AUSTRAC, to undertake the first ever survey of expert opinion to determine the percentages laundered from the proceeds of each type of crime (Walker, 1995). As with all surveys, this approach is limited by diverse biases. The sample might not be representative and the people interviewed or questioned might have had their own perception biases. In addition, interpretation biases, biases from non- response and sample biases might be found in these data.

Suspicious or Unusual Transactions- Another method of estimating money laundering is by analyzing suspicious or unusual transactions reported to financial intelligence units (FIUs), which have been established in most countries to control money laundering. There are variations between countries regarding reporting requirements, particularly thresholds that will trigger a report and the extent to which non-monetary payment instructions (such as bearer instruments) should be included. Moreover, information overload can lead to delays in follow-up investigations into suspicious transactions. Strategic dilution of information by the private sector respondents can also bias this indicator quite a lot (Takáts, 2007, Dalla Pellegrina and Masciandaro, 2009) and can make country comparison difficult (Unger and van Waarden, 2009).

Statistical Discrepancies- Another way of measuring money laundering is to use statistical discrepancies or unusual statistical movements as an indicator of money laundering. Hot money method, residual approach, currency demand approach and latent variable approach are few methods used.

Schneider (2007) uses the latent variable approach to estimate the shadow economy for 145 countries. Schneider and Windischbauer (2008) apply it to money laundering. One problem with this approach is that the choice of cause and indicator variables is arbitrary and not reinforced theoretically. The DYMIMIC model uses factor analysis to determine how well the different cause variables explain the unobservable variable and those that can be grouped together. The same is then done for the indicator variables. This means statistics decide which indicators form the relevant bundle for causes and indicators of money laundering.

METHODOLOGY

Latent Variable Approach is a recent way of measuring money laundering is to use a latent variable approach. To this group belongs the DYMIMIC (dynamic multiple-indicators multiple-causes) model, which uses two sets of observable variables and links them as a proxy to the unobservable variable. One set of variables is the causes such as regulations, taxation and prosecutions. The other set is called indicators, which measure the “effects” or “indicators” of the shadow economy or money laundering. These observable variables parallel

money laundering and include the growing demand for money, less official growth, and/or increases in crime rates.

In MIMIC models, money laundering is the unobserved variable and is analyzed with respect to its relationship to the observed variables using the covariance matrix of the latter. For this purpose, the unobserved variable is first linked to the observed indicator variables in a factor analytical model, also called a measurement model. Second, the relationships between the unobserved variable and the observed explanatory (causal) variables are specified through a structural model. Thus, a MIMIC model is the simultaneous specification of a factor model and a structural model. In this sense, the MIMIC model tests the consistency of a “structural” theory through data and is thus a rather confirmatory than exploratory technique. In fact, in a confirmatory factor analysis a model is constructed in advance; whether an unobserved (latent) variable or factor influences an observed variable is specified by the researcher, and parameter constraints are often imposed. Thus, an economic theory is tested by examining the consistency of actual data with the hypothesized relationships between observed (measured) variables and the unobserved variable. Such a confirmatory factor analysis has two goals: (i) estimating the parameters (coefficients, variances, etc.), and (ii) assessing the fit of the model. Applying this to the research, these two goals mean: (a) measuring the relationships of a set of observed causes and indicators to money laundering (latent variable), and (b) testing if the researcher’s theory or the derived hypotheses, as a whole, fit the data used.

For the Lisrel nomenclature, the equations system with the relationships among the latent variable (η) and the causes (X_q) is called “structural model”; the links among indicators (Y_p) and money laundering is the “measurement model”. To facilitate the identification of SEM three conditions are available but, unfortunately, none of these is a necessary and sufficient condition (Bollen, 1989). Especially in the case of this work the following restrictions are respected:

- The necessary (but not sufficient) condition, so-called *t-rule*, enunciates that the number of non-redundant elements in the covariance matrix of the observed variables must be greater or equal to the number of unknown parameters in the model-implied covariance matrix.
- A sufficient (but not necessary) condition of identification, is that the number of indicators is two or greater and the number of causes is one or more, provided that to η is assigned a scale (MIMIC rule).

In accordance with these conditions, the MIMIC models are built to estimate money laundering considering GDP a priori variable.

A MIMIC model is formulated mathematically as follows: ML is the scalar (unobservable) “latent” variable (the estimate of money laundering); $y' = (y_1, y_2, y_p)$ is a vector of “effects” or “indicators” for ML; $x' = (x_1, x_2, \dots, x_q)$ is a vector of “causes” of ML (see Figure 1). DYMIMIC refers to changes in these variables.

Under the assumption that all of the elements are normally distributed and uncorrelated, one can estimate money laundering by regressing the observable causes (or change in causes) on the observable effects (or change in effects).

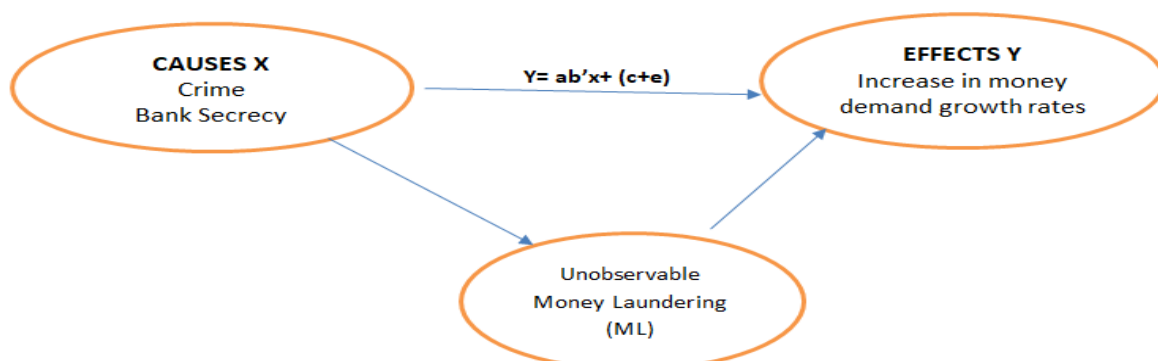
Figure 1: The DYMIMIC Model – A Latent Variable Approach

$$y = aML + e \quad (1)$$

$$ML = b'x + c \quad (2)$$

Substituting 2 in 1:

$$y = ab'x + (c+e) \quad (3)$$



The advantage of this model is that it can be measured for all countries and jurisdiction in the world. Its major weakness is that one cannot test the extent to which the model specification is correct and has anything to do with money laundering.

DATA

We use the following five cause variables: (i) size of government (general government final consumption expenditure, as a ratio of GDP) as proxy for indirect taxation; (ii) corruption index; (iii) regulatory intensity for state regulation; (iv) rule of law index; and (v) balance of payments. As indicator variables we use GDP and M1 as currency.

Due to data availability, the period of analysis selected for the estimation of money laundering is from April 1998 to June 2009 with quarterly observations.

Table 1: Variables Description

Indicators	Description	Tranf. Used	Source
<i>GDP</i>	Real GDP in Rs. crores; dynamics of GDP should signal about development of money laundering – a negative direction is assumed.	$\ln(GDP_t/GDP_{t-1})$	RBI
<i>M1</i>	Narrow Money - Currency in circulation; is expected to indicate money laundering.	$\ln(M1_t/M1_{t-1})$	RBI

Causes			
<i>GE</i>	Government Expenditure divided by GDP; serve as a proxy for regulation.	ΔGE	RBI
<i>CI</i>	Transparency International Corruption Perception Index, scale 0 to 10 with 10 meaning no corruption, to account for the presence of corruption which is found to be complementary to money laundering.	CI	TI
<i>RI</i>	Regulation Intensity includes measures of the incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development. The scores of this index lie between -2.5 and 2.5, with higher scores corresponding to better outcomes.	RI	Worldwide Governance Indicators
<i>RoL</i>	Rule of Law used as a proxy for crimes; serves as a measure of illegality where people might be more likely to hide their income. The scores of this index lie between -2.5 and 2.5, with higher scores corresponding to better outcomes.	RoL	Worldwide Governance Indicators
<i>BOP</i>	Significant increase of the balance of payment positions, errors and omissions (unexplained amounts) covers – according to IMF - in many cases undocumented capital movements; the cash flow with off-shore centers is often registered only by non-offshore countries. Besides distortion is often caused by back-to-back-loans, bogus transactions and over- and under-invoicing.	BOP_t/BOP_{t-1}	RBI

Note: RBI and TI respectively stand for Reserve Bank of India and Transparency International.

When the variables are not (multivariate) normally distributed, then it is possible for maximum likelihood estimators, to produce biased standard errors and an ill-behaved “chi-square” test of overall model fit. To determine whether multivariate non normality is present, Mardia’s test (1970) is used. It is important to highlight that, the maximum likelihood estimations, are quite robust to several types of violations of multivariate normality. Given an unacceptable level of non-normality, we have transformed the variables in order to obtain a better approximate to multinormality. The applied transformations solve, in some cases, also the non-stationary in the time series.

Coefficients on M1, GE, RI, BOP are expected to be positive in accordance with findings about driving factors of money laundering during literature review. Negative coefficients are expected on CI and RoL variables.

RESULTS

LISREL 8.8 (Students Edition) is used for applying the DYMIMIC approach and the result is as follows:

$$\text{Chi-Square} = 2.74, \text{ DF} = 5, \text{ P-value} = 0.73975, \text{ RMSEA} = 0.000$$

If the structural equation model is correct and the population parameters are known, then the matrix S (sample covariance matrix) will equal to $\Sigma(\theta)$ (model implied covariance matrix) therefore the perfect fitting correspond to $p\text{-value}=0.000$. This test has a statistical validity if there are large sample and multi-normal distributions. This point is very relevant to evaluate the reliability of money laundering. The P-value is for Test of Close Fit ($\text{RMSEA} < 0.05$). The degrees of freedom are determined by $0.5(p+q)(p+q+1)-t$, where “p” is the number of indicators, “q” the number of causes and “t” is the number of free parameters. So our model is reliable.

Reading the tests of statistical significance of determinants of money laundering:

- The regulatory intensity (RI), government expenditure (GE) and the balance of payments (BOP) are positively related to money laundering while rule of law (RoL) and corruption index (CI) are negatively related. The results are as per expectations and reinforce previous studies.
- None of the variables is statistically significant based on t-values and wald-statistics.

Regarding the indicators, two results in the Indian context are pointed out:

- The relationship between money laundering and GDP is taken as negative; according to many previous studies and since it lends more credibility to the model.
- The tests of statistical significance performed, support the statement that: the growth rate of narrow money (M1), in which is based the currency approach (Gutmann's method), is not relevant as indicator of money laundering in India in the analyzed period.

The main outcomes of this paper, in accordance with previous works and the conclusions founded by Schneider are that regulatory intensity and rule of law, combined with increasing state regulatory activities, are the major driving forces behind the size and growth of money laundering.

The estimated MIMIC coefficients allow us to determine only relatively estimated scope of money laundering, which describe the pattern of money laundering in India over time. In order to calculate the size and trend, we must convert the MIMIC index into “real world” figures measured as percentage of official GDP. This final step requires an additional benchmarking or calibration procedure. Unfortunately, no consensus exists in the literature as to which benchmarking procedure should be utilized.

CASELET II

The provisions of POMLA 2002, Financial Institution Intermediaries are being constantly reviewed and re – reviewed by the regulators viz. RBI and Ministry of Finance. KYC, KYE. The purpose of these procedures is to ensure compliance with domestic anti-money laundering legislation and regulations. Certain procedures also have for purpose to detect and prevent that no financial transaction bound to terrorism / extortion / arms and ammunition / smuggling (hides and skins of wildlife) i.e. pre conceived criminal activities from where the funds have been generated can be handled through a proper compliance / scrutiny of an account opened with the Bank. Categorically, the following are the developments which are noteworthy in the Indian Banking Sector which help in combating money Laundering.

1. Reserve Bank of India

RBI has asked the banks not to alert the customer about the suspicious transactions being reported to the FIU-IND. Pointing out that customers may abandon the transactions on being asked to provide details, the notification said, Banks should report all such attempted transactions in STRs (Suspicious Transaction Reports), even if not completed by the customers, irrespective of the amount of transaction." The central bank further clarified that banks should include transactions in the STRs if they have reasonable ground that these involve proceeds of crime, though the amount may be below threshold limit prescribed by the Prevention of Money Laundering Act. Tightening the anti-money laundering norms, the Reserve Bank India (RBI) made it mandatory for banks to report all suspicious transactions, including those of over Rs 10 lakhs, to the directorate of financial intelligence. In addition to suspicious transactions, the Rule 3 includes all cash transactions of more than Rs 10 lakh (or its equivalent in foreign currency); series of connected transactions with aggregate value of Rs 10 lakh; and cash transactions where forged currency notes are used.

2. State Bank of India

State Bank of India has implemented AMLOCK, the Anti-Money Laundering Solution, from 3i InfoTech, across its group. The AMLOCK software has been implemented across the State Bank Group comprising of SBI and its 6 associate banks (State Bank of Patiala, State Bank of Bikaner & Jaipur, State Bank of Indore, State Bank of Hyderabad, State Bank of Mysore and State Bank of Travancore) having more than 16,000 branches across the country & Maintenance, Payment Services, Business Intelligence, Document Imaging & Digitization, Operations Outsourcing (BPO) and IT Consulting) for the Insurance, Banking, Capital Markets, Mutual Funds, Wealth Management and Government verticals. The Company services customers in over 50 countries across 5 continents. 3i InfoTech is SEI CMMi Level 5 compliant for its Software Services, ISO 9001:2000 for its BPO Services and ISO 27001:2005 certified for its Infrastructure Services.

3. Vijaya Bank

First bank to implement an AML software solution in India', Four systems integrators, namely CMC, Wipro, Tata Consultancy Services (TCS) and IBM, were short-listed after technical evaluation. Infosys had offered Bank Alert as the AML solution along with its CBS product, Finacle. There are three vendors of AML solutions in India, Infracore, SDG and the latest entrant, TCS, which has recently launched its finDNA product. The SDG product is intended to be a comprehensive AML solution with modules for 'Know Your Customer' (KYC), transaction monitoring to detect suspicious activity, workflow for managing the alerts, and reporting. It supports blacklist filtering (such as OFAC filters) and watch lists for enhanced monitoring. It employs fuzzy logic techniques for entity resolution and neural networks for detecting suspicious activity. The product runs on Microsoft's Windows 2000 and SQL Server database and is developed in Java. The vendor claims that it can be ported to Linux as well. The implementation of Bank Alert will follow the progress of the CBS implementation. As of now, the Bank Alert implementation has gone into user acceptance test (UAT) clearance while the CBS implementation has moved just beyond the pilot branches.

4. INDUS IND BANK (New generation Private Sector Bank)

LogicaCMG has implemented Net Economy's ERASE compliance manager, an anti-money laundering (AML) solution, at IndusInd Bank in Mumbai. The solution enables the bank to monitor customer profiles and 'suspicious' financial transactions through advanced statistical analysis and transaction monitoring. It also provides extensive case management and reporting facilities. When unusual transactions occur, the bank is alerted immediately. AML solutions form part of LogicaCMG's wider capability in helping organizations fight financial crime.

CASELET III

On 14 February 2018, Fraud and Money laundering shock the whole of Stock markets and Financial services Industry with Punjab National Bank (PNB) on the offensive on borrower against Lines of credit (LOU) by the accused jeweler Nirav Modi of money laundering and violating foreign exchange regulations for an amount of \$ 1.8 billion. The fraud was enacted with the help of PNB bank employees from the Brady House branch, located in the south of Mumbai, along with previous top management at PNB, Ex-chief executive officer (CEO) and managing director of PNB, who worked at the bank until May 2017. A deputy manager in the Brady House Mumbai foreign exchange (forex) department of PNB before he retired in May 2017, had obtained a level-5 password for Society for Worldwide Interbank Financial Telecommunications (SWIFT), a messaging system used globally for cross-border fund transfers between banks, during his tenure at PNB. He used his password to authorize the issuance of fraudulent LoUs and foreign letters of credit to Modi's companies, including Firestar Diamond FZE and Firestar Diamond International Private Ltd. (Firestar Diamond Ltd.), and to Choksi's companies, including Gitanjali Gems Ltd., Hyderabad Gems SEZ Ltd., Gili India Ltd., and Nakshatra Gold & Diamonds. The Bank Officer took advantage of SWIFT's lack of automatic connectivity with the core banking solution (CBS) at PNB by not manually uploading the information to the bank's CBS. In addition, He never asked Modi or Choksi for a deposit of margin money, a guarantee for the bank issuing the LoU, required from the firm benefiting from the LoU. The beleaguered bank, fighting off charges of negligence and criminal conspiracy by some staffers, has also, for the first time, hit back at Modi. Investigative agencies are probing the PNB fraud in which bank officials are accused of colluding with group firms of Modi and Mehul Choksi to fraudulently issue letters of undertaking (LoUs), or guarantees, which were then used by the firms to borrow from overseas branches of other banks. Further, it was found that the amounts borrowed were not used to meet the import payments but were diverted. Apparently there were gross violations of FEMA and Money Laundering. Modi has closed the options of recovery of dues by PNB as has destroyed his brand and business. Modi had proposed that he be given time to sell his flagship company Firestar Group or its assets to repay the dues not only of Firestar Group, but also of the three firms—Diamonds R Us, Solar Exports and Stellar Diamonds—named in the Central Bureau of Investigation (CBI) complaint. He blamed PNB's erroneous

reporting for seizure of the operations, leading to these firms' closure. As the matter is a subjudice of Enforcement Directorate and CBI the Banks have been advised to gear up their SWIFT Operations, Link SWIFT with CBS and report all SWIFT transactions in the books Also the events substantiated Money laundering as "rapid-fire sales," a complex web of transactions between 35 shell companies directly or indirectly owned by Modi or his relatives, and he used "round-tripping" of diamonds across three nations—the United States, the United Arab Emirates, and Hong Kong. Round-tripping referred to the process of trading a good repeatedly across shell companies, with each trade given the appearance of a distinct transaction by altering the price of the good being traded

CONCLUSIONS

In this paper an attempt is made to review the applied literature of money laundering to define money laundering, to explain the money laundering stages and to tackle the quite difficult topic of estimating the volume of money laundering with respect to the Indian Financial Sector and is substantiated by various case lets . The paper reaches the following key results:

- The necessity of money laundering is explained as since nearly all illegal (criminal) transactions are done by cash. Hence, this amount of cash from criminal activities must be laundered in order to have some "legal" profit, to do some investment or consumption in the legal world.
- After defining money laundering, and after explaining the three stages (steps), placement, layering and integration, the paper tries a quantification and estimation of the volume and development of money laundering activities. With the help of a MIMIC estimation procedure, the amount of money laundering and/or the profits from criminal activities are estimated using as causal variables various types of criminal activities, the functioning of the legal system, balance of payments and government expenditure and as indicators narrow money and gross domestic product.
- This paper should be seen as an attempt in order to shed some light on the grey area of money laundering or the financial means of organized crime and to provide a better empirical base.

Appendix – 1: LISREL Output

[A] Univariate Summary Statistics for Continuous Variables

Variable	Mean	St. Dev.	T-Value	Skewness	Kurtosis	Minimum	Freq.	Maximum	Freq.
CI	2.993	0.287	69.928	0.745	-1.147	2.700	8	3.500	4
RI	-0.262	0.080	-19.877	0.305	-0.726	-0.392	3	-0.113	4
RoL	0.142	0.066	13.184	0.012	-1.295	0.044	4	0.236	4
GE	-0.003	0.037	-0.576	-0.337	2.761	-0.131	1	0.082	1
BOP	0.348	2.096	1.113	-0.850	5.833	-7.548	1	5.912	1
GDP	0.028	0.083	2.231	0.629	-0.687	-0.089	1	0.208	1
M1	0.035	0.012	19.644	-0.109	-0.212	0.008	1	0.059	1

Note: Is reported the output of PRELIS 2.53: Test of Multivariate Normality for Continuous Variables, p-value of skewness and kurtosis (Mardia, 1970). D'agostino (1986, pp. 391) recommends $N > 100$ for this test. In our case the sample is approximately forty-five for this, the results should be interpreted cautiously. Only when the multinormality is present (or at least no excessive kurtosis), the MLE can be used.

[B] TI Money Laundering

Number of Iterations = 19

LISREL Estimates (Maximum Likelihood)

Measurement Equations

GDP = - 1.00*ML, Errorvar. = -0.99 , $R^2 = 144.20$

(0.0014)

-706.96

M1 = - 0.00*ML, Errorvar. = 0.00014, $R^2 = 0.00$

(0.00015)

(0.00)

-0.32 4.69

Structural Equations

ML = - 0.0056*CI + 0.19*RI - 0.23*RoL + 0.080*GE + 0.0060*BOP,

(0.044) (0.19) (0.22) (0.34) (0.0059)

-0.13 1.03 -1.05 0.24 1.01

Errorvar. = 1.00, R² = 0.00035

[C] Goodness of Fit Statistics

Degrees of Freedom = 5

Minimum Fit Function Chi-Square = 2.83 (P = 0.73)

Normal Theory Weighted Least Squares Chi-Square = 2.74 (P = 0.74)

Chi-Square Difference with 1 Degree of Freedom = 1.18 (P = 0.28)

Estimated Non-centrality Parameter (NCP) = 0.0

90 Percent Confidence Interval for NCP = (0.0; 4.92)

Minimum Fit Function Value = 0.064

Population Discrepancy Function Value (F0) = 0.0

90 Percent Confidence Interval for F0 = (0.0; 0.11)

Root Mean Square Error of Approximation (RMSEA) = 0.0

90 Percent Confidence Interval for RMSEA = (0.0; 0.15)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.78

Expected Cross-Validation Index (ECVI) = 1.50

90 Percent Confidence Interval for ECVI = (1.50; 1.61)

ECVI for Saturated Model = 1.27

ECVI for Independence Model = 0.79

Chi-Square for Independence Model with 21 Degrees of Freedom = 20.54

Independence AIC = 34.54

Model AIC = 78.74

Saturated AIC = 56.00

Independence CAIC = 54.19

Model CAIC = 185.39

Saturated CAIC = 134.59

Normed Fit Index (NFI) = 0.86

Non-Normed Fit Index (NNFI) = -18.95

Parsimony Normed Fit Index (PNFI) = 0.21

Incremental Fit Index (IFI) = 1.14

Relative Fit Index (RFI) = 0.42

Critical N (CN) = 235.53

Root Mean Square Residual (RMR) = 0.00080

Standardized RMR = 0.049

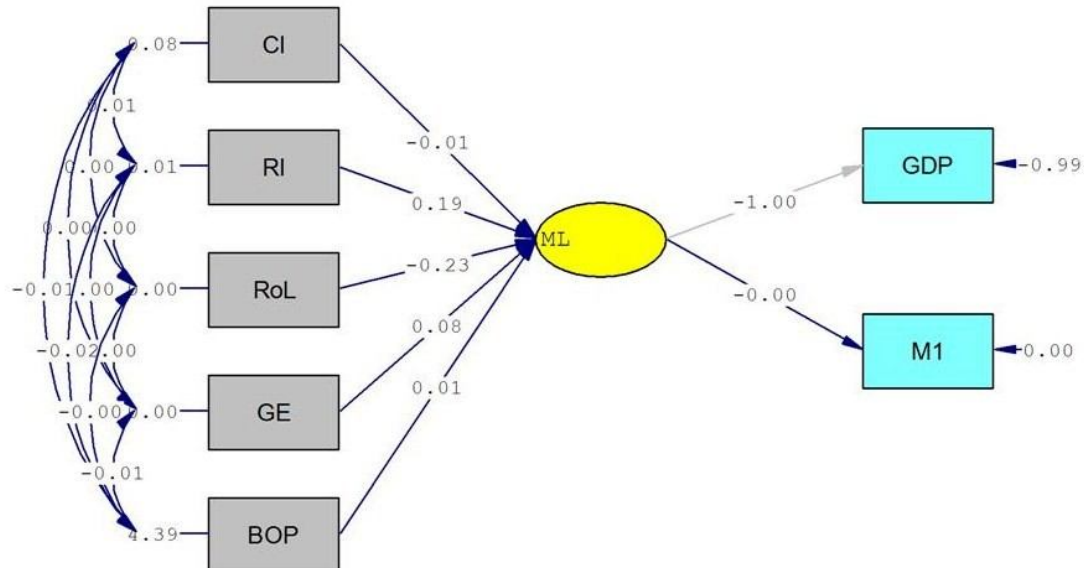
Goodness of Fit Index (GFI) = 0.98

Adjusted Goodness of Fit Index (AGFI) = 0.90

Parsimony Goodness of Fit Index (PGFI) = 0.18

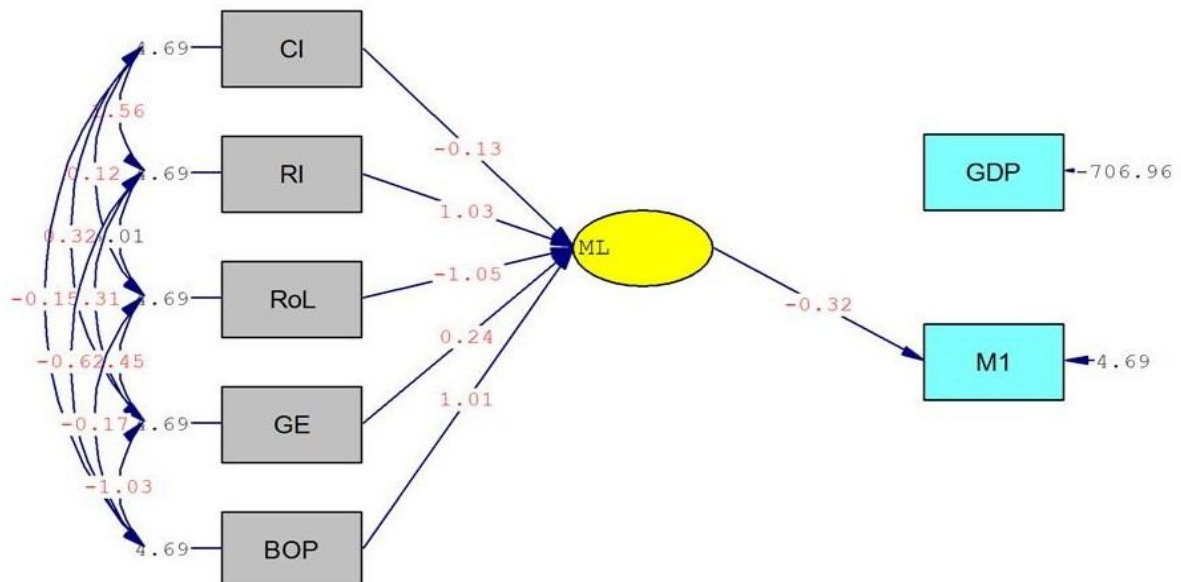
[D] Path Diagrams

1.Estimates



Chi-Square=2.74, df=5, P-value=0.73975, RMSEA=0.000

2. T-values



Chi-Square=2.74, df=5, P-value=0.73975, RMSEA=0.000

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ANNEXURE I – QUESTIONNAIRE OF KYC AT PUNJAB NATIONAL BANK

Anti Money Laundering Questionnaire**Corporate Information**

1.	Full Legal Name: Punjab National Bank
2.	Registered Address: 7-Bhikaji Cama Place, Head Office, New Delhi
3.	Head Office Physical Address (if different from the above): As above
4.	Legal Form of the institution: Public Sector Undertaking
5.	Name of the External Auditors:
6.	Ownership Structure Govt. of India Undertaking
7.	Main banking activities of your institution: Lending and Borrowing of funds
8.	Name of Subsidiaries / Affiliates (if any) See our Annual Financial Statement Document
9.	Is your Institution listed on any Stock Exchange? If yes, Please name them. Bombay Stock Exchange, National Stock Exchange
10.	Name of the regulatory body? Reserve Bank Of India

Anti-Money Laundering Policies, Practices, Procedure & Controls

1.	Has your country established laws to combat Money Laundering & Financing of terrorism according to FATF standards & Control?	Yes
2.	Has your bank established written policies; duly approved by the Board of Directors / Senior Management and designed to combat Money Laundering and Terrorist Financing, including measures to obtain information about the true identity of your customers?	Yes
3.	Does your Anti-Money Laundering Policy adhere to your local laws/regulations.	Yes
4.	Besides inspections by government supervisors / regulators, does your institution have an internal audit function that assesses AML policies on a regular basis?	Yes
5.	Does your institution have policies covering relationships with politically exposed persons consistent with world-wide Financial Services best practices?	Yes
6.	Does your institution have appropriate record retention procedures pursuant to applicable law?	Yes
7.	Does your Anti-Money Laundering Policy applicable to branches in your country also apply to your overseas branches and majority-owned subsidiaries?	Yes



Correspondent Banking Relationship

1.	Does your institution have a policy to reasonably ensure that it only deals with correspondent banks that hold license to operate in their respective country of origin?	Yes
2.	Does your institution as a policy obtain sufficient information to gain an understanding of your correspondents business, reputation and regulatory history?	Yes
3.	Are all new correspondent relationships approved by the Senior Management of your institution?	Yes
4.	Does your institution obtain and assess your correspondent's AML policies, and / or information regarding related SOPs or practices.	Yes
5.	Does your institution offer "Payable Through Accounts" or any other product allowing transaction which can transact through nostro and vostro accounts? (<i>Payable Through Accounts are a type of Correspondent Banks Accounts maintained by Financial Institutions, which are divided into various Sub-accounts by the said Financial Institution, in the name of respective customers of the Correspondent Bank, thus providing direct access to the customers of Correspondent Bank to its account with Financial Institution</i>).	No
6.	Does your bank establish correspondent banking relationship with, <ul style="list-style-type: none"> i) A Shell Bank (<i>A shell bank is defined as a bank incorporated in a jurisdiction in which it has no physical presence and which is unaffiliated with a financial group</i>). ii) Offshore banking unit license, (<i>if Yes please provide full details</i>). iii) A Bank that Maintains business relationship with terrorist suspects designated by any government, regulatory body, inter-governmental body or United Nation 	No
7.	Has your Bank established, procedures regarding on going monitoring of activities conducted through correspondent accounts.	Yes
8.	Does your institution have policies to reasonably ensure that your correspondent banks will not conduct transactions on behalf of Shell banks.	Yes



Know Your Customer, Due-Diligence

1.	Has your institution implemented systems for the identification of its customers including customer information, in case of recorded transactions, account opening etc. (e.g. name, nationality, street address, telephone number, occupation, age, date of birth, type and number of valid identification, as well as the name of the country/state that issued it).	Yes
2.	Does your institution have procedures to obtain record for each customer regarding their respective identification documents ,Know Your Customer data at the time of account opening?	Yes
3.	Does your institution provide anonymous accounts, or numbered accounts for which you do not collect the full details of the beneficial owner?	No
4.	Does your institution accept wire transfers or any other means of funds transfer on behalf of non-customers without obtaining proof of identification?	No
5.	Does your institution have a requirement to collect information regarding your customer's business activities/source of funds?	Yes
6.	Does your institution take steps to understand the normal and expected transactions of its customers based on its profile / line of business?	Yes
7.	Does your institution processes for the identification of those customers on whose behalf it maintains or operates accounts or conduct transactions?	Yes
8.	Does your institution have a process to review and, where appropriate, update customer information relating to High Risk client information?	Yes

Transactions Monitoring , Risk Assessment & Reporting

1.	Does your institution have a monitoring program for suspicious or unusual activity that covers funds transfer and monetary instruments (such as traveler cheques, money orders, etc)?	Yes
2.	Does your institution filter payments against relevant sanctions lists?	Yes
3.	Have your Bank established any, procedures regarding on going monitoring of activities conducted through customer accounts.	Yes
4.	Does your Bank have a risk focused assessment of its customer base and their transactions.	Yes
5.	Does your bank have monitoring procedures for large cash transactions?.	Yes
6.	Does your institution have policy or practice for the identification and reporting of transactions that is required to be reported to the authorities?	Yes
7.	Does your bank have procedures to report suspicious activity to competent government authorities consistent with local laws, and regulations or to identify transactions structured to avoid large cash reporting requirement.	Yes
8.	Does your institution screen transactions for customers or transactions you deem to be of significantly heightened risk (which may include persons, entities or countries appearing on lists issued by	Yes



	government/international bodies) that special attention to such customers or transactions is necessary prior to completing any such transactions?	
9.	Does your institution complete a risk based assessment to understand the normal and expected transactions of its customers?	Yes

AML Training

1.	Does your institution provide AML training to relevant employees that includes identification and reporting of transactions to government authorities, examples of different forms of money laundering involving your products and services and internal policies to prevent money laundering?	Yes
2.	Does your institution retain records of its training sessions including attendance records and relevant training materials used?	Yes
3.	Does your institution have policies to communicate new AML related laws or changes to existing AML related policies or practices to relevant employees?	Yes

Anti Money Laundering Compliance Program

1.	Does your country adhere to the Anti-Money Laundering recommendations and special terrorist financing recommendations developed by the Financial Action Task Force (FATF) or its associated bodies / organizations?	Yes
2.	If your country is not a member of the FATF please provide name of the comparable organization (e.g. APG – Asia Pacific Group on Money Laundering etc) to which your country is associated.	
3.	Please provide details of your Regulatory Authority (Central Bank).	Reserve Bank Of India
4.	Please provide name of your supervisory body with regard to AML/Compliance programs.	FIU-IND

Compliance Officer Information

1.	Please provide details of your designated Compliance officer, responsible for coordinating & overseeing the AML program on a day to day basis, on the format given below.	Yes
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GREEN HR PRACTICES AND ITS EFFECTIVE IMPLEMENTATION IN ORGANIZATION

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ABSTRACT

Across the globe, we are moving from an industrial-based financial system to a talent based economy . The main environmental focus of many businesses was placed on reducing waste and optimizing resources. However, HR is never going to have a truly significant impact on a business through the improvement of HR processes alone so the greater opportunity is to contribute to the green agenda of the business as a whole. Green HRM may provide interesting results for all stakeholders in HRM. For employers and practitioners, these may be to establish the usefulness of linking employee involvement and participation in environmental Management program to improved organizational environmental performance, they may help them lobby employers to adopt Green HRM policies and practices that help safeguard and enhance worker health and well-being; and for academics, they may reveal additional data to add an HRM element to the knowledge base on Green Management There is a growing need for the integration of environmental management into Human Resource Management (HRM) – Green HRM – research practice. A review of the literature shows that a broad process frame of reference for Green HRM has yet to emerge. A concise categorization is needed in this field to help academics, researchers and practitioners, with enough studies in existence to guide such modelling. This article takes a new and integrated view of the literature in Green HRM, using it to classify the literature on the basis of entry-to-exit processes in HRM (from recruitment to exit), revealing the role that HR processes play in translating Green HR policy into practice.

Keywords: Green HRM, Environment Management Initiatives, Eco-Savvy Environment

INTRODUCTION

The impact of our daily activities on the environment and the desire to go green has expanded from just individuals to organizations. More organizations are volunteering to operate in a more environmentally responsible way. Local municipalities are encouraging businesses to become greener by offering incentives. In the near future, “being green” could become the norm. In September 2007, the Society for Human Resource Management (SHRM) conducted the SHRM 2007 Green Workplace Survey to examine environmentally responsible practices from the perspective of HR professionals and employees. We are entering a green economy – one in which consumer and employee expectations and future environmental change will require businesses to address “green” issues This survey brief explores types of practices organizations have in place, human resource professionals’ and employees’ perceptions of their organizations’ practices, and HR professionals’ role in their organizations’ environmentally friendly programs. Green HR is one which involves two essential elements environmentally friendly HR practices and the preservation of knowledge capital. Business professionals consider it to be environmental initiatives to reduce employee carbon footprints. The initiative can be like electronic filing, car-sharing, job-sharing, teleconferencing and virtual interviews, recycling, telecommuting, online training, and energy-efficient office spaces. These ideas are being implemented to support existing green HR efforts focused on increased process efficiency, environmental waste reduction, and revamped HR products, tools, and procedures. These measures also have an impact on intangible yet invaluable assets such as brand and reputation.

2. REVIEW OF LITERATURE**2.1 Environment Management System**

The incorporation of environmental objectives and strategies into the overall strategic development goals of a company helps in arriving at an effective environment management system (Haden et al., 2009). There are a wide range of factors which influences the adoption of an environmental strategy by a company (Berry and Rondinelli, 1998) including financial performance (Sroufe, 2003), stakeholder pressure (González-Benito and González-Benito 2006) and corporate image (Suhaimi 2011) emerging to be the most important reasons. There is also a great deal of empirical research which highlights the impact of environment management practices on performance of the organization using a number of different indicators (Crowe and Brennan, 2007, Yang et al, 2010; Iraldo et al., 2009).

2.2 Importance of HRM in Environment Management Policy Development

Lado and Wilson (1994) defined the HRM system as “a set of distinct but interrelated activities, functions, and process that are directed at attracting, developing, and maintaining (or disposing of) a firm’s human resources.”

HR practices are generally implemented with the strategic systems that are in line with the culture and business strategy (Boselie, 2001). There are various researchers who support the HRM practices to be effective for promotion of human capital and results in providing to contributors of organizational performance and competitive advantage (Boselie, 2001; Paauwe and Boselie, 2003). In order to implement an effective corporate green management system it is important to promote a great deal of technical and management skills among all employees of the organization (Daily et al., 2012; Unnikrishnan and Hedge 2007). Organizations look at development of innovative tools and initiatives of environment management which will significantly impact sustainability of the firm and promote a competitive advantage (Hart 1997; Lin et al., 2001). Therefore to develop such a framework it becomes ideal to have effective human resource management practices including presentation of strict recruitment strategies (Grolleau et al., 2012), appraisal and reward systems which include environmental awareness and implementation in their evaluation process (Jabbar et al., 2012) and training and empowerment programs (Unnikrishnan and Hedge 2007) which will enable the development of new set of skills and competencies amongst the employees of “pro green” firms. All of these researchers promote the ideology that is important for proper alignment of human resource management principles with objectives of green management in an organization. It is identified that the greater the strength of green human resource policies the greater is the intensity of adoption of environment management systems (EMS) and policies by the different companies (Bohdanowicz et al., 2011).

OBJECTIVE

1. To what extent and how HR policies and practices can improve the environmental performance of organizations
2. Specific HR philosophies, policies and/or practices that support or inhibit change around environmental issues
3. The Role of the HR professional in environmental management
4. Changing attitudes and behaviors related to environmental issues in the workplace
5. Discussions of how current theoretical perspectives and frameworks (e.g., those related to strategic competitiveness, knowledge management, learning organisation, communities of practice) can be applied by reflective practitioners to create an eco-friendly organizational

GREEN HRM

Human resource department of a company is said to have a capability to play a significant role in the creation of their company's sustainability culture. Many researchers, especially in the area of HRM, argued that the effectiveness and success in any management innovation and strategic tools are depending on the quality and ability of their human resources. Green HRM refers to using every employee to endorse sustainable practices and increase employee awareness and commitments on the issues of sustainability. Green HRM has got different meaning for different people, Ashok Ramachandran, Director HR Vodafone Essar Ltd defines green HR as using every employee touch point to espouse sustainable practices and raise employee level of awareness, Anjana Nath Regional Head HR, Fortis healthcare ltd defines Green HR as environment-friendly HR initiatives leading to better efficiencies, lesser cost and heightened employee engagement levels. It involves undertaking environment friendly initiatives resulting in greater efficiency, lower costs, and better employee engagement and retention which in turn help organization to reduce carbon footprints by the means of

- ☐ Electronic filing
- ☐ Car sharing
- ☐ Job sharing
- ☐ Teleconferencing
- ☐ Online training
- ☐ Flexible working hours
- ☐ Tele- commuting

Green HRM is the use of HRM policies to promote the sustainable use of resources within organizations and, more generally promotes the causes of environment sustainability.

IMPORTANCE OF DEVELOPING AN ECO-SAVVY ENVIRONMENT

• **More inspired problem solving:** Employees who bring a sustainability lens to business decisions allow for a broader perspective that sparks innovative solutions to both common and newly emerging climate change-related business problems.

- **Increased desirability as an employer:** Intellectually knowing what sustainability is and practicing it in daily decision-making are two different animals. As you become known as a desirable green employer, you'll have your pick of the green talent pool – individuals who already understand sustainability and have practice in maximizing people, planet, and profit through business strategy. Bringing them onboard gives you a powerful market edge.
- **Less stressed budget:** Many employees who are committed to sustainable careers are menable to flexible compensation and benefits, often preferring alternative transportation, flex work schedules, and other low-cost benefits over hard dollar cost-of-living increases. These options can give you more bend in your budget.
- **Improved employee retention:** Many green companies these days boast low turnover rates compared to their non-sustainable counterparts. That's not just talk. In a green workplace survey conducted by the Society for Human Resource Management (SHRM), 61 percent of respondents who worked for an environmentally conscientious company said they were "likely" or "very likely" to stay at the business because of those practices

IDEAS BEHIND ORGANIZATIONS MAKING GREEN

1. Employees can be advised to start making changes at home, and then watch them practice environmentally responsible behaviors at work. Once they witness substantial energy savings from the solar panels or Energy Star-rated refrigerator, they're more likely to buy into the value of saving energy and resources at home and at work.
2. Employees can be asked to suggest ways the organization can go green. Example: Companies can start an employee "green team" that can draw some volunteers from the firm's and some from employee workforce. The group can meet monthly to bring changes such as the addition of transportation incentives and the use of recycled papers.
3. Publicly congratulate employees who take advantage of the company's green benefits and then publishing a quarterly, online newsletter devoted exclusively to their stories—and to reminding workers about green benefits and how to participate.
4. It is essential to look beyond the obvious benefits like mass-transit subsidies.
5. Everyone can be informed about green benefits like job candidates, shareholders, the media and community. In advertising campaigns environmental issues can be focused. Press releases can be sent to local media, which will publicize the unique employee benefits. Every employee communication must be green.
6. It is important to review what employees have already done and it must be publicized while focus can be done to rewrite job descriptions to highlight any green aspects of a position.
7. The concept has to be explained to the top management by collecting data. Example: Gathering information on whether quality job applicants are accepting job offers because of the organization's green benefits. HR professional can make it a point to ask candidates how important those benefits were to their decision.
8. They can choose a green theme for events like the employee health fair; benefits-enrollment fair, holiday parties, recognition ceremonies, even staff meetings.
9. Helping employees to understand the real, cash value of green benefits.
10. Employees and the public and media usually can see through an organization's attempts to hype its green benefits and practices. Publicize what the companies are doing.

However, HR is never going to have a truly significant impact on a business through the improvement of HR processes alone so the greater opportunity is to contribute to the green agenda of the business as a whole.

ACTIONS COMPANIES CAN TAKE TO GO GREEN

1. Conducting an energy audit - Most local utilities offer businesses free on-site consultations on how they can reduce usage and save money. Frequent suggestions include: Improve insulation, install timers to automatically turn off lights, use energy efficient light bulbs, keep temperatures at comfortable ranges that are not excessively cool in the summer and warm in the winter.
2. Conducting annual- It is important to survey employees to assess how well the organization is doing with regard to implementing green business practices. The survey should request suggestions for becoming a greener organization. This can be a separate survey focused on going green issues only, or it can be added as part of an employee opinion/satisfaction survey. Conducting the surveys annually will enable the organization to assess going green progress and provide information, suggestions and insight for future actions.

3. Going paperless - Encourage e-mailing.
 4. Recycle - Recycle glass, paper, plastic, metal trash and manufacturing waste materials. Go through your trash. You'll get a new sense of how much it costs to buy, store, and dispose of stuff. Eliminate unnecessary photocopying and reuse packaging for shipping.
 5. Reduce commuting - Encourage carpooling by provide preferred parking for carpoolers). Offering transit passes to employees who take the bus or subway, and bike racks for cyclists.
 6. Reducing business travel - Teleconference instead of traveling. For must-go trips, keep track of the miles driven and flown and buy «carbon offsets» from a non-profit like Carbonfund.org to make up for the greenhouse gas emissions.
 7. Buying green - Tell suppliers that you're interested in sustainable products and set specific goals for buying recycled, refurbished, or used. Make the environment, and not just price, a factor when purchasing.
 8. Detoxify - Many offices have toxic substances, such as used batteries and copier toner, on hand. Talk to suppliers about alternatives to toxics, and make sure you properly dispose of the ones you can't avoid using.
 9. Rethink transportation - Consider the petroleum it takes to ship and receive products. Evaluate the impact of products you buy or sell, and find ways to mitigate those impacts. Purchase or lease energy-efficient cars and trucks for your employees' business uses and delivery of products.
 10. Provide leadership and resources for going greening - Assign a respected executive-level person to head up going Green/Organizational Sustainability initiatives. Including "going green" in company's mission statement and business plans.
 11. Get employees involved - Create a team to lead the company's eco-efforts
 12. Communicating about Going Green issues - Inform suppliers and customers about your efforts. And get in touch with local regulatory agencies, many of which offer financial incentives to businesses that implement green initiatives. Keep employees and shareholders/ investors informed about going green progress.
 13. Save water - Monitor sinks and toilets for leaks that waste water. Eliminate water waste in manufacturing processes and in watering the company's lawns.
 14. Explore opportunities for implementing alternative energy sources
- Evaluate opportunities for using solar energy, bio-fuels, wind power and other alternative energy sources.
15. Implement green manufacturing processes - Use energy-efficient equipment, and streamline processes to use fewer steps and less materials and packaging.
 16. Implement green policies - Establish policies and standards such as hardware energy consumption, waste disposal, using recycled and environmentally superior content, water and energy efficient products and alternative fuel vehicles, among other measures.

CONCLUSION

The emerging concept of Green HRM has important implications both for organizational performance and for the HR function. The paper focuses on the involvement of HR in green programmes and sustainability. The findings indicate that HR is involved in engaging the employees for implementing the Green programmes. Green initiatives have created a sense of morale and loyalty among the employees towards the organization, which has also helped in employee recruitment and retention. When companies are able to reduce their cost and increase their profitability via green HRM and sustainability initiatives, the organizations should focus more on these aspects. The future of Green HRM appears promising in near future with the involvement of employees, stakeholders and management we can assume that by 2020 India will become one of the key players in Green initiatives with a focus on preserving Indian culture and heritage. The research related to this topic is less as far as Indian industries are concerned academics can contribute by carrying further research on this topic.

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THE RELATIONSHIP BETWEEN SYNERGY SUCCESS AND EFFICIENCY GAINS IN MERGERS AND ACQUISITIONS

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ABSTRACT

Mergers and Acquisitions remains a dominant businesses' expansion strategy for firms worldwide, despite there is no conclusive evidence whether it creates value or not. This study analyses the relationship between Synergy success and efficiency gains in Mergers and Acquisitions (M&A) addressing the question whether there synergy created by M&A leads to increase in efficiency post-acquisition. We measure this relationship through change in revenue as a proxy of Synergy Success and change in Operating Cost as a proxy of Efficiency Gains. This study employs Fixed Effect Model which concludes that Synergy Success has positive relationship with Efficiency gains and has significant impact also. However, Debt Equity Ratio, size of firm, market capitalization and Liquidity Ratio found to have a positive impact on synergy success. Finally, there was no evidence of a positive relationship between R&D, Profitability Ratio and Tobin's Q and the synergy success.

INTRODUCTION

Mergers and Acquisitions have been comprehensively researched in area of corporate finance (Tunyi and Ntim, 2006; Morellee and Zhdanov, 2005). Despite that, the long term performance of acquiring firms remains a combative issue. Mergers and Acquisitions remains a dominant businesses' expansion strategy for firms worldwide, despite there is no conclusive evidence whether it creates value or not (Petmezas, 2009; Malmendier and Tate, 2008; Rau and Vermaelen, 1998). Mergers and Acquisitions are terms often used interchangeably to refer to any kind of corporate combination or takeover (Brealey et al., 2001). According to actual beneficiaries, the motives behind M&A can be divided into two groups (Motis, 2007). In first group, the actual beneficiaries are the shareholders, they gain directly due to rise in actual or future profits which leads to increase in the value of acquiring firms. Whereas second group includes the managers of the firm. The rationale is to increase the wealth of managers even if it results in decrease of the firm's value.

The synergy occurs if the value of the combined firm after the M&A is greater than the sum of the value of both acquiring and acquired firm before the M&A (Ross et al., 2010). The synergy results from combining the operations of the acquiring and acquired firms, which is translated into efficiency gains (Walter and Barney, 1990). The efficiency gains can be in form of economics of scale and economics of scope. Economics of scale occurs when the average cost of production falls as the level of production increases (Ross et. al, 2010) and economies of scope occurs when it is cheaper to produce two or more products or services in one firm than to produce them in separate firms (DePamphilis, 2010).

There is a strong assumption in existing literature that a successful merger is one that results into increase in profitability of acquiring firm (Barney, 1988; Datta, 1991; Lubatkin, 1987). In other words, synergistic mergers are simply those that leads to a net gain i.e. increase in profitability (Michel and Shaked, 1985; Weidenbaum and Vogt, 1987). The number of scholars (Chatterjee and Lubatkin, 1990; Lubatkin, 1983; McGahan and Porter, 1999; Seth, 1990) have noted that two types of synergy exist: collusive synergies and efficiency-based synergies. Efficiency based synergies are those that refer to more than just simple cost-reductions, but also to synergies resulting from combining the resources and capabilities of merging firms. The positive profit effect for merging firm identifies the presence of synergies but cannot indicate whether these synergies are largely collusive or efficiency based.

We structure the remainder of the articles as follows. Section 2 presents the Literature Review and section 3 describes data methodology and variables. Section 4 reports the econometric model while section 5 discusses the empirical findings. Lastly, conclusion are discussed.

LITERATURE REVIEW

In this section, the contribution given by other empirical studies are exposed, describing the characteristics of those researches and their main findings.

The cost advantage arises when it is cheaper to produce a number of different products together than separately by several companies. In other words, production of several products together, often leads to reduced unit cost, if the company manages to exploit synergies between different activities (range of products including common intermediate consumption, joint marketing, and knowledge transfer between different activities). These different

pluses correspond to savings generated by the integration of diverse activities (Vrănceanu and M. Guyot, 2004; Baumol and Blinder's, 2011). Post M&A integration is a time consuming process and the real chemical integration required to achieve synergy is difficult to accomplish (David and Singh, 1994).

Efficiency based synergies derive from cost reductions as a reduced form specification that actually result from more complex process (Barney, 1986; Dierickx and Cool, 1989; Peteraf, 1993).

The study (Seth, 1990) found that acquisition involving relatively large target firms generate more synergy than those involving relatively small target firms. Prior research have made use of Tobin's Q to assess firms' value creation and performance of M&As (Adams and Mehran, 2008; Kammler and Alves, 2010; Delcours and Hunsader, 2006, Bris et. al, 2008). The study used profitability ratio to measure growth in firm's profitability level (Papadakis and Thanos, 2010; Bertrand and Betschinger, 2012, Zollo and Meier, 2008). The increase in size also helps to create scale economies and hence lead to improve operating efficiency (Banerjee and Eckard, 1998; Banker, Chang and Cunningham, 2003). A firm's debt ratio is a measure of its financial leverage. It may influence a firm's decision to merge or acquire (Hitt, Hoskisson and Kim, 1997).

There are few studies that disagree (Estanol et al., 2006) they broadens the theory on horizontal mergers with efficiency gains in concentrated markets. They argue that the possibility that a merged firm may become more efficient does not mean that these gains will be actually realised, as is now widely assumed in the economics literature.

OBJECTIVE OF STUDY

The objective of this study is to analyse impact of synergy created by M&A on efficiency of acquiring firm post M&A.

DATA METHODOLOGY

The data used in this study was collected from the Capitaline and Prowess IQ database. The years included in study is from 2012 to 2018 for firms listed in BSE. CMIE database Prowess has been used in identifying the initial announcements of M&A by public-listed companies. The data has undergone through many filters to overcome issues like availability of data, absence of data figures and criteria of balanced panel. After excluding these, the final dataset has only 64 firms. The impact of data period has been divided into two time period i.e. pre-merger period (2012 to 2014) and post-merger period (2016 to 2018). The study has used STATA 14 for analyzing data.

S.No.	Variables	Description	
1.	Synergy	Measured by change in sales.	Seth, 1990; Harrison, 1991; Hitt, 2009
2.	Efficiency	Operating Cost as a percentage of sales to assess operating efficiency. A firm enjoys higher operating efficiency if its operating cost/sales ratio is lower.	Moatti et. al. (2011), Eckbo, 1983; Stillman, 1983.
3.	R&D Expense	Used R&D instead of R&D Intensity to avoid uncertainty. When R&D expenditure divided by firm revenues, it is unclear whether the observed effect is from numerator or denominator.	Rothaermel and Hess, 2007; Hagedoorn and Wang, 2012; Radicic and Balavac, 2018
4.	Debt Equity Ratio	It is measured by total liabilities by total equity of acquiring firm. A rising debt ratio infers higher payments which take away financial resources and reduces firm profitability.	Bertrand, 2011
5.	Firm Size	It is measured by total assets of firm. Natural Logarithm is taken.	Chira and Volkov, 2017; Margarida, 2018
6.	Market Capitalization	Market Capitalization refers to the total market value of outstanding shares of publicly traded companies	
7.	Profitability Ratio	Measured by Return on Capital Employed (ROCE).	
8.	Liquidity ratio	Current Ratio (Current Assets/ Current Liabilities)	Baysinger & Hoskisson, 1989; Hitt, 1991; Margarida,

			2018
9.	Tobin's Q	Market Value of common stock plus preferred stock and total debt divided by book value of total assets.	Carpenter and Petersen (2002); Park et. al., 2011; Dartey and Kwenda; 2020

In case of Market Capitalization and firm size, due to outliers we trim the measures at both ends, cutting off the largest and smallest and transform it with a natural logarithm. (Betrand et. al., 2011).

ECONOMETRIC MODEL

In regression equation of RE/FE model, the dependent variable is Synergy Success(Synergy) whereas independent variables are Efficiency Gains(Efficiency), R&D Expenses(RD), Market Capitalization(MarketCap), Firm Size(FirmSize), Profitability Ratio(ProfRatio), Debt Equity Ratio(D/ERatio), Liquidity Ratio(Liquidity) and Tobin's Q (Tobin's).

The Panel Data Fixed Effect Regression Model for Synergy Success:

$$Y_{it} (\text{Synergy}) = \beta_0 + \beta_1 \text{Efficiency}_{it} + \beta_2 \text{RD}_{it} + \beta_3 \text{D/ERatio}_{it} + \beta_4 \text{Firm Size}_{it} + \beta_5 \text{MarketCap}_{it} + \beta_6 \text{ProfRatio}_{it} + \beta_7 \text{Liquidity}_{it} + \beta_8 \text{Tobin's}_{it} + u_i + v_{it} \quad (1)$$

The Panel Data Random Effect Regression Model for Synergy Success:

$$Y_{it} (\text{Synergy}) = \beta_0 + \beta_1 \text{Efficiency}_{it} + \beta_2 \text{RD}_{it} + \beta_3 \text{D/ERatio}_{it} + \beta_4 \text{Firm Size}_{it} + \beta_5 \text{MarketCap}_{it} + \beta_6 \text{ProfRatio}_{it} + \beta_7 \text{Liquidity}_{it} + \beta_8 \text{Tobin's}_{it} + (u_i + \varepsilon_{it}) \quad (2)$$

In Equation (1) and (2) Y_{it} (Synergy) is the dependent variable. β_0 is the intercept. And the independent variables are Efficiency Gains(Efficiency), R&D Expenses(RD), Debt Equity Ratio(D/ERatio), Firm Size(FirmSize), Market Capitalization(MarketCap), Profitability Ratio(ProfRatio), Liquidity Ratio(Liquidity) and Tobin's Q(Tobin's).

The error terms in equation (1) are ε_{it} , where i denotes to number of firms and t denotes the number of time periods. The error term can be defined as $\varepsilon_{it} = u_i + v_{it}$, where u_i is the individual unobserved specific effect; and v_i the remaining perturbation. Whereas in Eqn (2) u_{it} explains the error in between the entity whereas ε_{it} explains the error within the entity. RE assumes that the entity's error term is not correlated with the independent variables which allows for time-invariant variables to play a role as explanatory variables.

EMPIRICAL FINDINGS

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Synergy	2278.827	4147.604	6.06	40627.54
Efficiency	4.277	6.217	.02	47.34
RD	5.574	27.211	0	223.98
Debt Equity	1.227	1.808	0	16.97
Firm Size	2389.036	6083.265	17.1	51613.63
Market Cap	4895.525	29639.82	0	341000
Profitability	13.962	13.602	-15.59	82.78
Liquidity	1.088	.363	.16	2.54
Tobin's Q	1.648	2.948	.009	41.628

Source: Author's estimation, 2020, based on data collected

It is evidenced from the table that, there is more variation in synergy, firm size and Market Cap as shown by their high standard deviations of 4147.604; 6083.265 and 29639.82 respectively relative to their means of 2278.827; 2389.036 and 4895.525 respectively. Low variation is exhibited in Efficiency, R&D and Debt Equity as shown by the relatively low standard deviations of 6.217, 27.211 and 1.808. An inspection of table also shows less variation in Profitability, Liquidity and Tobin's Q as shown by standard deviations of 13.602; 0.363 and 2.948 relative to their mean of 13.962; 1.088 and 1.648.

Table 2: Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Synergy	1.000								
Efficiency	0.057	1.000							
R&D	0.280	-0.054	1.000						

Debt Equity	-0.081	0.041	-0.058	1.000					
Firm Size	0.787	-0.285	0.280	-0.038	1.000				
Market Cap	0.372	-0.136	0.167	-0.148	0.376	1.000			
Profitability	0.270	0.344	0.111	-0.203	0.026	0.173	1.000		
Liquidity	-0.227	0.104	-0.075	-0.035	-0.182	0.077	0.170	1.000	
Tobin's Q	0.084	0.052	0.028	-0.114	-0.080	0.267	0.160	-0.028	1.000

Source: Author's estimation, 2020, based on data collected

Table 2 reports the correlation matrix between the variables. The correlation matrix provides evidences of a negative correlation of synergy with Debt equity and Liquidity Ratio. While all other independent variables has a positive correlation with synergy which indicates that there is direct impact of synergy on these variables.

Table 3: Variance inflation factor

	VIF	1/VIF
Efficiency	1.286	.778
RD	1.105	.905
Debt Equity	1.074	.931
Firm Size	1.444	.693
Market Cap	1.384	.723
Profitability	1.31	.763
Liquidity Ratio	1.106	.904
Tobin's Q	1.158	.863
Mean	1.233	.

Source: Author's estimation, 2020, based on data collected

The Multi collinearity problem is examined by VIF index which should be less than 10. The higher index directs that there is multi collinearity problem (Chatterjee & Price, 1981). The VIF result in Table 3 shows that all variables have less than 10 VIF index which states that there is no multi collinearity among the variables and all independent variables can be used. The stationary of variable is examined by Levin-Lin-Chu test which reports that all variables are stationary at 0.0000. Hence we reject the null hypothesis that all the panels contain a unit root.

Table 4: Diagnostic Test

Diagnostic Test:	
Hausman	Prob>chi2 = 0.0000
Heteroskedasticity	Prob >chi2 =0.0000
Autocorrelation	Prob > F =0.0000

Source: Author's estimation, 2020, based on data collected

The Hausam Test is performed to decide between fixed or random effects. The null hypothesis is that the preferred model is random effects. Hence, P-value is 0.0000 which is less than 0.05 so study proposes Fixed Effect Model. The Heteroskedasticity test is to analyze if the error terms do have constant variance or not. Whereas, the null is homoskedasticity (or constant variance). From above it is concluded to reject the null and conclude heteroskedasticity. In case of Autocorrelation, the null is no serial correlation. From above analysis we fail to reject the null and conclude the data does not have first-order autocorrelation.

Table 5: Fixed Effect Regression results

Synergy	Coef.	St.Err.	t-value	p-value	[95% Conf.	Interval]	Sig
Efficiency	0.042	0.011	3.74	0.000	0.020	0.064	***
RD	0.000	0.001	0.12	0.904	-0.003	0.003	
Debt Equity	-0.037	0.020	-1.80	0.073	-0.077	0.003	*
Firm Size	0.202	0.058	3.47	0.001	0.087	0.317	***
Market Cap	0.132	0.024	5.43	0.000	0.084	0.179	***
Profitability	-0.002	0.003	-0.68	0.496	-0.008	0.004	
Liquidity Ratio	0.213	0.111	1.92	0.056	-0.006	0.431	*
Tobin's Q	0.013	0.012	1.03	0.305	-0.012	0.037	
Constant	4.587	0.342	13.41	0.000	3.913	5.261	***

Mean dependent var	6.897	SD dependent var	1.432
R-squared	0.422	Number of obs	252.000
F-test	19.001	Prob > F	0.000
Akaike crit. (AIC)	180.433	Bayesian crit. (BIC)	212.198
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$			

Source: Author's estimation, 2020, based on data collected

The Table 5 represents the regression result of Fixed Effect Model. From Table 5, it can be concluded that synergy positively affect efficiency with p-value 0.0000 and also has positive impact on R&D (Audretsch, 1995). Whereas Debt Equity Ratio indicates negative relation with synergy but has significant impact with p-value of 0.073. Firm Size, market Capitalization and Liquidity Ratio also indicates positive relation with synergy and has significant impact.

The coefficient of determination infers the goodness of fit of the regression. In Table 4, R^2 is 42.20 concluding that 42 % of the variance of synergy is explained by the model, and 58 % are unexplained. The 58% variation in model may be caused by other variable. As the value of F-Test is 0.0000 which is less than 0.05 indicates that all the coefficients in the model are different than zero. Hence, in nutshell model is fit.

Table 6: Random Effect Regression results

Synergy	Coef.	St.Err.	t-value	p-value	[95% Conf.	Interval]	Sig
Efficiency	0.041	0.010	3.94	0.000	0.021	0.061	***
RD	0.000	0.001	0.30	0.763	-0.002	0.003	
Debt Equity	-0.039	0.021	-1.84	0.065	-0.081	0.002	*
Firm Size	0.449	0.051	8.74	0.000	0.348	0.549	***
Market Cap	0.087	0.022	3.88	0.000	0.043	0.131	***
Profitability	0.002	0.003	0.65	0.517	-0.004	0.008	
Liquidity Ratio	-0.022	0.113	-0.20	0.844	-0.243	0.198	
Tobin's Q	0.025	0.012	1.97	0.049	0.000	0.049	**
Constant	3.351	0.340	9.86	0.000	2.685	4.017	***
Mean dependent var		6.897		SD dependent var		1.432	
Overall r-squared		0.681		Number of obs		252.000	
Chi-square		206.506		Prob > chi2		0.000	
R-squared within		0.381		R-squared between		0.739	
*** $p<0.01$, ** $p<0.05$, * $p<0.1$							

Source: Author's estimation, 2020, based on data collected

The Table 6 represents the regression result of Random Effect Model respectively. From Table 5, it can be concluded that synergy positively affect efficiency with p-value 0.0000. Whereas Debt Equity Ratio indicates negative relation with synergy but has significant impact with p-value of 0.065. Firm Size, market Capitalization and Tobin's Q also indicates positive relation with synergy and has significant impact.

The coefficient of determination infers the goodness of fit of the regression. In Table 6, R^2 is 38.10 concluding that 38 % of the variance of synergy is explained by the model, and 62 % are unexplained. The 62% variation in model may be caused by other variable. As the value of Wald Chi2 is 0.0000 which is less than 0.05 indicates that all the coefficients in the model are different than zero. Hence, in nutshell model is fit.

CONCLUSION

This study focus on impact of Synergy created through M&A on efficiency of firm. Mergers and acquisitions have the scope of improving the economic efficiency of enterprises and they can be used as tools for penetrating new markets, gaining access to new resources or reducing transaction costs. Past literature has argued that's seeking growth through M&A could be more efficient than organic growth.

Our study also have implications for practice. It suggests that firms engaging in M&A derive an immediate increase in synergy without paying a price in terms of operating efficiency. This is consistent with the presence of "time compression diseconomies" (Dierickx and Cool, 1989) in the use of M&A.

The current paper has some limitations. The lack of financial data about the acquiring and target firm, as well as the information about the deal, resulted in small sample size. As referred, the scarce data especially of R&D expenditure that is generally reported “0” by companies results into bias because it doesn’t include the actual spending of company on R&D. Furthermore, it would be interesting to study relation of GDP and cross-border M&A with synergy created by M&As.

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CHANGING FACE OF NON-PERFORMING ASSETS OF PUBLIC AND PRIVATE SECTORS BANKS IN INDIA

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ABSTRACT

Banking in India went through substantial modifications since the introduction of financial sector reforms in 1991, when it was found that the banks were stressed with high amount non-performing assets. The paper explores the movement of non-performing assets of public and private sectors banks in India. Reducing Non-performing assets is very important element of financial Health, stability and growth of banks in India. To find out the fundamental factors which influence non-performing assets of banks in India? To increase the efficacy and cost-effectiveness of Indian banking sector in the country it was important to bring banks out of the burden of non-performing assets. Here the trends show that Non-performing assets are having a downward trend during the study period, but Non-performing assets of public sector banks are still higher than private sector banks. The returns on the assets show the decline trends. This is much lower in Public sector banks as compared to private sector banks. Finally the performances of Public sector banks are not suitable as compared to private sector banks.

Keywords: Public Sector Banks, Private Sector Banks, Non-performing assets.

INTRODUCTION

Banking in India witnessed substantial modifications after the implementation of financial sector reforms during year 1991. Asset quality was not the major concern for banking sector in our country till 1991, as the focus was on achieving the performance objectives such as widening the network of banks branches, employment generation, priority sector lending, etc. (Singh, 2016). The concept of Non-performing assets emerged as a contemporary issue when RBI implemented the prudential norms in 1992-93. Before implementation of these norms, an asset was considered as non-performing if the installment or the interest of the principal remained non-performing assets id for more than 180 days, but according to prudential norms the 180-days period for declaring the asset as non-performing was brought down to 90-days with effect from 31st March 2004 (Mahajan, 2014). In order to accelerate the recovery of Non-performing assets, the RBI designed several channels of recovery such as Lok Adalats, Debt Recovery Tribunals (DRTs), and the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002. Moreover, as per the RBI guidelines it is mandatory for banks to create minimum provision against the different types of loan assets. With the view of providing an additional alternative and developing a strong secondary market for Non-performing assets, guidelines on sale and purchase of Non-performing assets were issued by banks (RBI, 2006). Even after taking various initiatives, managing of Non-performing assets still remains an area of concern, particularly due to the decline in the value of restructured advances. The rise in Non-performing assets was reflected in the increased amount of provisioning by banks in 2009-10. On 30th November, 2012, RBI advised public sector banks that they should take adequate steps to reinforce their risk management systems, credit appraisal, sanction process and post-sanction monitoring and follow-up. Recently, in August, 2015, government of India launched a seven pronged plan “Indradhanush” to revamp the functioning of public sector banks and to bring them out of the stress of piling up of Non-performing assets. The 7 fundamentals of the plan include appointments, board of bureau, capitalization, de-stressing, empowerment, governance reforms and framework of accountability (Business Standard, 2015).

NON-PERFORMING ASSETS OF BANKS

There is no interest or principle payment for 90 days on the loan (assets of banks), then the loan/advance is consider as non-performing asset. Or in other word when the borrower has failed to make interest or principle payments for 90 days then the loan is said to be a non-performing asset. To maintain banks stability, profitability and financial health, the non-performing assets are very important role. The RBI withdrew regulatory forbearance on the restructured loans, making it mandatory for the banks to make provisions on the restructured loans at par with bad loans and forcing them to set aside 15% of the loan amount as provisions if they chose to go for the fresh restructuring.

REVIEW OF LITERATURE

Individuals as well as several organizations have extensively researched issues related to banking. Several committees appointed through the government of India and the reserve banks have also studied the banking problems in the country.

Mohan and Rajesh (2004) the study founded that strengthening of regulatory measures taken by banks with regard to reduce non-performing assets in public and private sector banks.

S. Das (2010) has tried to analyses the factors that are actually the reasons of Non-performing assets and those are willful defaults, poor follow-up, market failure and supervision, poor Legal framework, skills, lack of entrepreneurial, non-cooperation from banks and diversion of funds.

Chaudhary and Sharma (2011) made an effort to measure the performance of public sector and private sector banks in context of reducing the level of Non-performing assets. The study further suggested that employees of public sector banks should be well trained in the selection of borrower and analyzing of financial statements.

Samir and Kamra (2013) the results of the study showed that non-performing assets are greater in public sector banks as compared to private and foreign banks in India. Further, it was found that small sector industrial units have largest share in total Non-performing assets of priority sector. The process of non-performing assets management should start with the identification of right borrower rather than to start after filing a suit.

A. Dutta (2014): This research analysis the progression of non-performing assets in the public sector and private sector banks in India. This research analyses sector wise non-performing assets of the commercial banks in India.

A. L. Joseph (2014): Research deals with the movements of non-performing assets in banking industry, external, internal, and other factors that mainly contribute to non-performing assets. The banking industry offers some recommendations for overcoming the problem of non-performing assets.

Jana and Thakur (2015): Suggest SLP principle in sanctioning and advancing loan. Principle of liquidity (L), Principle of safety (S), principle of profitability (P) and security are the three deciding factors to swim over the bulging tide of Non-performing assets.

Shah and Sharma (2016) Suggestion for establishing specific committee for the management of Non-performing assets. Also legal experts and persons having knowledge in finance sector.

OBJECTIVES OF THE STUDY

1. To compare the trends in non-performing assets in public sector and private sector banks.
2. To study the sector wise distribution of non-performing assets in public sector and private sector banks.

Trends in NON-PERFORMING ASSETS

The gross non-performing assets to total advances ratio from year 2006-2017 has been presented in the table given below.

Table 1: Gross non-performing asset to Gross Advances Ratio

Banks	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Public Sector	5.35	3.71	2.66	2.23	2.01	2.27	3.17	3.61	4.36	4.96	4.98	4.89
Private Sector	3.83	2.41	2.19	2.47	2.92	2.99	2.09	1.77	1.78	2.10	2.12	2.09

Source: Indian Bank Association & RBI, Various issues

The public sector banks decreasing trend in gross non-performing assets from year 2006-2010. The private sector banks it declined till year 2008. In year 2008, gross non-performing assets further decreased to 2.66% and 2.19% in case of public and private sector banks respectively. The non-performing assets of public sector banks further decreased to 2.01% in 2010.

Table 2: Net non-performing asset to Net Advances Ratio

Banks	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Public Sector	1.32	1.08	1.30	0.94	1.10	1.09	1.53	2.01	2.56	2.92	2.95	2.98
Private Sector	1.01	1.16	1.09	1.29	1.03	0.57	0.46	0.52	0.66	0.89	.90	.91

Source: Indian Bank Association & RBI, Various issues

The public sector banks fluctuating trend in net non-performing assets to Net Advances ratio was witnessed from 2006 to 2011 and thereafter it started increasing and touched the level of 2.92% in 2015, whereas private sector banks witnessed the mixed trend till 2012 and thereafter started increasing and reached 0.89% in 2015. In

2007, the Net Non-performing assets in public sector banks decreased from 1.32% in 2006 to 1.08% in 2007, which could be attributed to the write-off and write back of excess provisions made for non-performing assets management, whereas marginal increase was witnessed in case of private sector banks.

In 2009, net non-performing assets to Net Advances ratio stood at 0.94% and 1.29% in public and private sector banks respectively. It was also found that rising level of advances could be the reason for the increase in Non-performing assets of public sector banks.

Further, it exhibits that with the steady increase in bad loans, net non-performing assets touched 2.92% and 0.89% in public and private sector banks respectively.

SECTORAL NON-PERFORMING ASSETS

Several channels of recovery were established by RBI to reduce the Non-performing assets over a period of time.

Table 3: Non-performing assets of Scheduled Commercial Banks Recovered through Various Channels
(Amount in 'Billion)

Year	Sr. No.	Recovery Channel	LokAdalat	DRTs	SARFAESI Act	Total
2012-13	1	No. of cases referred	840691	13408	190537	1044636
	2	Amount involved	66	310	681	1057
	3	Amount recovered*	4	44	185	233
	4	3 as percent of 2	6.1	12.2	27.5	22
2013-14	1	No. of cases referred	1636975	28258	194707#	1859922
	2	Amount involved	232	553	953	1738
	3	Amount recovered*	14	53	253	320
	4	3 as percent of 2	6	9.6	26.6	18.4
2014-15	1	No. of cases referred	2958313	22004	175355	3155672
	2	Amount involved	310	604	1568	2482
	3	Amount recovered*	10	42	256	308
	4	3 as percent of 2	3.2	7	16.3	12.4
2015-16	1	No. of cases referred	4456634	24537	173582	4654753
	2	Amount involved	720	693	801	2214
	3	Amount recovered*	32	64	132	228
	4	3 as percent of 2	4.4	9.2	16.5	10.322
2016-17	1	No. of cases referred	2152895	28902	80076	2261873
	2	Amount involved	1058	671	1131	2860
	3	Amount recovered*	38	164	78	280
	4	3 as percent of 2	4	24	7	10

Source: Statistical table related to banks in India- RBI, Various Issues 2017

As shown in table 3 among the several channels of recovery available with banks for dealing with bad loans, only DRTs proved to be most effective with the recovery of 75.48%, whereas LokAdalats and SARFAESI showed lower recovery during 2005-06. Further it was found that during year 2008-09 DRTs had been the most effective in terms of amount recovered. The amount recovered through LokAdalats was only 2.39% in comparison to 12.36% during 2005-06. Even during 2014-15, amount recovered through these channels was less as compared to previous years. Hence, it is suggested that banks need to strengthen the existing channels for non-performing assets recovery and should work to develop new ways for the speedy recovery of Non-performing assets.

Table 4: Movement of non-performing assets of Scheduled Commercial Banks in India (SBI & Associates)
(Amount in 'Million)

Year	GNON-PERFORMING ASSETS					Net NON-PERFORMING ASSETS	
	As on March March 31 (Previous Year)	Addition During the year	Reducing During the year	Write-off during the year	As on March March 31 (current Year)	As on March March 31 (Previous Year)	As on March March 31 (current Year)

2005	159889	56035	43720	16039	156165	59668	63629
2006	148039	55623	78252	0	125410	73173	60721
2007	125410	62645	61286	0	126769	60721	63593
2008	126769	94765	66754	0	158780	63593	85089
2009	152721	130004	97525	1060	184139	84210	108691
2010	184139	151168	77655	22328	235325	108691	128303
2011	230396	227122	101257	52333	303928	125622	147906
2012	303928	341218	147681	15321	482144	147906	202366
2013	482144	425368	210928	68800	627785	202366	281007
2014	627785	592558	278419	143755	798169	281000	418151
2015	798165	452507	269871	245716	735085	418151	372777
2016	735085	90772	220033	203138	1219686	372777	166944
2017	1219686	1115775	278967	278388	1778106	688944	969322

Source: Department of Banking Supervision, RBI, 2017

The level of NPA in commercial banks in India is recognized as one of the very critical indicator for measuring efficiency in allocation of commercial banks resources, asset quality and credit risk to productive sectors. The Table 4 shows movement of NPA of SBI, the Gross NPA during the period 2005 As on March 31 (Previous Year) is 159889 Million, Addition During the year is 56035 Million, Reducing During the year 43720 Million, Write-off during the year is 16039 Million, As on March 31 (current Year) 156165 Million and The Net NPAs As on March 31 (Previous Year) is 59668 Million and As on March 31 (current Year) 63629 Million. 2016 As on March 31 (Previous Year) is 735085 Million, Addition During the year is 90772 Million, Reducing During the year 220033 Million, Write-off during the year is 203138 Million and As on March 31 (current Year) 1219686 Million. The Net NPAs As on March 31 (Previous Year) is 372777 Million and As on March 31 (current Year) is 166944 Million. Further in 2017 As on March 31 (Previous Year) is 1219686 Million, Addition During the year is 1115775 Million, Reducing During the year 278967 Million, Write-off during the year is 278388 Million and As on March 31 (current Year) 1778106 Million. The Net NPAs As on March 31 (Previous Year) is 688944 Million and As on March 31 (current Year) 969322 Million.

Table 5: Movement of non-performing assets of Scheduled Commercial Banks in India (Private Sectors Banks)

(Amount in 'Million)

Year	GNON-PERFORMING ASSETS					Net NON-PERFORMING ASSETS	
	As on March 31 (Previous Year)	Addition During the year	Reducing During the year	Write-off during the year	As on March 31 (current Year)	As on March 31 (Previous Year)	As on March 31 (current Year)
2005	89291	33557	33422	1605	87822	41815	42116
2006	85645	35836	43254	120	78108	41039	31703
2007	72341	51798	31577	0	92553	28967	40282
2008	91016	76578	36602	18	129974	39688	54669
2009	124380	127384	49897	32601	169266	53803	74120
2010	168898	148169	58564	82104	176400	74120	65060
2011	173409	86855	4767	30182	182406	63726	44322
2012	182386	98742	56778	36671	187678	44318	44012
2013	187678	142426	70011	49389	210705	44012	59944
2014	210705	193803	19674	65410	245424	59944	88615
2015	245424	266799	98868	72292	341062	88615	141283
2016	333610	482677	135155	119275	561857	136793	266774
2017	561874	813660	236534	206907	932092	266774	477802

Source: Department of Banking Supervision, RBI, 2017

The movement of NPA of Private Sectors Banks, Table 5 shows the Gross NPA during the period 2005 As on March 31 (Previous Year) is 89291 Million, Addition During the year is 33557 Million, Reducing During the year 33422 Million, Write-off during the year is 1605 Million, As on March 31 (current Year) 87822 Million and in 2016 As on March 31 (Previous Year) is 333610 Million, Addition During the year is 482677 Million,

Reducing During the year 135155 Million, Write-off during the year is 119275 Million and As on March 31 (current Year)932092Million. The Net NPAs As on March 31 (Previous Year) is 136793 Million and As on March 31 (current Year) 266774Million. Further in 2017 As on March 31 (Previous Year) is 561874 Million, Addition During the year is 813660 Million, Reducing During the year 236534 Million, Write-off during the year is 206907 Million and As on March 31 (current Year) 932092 Million. The Net NPAs As on March 31 (Previous Year) is 266774 Million and As on March 31 (current Year) 477802 Million.

Table 6: Movement of non-performing assets of Scheduled Commercial Banks in India (Nationalized Banks)
(Amount in 'Million)

Year	GNON-PERFORMING ASSETS					Net NON-PERFORMING ASSETS	
	As on March March 31 (Previous Year)	Addition During the year	Reducing During the year	Write-off during the year	As on March March 31 (current Year)	As on March March 31 (Previous Year)	As on March March 31 (current Year)
2005	367427	104145	140303	3440	377829	131190	105407
2006	328034	111388	151248	0	288175	105407	84934
2007	288172	133501	158758	0	262914	84924	89657
2008	261715	146171	158143	0	249974	89657	93275
2009	244884	184588	163008	1033	265431	91699	102863
2010	265435	297019	120024	78482	363948	102863	168131
2011	363948	355148	157598	119269	442230	1681131	212640
2012	442711	586868	205528	133575	690476	212730	389686
2013	690476	770763	244480	199929	1016830	389686	618509
2014	1016830	1042901	400729	184527	1474474	618509	885464
2015	1474474	1326109	486914	264074	2049595	885787	1226734
2016	2049595	2951849	430255	391311	4179878	1227226	2514814
2017	4179879	2159018	721501	548183	5069213	2515681	2861567

Source: Department of Banking Supervision, RBI, 2017

The movement of NPA of Nationalized Banks, Table 6 shows the Gross NPA during the period 2005 As on March 31 (Previous Year) is 367427 Million, Addition During the year is 104145 Million, Reducing During the year 140303 Million, Write-off during the year is 3440 Million, As on March 31 (current Year)105407Million and in 2016 As on March 31 (Previous Year) is 2049595 Million, Addition During the year is 2951849 Million, Reducing During the year 430255 Million, Write-off during the year is 391311 Million and As on March 31 (current Year)4179878 Million. The Net NPAs As on March 31 (Previous Year) is 1227226 Million and As on March 31 (current Year) 2514814 Million. Further in 2017 As on March 31 (Previous Year) is 4179879 Million, Addition During the year is 2159018 Million, Reducing During the year 721501Million, Write-off during the year is 548183 Million and As on March 31 (current Year)5069213Million. The Net NPAs As on March 31 (Previous Year) is 2515681 Million and As on March 31 (current Year) 2861567 Million.

Table 7: Movement of non-performing assets of Scheduled Commercial Banks in India (Foreign Banks)
(Amount in 'Million)

Year	GNON-PERFORMING ASSETS					Net NON-PERFORMING ASSETS	
	As on March March 31 (Previous Year)	Addition During the year	Reducing During the year	Write- off during the year	As on March March 31 (current Year)	As on March March 31 (Previous Year)	As on March March 31 (current Year)
2005	26494	10319	11345	3548	12919	8504	6391
2006	21913	10953	13199	391	19276	6488	8076
2007	19276	14170	9977	841	22629	8045	9275
2008	22414	32299	16969	9150	249747	9147	12466
2009	26384	81483	28277	15145	64445	12543	29967
2010	64371	99440	27970	65505	71336	29967	29772

2011	71336	35274	25100	30823	50687	29772	13125
2012	50687	44937	17603	15056	62966	12847	14124
2013	62966	41519	16060	1654	19771	14122	26626
2014	79649	67957	18565	63390	115650	26626	31596
2015	115556	40968	29030	19884	107610	31657	17617
2016	107910	79627	17896	11289	158052	17627	27669
2017	158052	66048	36368	51441	136291	27619	21406

Source: Department of Banking Supervision, RBI, 2017

The level of NPA in commercial banks in India is recognized as one of the very critical indicator for measuring efficiency in allocation of commercial banks resources, asset quality and credit risk to productive sectors. The Table 7 shows movement of NPA of foreign banks, the Gross NPA during the period 2005 As on March 31 (Previous Year) is 26494 Million, Addition During the year is 10319 Million, Reducing During the year 11345 Million, Write-off during the year is 3548 Million, As on March 31 (current Year) 12919 Million and The Net NPAs As on March 31 (Previous Year) is 8504 Million and As on March 31 (current Year) 6391 Million. 2016 As on March 31 (Previous Year) is 107910 Million, Addition During the year is 79627 Million, Reducing During the year 17896 Million, Write-off during the year is 11289 Million and As on March 31 (current Year) 158052 Million. The Net NPAs As on March 31 (Previous Year) is 17627 Million and As on March 31 (current Year) is 27669 Million. Further in 2017 As on March 31 (Previous Year) is 158052 Million, Addition During the year is 66048 Million, Reducing During the year 36368 Million, Write-off during the year is 51441 Million and As on March 31 (current Year) 136291 Million. The Net NPAs As on March 31 (Previous Year) is 27619 Million and As on March 31 (current Year) 21406 Million.

CONCLUSION

Overall outcomes and tendencies show that Non-performing assets are having a descending trend. But Non Performing Assets of public sector banks in India are still higher than private sector banks. The growing Non-performing assets have continuously been a matter of concern for public and private sector banks in India. It was found that sensible norms and numerous regulatory actions taken by Reserve Bank of India assisted banks to reduce the level of Non-performing assets. Although Non-performing assets level of public sector banks was found to be increasing as compared to private sector banks. In order to slim down the level of Non-performing assets, banks should reinforce their credit rating mechanism to determine the reimbursing capacity of borrowers. It is need of hour that banks can also improve a system wherein they can plan the finances of customers to avoid the misappropriation of borrowed funds. The returns on the assets have also the descending trends but this is much lower in Public banks as compared to private banks. The corporate management team of private sector banks is more professional, much capable and capability than the Public banks. So, they are more capable in creating plans to recover funds from borrowers including both institutional and individuals. One of the drawback of the public sector banks to lend money to the poorer sections of the society, where the recovery process is very low. That is why, the Non-performing assets of public sector banks have very sharp decreasing trend, and still it is much higher than private sector banks. Now the countless steps have been taken by the government for recovery and reducing the Non-performing assets of Public banks.

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FOCUS ON ENVIRONMENT IN CSR MISSION STATEMENT OF INDIAN COMPANIES

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ABSTRACT

Corporate Social Responsibility has been a part of Indian ethos and values since ages. It has been practiced in India since long in one form or another. The Corporate were practicing social responsibility in form of charity before formally accepting CSR as part of strategic planning and decision making. By making CSR mandatory the government is trying to utilize the CSR spending by corporate to achieve the social goals. The sustainable development goals given by the UN tries to take into account the 3Ps – Profit, Planet and People, all together in a balanced manner. Governments through their policies, regulators through monitoring, corporations through innovation, and customers through modified lifestyles have been endeavoring to meet these goals and work for a better future. In present days, considering conditions of environmental degradation, it is highly expected that in addition to getting profits, the corporate groups including governments should be really proactive to provide enough space for long term goals of environmental protection and sustainable future. This is where the concept of environmental CSR or Green Initiatives of CSR comes into forefront. The study attempts to analyse the inclination of CSR Mission, Vision and initiatives of Indian Companies towards environment sustainability.

Keywords: social responsibility, sustainable development goals, environmental protection, environmental sustainability

INTRODUCTION

Corporate Social Responsibility, acronym CSR, is a business approach that contributes to sustainable development by delivering economic, societal and environmental benefits for all stakeholders. To engage in CSR means that, in the normal course of business, the company is operating in ways that instead of contributing negatively to society and the environment, it is enhancing them. CSR is a very broad concept that addresses various topics such as human rights, corporate governance, health and safety, environmental effects, working conditions and contribution to economic development. The purpose of CSR is to drive change towards sustainability.

India is the first country in the world to make CSR mandatory, by an amendment to The Company Act, 2013 in April 2014. The new amendment mandates every company with a networth of Rs 100 crore to set aside minimum 2 per cent of their 3-year average annual net profit for CSR activities. It is estimated that over 8500 companies will come under the purview of CSR spending amounting to Rs. 18,000 crores annually.

Natural resources are considered the most important resources for business of all. However, corporations misuse the natural environment during their operations. The sustainable development goals mandated by the UN tries to take into account the 3Ps – Profit, Planet and People, all together in a balanced manner.

ENVIRONMENTAL PERFORMANCE INDEX

Yale and Columbia University in its recently published Environmental Performance Index (EPI) 2018 has ranked India at 177th place among 180 countries with over all score of 30.57.

The deteriorated air quality due to emission from power plants, industries, fossil fuel burning etc which has placed India at almost bottom (177th place) is quite deploring and call for urgent and concentrated efforts to improve it. The Corporates need to expand their ongoing endeavors in these directions.

In present days, seeing conditions of environmental degradation, it is highly expected that in addition to getting profits, the corporate groups including governments should be really proactive to provide enough space for long term goals of environmental protection and sustainable future. This is where the concept of environmental CSR or Green Initiatives of CSR comes into forefront. Here it is also important to mention that many of the Corporations have put into practice various interventions in the past aiming to reduce the environmental degradation like change of process, use of alternative/ green technology, optimum use of raw material, recycling, sustainable harvesting of raw materials etc. which are also part and parcel of the environmental concerns.

The CSR reporting survey 2018 of KPMG shows that CSR activities of Indian companies are concentrated towards health and sanitation (21%), education (35%), environment (14%) rural development (5%), Women empowerment (6%) and others. However it is also a fact that in comparison to other equally challenging issues of education, poverty, health, sanitation etc. which the companies have been attempting to address in the past under CSR, the environment and related issues warrant more attention because ever increasing pace of

development, burgeoning population pressure and use of inefficient productive technologies/overexploiting tendencies to gain maximum benefits etc. have resulted into degradation of environment including pollution.

The study attempts to analyse the CSR Mission, Vision and initiatives of Indian Companies to access the focus of the company towards environment sustainability.

LITERATURE REVIEW

Howard R. Bowen's (1958) *Social Responsibilities of the Businessman* was the first comprehensive discussion of business ethics and social responsibility. The idea of CSR gained importance in the late 1950s and 1960s with the expansion of large corporations. Similar view was expressed by Steiner (1971) that while businesses are economic institutions, they should also contribute towards achieving social goals and such activities should increase with the size of business. R. Edward Freeman (1980) argued that corporation's goals should not only be restricted to maximizing profits for shareholders, it should be with respect to all stakeholders.

Stones(2014) highlighted that CSR has assumed a strategic role in the recent years, due the fact that it helps a business to sustain itself by protecting the re-sources which fosters it. According to Carroll (1979), companies have taken different delivery methods of CSR to make it effective.

Pruzan distinguished between implicit and explicit CSR. Implicit CSR normally consisted of values, norms and rules which resulted in mandatory and customary requirements for corporations to address stakeholder issues and which define proper obligations of corporate actors in collective rather than individual terms. Explicit CSR on the other hand consisted of voluntary corporate policies, programs and strategies.

While CER (Corporate Environmental Responsibility) is gaining research focus, many scholars prefer to view environmental responsibility as part of CSR. Shishir Tiwari and Gitanjali Gosh (2015) pointed out that although India has a great and old tradition of CSR but the concept of CER is yet to grasp an independent ground of its own despite having become an integral part of the CSR policies of the corporates. The corporates have to be made to realise that activities in respect of corporate environmental responsibility is not philanthropic in nature but a must duty on their part. Yuvraj Dilip Patil (2014) observed that properly designed Environmental Management principles will provide the guidelines to organisation for its environmental agenda. It helps to ensure that major environmental risks and liabilities are properly identified, minimised and managed.

Research on CSR and CER spending is also gaining importance. Vinod and Sivakumar, (2017) analysed of 50 Indian corporations, the study found that five companies did not spend anything towards CER as a part of their CSR expenditure. Three companies spent on CSR in all the years in spite of losses. The average outlay towards CER as a proportion of CSR spending was around 10%. As per KPMG India CSR Reporting Survey 2018 65 per cent of PSUs and 69 per cent of non-PSUs have disclosed CSR amount spends. Non-PSUs have made considerable improvement when compared with base year wherein only 26 per cent companies made disclosures pertaining to CSR spends.

The research studies and reports cited in this section show the importance of studying CER. The existing research also points out that there is need to analyse the CER activities being carried out by the Indian companies so that their impact can be studied and highlighted. There is research gap of analysing and classifying CER vision and policies of the organisations. The current study attempts to fill this research gap.

METHODOLOGY

The companies selected for study are the top ten companies contributing to the CSR spending as per National CSR portal. The reasons for selecting these companies are first as these companies are front runner in spending towards CSR it can show how the environment protection is important for different companies. Secondly, these companies have provided their CSR data through CSR portal and accessing their CSR mission and Vision is easier.

The study utilized content analysis approach for studying the Mission and Vision statements of the companies. Social and environmental reporting studies have used this technique to explore CSR and related disclosure practices. There are many ways to conduct content analysis such as page count, sentence count, keyword count. This study uses keyword count approach because words measure the total space devoted to a particular theme.

The keywords identified for the study are sustainable development, environment conservation, protection (environment, natural resources), green (energy, production), ecological balance, flora and fauna, natural resources, soil, air and water. The CSR Mission and Vision statement of the companies are copied to the separate MS Word file. All the authors read the document three times and marked CSR words. The study did

not limit the focus on selected keywords only. It also picked up the words that holistically measure the environment practices.

FINDINGS AND OBSERVATIONS

Table 1 shows the companies selected for the study. The companies are top contributors to the CSR. Table 2 shows the frequency of keywords appearing in the CSR Vision and Mission statements of the companies. For example the CSR Vision and Mission statements of ONGC have various keywords appearing as under:

ONGC

Vision

- *To support responsible and sustainable initiatives, while taking care of the concern for People, Planet and Profit.*

Mission

- *Continually enhance the triple bottom line benchmarks of economic, environmental and social performance through committed involvement of the employees.*
- *To develop social wealth for the communities we engage with.*
- *Promote efficient usage of scarce resources, encourage green energy initiatives and develop innovative solutions to fulfil the vision by stepping beyond the mandatory provisions.*

For most of the companies the keyword used maximum number of times is environment followed by sustainability and ecological balance. As Vision and Mission statements work as deriving principle for policy making, we can deduce that CSR vision and mission statements of the companies shows that majority of companies consider environment as deriving force for CSR policy making.

CONCLUSION

The study concludes that CSR M&V statement of the companies include keywords related to environment. This shows that there is consciousness in companies towards the environment, but environment is a huge domain in itself. Thus for contributing towards improvement of environment and ecology the companies need to focus on different variable and should take up activities for betterment of the living conditions of the stake holders and to serve the triple bottom line Profit, People and Planet.

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- <https://epi.envirocenter.yale.edu/epi-topline>
- National CSR Portal <https://www.csr.gov.in/>

Table 1 CSR Spent: Top Companies

Company Name	Amount (INR Cr.)
RELIANCE INDUSTRIES LIMITED	745.04
OIL AND NATURAL GAS CORPORATION LIMITED	482.07
TATA CONSULTANCY SERVICES LIMITED	400
HDFC BANK LIMITED	374.55
INDIAN OIL CORPN. LIMITED	331.01
INFOSYS LIMITED	312.6
MAHANADI COALFIELDS LIMITED	267.53
NTPC LIMITED	241.54
WIPRO LIMITED	186.6
HOUSING DEVELOPMENT FINANCE CORPORATION	175.99

Table 2: Keywords Frequency Table

Key Words	Frequency
environmental sustainability/environment responsibility/environment protection/environmental development/ environmental conscience	9
sustainable development/ sustainability/	6
ecological balance/ ecological sustainability/ ecology	5
natural resources/ scarce resources/	3
green (energy, production)/ renewable energy	2
soil, air and water	2
flora and fauna,	1

‘SOCIAL INNOVATION – IMPROVING HEALTHCARE IN RURAL INDIA’: A CASE OF GLOCAL HEALTHCARE SYSTEM

Prof. Kalyan Kumar Day

ABSTRACT

Social business differentiates itself from the classical business model of profit-maximization by having goals that are conducive to the betterment of society, such the alleviation of poverty, malnutrition, lack of education. Social business is a non-loss, non-dividend company with specific social objectives. It is not a charity because it is operating as a business where cost-effectiveness, profit margins, etc. are integral to helping it reach financial independence and sustainability (non-loss).

Social enterprise offers a new to do business that is animated by a social purpose. The social enterprises build their position on a critique of state's shortcomings in providing public services. Social enterprises often develop to cater for needs which the state does not fully meet. They have emerged to create more integrated and personalized solutions that are more people-focused.

Innovation is invariably a cumulative, collaborative activity in which ideas are shared, tested, refined, developed and applied. Social innovation applies this thinking to social issues: education and health, issues of inequality and inclusion.

India is one of the fastest emerging economies in the world today. If the country is to sustain this growth rate in the long term, its population must be healthy. Unfortunately, the health of Indians remains a cause for concern: the country ranks low internationally in terms of its citizens' health status. Sixty per cent of primary health centres (PHCs) in India have only one doctor while about five per cent have none, according to the Economic Survey 2018-19. The allocation on healthcare as a percentage of the gross domestic product (GDP) remained at 1.5 per cent. While in rural sector, the PHCs suffer from an acute shortage of doctors.

In healthcare, technological innovations have huge potential for improving the quality of life. A Digital Dispensary or a hospital in a box is an innovative brick and mortar centre which aims at providing complete primary and emergency healthcare solution such as consultation, confirmatory tests, and medicines from a single point. It is a path-breaking innovation which lets us parade into the world of tomorrow.

This paper focuses on how Glocal Digital Dispensary, model of social innovation is being implemented to improve the lives of millions of people in rural India. Digital dispensary offers much hope to rural India which is grappling with poor access to healthcare.

Keywords: Social innovation, Digital dispensary, Rural, India, Healthcare

‘Social Innovation – Improving healthcare in Rural India’: A Case of Glocal Healthcare System

Social business differentiates itself from the classical business model of profit-maximization by having goals that are conducive to the betterment of society, such the alleviation of poverty, malnutrition, lack of education. Social business is a non-loss, non-dividend company with specific social objectives. It is not a charity because it is operating as a business where cost-effectiveness, profit margins, etc. are integral to helping it reach financial independence and sustainability (non-loss).

Economy and business enterprises have to flourish to lift millions out of poverty and win economic freedom for all. Sustainable growth cannot be achieved single-handedly. It calls for thinking beyond corporate walls to initiate cross-industry collaboration and forging mutually enriching partnership with Government and civil society.

Innovation is invariably a cumulative, collaborative activity in which ideas are shared, tested, refined, developed and applied. Social innovation applies this thinking to social issues: education and health, issues of inequality and inclusion.

The main characteristics of social enterprise are the following:

- The entrepreneur sets up the venture as a business with specific mission to drive transformational social and / or environmental change.
- Profits are generated, but the main aims is not to maximize financial returns for shareholders but instead to financially benefit low-income groups and to grow the social venture by reinvestment enabling to reach and serve more people.

Social enterprise offers a new to do business that is animated by a social purpose. The social enterprises build their position on a critique of state's shortcomings in providing public services. The state provides public goods that profit-driven companies will not provide; services where there is a significant market failure or where a market-driven distribution, based on what is most profitable and consumer's ability to pay is considered morally or politically inappropriate, such as healthcare. Social enterprises often develop to cater for needs which the state does not fully meet. They have emerged to create more integrated and personalized solutions that are more people-focused.

Over the past twenty years the social enterprise field has become increasingly well-populated. In some areas social enterprises will continue to grow in scale and number – for example in social care. In other areas the main role of social enterprise will be to act as a catalyst for further change in other sector of economy.

Amul is an example of outstanding social innovation. One could argue that the concept of a dairy cooperative is not new, that the New Zealanders and the Dutch had beaten Amul to it by more than a century. But that does not diminish the innovative nature in an Indian context, as an idea and as organization.

Most successful sectors have some large companies that help to train people, set standards and lead public debates. However, building a social enterprise to large scale may be only option. Others might include ways of clustering social enterprises together, helping them to form alliances, federations and networks that given them scale. Scale of organization is no measure of potential impact; small disruptive and innovative organizations can have a huge impact on entire industries.

The Indian healthcare system

India has a population of 1.3 billion people residing in 28 states and eight union territories. The government has traditionally provided healthcare services in India. In the early post-independence period, the Indian healthcare sector was suffering from a shortage of doctors and nurses, inadequate hospitals as well as a lack of modern medical equipment. In the 1980s, there was an approximate 30 percent decline in the use of both urban and rural public healthcare facilities. Thereafter, this sector has achieved tremendous growth, particularly in the last few decades. It is expected to become US\$280 billion sector by the end of 2020 (Verma & Khandelwal, 2011). The government provides 20 percent of total health expenditures (lowest in the world), households pay 78 percent in the form of out-of-pocket payments (highest in the world) and external aid via voluntary sectors contributes only 2 percent as a source of healthcare financing in India (Nayak et al., 2012).

India has been grappling with a number of health problems, with a majority of them rooting back the problem of the growing demand. There is a prodigious mismatch between the demand and supply of healthcare infrastructure and services, with the demand far outstripping the supply.

Almost 74% of doctors are catering only to a third of the urban populations of India, or more than 442 million people. There may be a lot of attention on improving tertiary healthcare in India but, going by the 2018-19 Economic Survey, healthcare in rural areas remained a concern. Sixty per cent of primary health centres (PHCs) in India have only one doctor while about five per cent have none, according to the Economic Survey 2018-19. The allocation on healthcare as a percentage of the gross domestic product (GDP) remained at 1.5 per cent. Out-of-pocket expenditure (OOPE) was still worrisome — one of the highest in the world, despite a decline in the last few years. While in rural sector, the PHCs suffer from an acute shortage of doctors. It is estimated that 600 million people in India are with little or no access to healthcare. Thus, India's existing infrastructure is just not enough to cater to the growing demand. Getting good health staff in rural areas is a big challenge. The reach of healthcare service is so low in India that IT (information technology) can be leveraged to improve quality and affordable health to the masses. The optimization of IT applications will not only reduce cost for the poor but will also reach the under-serviced areas in rural India. To address this, one of the mechanisms adopted right now is digital dispensaries. By using digital technology, this gap can be bridged to a certain extent through the dispensaries.

Role of Digital Technology in Healthcare

In healthcare, technological innovations have huge potential for improving the quality of life. A Digital Dispensary or a hospital in a box is an innovative brick and mortar centre which aims at providing complete primary and emergency healthcare solution such as consultation, confirmatory tests, and medicines from a single point. It is a path-breaking innovation which lets us parade into the world of tomorrow.

Digital technologies allow the tracking behavior on much larger scale than was previously possible offering complementary ways of detecting tacit needs. In healthcare, for instance, researchers are studying the lived experience of Parkinson's disease by having volunteer use their smart phone to measure tremors (thanks to the

function that captures portrait and landscape views), muscle tone (the microphone portrait indicates the strength of the patient's voice box), involuntary movements (the touch screen records them), and gait (if the phone is in a pocket, it sense the patient's unsteadiness).

Digital technologies cannot replace direct observation, of course. But they expand the number and type of insight generated, providing access to a wealth of unfiltered and unstructured user-generated content that people can then make sense of.

Artificial intelligence in healthcare can help in better data-driven decisions, increased disease diagnosis efficiency, integration of information, enhance patient care by supporting medical functions with data-driven information and improve administrative efficiency.

It is in the area of medical diagnostics where there is a possibility of significant cost reduction while improving accuracy by using technology instead of human doctors. It is already common for blood tests and genetic testing (genomics) to be carried out automatically and very cost effectively by machines. They analyze the blood specimen and automatically produce a report. A good example is Thyrocare Technologies Ltd. in Mumbai, India, where more than 100,000 diagnostic tests from around the country are done every evening, and the reports delivered within 24 hours of blood being taken from a patient.

RESEARCH METHODOLOGY

The case study is a research strategy which focuses on understanding the dynamics present within single settings. This method is used for data collection and investigation as it could provide in-depth information and better understanding in terms of why and how social innovation occurs in differently complex social and cultural circumstances. Case studies can involve either single or multiple cases, and numerous levels of analysis (Yin, 1984). Moreover, case study can employ an embedded design, that is, multiple levels of analysis within a single study (Yin, 1984). This research approach especially appropriate in new topic areas. Frame breaking insights, the tests of good theory (e.g., parsimony, logical coherence), and convincing grounding in the evidence are the key criteria for evaluating this type of research (Eisenhardt, K.M., 1989)

This paper focuses on how Glocal Digital Dispensary, model of innovation is being implemented to improve the lives of millions of people in rural India.

CASE STUDY OF GLOCAL HEALTHCARE SYSTEM

Glocal healthcare specializes in rural healthcare services, in public-private partnership. Glocal Digital Dispensaries are proving to be the potential catalysts to improve the quality and accessibility of healthcare in India. Penetrating deep in the rural sectors, Glocal Digital Dispensaries are solving the problem of accessibility and affordability of primary healthcare.

Glocal currently runs as many as 141 Digital Dispensaries across Rajasthan, Bihar, Jharkhand, Odisha, West Bengal, Uttar Pradesh, Chhattisgarh and Manipur-in areas mostly devoid of basic Primary Healthcare services. Rajasthan government has turned over public health centres to Glocal to manage.

Glocal uses technology extensively to ensure efficiency of operations and learning across both the clinical and administrative aspects of healthcare delivery. In addition, Glocal has developed technology enabled primary healthcare centers – "G1 Digital Dispensaries" for under-served areas.

This innovation-borne out of necessity aims to penetrate more into the far-reached corners in the near future, ensuring that healthcare reaches every person.

The G1 Digital Dispensary is a telemedicine solution, which enable access to doctors and quality healthcare at affordable price points. Each Dispensary caters to a population of about 25,000. It is manned by a set of qualified nurses, laboratory technician and pharmacist. G1 digital dispensaries provide the following services: Consultation: The patients are connected to empanelled certified doctors (General physicians and Specialists) and offered consultation through video conferencing using the Hellowy4 and aided by LitmusDX.5 Investigations: Vitals such as Pulse, BP, temperature, weight and height are measured and laboratory investigations such as blood sugar, haemoglobin, HCV/HBSAG, urine examination, pregnancy related tests and blood tests for malaria, dengue, typhoid are advised to patients along with tests for Biochemistry analysis. Medication: Followed by investigations, generic medicines are prescribed which is then collected through an automatic dispensing equipment LitmusRX.

A G1 dispensary can serve a patient at an average price of Rs. 250 per episode (including consultation, basic tests and medicines)

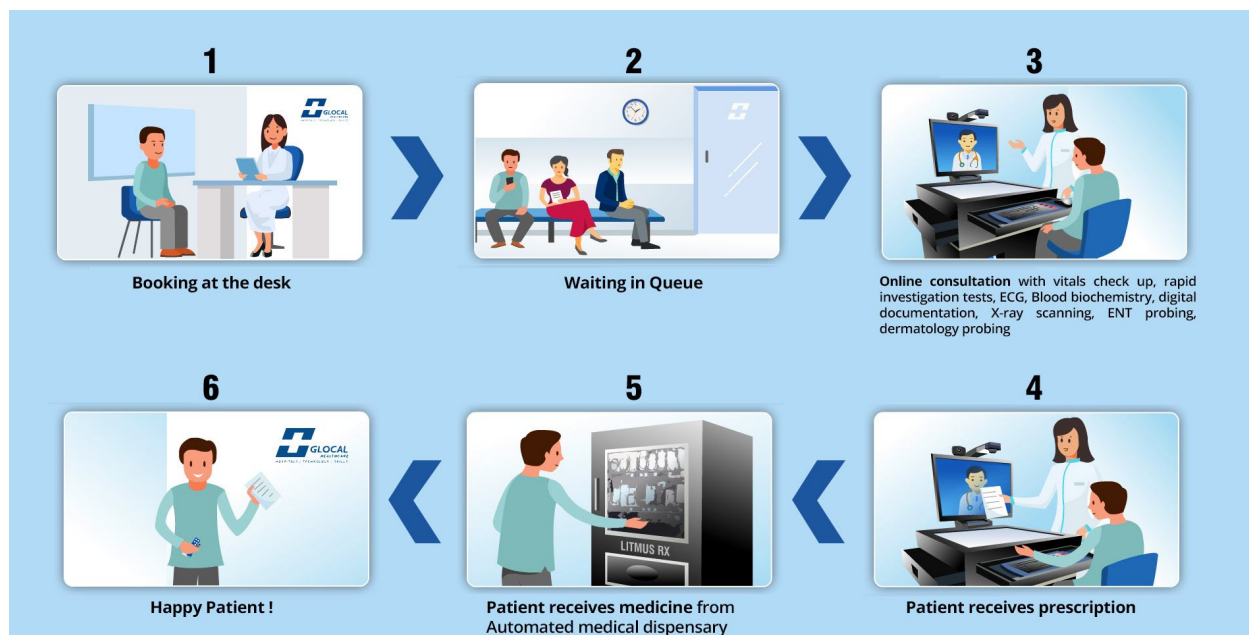


Figure: A snapshot of a typical patient walkthrough at a digital dispensary is portrayed in the figure

CONCLUSION: FINDINGS AND POLICY IMPLICATIONS

The lessons from this case study are as insightful as it is illuminating. The purpose of this paper is to disseminate the findings across academicians as well as industry experts for the overall betterment of the society.

India has the potential to make it big at the global level and that innovation is one key route to do that. The digital dispensary scenario in India still presents huge untapped potential. India's significant economic growth can be further augmented if the healthcare needs of its population are addressed. Many state governments are experimenting through various digital dispensary pilots; hence, there is huge scope of inclusion of digital dispensary as one of the tools in National Health Policies.

While Indian companies have been making waves on the IT front, there are already many examples in the country that are waiting to be highlighted and can serve as lighthouses for others and to create a learning module of the 'how' of making social innovation happen so that it could be replicated by others.

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UNIVERSAL VALUES BASED EDUCATION FOR HOLISTIC AND SUSTAINABLE DEVELOPMENT

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ABSTRACT

Education is the most powerful mechanism to inculcate right understanding in human being for harmonious living. Values are the essence of education, and without values the basic human aspiration of a happy and prosperous life for all can not fulfilled. In this order, we have been discussing about values for many centuries and the mankind has been experimenting with several approaches for the holistic and sustainable development (HSD) of the society throughout the history. There have been debates regarding reforms in education system to improve its efficiency. But the practice of behavior of discrimination, and inequality in human living which is leading to unending problems and people are facing conflict and disharmony in the society. Although, there have been steady efforts to spread values through education to all levels of society for HSD. The Value based education is a strong mechanism to resolve chaos and contradictions in the relationship and establish right understanding in every individual. Therefore there is need to evolve the universal human value (UHV) based education having common and basic guidelines irrespective of inequality, discrimination on the basis of caste, creed, gender, race, nationality. Such Value based education can be a worthy technique to improve competence of every human being for HSD throughout the world. Also the academia needs to be reform for transformation towards right understanding to establish the paradigm for humankind. Efforts from all directions either they are formal or informal, are necessary for implementation of UHV based education in all dimensions. The sustainable solution models for the societal problems need to be incorporated in the curriculum at all levels and the complete content of education has to be solution centric. Once UHV based education is established through strong political will in all educational institutions at primary, secondary and higher levels, the society can be free from disorder and disharmony, and we can attain HSD in true sense of the word.

Keywords: Universal, Values, Holistic, Sustainable Development, Harmony, Reforms, Discrimination

INTRODUCTION

Indeed, Education is the most powerful mechanism for the sustainable holistic development (HSD) of any society. The education covers skills as well as values learning, both are compulsory and complementary to each other, it is a coexistence of both values and skills. The value education is a key to inculcate right understanding and knowledge in every human being for resolution and harmony. In this order, we have been discussing about values for many centuries and the mankind has been experimenting with several pedagogical approaches for the sustainable societal development throughout the history. In present scenarios, there are some challenges as corruption, high population and unemployment, illiteracy etc. to slow down the effective implication of strategic steps to ensure HSD. Education is the only way to enrich right understanding in humankind for any nation or society but the corruption in education can be seen in the entire world, it is the big hurdle to the HSD. Therefore this is the time to take crucial decisions make reforms in education system with universal approach all around the world for HSD. In order to provide a sustainable and holistic development, we need to evolve a living model in the society based on such values which can be universal, without any discrimination on the basis of gender, race, cast, creed, region, sect, community or nation. For this, we need to evolve guidelines which can evaluate any content to qualify it as universal content to be proposed in terms of values. Once this content goes into education, it will provide the understanding in the minds of people, generation by generation, where they can live with justice and harmony. Although, It is long term goal to achieve HSD throughout the world and for the attainment of such holistic purpose the implication of such universal value based education through paradigm planning and effective implication is required at all levels.

1. RESEARCH OBJECTIVES AND SCOPE

The objectives of this research paper are to understand the present challenges to the sustainable development, Understand Universal Human Values (UHV), process of inculcation of universal values in every human being and attainment of HSD. The scope of this study is to all encompassing of human living in four dimensions as realization, thought, behavior and work at four level of living as individual, family, society and nature/existence. The realization and thoughts are internal state of human being while behavior is an interaction through expression with other human beings and work and efforts done in the rest of nature/existence for the production of required physical fulfillment encouraging HSD throughout the world.

2. LITERATURE REVIEW:**1. G.C. Awujo, R.O. Ekechukwu, B.W. Ateke, (2014): [4]**

This research paper have the discussion about value conflict and peace education and how peace education can resolve value conflicts and ensure development in Nigeria. Paper says that peace education can solve the problems based on value conflict in Nigeria. The paper suggests that government and other concern stakeholders in the country should periodically organize the seminars and workshops for the citizens to get resolution of value conflict issues through interactions. The paper concludes with suggestion of recommendations that interethnic affiliations should be encouraged among the various groups in Nigeria through marriages. Also, Inter-religious seminars and conferences and other social and cultural fiestas should be encourage in the country.

2. B. Rajendra Prasad, (2017): [5]

This research paper focused on value education which is universally valuable which can ensure happiness and prosperity in a sustainable way. So the need for value education emerged. Further described that the man lived like a beast in earlier, he wandered from one place to another place in search of food. Human beings moved from primitive stage to present days of world of modern science and technology. Research paper concludes that the value education with human values only can ensure a holistic perspective of life. The paper suggests that the value based educational program should be led only during all levels either it is primary, secondary, higher education or any other educational stakeholders. The implication of such value education needs the true involvement of political leaders, bureaucrats and army personnel.

3. M. MARIJA, M.R. DANIJELA, C. RATKA, (2018): [6]

The paper aims to present a pedagogical models tailored to the development of key competences in the urban planning professional in post socialist transitional countries that is based on the creation of an integration platform for dialogue and the development of professional competences as part of the process, whereby students produce their final projects. This research paper provides a comparative study of the pedagogical model's application in producing the final master's degree projects of three generations of students, as well as its alignment with the needs of redefining the role and reach of the professional of urban planner. The model was improved, enhanced and optimized through this process and then corroborate with its practical implementation.

In this paper it is presented that in societies where transition has caused crises in professional action, academia can assume a leading part in re-define the position and role of profession in spatial development and as such, bring about a shift in the planning paradigm. Finally, the proposed and implemented PM, as a practical, transparent, inclusive and proven problem solving platform, built with a bottom-up approach, could serve as a sound starting point for a national framework for sustainable spatial development and thereby surpass academia.

4. L. OMUTOKO-OTIENO, (2018): [7]

This research point outs the fact that all types of development can take place in environments with minimum overt conflicts. And conflicts would reduce in an environment where communication is fostered and a measured understanding is nurtured to reduce the impact of every emerging challenge that face individual, communities, institutions and nations. The value based education is an outcome anchored on culture, religion, morals, values and character formation for holistic development. Values and attitudes are components for cognitive knowledge and are useful in attaining and maintaining peace across cultures. Value based education enhance values for holistic education which promotes nationalism and global citizenship. Paper said that the value education leads to development of fundamental principles, common humanity, sustainable development, social justice and equality for peaceful co-existence. This paper reveals that values mold character which can enhance academic achievement, cohesion, teamwork, strengthen relationships and perpetuate attainment of sustainable development.

5. C. CHI CHIU, S.W. WING-MUI, Z. YING, T.H. KWOK, (2017): [8]

The paper focused to explore stakeholder perspectives of the role of a campus eco-garden in education for sustainability. This will combine the perspectives to highlight a powerful learning environment for university students to realize the concept of education for sustainability. All the stakeholder groups expected cognitive learning of education for sustainability to be enhanced by the eco garden. The use of affective learning was not strongly expected by the stakeholders. As per paper's study, Psychomotor learning was believed to be the most difficult to realize. To fulfill the potential of the eco-garden in education for sustainability, all stakeholders suggested learning activities and roles for both students and teachers. The combined perspectives of the stakeholders helped to visualize a powerful learning environment to aid education to ensure eco garden for sustainability.

6. S. TAMARA, D. WILLIAM, (2017): [9]

The purpose of the paper is to provide the data on the self perceived state of sustainability consciousness. The attributed to students' immersion in compulsory sustainability education modules within liberal studies programs in secondary through higher education, the quantitative results revealed an increase in the self-perceived knowledge and behavioral aspects of sustainability consciousness of Hong Kong students and their low engagement in sustainability related civic, campus or action groups. However, qualitative results revealed three aspects of the students' sustainability consciousness: intentionality to make a difference: engagement with complex questions about identity, society and nature; and eschatological perspectives, which includes imaginative, future oriented and action oriented approached to critical reflection, supported by the rhetoric of hope, promises and commitment for better future. It is presented by the research that there is no doubt that the UN-based model proves itself useful on the grounds of higher education, yet its anthropocentric and compartmentalized structure, which is lacking continuity, slows down sustainability implementation in diverse cultural and educational contexts we believe that refraining from mechanistic policy models and focusing on students' culturally specific root beliefs about human nature relationships might help to trigger sustainability in their hearts and minds.

7. M. JEMITIAS (2012): [10]

The research seeks to promote environmental awareness with a view to changing people's values, attitude and behavior towards their biophysical and cultural and cultural environments which long term goal is to achieve sustainable development at local and national levels. It has been identified the main providers of environmental education as well as some of the challenges they have encountered so far. These challenges are corruption and poverty in the country so the formal education sector, there is a need to focus more on behavior change rather than on scientific knowledge about the environment. This paper argues that the country's goal of achieving sustainable development through environmental education is not likely to be achieved unless the above challenges are fully addressed.

3. Universal Human Values Based Education: [3]

4.1 Basic Guidelines for Universal Human Values: The education is the process to facilitate the development of competence of humankind to live with continuous happiness and prosperity. So the value based education is required to ensure such holistic and sustainable solution for an individual and family to entire world family. The basic guidelines for the value education are:

Universal: The value education must be universally applicable to all human being irrespective of time, places and situations. Also, it cannot be restricted for some cast, creed, sect, gender, religion and nationality.

Rational: The content can be changeable to any logical and reasoning. It is not based on blind beliefs and preconditioning. It is not a set of Do's and Don'ts.

Natural: If something is natural that means there is a provision in nature for its fulfillment and naturally acceptable to every human being. When people live with such values, they feel natural within.

Verifiable: One can verify these values on the ground of his natural acceptance. Also it can be validated in the living and observe its outcome.

All Encompassing: It covers all dimensions of human living, namely, thought, behavior, work, and understanding/realization with the expansion from individual, family, society to nature/existence.

Ensuring Harmony: The value education leads to mutual harmony in human-human relationship in the society and extend to entire Nature/Existence.

4.2 Content: The human value is the participation of human in larger order which includes human beings, plants, air, water, soil, animals and birds etc. hence, to understand human values, we need to study the human reality along with all that is there in the existence constituting the larger order and the role of human being in the relationship with each and every unit in the existence.

4.3 Process: In UHV content, the various aspect of reality facilitating the understanding of human values will be presented as proposal. Every person need to verify the proposals for yourself and investigate and verify his living under this light. The process of value education adopted here is that of self-exploration which includes two things: verification at the basis of your natural acceptance and experiential validation in living.

4.4 Mode of Operation: The education for sustainable solution and development, needs the programs which can be applicable at the following levels:

Informal Education: The programs and workshops should be conducted for the farmers, villagers, policy makers, bureaucrats, politicians, Jail Inmates etc. to inculcate universal human values for resolution.

Formal Education: The content of universal human values should be the part of the main curriculum in the formal education at primary, secondary and higher levels.

Living Models: The living model can be develop through value education working with the five dimensions:(i) Education–Sanskar, (ii) Health–Sanyam, (iii) Justice-Protection, (iv) Work-Production, (v) Exchange-Storage. We also need to make some living models, it can be villages, schools and colleges where the above five dimensions are fulfilled.

4. Proposal for Holistic and Sustainable Development

5.1 Evolving a Sustainable Development through Value Based Education and Living

As the universal goal of humankind is continuous happiness and prosperity irrespective of time, place and situation. Therefore, universal model of education system is required for humankind having common basic guideline irrespective of cast, creed, religion, and nationality in any time, place and situation. Once the universal value education is implemented for all sections of the society, naturally a sustainable model of living, free of inequality will emerge. This is possible only when universal human values will be the part of the core curriculum in education at all levels. Although the AICTE, UGC and other stakeholders of education are putting great efforts to establish such value base education system in India.

5.2 Case Study of Asia: [14]

In this order, the significant effects on universal human values (UHV) can be observed in India, Bhutan and Bangladesh to sharper articulation of the purpose, content and process of education. These efforts based on UHV, there have been initiatives in several areas including education, technology, management and health. In the area of education, since 2005, some 40 universities have incorporated UHV in their core academic curricula with encouraging results in India. Since 2018, AICTE has placed UHV in its model curriculum, so the effort is on to prepare the faculty of 10000 AICTE affiliated professional colleges in India. Even, Universities and some NGOs in Bhutan have been teaching universal human values since 2012. The Bhutan Institute of Wellbeing is conducting workshops with core UHV content for young farmers and local administration in an effect to realize their villagers. A happiness model of rehabilitation has been developed and intensively tried out for alcohol and substance users in Bhutan by the Bhutan Institute of Wellbeing. The efforts have been done towards values based education from last many years, have been presented through the platform of international conference in all dimensions of human living [14]. The focus of this paper is on implication of UHV based education throughout the world at all levels with basic common guidelines to ensure HSD.

5.3 Case Study of Inmates: Discrimination, inequality and criminal mental states are the biggest causes to slowdown the sustainable development in any human society. So keeping in view, the author conducted three workshops of 3/2/2 days on “Universal Human Values (UHV)” for 100 jail inmates participants, as per direction of Ld. District & Sessions judge/chairman (DLSA)/East, Karkardooma courts, Delhi, DLSA (East) in association with DLSA (East) in association with DLSA (North East), DLSA (Shahdara) and jail authorities of Mandoli Central Jail at CJ-12, CJ-11, CJ-13, New Delhi. The participants raised many social issues which shown their resistance to the administration and they questioned the way of working of police administration and judiciary system of India. After the three days interaction with inmates through dialogues, PPTs presentation and videos, based on universal human values, the written feedback were taken and observed the major shift towards the resolution, although they had so much resistance to the inequality and discrimination etc. The content of universal human values and the process of self exploration helped the inmates to improve their right understanding while they were living in difficult situations and different mental state. Therefore such people can be transformed towards resolution and right understanding partially in few days then same program may benefit the other people in the society. Hence, the right understanding and resolution in human beings leads to holistic and sustainable development.

5. Discussion and Suggestions: The education system has achieved many milestones in several countries. However there have been challenges that require to reforms to develop the students who can handle political, social, economic and environmental challenges for ever spurring growth which leads to HSD. But people are focusing on skill learning through education to earn money and other physical facilities than others people, this is the rat race in the society. The education is responsible for development of values therefore we cannot overlook the importance of value based education in the 21st centuries where HSD along with peace is highly demanded. There are many frameworks that have been proposed for integration of value based education. These framework include the steps to structure of value based education and infusing them in the curriculum at all

possible levels in education. The HSD of the whole society is possible through articulation of universal human values (UHV) in the entire education system in the world. The UHV needs to fully implementation in educational curriculum by all the nations with holistic vision irrespective of caste, creed, religion, nationalities. The content of UHV based education must have basic guidelines as Universal, Rational, Natural, Verifiable, All Encompassing and Leading to Harmony.

In this order, many research reviews stated as, work on peace education to ensure sustainable development [4], work on value education for happiness and prosperity to ensure sustainable development[5], The model was improved, enhanced and optimized through this process and then corroborate with its practical implementation[6], Paper said that the value education leads to development of fundamental principles, common humanity, sustainable development, social justice and equality for peaceful co-existence. [7], the combined perspectives of the stakeholders helped to visualize a powerful learning of environment to aid education to ensure eco garden for sustainable development.[8], the quantitative results revealed an increase in the self-perceived knowledge and behavioral aspects of sustainability consciousness of Hong Kong students and their low engagement in sustainability related civic, campus or action groups[9], The research seeks to promote environmental awareness with a view to changing people's values, attitude and behavior towards their biophysical and cultural and cultural environments which long term goal is to achieve sustainable development at local and national levels[10].

But this paper suggests that Harmonious living is the natural validation of UHV. The ability of right understanding in a person shows its definite human conduct in his living with human-human relationship as well as nature/existence. Therefore for inculcation of universal human values in every individual to ensure harmonious living, the full credit course should be implemented in the primary, secondary and higher education system throughout the world. Also the regular workshops seminars national and international conferences should be conducted by the government educational bodies to ensure awareness and understanding of universal human values. Hence, the proper implementation of UHV can ensure HSD in the society.

6. CONCLUSION

To ensure development of the society in all dimensions, and in continuity, that is to say holistic and sustainable development, the development of human being is the basic need. Development of human being means to ensure right understanding of human values, and living on the basis of those values which will be fulfilling not only for other human beings but also the rest of the nature. Unknowingly, much of the effort has gone into technological advancements which may also be counterproductive if the value based living is not ensured. The efforts made in India and Bhutan so far indicate that if the formal education includes content of UHV, significant changes in living of the students can be obtained. When the inputs go into all the dimensions of the society, HSD will emerge in true sense of the word.

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ADOPTION OF INNOVATION: A PEOPLE- CENTRIC APPROACH

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ABSTRACT

Usually management forces employees to accept innovation disregarding the adaptive or the resilience capacity of the employees. As a result, organization suffers from another uncertainty like damage of machines or equipments for unknown reasons, high wastage, absenteeism, accident, turnover and finally strike and lockout. This situation can be avoided if innovation is strategically introduced in the organization, and as a result, innovation will be well adopted. Based on the review the study proposes a people – centric approach in innovation adoption. This approach suggests IPA model, where I indicates innovation, P indicates people characteristics, and A indicates adoption. In other words innovation adoption relationship is moderated by individual characteristics of employees on whom innovation is going to be imposed. The paper discusses about various dimensions of the individuals' characteristics which seem to be the determinants for adoption of innovation. The paper concludes with a discussion of emerging issues, new research directions, and practical implications of people centric factors for innovation adoption research.

Keywords: Innovation, adoption of innovation, IPA Model, people-centric factors.

INTRODUCTION

Growing complexity and uncertainty lead organizations toward innovation. Innovation refers to the creation and implementation of “new combinations”. These new combinations can be related to new products, services, work processes, markets, delivery systems and policies. So adoption of innovation has become a vital thing for organizational productivity and survival. The adoption process is a sequence of stages, a potential adopter of an innovation passes through before acceptance of a new product, service or idea. There is a misconception about adoption of innovation. The increased turbulence, complexity and competitiveness of organizational environments have made the identification, evaluation and adoption of innovations critical determinants of organizational productivity, competition and survival. Innovation is generally considered to be one of the key drivers of corporate success (Cardozo et al., 1993). Cumming (1998, 22) defined innovation as “the first successful application of a product or process” for a potential adopter. A perception of newness matters, not the absolute newness of a product. (Damanpour 1984; Lyytinen & Rose, 2003, 559). In present markets, introductions of new products and services have increased enormously. However, it should be noticed that not all the innovations that enter the market are diffused at the same speed. Sometimes it seems to take an amazingly long time for new technologies to be adopted by those who seem most likely to benefit from them. In order for a firm to be successful in bringing innovations, an understanding of the target adopters and the factors influencing their adoption decision is important. Research on the adoption and diffusion of innovations offers significant contributions to such understanding. Adoption refers to the decision of any individual or organization to make use of an innovation, whereas diffusion refers to the accumulated level of users of an innovation in a market (Rogers, 1995). The adoption process is always based on the decision of an individual or on consensus of a decision making unit (Van de Ven 1986, Khalfan *et al.* 2001). Two types of organizational adoption decisions can be identified, i.e. the decision made by an organization and the decision made by an individual within an organization (Frambach & Schillewaert, 2002). The central focus of this paper is to identify and integrate the people centric factors that have been found to influence innovation adoption decisions. A model of innovation adoption (IPA model where I indicates innovation, P indicates people characteristics, and A indicates adoption) has been conceptualized, to explore role of people characteristics in adoption of innovation.

THEORETICAL FRAMEWORK

Schumpeter (1934) is generally considered to be among the first to recognize the process of innovation in organizations. He described innovation as the creation and implementation of ‘new combinations’. These new combinations can be related to new products, services, work processes, markets, delivery systems and policies. Due to innovation, one can create added value, not only to the firm itself but also to its stakeholders and to society. Except that an innovation apparently is ‘something new’, innovation has some more characteristics (King & Anderson, 2002). The features of innovation are:

An innovation is new to the social setting within which it is introduced

An idea is a necessary condition: It is the starting point, but it cannot be called an innovation in itself. · An innovation is aimed at producing some kind of benefit. Apart from financial to the service firm, possible benefits might be personal growth, increased satisfaction, improved cohesiveness, or better interpersonal communication. It also includes the creation of new ideas not to benefit the role, group or organization but to benefit the wider society. · Innovation is restricted to intentional attempts to derive anticipated benefits from change. Suppose that a service firms' coworkers cannot use email due to a breakdown of their computers. It appears that they increase their sales results because they pick up the phone more often to communicate with customers. This would not be an innovative action. If, however, the service firm takes the same action in order to improve client relations, one could describe it as innovative.

• **Innovation is not a routine change:** The appointment of a new member of staff to replace one who retired cannot be considered an innovative change. The creation of an entirely new post could.

• **Innovation involves an application component:** Just developing something new cannot be regarded as an innovation unless it is used.

· By summing up the above mentioned features of innovation in organization, it can be said that **“Organizational innovation” is the concrete expression of particular set of beliefs and values – about people, organizations and ultimately about society.**

Organizational adoption process of innovations

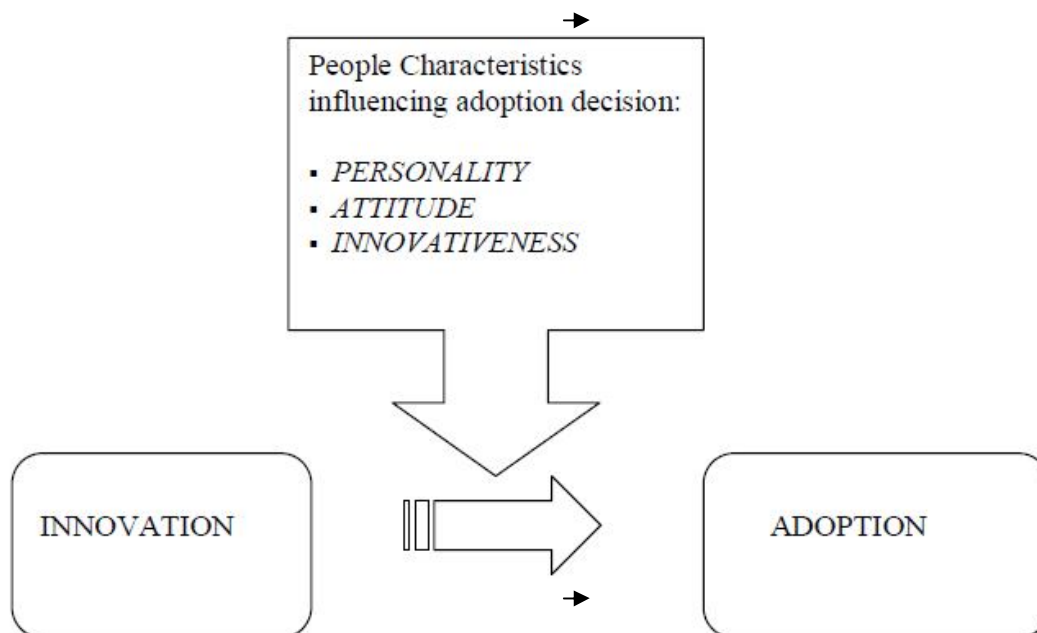
According to Longman Dictionary of Contemporary English the term adoption means to take and use of one's own. For example Company A purchases computer but very few people use it. On the other hand, Company B purchases the same and trains its people about computer application and finally all the members use computer in all sorts of activities. Here company B adopts the computer technology as it develops favorable attitude towards the technology. The adoption process is a sequence of stages a potential adopter of an innovation passes through before acceptance of a new product, service or idea (hereafter product). Rogers (1995, p. 21) defines the adoption process as “the process through which an individual or other decision making unit passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision.” With respect to innovation adoption, two main stages may be distinguished: initiation and implementation (e.g., Zaltman et al., 1973). The adoption decision occurs between the initiation and the implementation stage. In the initiation stage, the individual becomes aware of the innovation, forms an attitude towards it, and evaluates the new product; it encompasses awareness, consideration, and intention sub stages. Figure 1. represents the innovation decision process of Rogers (1995). After the initiation, innovation is either adopted or rejected. The decision to adopt is a decision to make full use of the innovation as the best course of action available (Rogers 1995). In the implementation stage, the organization decides to make use of the innovation. Thereafter, the innovation is first implemented on a trial basis, and if this is successful, the implementation of the innovation will continue and the innovation becomes systematically used (Zaltman *et al.* 1984) From a supplier's perspective, the innovation process can only be considered a success when the innovation is accepted and integrated into the organization and the target adopters demonstrate commitment by continuing to use the product over a period of time (Bhattacharjee, 1998).

Adoption of innovations in an organization implies that adoption should occur at the individual level. This is known as the intraorganizational acceptance (Frambach & Schillewaert, 2002). Organizational innovations that have to be incorporated in the work processes of an organization are of little value if they are not used or complied with by the employees of organization. The employees, who are the target user group, must accept innovation. Hence it is important to examine the acceptance of innovations within organizations because, if there is no acceptance among the target group, the desired consequences cannot be realized and the organization may eventually discontinue the intended adoption.



Figure 1: Model of stages in the innovation decision process (Rogers 1995)

For analyzing the individual level adoption of innovation a people centric approach is important. Reviewing The Academy of Management Journal, Journal of Business Research, Journal of Economic Literature, Administrative Science Quarterly, & Journal of Applied Psychology, the IPA model has been conceptualized, where I indicates innovation, P indicates people characteristics, and A indicates adoption.

IPA MODEL**Figure 1b: Model showing the people centric factors influencing the innovation adoption decision in organization.**

In IPA model, the innovation adoption relationship is moderated by individual characteristics (personality, attitude, innovativeness) of employees.

PERSONALITY

Personality plays a critical role to accept innovation. According to Allport (1937), personality is the dynamic organization within the individual of those psychological systems that determine the person's unique adjustment to the environment. Personality is described in terms of trait & type theories. Digman (1990) noted five factors of personality – extraversion (refers to one's comfort level with relationships), agreeableness (refers to one's inclination to defer to others), conscientiousness (refers to reliability regarding responsibility), emotional stability (refers to one's ability to withstand stress) and openness to experience (refers to one's range of interests and fascination with novelty). Out of the five factors the workers who possess openness to experience personality trait can adopt the innovation easily, as these people are creative, curious, intellectual, imaginative and artistically sensitive.

ATTITUDE

Attitude refers to predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation (Business Dictionary). Innovation is a change in the organization and any change cause stress on the workers. When the workers have favorable attitude towards the innovative product or idea they adopt it easily. Organization should develop some facilitators, so that workers do not perceive any threat rather assume the innovation as of their own. Several studies indicate that individual usage of innovations not only depends upon attitudes but also on management strategies, policies, and actions (Lucas, 1978; Ives and Olson, 1984; LeonardBarton and Deschamps, 1988). Depending on the relevance for the innovation, these factors include internal marketing variables such as training and education (Igbaria, 1993; Igbaria et al., 1989; Mirvis et al., 1991; Clegg et al., 1997), organizational technical support (Davis et al., 1989; Thompson et al., 1991; Igbaria et al., 1996), and incentives and control structures (Bhattacharjee, 1998). These influences affect individual's awareness of the functioning and application of innovations, their usefulness and fit with the job. Attitudes can change and be influenced. A person's attitudes mediate the influence of external variables and stimuli. Individual acceptance of innovations is driven by the usage of innovation within their social environment. Thus social influence is considered to be one important external stimulus to change attitude. Such social network influences may stem from two sources. First, network externalities may increase the value of the innovation for individual level adoption. (Frambach & Schillewaert, 2002). In organization science (Markus, 1990; Rice, 1990; Kraut et al., 1998), studies show that network externalities are important when there is a critical mass of users within a person's reference or work group, and innovation usage by others in an individual's social environment is likely to play an important role in all types of innovations. The acceptance of an innovation by an individual's peers, e.g., superiors, colleagues, and customers, may signal its importance and

advantages and motivate the individual to imitate. Finally, social norms have been proposed as determinants of acceptance behavior (Davis et al., 1989). These relate to “a person’s perception that most people who are important think that he should or should not perform the behavior in question” (Fishbein and Ajzen, 1975, p. 302). The effects of social norms may be direct as when a person feels the need to go along, or indirect through its affects on a person’s attitudes, as a result of internalization or identification processes (Warshaw, 1980; Davis et al., 1989). Social persuasion and communication from peers has been suggested also as factors influencing acceptance (LeonardBarton and Deschamps, 1988; Schultheiss, 1988; Mirvis et al., 1991).

PERSONAL INNOVATIVENESS

Organizations will try to influence subordinates’ attitudes towards adoption of an innovation and some individuals more readily accept certain innovations while others do not. Rogers (1995) defines innovativeness as a degree to which an individual is quicker in adoption of an innovation than other members of the same system.

A system’s members can be classified into different adopter categories, based upon the relative time at which an innovation is adopted (Rogers, 1995).

CATEGORIES OF ADOPTERS

According to Rogers (1995) the adopters of innovations can be classified into five categories: 1) innovators, 2) early adopters, 3) early majority, 4) late majority, and 5) laggards. (Figure 2) **Innovators** (pioneers) have several common characteristics. They can be said to be venturesome. They are interested in new ideas and have an ability to understand and apply complex technological knowledge. They bring new innovations into the social systems (Rogers 1995). Miller and Friesen (1982) state that entrepreneurial firms can be seen to fulfill these premises.

Early adopters have the greatest opinion leadership in most systems. They are part of the social system and serve as role models for many other members of the social system. Early adopters decrease the uncertainty about a new idea by a communication process. (Rogers 1995)

Early majority wants some proof that the innovation is feasible before adopting it, but they still do not want to be the last ones. Their innovation decision takes relatively longer than that of former groups. (Rogers 1995)

Late majority adopts new ideas just after the average member of a system. Adoption for them is both an economic necessity and increasing network pressure. They also have relatively scarce resources, which mean that uncertainties related to the innovation must be considered carefully before the adoption. (Rogers 1995)

Laggards are the last ones to adopt an innovation. Laggards make their decision according to past experiences. Laggards need to have a stable environment and they are not familiar with uncertainties. Their decisions are entirely rational and they are extremely traditional (Rogers 1995). According to Miller and Friesen (1982), organizations that belong to this category have a very conservative attitude toward new innovations. On the other hand, Damanpour and Gopalakrishnan (1998) state that organizational adoption can be conceptualized by the speed and rate of the adoption. The speed of adoption is related to the timing of the innovation and reflects the organization’s responsiveness and its ability to adopt the innovation quickly. The rate of adoption relates to the extent of innovativeness of the organization. Martinez et al. (1998) also argue that the adopters can be classified if the speed of adoption is known and if the adopter can be identified. According to Miller and Friesen (1982), organizations are systems of individuals, and according to this their position in the innovation adoption process can be determined. The adoption of a new innovation that emerges in an organization or is adopted outside the organizations, is always strategy driven. An entrepreneurial (innovator) organization that seeks new innovations actively is risk taking, and it is capable to adopt innovations at a high speed and rate. In the other extreme, a conservative (laggard) organization avoids risks and the timeframe of the adoption process is long.

According to Frambach & Schillewaert (2002) personal innovativeness (PI) refers to the degree to which members of an organization are receptive of change. It is an important determinant of innovation success (Zaltman et al., 1973; Zmud, 1984). LeonardBarton and Deschamps (1988) and Agarwal and Prasad (1998) in their studies found the PI to be one of the factor for individual acceptance of innovation. PI is determined by various personal characteristics, e.g., demographics, company and job tenure, and experience within the product class. Previous research also suggests that sociodemographics (Venkatraman and Price, 1990; Steenkamp et al., 1999) as well as personal values affect innovativeness (Steenkamp et al., 1999)

CONCLUSION

This review research paper concludes that IPA MODEL identifies and integrates the people centric factors, which are the determinants of innovation adoption at individual level. The basic idea which underlies the people centric approach is that the employee has specific individual characteristics that influence his or her innovation adoption decision. The individual characteristics which play a major role are personality, attitude and innovativeness.

Current issues and opportunities for future research

The research paper provides comprehensive frameworks for understanding and analyzing individual factors for innovation adoption. Based on the above discussion there is a need of further empirical research in this area. Studies need to be carried out in different organizational settings and for different types of innovations. By identifying the individual determinants of innovation adoption, such models are of use to practitioners, including both marketers and managers, in marketing innovations to organizations and in gaining acceptance and use of innovations within an organization. Another important issue that requires further research is to identify the individual factors that inhibit adoption of innovation i.e. to identify why people do not adopt innovation.

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A STUDY ON PERCEPTION AND AWARENESS TOWARDS PLASTIC MONEY AMONG BANK CUSTOMERS IN GHAZIABAD DISTRICT

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ABSTRACT

This chapter analyses the perception of cardholders towards plastic money in India. The emphasis has been laid on the adoption, usage, value attributes, bottlenecks and factors influencing plastic money adoption. The current system is able to support the Smooth adoption and monitoring payments through plastic money. Also, it has been indicated by the recent research that plastic money adoption is on the rise as there is an increasing number of merchant establishments in India accepting majority of cards. The current analysis has been divided into seven sections, which include perceptual analysis age-wise, occupation-wise, gender-wise, education wise, income-wise, analysis of antecedents and spending pattern, and lastly analysis of perceived risk and utility. The questionnaire asks questions about the benefits people avail while using digital payment methods and what are the various factors which influence the people to use digital payment methods and what are the risks they face associated with digital payments.

To build up a sustainable banking environment, technological implementation is crucial. As a part of this, modern banks propelled plastic money. In, Ghaziabad customers' perceptions about the plastic money are impressive. This is the necessity to the banks what factors influence customers positive view toward plastic money and whether they are facing any problems or not. To examine the customers' perceptions towards plastic money is one of the main focuses of this research. About 95 responses were collected to conduct the study. A quantitative research design was adopted to perform the test of hypotheses. The survey results revealed that usage and financial benefits, convenience factors, and psychological factors positively influence customers' attitude towards plastic money. Also, there are some problems identified by the respondents as customers.

INFORMATION

One of the key pillars of the modern society has been the civilized and organized exchange of goods and services. In India, as in other countries around the world, an organized method of payment has evolved over time from a barter system to the more complex forms of monetary transactions. More regularly, we are progressively reliant on new innovations to make our transactions quick and productive. The proceeded and fast development of innovation has achieved noteworthy changes in our regular day-to-day existences (**Panagiotis et al., 2018**).

The predominant form of payment across India in the 20th century has been coins, cash and cheques. As we move into the 21st century, payment through cash and cheques itself has undergone a transformation. It has moved from being a physical paper based exchange of value to a virtual electronic one. This is in line with the development of electronic payments world over. Plastic money has an added function of identification along with that it keeps track of transactions as they incurred with all details of purchases such as shop name, date of purchase, amount of purchase, city of purchase etc. Thus, holder has the facility of "refreshing" his memory about his purchases, which is denied to the paper money holder. On a macro level, since the data is available electronically, spending patterns, emerging trends, demographic details and such other information can be complied easily which in turn can be used for boosting economic development and for reducing unnecessary and superfluous costs. The development of plastic money industry was very evident as individuals is getting more reliant on technology and plastic money business is the best result of technological innovation in banking sectors (**Sumi & Safiullah, 2014**).

The use of plastic money has been expanding quite rapidly, and its development is a prominent trend in the area of retail payments. It is expected to continue to evolve as a retail payment option in response to consumer changing needs. In India, like any other developing economies, a gradual switch over from the use of paper-based payments media to those based on electronics has been witnessed. While the basic characteristics of these new instruments are by and large similar to those of old, paper based instruments.

In the Indian market, the development of plastic money is probably the most significant phenomenon of the modern banking era. Plastic money comes in various forms but the predominant form that it takes is that of credit cards and debit cards. Plastic money and other forms of electronic payments are nothing but newer and more convenient potions of payments.

This study is an attempt to unveil the perception held by card users towards plastic money in India. The review of literature indicated that most of research work in the field undertaken till now has been done in developed countries like United States and other fast developing countries. But research is still lacking in case of developing countries like India. It was also revealed that, hardly any comprehensive study has been conducted in India to examine the perception of

Further, the existing studies have concentrated their attention mainly on the usage of debit cards or credit cards, but mostly neglected the joint effect and new innovative cards. The present study focuses on factor like age, occupation, gender, educational qualification, monthly income, and occupation. It also analyzed the current status and trends of plastic money in India.

PLASTIC MONEY

Plastic Money is the alternative to the cash or the standard Money. Plastic money is the generic term for all types of bankcards credit cards, debit cards, smart cards etc. Cards services have evolved into a safe and secure manner to purchase goods and services. The Internet has given credit card users additional purchasing power. Banks have options like cash back rewards, savings plans and other incentives to entice people to use their cards. Debit cards allow people the convenience of cards without the worry of racking up debt. The convenience, security and reward offer by credit and debit cards keep shoppers using their cards as opposed to cash.

Money is always considered as a necessary medium for exchange and payment methods. In the recent years, money has turned its form from coins to paper cash and in the recent time money is usable in shapeless form as plastic money which is also called electronic money (Bishty et. al., 2015).

Advantages of Plastic Money

- Cards fit into the wallet easily
- Decrease in crime rates
- Provides credit facility
- Tracking transactions becomes easy
- Convenience of making payments from home
- International acceptability

Disadvantages of Plastic money

- Just plastic money does not always help
- Plastic Money is also not 100% safe
- Minimum purchase requirements in certain category of cards
- Interest, for non-payment on time

Types of Plastic Money

The forms of plastic money which are most commonly used are:

□ Credit cards

Credit cards are the most popular form of plastic money. Although credit cards have evolved over the years, the basics remain the same. You get a plastic card, which is linked, to a credit card account. You can draw as much as your credit limit, which is fixed, based on your payment capabilities. You will be given a certain number of interest-free days during which you can pay whatever you have charged on your card in full or partially. If you don't pay fully, get ready to pay credit card interest.

□ Debit cards

Debit cards are always linked to the bank account of the customer who owns it. Whenever you use your debit card, an equivalent amount is deducted from your bank account. It is an ideal substitute for cash. Your cash sits comfortably in a bank account earning interest and you can still access it anywhere. In India, debit cards are synonymous with ATM Card though later only allows for withdrawal of cash from ATM. But Debit cards, while can be used for instant withdrawal of cash of course, their purpose goes far beyond. You can also use it for payment, money transfer and checking the balance. But as it is linked to an account, you can spend only as much as you hold in your account.

RESEARCH OBJECTIVES

The broad objective of this study is to analyze the consumer attitude towards plastic money. The specific objective is to:

- Discover perceived advantages of plastic money to the customers
- Identify perceived disadvantages of plastic money to the customers.
- To know the satisfaction level of customers in the usage of plastic money.
- To study consumer awareness on cashless transactions.

Hypothesis

LITERATURE REVIEW

Customer satisfaction is one of the major concerns for all kind of activities of a business organization. Almost every business organization tries to make a loyal customer base in the market to get a competitive advantage over other organization. Basically, customer satisfaction is the vital issue for the service industries like banking, health, restaurant, education etc. for their success. **Bennet (1992)** found that customer driven strategy is the major factor to gain competitive advantage in the banking sector. According to **Coldwell (2011)**, a customer who is fully satisfied may support a firm to produce 2.6 times much revenue as the one who is somehow satisfied. Moreover, a completely disappointed customer may cause a 1.8 times reduce in revenue as compared to a fully satisfied customer. However, commercial banks have performed various functions for the customers and plastic money is the most vital and modern function (**Deviranjitham & Thamilarasan, 2014**). Plastic money is a contemporary context-taking place of conventional system of paying through paper money cash. The use of debit cards, credit cards, smart cards, master cards, visa cards, pre-paid balance cards for paying to purchase goods and services is termed as plastic money (**Panagiotis, Athanasios & others, 2018**). Basically, plastic money means one kind of hard plastic card that has been used in place of bank notes and in everyday life (**Sudhakar, 2014**). The customer's buying behavior and lifestyle is now dominated by the plastic card. The plastic money can be defined as an electronic element which stocks all required information about the particular bank and the card holder and can be accomplished through the use of Automated Teller Machine (ATM) at any place. Moreover, **Khan (2010)** stated the impact of ATM service quality on customers using five key ATM service quality factors: convenience, efficient operation, security and privacy, reliability and responsiveness. **Panagiotis et al. (2018)** had thrown light on the use of new technology by elderly people contributing significantly on their better quality life. The usage of innovative electronic trading devices defend the elderly population from theft and fake cases since such cards in his/her wallet can be used immediately and easily in each transaction. The most of the customers use and prefer to have plastic money above cash money. These plastic money or electronic payments was and used only by higher income group people (**Manivannan, 2013**). Most of the customers like to use debit card rather than credit card for their transactions. Generally customers like to use debit card for buying appeals, paying electricity bills or phone bills and others financial transactions. Many customers feel that debit card is more favorable than credit card because debit card provides more control over spending; good cash back policy and strong security. Moreover, majority of plastic money users use it for online transaction as they feel secure transaction in online but they completely avoid it when they use it for others financial activities (**Bishty et. al., 2015**).

RESEARCH METHODOLOGY

This study reviews literature chosen with the primary as well as secondary data. Research methods or technique refers to the methods the researcher uses in performing research operations. In other words, all those methods, which are used by the researcher others during the course studying his research problem, are termed as research methods. Since the objective of research, particularly the applied research is to arrive at a solution for a given problem; the available data and the unknown aspects of the problem have to be related to each other to make a solution possible. Research methodology is away to systematically solve the research problem, it may be understood as a science of studying how research is done specifically. The questionnaire, like the schedule, is designed to collect data from large, drivers and widely scattered groups of people. The researcher can interpret the question when necessary. Webster defines the schedule as "a formal list", a catalogue or inventory", and it may be added that it is counting device, used in formal and standardized inquiries, the sole purpose of which is aiding in the collection of quantitative cross-sectional area.

A. Research Design: The research is analytical and descriptive in nature. The researcher for the purpose here had made use of primary data and secondary data. The researcher has made use of close ended questionnaire where sample of 95 was used. The data was collected and was analyzed by using SPSS Software. Secondary

sources were also used with respect to Review of Literature, Journals and articles. Using Mean, Standard Deviation, Frequency did descriptive Statistics and inferential statistics was used like correlation, regression and chi-square test.

B. Sources of Data: The data required for doing the research has been collected mainly by using primary and secondary sources. The primary sources include the questionnaire. The secondary source includes the various journals, research paper and Internet websites.

C. Size of Sample The study has been conducted by using the sample of 95 from the city Ghaziabad.

DEMOGRAPHIC PROFILE OF RESPONDENTS

Particulars	Classification	Frequency	Percentage
Gender	Male	61	64.21%
	Female	34	34.78%
Age group	Below 25	12	12.63%
	26-36	24	25.26%
	37-45	31	32.63%
	46&above	28	29.47%
Profession	Students	15	15.78%
	Salaried	32	33.38%
	Entrepreneurs	38	40%
	Senior-citizen	10	10.52%
Monthly income	Below-5000	4	4.21%
	6000-20000	12	12.63%
	21000-35000	35	36.84%
	36000-50000	21	22.10%
	50000&above	23	24.21%

As revealed from the table 1. It has been observed that 64.21 % respondents are male and rest is female. In the parameter of age group 32.63% of the respondents have 37-45 years, 29.47% are ranking from 46& above, 25.26% are ranking from 26-36.

40% respondents are entrepreneurs, 33.38% are salaried, 15.78% are students and 10.52% are senior citizens. Also it has been found that 36.84% have their monthly income as rs. 21000-35000, 24.21% respondents have their monthly income above 50000, 22.21% respondents have their monthly income as rs. 36000-45000.

DO THE CUSTOMER CARRY PLASTIC MONEY

Response	NO. Of Respondents	Percentage
YES	72	75.78%
NO	23	24.21%

As observed from the table 2, 75.78% of the respondents carries plastic money and remaining 24.21% do not carry plastic money.

Table 3 Types of plastic money

Types of plastic money	NO. Of Respondents	Percentage
Credit card	38	40%
Debit card	45	47.36%
Both	12	12.63%

As observed from the table 3, 47.36% use debit card, 40% of the respondents use credit card and 12. 63% use both .

Table4 most convenient way to pay

Most convenient mode	NO of respondents	Percentage
Cash	25	26.31%
Plastic money	70	73.685

As observed from the table 4, 73.68% of the respondents uses plastic money and 26.31% of respondents use cash.

Table 5 preferences towards plastic money

Preference towards plastic money	NO. of respondents	Percentage
Security	25	26.31%
Convenient	45	47.36%
Do not carry paper money	17	17.89%
Risk of paper money	08	8.425

As observed from the table 5, 47.36% of respondents find it convenient to use plastic money, 26.31% of respondents find it secure to use plastic money. 17.89% Do not carry paper money WHILE 8.42% find risk of carrying paper money.

Table 6 safest mode of transaction

Problem face while using card	NO. of respondents	Percentage
Lack of trust while making transaction	24	25.26%
Unacceptability at retail outlet	18	18.94%
High interest rate	35	36.84%
Complexity of terms and policy	10	10.52%
Information linkage issue	8	8.42%

Response	NO. of respondents	Percentage
Yes	58	61.05%
NO	47	49.47%

According to table 6, 61.05% respondents do agree plastic money is safest mode of transaction and rest 49.47% do not agree its safest mode of transaction.

Table 7: Future prospects of plastic money

Future Prospects of Plastic Money	No. of Respondents	Percentage
Rapid Growth	13	34.73%
Steady Growth	19	20%
Stagnant	25	26.31%
Can't predict	10	10.52%
Decline	08	8.42%

34.73% respondents said that plastic money would grow rapidly, while according to 26.31% respondents the growth of plastic money will be stagnant. Only 8.42 respondents opined that net plastic money would not grow in future.

Ho: There is no significant relation between customer gender & type of plastic money used

Chi Square Test

GENDER	Type of Card Used			Total
	Credit Card	Debit Card/ATM	Specific outlet Card	
Male	22	31	8	61
Female	16	14	4	34
Total	38	45	12	95

Calculation of Chi Square

O	E	(O-E)	(O-E) ²	(O-E) ² /E
22	24.4	-2.4	5.76	0.236
31	28.89	2.11	4.45	0.154
8	7.7	0.3	0.09	0.0116
16	13.6	2.4	5.76	0.423
14	16.1	-2.1	4.41	0.273
4	4.29	-0.29	0.084	0.0195
				1.1171

Tabulated Value= 5.99

For 2 degree of freedom & at 5% level of significant the calculated value is less than tabulated value, which leads to the acceptance of hypothesis, So it can be concluded that there is no significant relation between customer gender & type of plastic money used.

FROM PERCENTAGE ANALYSIS

From that table inferred that Maximum of the Respondents are supporting plastic money only few respondents are not supporting plastic money. From that table inferred that 32.37% Respondents supports plastic money, because of fear of theft of using Paper money From that table inferred that 47.36% Respondents supports Plastic money, because they found it convenient mode of payment From that table inferred that 26.31% Respondents supports Plastic Money, because of security reasons. According to table 6, 61.05% respondents do agree plastic money is safest mode of transaction and rest 49.47% do not agree its safest mode of transaction. From that table 6 inferred that 25.26% Respondents not supporting Plastic money, because of lack of trust while making transaction. From that table 6 inferred that 36.84% Respondents not supporting Plastic money, because of high interest rates. From that table 6 inferred that 8.42% not supporting it because of information linkage issues. 18.94% respondents found it tough to use at it retail outlets. According to table 6, 61.05% respondents do agree plastic money is safest mode of transaction and rest 49.47% do not agree its safest mode of transaction. From the table 7 34.73% respondents said that plastic money would grow rapidly, while according to 26.31% respondents the growth of plastic money will be stagnant. Only 8.42 respondents opined that net plastic money would not grow in future.

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EVALUATING EFFECTIVENESS OF MOOCS USING EMPIRICAL TOOLS: LEARNERS PERSPECTIVE

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ABSTRACT

The advent of massive open online courses (MOOCs) poses new learning opportunities for learners as well as challenges for researchers and designers. MOOC students approach MOOCs in a range of fashions, based on their learning goals and preferred approaches, which creates new opportunities for learners but makes it difficult for researchers to figure out what a student's behavior means, and makes it difficult for designers to develop MOOCs appropriate for all of their learners. Towards better understanding the learners who take MOOCs, we conduct a survey of MOOC learners' motivations and correlate it to which students complete the course according to the pace set by the instructor/platform (which necessitates having the goal of completing the course, as well as succeeding in that goal).

Keywords: Massive Open Online Courses (MOOCs), Learner Motivation, Distance Learning, Learning Analytics, Mastery Goals, Self-Efficacy.

1 INTRODUCTION

Massive Open Online Courses (MOOCs) turned into the "buzz" word in online training since presentation of the xMOOC stages; Coursera, Udacity and edX. MOOCs are ordinarily massive in members and open to any intrigue party either gratis or at a significant minimal effort. Albeit online training has been rehearsing for quite a long time, appearance of Massive Open Online Courses (MOOCs) brought new viewpoints, encounters and perspectives to online instruction. It is primarily on the grounds that not at all like prior, MOOCs are open to any premium gathering and thusly it permitted many premium students to investigate and encounter online training. Because of the notoriety and request the New York Times articulated 2012 as the time of MOOC. Numerous scientists express that MOOCs are demonstrating sounded educational highlights. For example, short recordings to improve the maintenance and center, short recordings with tests to upgrade dominance base learning, companion and self evaluation to improve the recovery of learning experience, online gatherings to improve cooperation. Simultaneously inquire about found that the understudies in MOOCs performed and accomplished higher additions than the up close and personal grounds base study hall. Notwithstanding, a most recent research uncovered that MOOC publicity is blurring and simultaneously a few specialists are cynic about the eventual fate of MOOC. They are worry about the teaching method behind MOOCs and uncertainty whether there is a functioning getting the hang of occurring in MOOC. In spite of the ubiquity and the interest, MOOC suppliers uncovered that they are confronting higher dropout rates and it was distinguished as a typical factor of 13% as expressed by. In spite of the fact that the analysts expressed that finishing a MOOC relies upon member's very own plan and responsibility, it is obvious that some MOOCs are not meeting the client desires. As such it has discovered that MOOCs are confronting quality difficulties. During recent years, number of MOOCs increment quickly and members are confronting difficulties to distinguish the quality courses. Since quality related looks into are deficient in the MOOC inquire about field, this examination centers to delineate exactly that there is a quality variety in MOOCs where important quality control moves ought to be made. This examination endeavored to assess MOOCs utilizing systems or devices explicitly structured, tried and approved utilizing MOOC members to assess adequacy of MOOCs.

The paper is composed with the end goal that right off the bat we expressed the target of this exploration followed by a complete audit of writing. Furthermore, we disclosed the approach use to assess the MOOCs followed by results and examination. At last, we talked about the discoveries in subtleties followed by the end comments.

2 OBJECTIVE

Despite the fact that cMOOCs or connectivist MOOCs have been rehearsing since 2008, xMOOCs got well known since 2012. As at now xMOOCs are drawing in wide scope of members. Simultaneously number of xMOOC stages and number of courses are expanding at a higher rate. Be that as it may, not the entirety of the courses in MOOC stages give effectiveness or meeting the client's objectives. Since the MOOC idea isn't developed, impressively absence of consideration has been attracted terms of assessing the effectiveness. Our target right now to give proof that there is absence of exact tools to assess MOOCs effectiveness. Simultaneously our objective was to uncover the quality varieties in MOOCs observationally by fusing accessible MOOC effectiveness tools.

3 REVIEW OF LITERATURE

Effectiveness characterized as meeting the client objectives. For eLearning, numerous tools and strategies found so as to assess effectiveness. Although eLearning has been rehearsing and improving for a considerable length of time, appearance of MOOCs disturbs the online instruction. MOOCs have its extraordinary highlights than an ordinary eLearning course. Since the appearance of MOOCs changed the view of the eLearning members, it is important to re-produce systems and measurements distinguishing factors influencing to a powerful eLearning in MOOC.

In spite of the fact that there are writing assessing MOOCs as far as quality, effectiveness and achievement, the assessment methods did not depend on tried and approved tools which explicitly intended to assess MOOCs. Research toward that path, assessed MOOCs utilizing a model of six components: Brand, Reputation, Funding, Subjects, Interactivity and Open social view. These components were characterized under three classifications: Organizational, Pedagogical and Social variables. The examination doesn't uncover any observational investigation behind choosing the variables anyway it was apparent that these elements depended on investigation of past writing.

The examination work directed by assessed MOOCs utilizing 6 viewpoint and it depends on a theoretical model. Albeit later the analyst has taken pre study results from clients to think about more criteria, yet the contention in our examination is that the assessment tools and criteria to be tried confirmed and approve utilizing MOOC members.

Looking toward more writing, we discovered absence of pertinent research towards the systems for assessing MOOCs. Notwithstanding, in the hunt we discovered there is number of writing sharing situations, experience and contextual analyses exercises learnt with clarifying the procedure of MOOC structure improvement and involvement with terms of effectiveness. However we discovered extremely restricted written works which legitimately propose structures or assessment tools, instruments to assess MOOCs effectiveness. Among the constrained looks into moves in the direction of effectiveness in MOOCs, we discovered 2 fundamental classes of systems and measurements as portrayed in the follows:

- Empirical researches towards quality/effectiveness of MOOC
- Proposal frameworks based on literature reviews

3.1 Empirical research on effectiveness/quality of MOOC

Experimental research is a method for picking up information by methods for immediate and aberrant perception or experience. Right now exact proof (the record of one's immediate perceptions or encounters) can be examined quantitatively or subjectively directly from MOOC members as well as MOOC courses. Albeit exceptionally set number of explores came about as observational, look into led by [categorise MOOC quality criteria in to 2 measurements (Technical criteria and Pedagogical criteria) and 6 classes: Instructional Design, Assessment, User Interface, Video Content, Learning and social Tools and Learning Analytics. The examination has utilized 107 understudies and 98 educators who partake in MOOC courses.

The exploration led by, discovered 10 measurements straightforwardly influencing to the effectiveness of MOOC: Interactivity, Collaboration, Pedagogy, Network of Opportunity, Content, Technology, Usability, Motivation, Assessment and Support for Learners. They have utilized 5 MOOC stage and 16 MOOC courses in their exploration in uncovering the 10 measurements.

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3.2 Proposal frameworks based on past literature

Proposal framework were essentially founded on past writing. It has not taken direct perceptions results. Be that as it may, as the MOOC idea is yet developing, there are numerous quantities of theoretical effectiveness structures and estimation quality criteria were found. The MOOC quality undertaking which is one such an activity of European Foundation for Quality eLearning (EFQUAL) endeavored to distinguish quality issues explicitly centering to MOOC. Right now of blog entry by specialists identifying with quality of MOOC were muller over to create a quality report of MOOC. The report of this venture feature a few variables identified with the impression of MOOC quality: the thought of decision, what pre-course information is given, the instructive methodologies upheld in a course, the degree of understudy responsibility required, is a course booked or not, specialized necessities, the job of the showing group, accessibility and level of connection, regardless of whether accreditation is accessibility. A specialist in the venture, contends accomplishment of a

MOOC won't rely upon number of drop outs, tallying test scores, including understudies' fulfillment and states four achievement factors: Autonomy, Diversity, Openness and Interactivity. Another master in her examination contends that xMOOCs essentially dependent on the connections between content by following the behaviorists learning approach. Her exploration acquainted the 7c's methodology with get improvements more slender experience and quality confirmations. So as to accomplish powerful learning contends it is fundamental to meet qualities of good learning; Encourages reflection, Enables discourse, Fosters cooperation, Applies hypothesis figured out how to rehearse, Creates a network of companions, Enables imagination, Motivates the students. Further her contention is to consolidate 7C to make successful learning involvement with MOOC. The 7C's are Conceptualize (what is the vision for the course?), Capture (an asset review), Communicate (components to cultivate correspondence), Collaborate (systems to encourage joint effort), Consider (appraisal techniques), Combine (general perspectives on the plan), Consolidate (executing and assessing the structure in a genuine learning setting).

The exploration conveyed by proposes 10 dimensional instructional plan criteria to assess MOOCs quality. The examination is profoundly centers in educational point of view of a MOOC by contending that the instructional structure quality of a course is a basic marker and essential of the capability of the course for successful learning. It expresses that a student or members involvement in sentiments may not mirror the viable aftereffect of a MOOC quality since students ordinarily don't have the mastery to survey instructional structure. Therefore the paper states it is basic to assess the quality of MOOC configuration by drawing on the information on master instructional creators. The 10 assessment criteria's were drawn from First Principles Instructions - interrelated prescriptive criteria for successful guidance preoccupied from key instructional plan hypotheses and models [16]. Those are 1) Problem Centered, 2) Activation, 3) Demonstration, 4) Application, 5) Integration, 6) Collective Knowledge, 7) Collaboration, 8) Differentiation, 9) Authentic recourses, 10) Feedback. Despite the fact that this measurements don't give an observational proof to be applied to MOOC, the scientist assessed 76 MOOC courses utilizing measurements by concentrating on the educational importunacy for quality in instructional structure in learning. Their outcomes reflected as instructional structure quality of MOOCs are basically low by contending out of 72 potential all out focuses that each course could score as indicated by the Course Scan instrument, none of these MOOCs scored over 28 focuses.

The system gave by "Quality Matters" program proposes to utilize its measurements rubric in surveying MOOCs. This program comprises with the most recent quality measurements for online learning [25]. The rubric contains 8 measurements – Course Overview and Introduction, Learning destinations, Assessment and estimation, Instructional materials, Learner association and Engagement, Course Technology, Learner backing and Accessibility. The program has assessed 21 friend inspected diaries and other scholastic databases, for example, ERIC, ProQuest and Google Scholar so as to create the components in the rubric. Despite the fact that the 8 measurements seem to give a sensible contention to online learning, it doesn't explicitly address the setting of MOOC. The essential focal point of this writing is to be center around MOOC writing and concentrate dependent on MOOC members in especially.

4 METHODOLOGY

In order to evaluate MOOCs for effectiveness, we were required to decide an evaluation tool, MOOC platforms and courses. We used questionnaire method. A blend of subjective and quantitative strategies was utilized to assess the effectiveness. The criteria in the tools were utilized to break down the members' point of view on effectiveness in MOOCs. The surveys were taken into a quantitative figure with a 5-point Likert scale just as taking subjective perspectives on their experience during the course. On the off chance that the course in the MOOC platform matches with criteria in the apparatus, scores were given as needs be reflecting 1 point for least coordinating and 5 focuses for most coordinating thing in the instrument. Table 1 depicts the conceivable most noteworthy and least qualities could happen in the assessment. This procedure efficiently gives the quality fluctuation while uncovering a detail portrayal of the issues and concerns looked by the clients.

4.1 Sample and Data Collection

In this evaluation, we focused on courses from 3 MOOC platforms. Those are in particular; Coursera, edX and Udemu

Gender	Respondents
Male	62
Female	38
Total	100

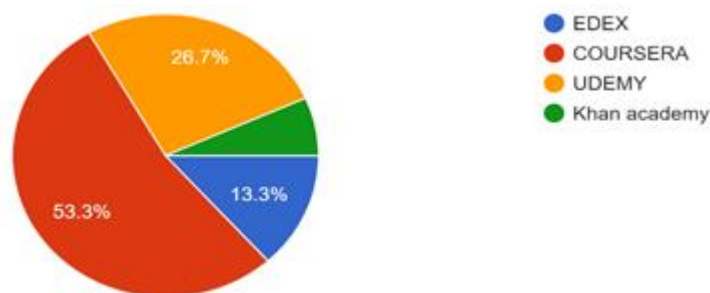
Age Group	Respondents
15-19	16
20-25	48
26-30	36
30 and above	100

A blend of subjective and quantitative strategies was utilized to assess the effectiveness. The criteria in the tools were utilized to break down the members' point of view on effectiveness in MOOCs. The surveys were taken into a quantitative figure with a 5-point Likert scale just as taking subjective perspectives on their experience during the course. On the off chance that the course in the MOOC platform matches with criteria in the apparatus, scores were given as needs be reflecting 1 point for least coordinating and 5 focuses for most coordinating thing in the instrument. Table 1 depicts the conceivable most noteworthy and least qualities could happen in the assessment. This procedure efficiently gives the quality fluctuation while uncovering a detail portrayal of the issues and concerns looked by the clients.

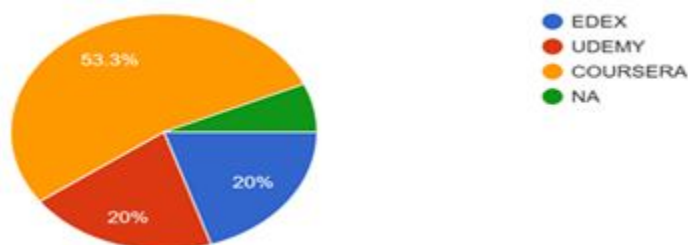
5 RESULTS

The assessment results utilizing the are delineated in the Table 3. The assessment brings about the Table 3 were plotted in a line chart where it pictures results. The diagram is appeared in Fig.1 where it is portraying the variety of the development results among the platforms.

Which MOOCS Platform you prefer the most ?



1. Which platform has more variety of courses



9. Which platform has more overall value for money?
15 responses



Breaking down through the measurement information, perceptions and the meeting notes, we found that the courses which had most elevated scores were furnished with certain highlights which understudies discovered extremely compelling in their learning. The course empowered to corporate and teams up in executing the tasks while grasping the learning society to "learning by doing".

Courses which had the most minimal qualities ordinarily had many pit falls that didn't coordinate the successful criteria in the tools. Breaking down the audit of meetings and perceptions of the Tool 1's most minimal score course which is course number 1, we found that course comprised low quality video and contained interruptions

in a portion of the recordings. Simultaneously course segment needed collaboration and intelligence. Live exercises were not polished in the course in spite of the fact that the course goals, results and substance were very much organized, the course was in shy of on time criticisms and the communications to the course saw as aloof. Anyway Tool 2 came about most reduced scores in course number 10 in Open2Study platform. In spite of the fact that it was not essentially unique identifying with course number 1 in scores, we discovered this course additionally had the segregation, need if intuitiveness and cooperation. For the most part it came up short on the companion coordinated efforts other than the forum include. Appraisal comprised of tests surveyed by the PC, yet needed companion assessments which has been distinguished as a significant necessity for a compelling learning involvement with the two tools.

Breaking down the general assessment scores, this exploration found that the courses exceptionally fluctuated in scores where as though there is a legitimate quality criteria to follow in MOOCs, it is relied upon to change into less varieties. For instance, breaking down Coursera courses, we discovered courses essentially fluctuated in effectiveness scores as results in Tool 1 – 102 to 336 and Tool 2 – 56 to 201.

6 DISCUSSION

The motivation behind this exploration was to recognize MOOC effectiveness tools and assess MOOCs utilizing the tools which give experimental proof on quality variety. Investigating into the general course surveys expressed by course members in different auxiliary assets, for example, commentator locales – CourseTalk (www.coursetalk.com) and encountering the equivalent by us as dynamic MOOC members, it is obvious that numerous MOOCs needed to meet the effectiveness objectives. Our writing overview came about 2 primary assessment tools to gauge effectiveness in MOOCs. In spite of the fact that the MOOC idea is generally new to eLearning which has been rehearsing for decades, it is assaulting a wide range on members. In any case, this examination led an assessment utilizing 3 MOOC platforms. A blend of quantitative and subjective techniques was utilized in the assessment as the intention is to demonstrate the quality varieties all the more illustratively yet seeing profoundly on a cause in the platforms which don't meet quality criteria. The assessment tools were observationally tried for MOOCs and therefore it is well speaking to the holes in numerous courses in MOOC platforms.

Despite the fact that specialists contend MOOCs fruitions are because of their very own motivation and objectives, this examination opens up another course that it isn't just the client's very own objectives and goals, however the absence of effectiveness of the MOOCs will lead in inadequacy or dropouts in MOOCs. As we broke down the meeting information, it is noticeable that numerous MOOCs came up short on the understudy to understudy cooperation as the platforms encouraged just forums highlight. Notwithstanding, the courses found in Edx MOOC platform gave little gathering base examinations which empowered the cooperative undertaking work and bolstered live conversations by means of Google home base apparatus. Despite the fact that the assessment results in Edx platform didn't changed the quality essentially, however Coursera MOOC platform effectiveness varied fundamentally. Since the Tools gave the most noteworthy effectiveness in a Coursera course and least additionally in a Coursera course, it is confirmed that notwithstanding of the platform it is plausible to incorporate highlights which can expand the effectiveness. Right now, is essential to underscore the highlights, for example, live gushing occasions, venture base learning, little gathering conversations empowered by means of unique tools-Talkabout. As clarify his work, it is especially critical to incorporate highlights which makes any course progressively intelligent.

Aside from above realities, our examination found that understudies exceptionally esteem the arranged learning society and opens to potential industry. Albeit course in edX platform and up to a certain expand Edx platform bolstered this component.

For a model, course edX platform welcomed understudies to take an interest in industry publicized activities utilizing a unique platform–Coursolve (www.coursolve.com). Understudies were offered chance to rehearse what they realize in the course with the business needs. In Udemy platform, the courses were intended to empower little gathering based tasks where understudies find a workable pace other inside and out than different platforms. This empowers the members to be presented to a wide scope of potential systems around the globe.

7 CONCLUSION

eLearning is changing quickly to provide food the requests of clients. MOOC which is an innovation utilized for eLearning is slanting because of its one of a kind highlights of being free, massive and open to any premium client. In any case, because of the expansion number of MOOC suppliers and courses, it is confronting quality difficulties. Members guarantee that not all the courses in MOOC give a quality learning experience neither

meet the objectives of the client. Right now attempted to give observational proof of MOOC effectiveness. Our exploration discovered exceptionally restricted observational looks into in assessment MOOCs and tools supporting to assess MOOCs. Notwithstanding, we utilized 2 observational tools to assess MOOCs and our outcomes demonstrated that there is a huge quality variety among MOOCs. Our detail subjective meetings and information uncovered that numerous MOOCs needed broad intuitiveness and joint effort between members. Consequently, in view of our discoveries we underscore the need of identifying the quality variables, achievement components of MOOC and applying it when structuring and building up a course in MOOC platforms.

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UNDERSTANDING TRAFFIC SYSTEM

Neha Aggarwal, Shubhendu Tripathi and Govind

ABSTRACT

Traffic system and road accidents are the major issue in India. Day by day road accidents are increasing, they cannot be stopped. There are ways to reduce the impact of road accident on the users. Road accidents in India claimed over 1.5 lakh lives in 2018, a recent report by the transport ministry revealed. India ranks 1st in the number of road accident deaths across the 199 countries reported in the World Road Statistics, 2018. Proper traffic guidelines and control system to guide road-users ensuring safe movement of vehicles and some facilities like pedestrian crossing and acceleration and deceleration lanes should be re-designed to improve the safety of the road and minimize the road accident. A survey by ford India showed that drivers are unaware about the rules and policies of traffic system.

INTRODUCTION

Road accident is most unwanted thing to happen to a road user, though they happen quite often. The most unfortunate thing is that we don't learn from our mistakes on road. As we are talking about road accident so the major role played in road accident is by the drivers or by the roads and delhi roads are really a nightmare for the people who mostly travel or first time travel through them, no one can believe that delhi roads are that much bad as delhi is the capital of our country. Nearly 7 out of 10 drivers are underage and delhiites don't have any problem with this, even these drivers wouldn't wait at zebra crossing for the people to cross or pass the road, even they don't care for the traffic lights most of the time that's the reason why most of the road accidents happen. Traffic accident leads to loss of life and property. This is the responsibility of the traffic engineers that they would take necessary measures while mapping the ways to ensure the safety of people and property as well. 100% decrement in road accident is impossible but yes, there is a chance for the decrement in that percentage. The traffic system should be strict so that before avoiding that rule the person should think twice. A primary source for the improvement is data, once the proper data is collected from the road sites there should be a possibility that accident number get less and this data may help in knowing what factors leads to the accident and that should be improved.

LITERATURE REVIEW

"It is believed that with right action up to 5 million lives could be saved and 50 million injuries prevented during this decade of action. Therefore achieving a reduction of about 50% with respect to the predicted global death toll by 2020"

Causes of Accident

Road Users	<ul style="list-style-type: none"> • Excessive speed • Rash driving • Violation of traffic rules • Failure to perceive traffic signals
Vehicles	<ul style="list-style-type: none"> • Failure of breaks • Failure of steering system • Tire bursts • Lighting system
Road condition	<ul style="list-style-type: none"> • Pots holes • Skidding surface
Road design	<ul style="list-style-type: none"> • Improper traffic control design • Improper lighting • Defective geometric design
Environmental factors	<ul style="list-style-type: none"> • Unfavorable weather conditions

DATA ANALYSIS

The survey by ford India, covering private drivers, passengers and pedestrians from six metros and four non – metros cities indicate a irresponsible behavior towards the traffic rules and lack of concern for other road users. About 55% of drivers in Delhi said that they weren't willing to park vehicles in authorized parking lots.

Figure 1

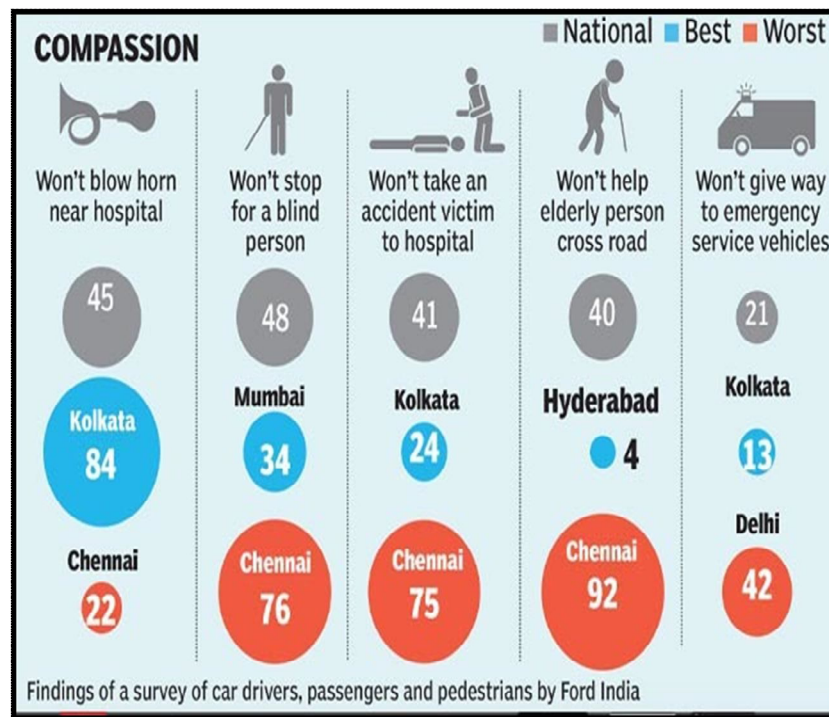
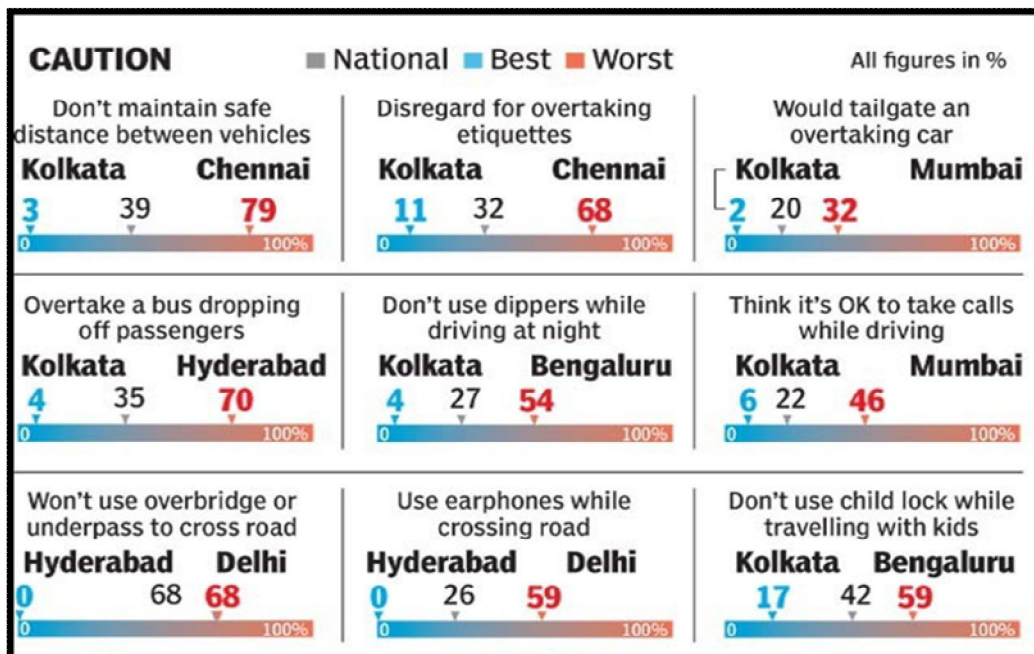


Figure1: shows that overall 45% people won't blow horn near hospital. 48% won't stop for a blind person. 41% won't take an accident victim to the hospital, 40% won't help elderly person cross the road. 21% won't give way to emergency service vehicles.

Figure 2



This data shows that how much percent of people don't maintain safe distance between people, disregard for overtaking etiquettes and those who would tailgate an overtaking car etc. This data clearly shows comparison between Kolkata, Chennai, Hyderabad, Delhi, Mumbai and Bengaluru. There are 68% people in Delhi won't use over bridge or underpass to cross road, the same thing is good in Hyderabad as there is zero percent people. As moving forward to a reason of overtaking a bus dropping off passengers 70% people in Hyderabad are involved in this, where as 54% of Bengaluru people who don't use dippers while driving at night. 46% people in Mumbai think it is ok to take calls while driving. 59% in bengaluru don't use child lock while travelling with kids and 59% of Delhi citizens use earphones while crossing the road.

COMPLIANCE

■ National ■ Best ■ Worst



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GLOBAL TRENDS –PERSEPECTIVES OF GLOBAL EDUCATION

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ABSTRACT

The role of global educational technologies in improving educational practices and outcomes worldwide has been accepted everywhere. With few exceptions, the state of global education has changed as expected as a result of tools such as computers and the Internet. To a considerable degree, this is due to the minor role worldwide educational technology research plays in transforming the use of technological tools in the classroom. This article presents an analysis of global technology as a process and as a value-laden system, both of which have substantial consequences to our approach to research. Through more democratic research practices and recognizing technology as a system beyond its tools, researchers can increase their impact on educational practice.

Keywords: Educational technology, global education, global perspectives, information, worldwide trends

INTRODUCTION

With the world, having become a global village demand for a whole new level of global learning has emerged.

Education has long been seen as a crucial tool for global development. The 2014 Global education Trends Report highlighted the ways in which international education has developed into a means to achieve a range of broader goals, ranging from study abroad to improve students' work readiness, the strategic development of international collaborations to drive up national university research rankings, to using transnational education to build regional identity. These changes are expanding the nature of tertiary education at all levels to include personal skill development, new ways of thinking, and practical job preparation in addition to subject-specific global knowledge and skills.

"Global education involves (1) the cultivation of cross-cultural understanding, which includes development of the skill of "perspective-taking," that is, being able to see life from someone else's point of view (2) the study of problems and issues which cut across national boundaries and the interconnectedness of cultural, environmental, economic, political, and technological systems.

OBJECTIVES

1. To know the impact of global trends on global education systems and educators.
2. To know the implications of these trends if any.
3. To check out the feasibility of global learning systems, global technology and in formatives.
4. To analyze the student participation across the globe and to seek improvements in making world a global village.
5. To open new vistas for future research.

REVIEW OF LITERATURE

Merryfield (1997) sets out methods for pedagogy for global perspectives that include exploration of self-knowledge, cross-cultural experiences and skills, perspective consciousness, values analysis, and authentic learning. Given the wide range and capacities for educating large numbers of new teachers in many countries, infusing global perspectives into otherwise technically oriented training programs is often poorly managed. (**Tye & Tye, 1992**) The literature generally suggests that the best way to infuse global perspectives into teacher education programs is by modeling pedagogy through the use of not just readings and lectures, but role plays, case studies, and collaborative investigation of useful resources among colleagues. International educational endeavors have long been employed as tools for making the most of international opportunities and addressing international challenges (**De Wit, 2002**). The need for education that supports successful engagement in a globally interconnected world (**Biddle, 2002**). The glacial pace of educational change seems to have hampered any truly comprehensive efforts to reform education to meet the challenges of globalization, especially at the primary and secondary school levels (**Carnoy & Rhoten, 2002**). This reality is unfortunate for many reasons, namely because "globalization has heightened the economic importance of knowledge" (**Bloom, 2006**).

Emerging global education trends

Global educational trends have emerged during the times, we have selected 6 major trends that can reflect the global perceptive of global education -

Global education trend 1 Technology use and integration-Technology will enhance skills and learning of all kinds. Technology if used on local as well as global level can sum up as "the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and global resources".

Global education trend 2 Global Mobility-A platform to share interests, knowledge and ideas can be created with greater mobility to global path. World is now a smaller place.

Global education trend 3 Global creativity-Knowledge will be created and co created, not only imparted by teachers. Scientific learning systems can be used

Global education trend 4 Borderless education-Global education is free of geographical boundaries. Global creativity, global approaches have in fact taken place of geographical boundaries. According to the CVCP (2000), borderless education refers to the blurring of conceptual, disciplinary and geographic borders traditionally inherent to higher education. Borderless education incorporates online, e-learning, offshore campuses and distance learning.

Global education trend 5 Expansion of mobile technology-The world is one, and it's a smaller place now, mobile technology is trending globally making education smarter,easier and nearer.

Global education trend 6 E-learning context- Research has shown that E-Learning proves to be an excellent way to achieve quality results in a short time frame. Online-delivered learning, within a context of continuous education, is considered strategic, because instant information can be shared with it anywhere anytime.

The global context

Globally education has taken a great and drastic leap towards global learning, as new innovative learning methods have emerged .Global education has adopted learning systems from around the world which has provided it global uniqueness. Each system adopted is creative, informative and somehow easier to absorb. This system of global education gives us a unique combination of many education systems.

Students as content creators and critical consumers

No education system is completed without prospective students.Globally it is more difficult to retain students i.e. customers if no innovative or systematic systems are involved.Customers can provide insight to the learning concepts. Global education will expose them towards new boundryless education and information systems. They can be termed as evaluators as well content creators with fresh knowledge and information.

Learning for teachers “Teachers delight”

Global education will make “Teacher Delight” a much needed practice and area of focus. Teachers globally will feel a sense of being informed with Global context globally or locally. Teacher leadership will continue to gain traction and communities will dedicate resources to highlighting and valuing educators as heroes. Teachers will be empowered to share perspectives and opinions in design thinking-style faculty meetings.

Education for all-Everybody deserves education

Personalization is a buzzword in education that encompasses everything from enabling students to advance at their own pace to choosing when and where they learn. Personalization emphasizes student-centered, active learning. “Personalized learning is, and will continue to be, learner-driven where learners control their learning and become not just consumers of content but active creators of content, building knowledge through collaboration and connectivity”.

Collabrative learning (Peer learning)

Collaborative learning (peer learning) needs to continue to be an important aspect of all these newer learning methods.

Global Education-Global Coverage

Let us have a look at universities on global front imparting global education systems

A new approach is being taken by developing *international campuses in the USA*, with partner universities themselves providing the majority of the start-up costs and ongoing funding, rather than receiving governmental support.

The University of California at Berkeley is to break the mould of 'global hubs' by hosting a new global campus in California at Richmond Bay, rather than overseas. One of the driving factors behind the decision to host the campus in California rather than overseas is the issue of academic freedom for students.

Massive Open Online Courses (MOOCs) have become one of the most high profile aspects of the use of Global technology in teaching in recent years, with 142 universities providing free courses open to all participants globally. Initially a development of the movement to develop open education resources and widen access to education, online courses are nothing new, with the *UK's Open University* offering a number of free online courses to students worldwide since 2006.

India's Institutes of Technology (IIT) using video and web-based teaching since 2003.

Flipped classrooms, such as those at *Cornell, Illinois and Stanford universities*, provide a way to invert the traditional pattern of information and concept acquisition in class and problem solving at home, with faculty posting their class lectures online for students to view before using class time for application, problem solving and assessment. Flipped teaching aims to cultivate deeper thinking and more active learning for students, with early assessments of productivity.

Digitization of manuscripts and rare books Worldwide, and digital curation of WebPages and other ephemera has been a mainstream practice for libraries for some years, but recent developments in global technology have led to a huge increase in mass digitization as a way to expand access to books and manuscripts for readers all over the world. **The British Library**, for example, has digitized many of its manuscript collections over the years, The Library is now working in partnership with technology companies and funding bodies to develop much larger projects, putting the cultural heritage of the UK online for anyone to access, anywhere in the world and for free.

Developing the quality of its higher education and research is a priority for the *Brazilian government*, which is currently working to transform Brazil into an international knowledge economy.

RESEARCH METHODOLOGY

The research method adopted for the study includes collection of both primary and secondary data. In order to collect the data a structured questionnaire was formed. Questionnaire were distributed amongst the sample of 500 respondents of all age groups, includes educators and students. Out of 500, 308 questionnaires were found fit for the further study, leading to a return rate of 61 percent.

The research was conducted to study the impact of global trends worldwide and how it helps in improving education systems worldwide.

We have taken into consideration 6 major global education trends and with the help of factor analysis factors and rankings has been given to various trends.

FINDINGS

Expansion of mobile technology has emerged as the fastest and most adoptive global trend followed by Indian students and educators, 71% voted in favour of mobile technology as fastest growing global education trend.

Technological use and integration has been adopted as second most useful global education trend with 69%, educators and students in favor of it.

Global creativity has emerged as the third most adoptive global trend with 65% students and educators feels that creating and co-creating adapting measures help in attaining global knowledge prospects.

E-learning process and boundryless education trends were ranked 4 and 5 respectively

OTHER FINDINGS

Good teacher training and participatory methodologies are key to successful learning and critical thinking.

Education needs to expand beyond the school/College walls and throughout life with an emphasis on relevant work skills. Two-thirds of all adults lack financial literacy; 37 per cent of adults in EU countries attended adult education in 2011. Only 6 per cent of adults in the poorest countries have ever attended literacy programmes.

The appeal of education hub is growing at a fasterpace, good for global education trends.

Worldwide education has been accepted as a tool to achieve economic success and development.

Many other universities encourage research students to undertake international experiences and research placements, with several British universities establishing professional skills summer schools for their research students.

CONCLUSION

Educators at global as well as local level needs to be aware of the advanced skills their students will need to flourish in more knowledge-intensive labour markets, without neglecting the development of other important competencies. These include 21st century skills such as global languages, advanced digital skills, and social and emotional intelligence.

The most important step is to have a systemic global vision. Education can and should be prepared to adjust and grow along with global environments.

Reorganization should be made to know how globalization is changing the nature of schooling and universities, the growing interconnection between knowledge and power, and the cases in which education has become either a silent partner or a conscious opponent. Second, there should be examination of formal education, nonformal education and informal education, as key venues in which to provide understanding about the various positive and negative consequences of globalization.

In this manner, the positive promise of global education—“ Ensuring a better world for all stands a good chance of being realized”

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FASTAG - A SOURCE OF SOCIAL INNOVATIONS & DIGITAL TRANSFORMATION [A CASE OF TOLL ROAD SYSTEM IN INDIA]**Dr. Nidhi Agrawal**

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ABSTRACT

Keeping in mind innovative ideas for the removal of various glitches pertaining to the road transportation system in India especially toll road system, the Government of India launched FASTag as a tool for social innovation and digital transformation that appears to address most of the concerns related to the car drivers or travelers passing through the toll plazas on national and state highways. Payments made through FASTag at toll plazas save fuel, time involved in making payments, ensures hassle free payment system, quick SMS alerts for transactions, easy and convenient online recharge, avoidance of cash, facility of Web portal for customers to access their statements by logging on the FASTag customer portal etc. This innovation is good not only for an individual but also for the whole masses who frequently use toll roads for travelling from one place to another. Despite of successful implementation of FASTag, it has some challenges still to be taken care of regarding high charge for multi-axle vehicles, technical issues in case of RFID technology used in FASTag, possibility of losing the tag, tag wrongly charged due to technical glitches, and malfunction or damage of FASTag etc.

Keywords: Digital Transformation, FASTag, NHAI, RFID, Toll Plaza

As an integral part of infrastructure, in today's world the transportation is the backbone of an economy. Road transport is vital to India's economy enabling the country's transportation sector to contribute 4.7 percent towards India's GDP as in 2009-2010. The Government of India considers road network as critical to the country's development, social integration and security needs. India is a country with the second largest road network in the world. Out of the total stretch of 5.4 million km of road network, almost 97,991 km is covered by national highways. The road network in India is administered by various Government authorities as a part of federal form of the Government. The total road length in India increased more than 11 times during the 60 years between 1951 and 2011. (Table 1)

Table 1 – Road Lengths in India from 1951 to 2011

Particulars	As on 31 st March 1951 (In Lakh Kms.)	As on 31 st March 2011 (In Lakh Kms.)
Total Road Length	3.99	46.90
Length of Surfaced Roads	1.57 (39.39%)	25.25 (53.83%)

Source: Basic Road Statistics of India 2016-17, Ministry of Road Transport & Highways Transport Research Wing, GoI

The breakup of total road network of India in different categories as on March 31, 2017 is given in Table 2.

Table 2 – India's Road Network as on March 31, 2017

Category of Roads	Length in Kms.	% Share of Total Roads
National Highways	1,14,158	1.94
State Highways	1,75,036	2.97
District Roads	5,86,180	9.94
Rural Roads (including JRY Roads)	41,66,916	70.65
Urban Roads	5,26,483	8.93
Project Roads	3,28,897	5.58
Total	58,97,671	100.00

Source: Basic Road Statistics of India 2016-17, Ministry of Road Transport & Highways Transport Research Wing, GoI

In India National Highways have been categorized lane wise such as less than two lane, two lane etc. Table 3 shows their respective length as per the data provided by Ministry of Road Transport & Highways Transport Research Wing. Data indicate that year on year growth of less than two lane is 39.61 per cent that is the maximum as compared to other categories.

Table 3 – Lane wise Break-up of National Highways 2015-16 and 2016-17 (In km)

Lane-wise Category of NHs	As on March 31, 2016	As on March 31, 2017	Year on Year Growth (%)
Less Than Two Lane	20,703 (20.49)	28,901 (25.32)	39.61
Two Lane	55,603 (55.05)	58,910 (51.60)	5.95
Four Lane & Above	24,705 (24.46)	26,347 (23.08)	6.65
Total	1,01,011 (100.00)	1,14,158 (100.00)	13.02

Note: Figures in parentheses indicate percentage share in total length of NH.

Source: Basic Road Statistics of India 2016-17, Ministry of Road Transport & Highways Transport Research Wing, GoI

Lengths of total and surfaced roads in India excluding JRY roads, top seven states and bottom five states are mentioned in Table 4 showing that Maharashtra has the longest road network in India and Lakshadweep has the shortest road network in India.

Table 4 – Total and Surfaced Roads in Indian States (Excluding JRY Roads as on March 31, 2017) (In km.)

State	Total	Surfaced
Maharashtra	623972	495362
Uttar Pradesh	428055	383488
Karnataka	361041	218467
Madhya Pradesh	342654	267934
Assam	337777	63947
West Bengal	322067	136155
Odissa	303669	268837
Chandigarh	2821	2821
Andaman & Nicobar Islands	1617	1508
Dadra & Nagar Haveli	1187	1187
Daman & Diu	426	426
Lakshadweep	212	212
India*	4997671	3546579

* Excluding JRY Roads

Source: Basic Road Statistics of India 2016-17, Ministry of Road Transport & Highways Transport Research Wing, GoI

Details of Lane wise length of NHs have been given below indicating that two lane roads have maximum length followed by four lane and above and less than two. In India Maharashtra is the only state where not only total road length is the longest but length of less than two lane and four lane and above is also longest. Two lane is the longest only in Uttar Pradesh. There is no lane in Lakshadweep. Chandigarh, Delhi and Puducherry do not have less than two lane but Daman & Diu is having shortest less than two lane that is 22 km. Chandigarh, Delhi, Dadra & Nagar Haveli and Daman & Diu are not having two lane. Only Andaman & Nicobar Islands are having the shortest two lane that is 10 km. Dadra & Nagar Haveli and Daman & Diu do not have four lane and above. While Andaman & Nicobar Islands are having the shortest four lane and above (1 km.) (Table 5)

Table 5 – Lane wise Length of National Highways in Indian States as on March 31, 2017 (In km.)

State	Total Length	Less Than Two Lane	Two Lane	Four Lane & Above #
Maharashtra	15437	8260	3647	3530
Uttar Pradesh	8712	706	5480	2526
Karnataka	6762	1370	3486	1906
Madhya Pradesh	7854	3050	3403	1401
Assam	3844	608	2603	633

West Bengal	2956	321	1588	1047
Haryana	2623	18	1432	1173
Odissa	4838	40	3959	839
Chandigarh	15	0	0	15
Delhi	69	0	0	69
Puducherry	64	0	40	24
Andaman & Nicobar Islands	330	319	10	1
Dadra & Nagar Haveli	31	31	0	0
Daman & Diu	22	22	0	0
Lakshadweep	0	-	-	-
India	114158	28901	58910	26347

Sikkim, Tripura, Mizoram & Nagaland are also not having Four Lane and above.

Note: All NHs are surfaced.

Source: Basic Road Statistics of India 2016-17, Ministry of Road Transport & Highways Transport Research Wing, GoI

Every day, millions of people use their personal vehicles instead of public transport systems and due to this, there is increase in traffic in developing countries like India. India's road network carries over 65 percent of its freight and about 85 percent of passenger traffic. Increasing number of vehicles on the roads, result into many problems such as congestion, air pollution and fuel wastage etc.

Road Network Development by Private Plyers in India

The National Highways Authority of India (NHAI), a nodal agency of the Ministry of Road Transport and Highways is responsible for the maintenance and the expansion of the highways. In 1988, the National Highways Authority of India was established by an Act of Parliament, and came into existence on 15 June 1989. The Act empowered this entity to develop, maintain and manage India's road network through National Highways. The actual expenses incurred by the Ministry of Road Transport and Highways in the development and maintenance of National Highways are given in Table 6 showing a sudden high rise in expenses from 2014-15 to 2015-16 and in the year 2017-18 the expenses are the highest.

Table 6– Actual Expenditure incurred in the Development and Maintenance of National Highways by MoRTH in the Last Six Years

Year	Total (Rs. Crore)
2012-13	41,998.67
2013-14	52,900.51
2014-15	49,527.26
2015-16	96,139.14
2016-17	92,304.01
2017-18	119,352.38

Source: Planning Division, MoRTH

Since 1995, the authority has privatized road network development in India. The private sector emerged as a key player in the development of road infrastructure in India. Increased industrial activities, along with increasing number of vehicles have supported the growth in the road transport infrastructure projects. The NHAI has the first toll road in the country – an 80 km long stretch from Jaipur to Kotputli in Rajasthan on which it started toll since March, 1998. In 1999, the first initiative for the development of modern road system was taken by the Government of India (GoI) under which GoI formulated a seven-phase programme titled National Highway Development Project (NHDP) vested with National Highways Authority of India (NHAI) for the development of National Highways in the country (MoRTH). By the year 2015, a state wise length of over 97,135 kilometers of National Highways, of which 22,757 kilometers were four lane or six lane modern highways, was constructed. (Agarwal, 2013) The Government's policy, at both Central and State levels, to increase the private sector participation has proved to be a boon for the infrastructure industry with a large number of private players entering the business through the public-private partnership (PPP) model. As on March 2015, projects worth USD 32.69 billion had been awarded through PPP model, with as many as 165 PPP projects under progress (NHAI Annual Report, 2014-15). Table 7 represents a picture of investment expenses made by public and private sectors in Highways from 2012-13 to 2016-17. The share of investment made by private sector is continuously falling from the year 2012-13 while the investment share of public sector is

continuously increasing till 2016-17. It concludes that mostly investment expenses on Highways are borne by the Government itself.

Table 7 – Investment in Highways in Both Public and Private Sector from 2012-13 to 2017-18 (In Crores)

Year	Private Sector Investment	Public Sector Investment (Including Plan, Non-Plan and IEPR)	Total
2012-13	20304.66 (48.35)	21693.74 (51.65)	41998.4
2013-14	22515.05 (42.56)	30385.64 (57.44)	52900.69
2014-15	19232.44 (38.83)	30295.26 (61.17)	49527.7
2015-16	29770.00 (30.97)	66369.14 (69.03)	96139.14
2016-17	13028.64 (17.37)	76275.26 (82.63)	92303.9
Compound Annual Growth Rate (2012-13/ 2016-17)			21.8

Note: Figures given in parenthesis indicates the percentage share in total.

Source: Basic Road Statistics of India 2016-17, Ministry of Road Transport & Highways Transport Research Wing, GoI

With the Government permitting 100 percent Foreign Direct Investment (FDI) in the road sector, several foreign companies formed partnerships with Indian players to capitalize on the sector's growth. Many infrastructure and construction companies have been actively involved in the toll road building activity for a long time. (Table 8)

Table 8 - Major Infrastructure and Construction Companies in Toll Road Building

S. No.	Private Company
1	IRB
2	IL & FS
3	JAL
4	ITNL
5	Reliance Infra etc.

Source: CRISIL Research, 2016

Toll Tax Revenue Collection and Government Spending

There are certain toll roads (Parmar *et. al.*, 2018) where we have to pay toll tax to travel on the road. In India tolling operations were made into an extension of the Finance Department with a presumption that tolling is a simple activity of collecting the toll fee from road users and nothing more. This conjecture was based on the tolling experiences of developed countries where resistance to pay toll is very low and toll collections are duly supported by statutory regulations. (Wadhwan, 2001) The practice of tolling roads has slowly but steadily gained acceptance. This has reflected in the marked increase in toll collection at both the national and state levels and it has prompted the decision to implement more projects. Toll revenues from national highways have increased consistently. Toll collections for 2006-07 are estimated at Rs 10.3 billion, an increase of about 30 percent over 2005-06. Of this, 80 percent of the collections are from public-funded projects and the remaining 20 percent from private projects. Prior to this, collections witnessed growth rates of 76 percent in 2005-06 and 25 percent in 2004-05. The decline in 2006 and 2007 has been attributed to the delay in bringing eight new stretches under the toll net. The agency continued to collect INR 1415 crores and INR 1,702 crores in the financial years 2007-08 and 2008-09 respectively. In the past two financial years i.e., 2013-14 and 2014-15 the yearly data shows the toll collection had been far higher than the projected revenues (Phadke, 2015). Experts suggested that the tolling potential of National Highways can be further enhanced (Phadnis, 2015).

The Government spends the toll tax revenue collected by means of toll roads usage, on the maintenance of these roads so that the drivers and the riders can travel comfortably. The benefits expected by toll road users in exchange for the toll fee paid by them include road user services advantageous to the vehicle drivers or owners through road safety, comfort, and convenience (Khanna & Justo, 1993.), assurance regarding certain level of quality services, reduced waiting time to avoid delays of 5 to 15 minutes in peak hours and to prevent high levels of tailpipe emissions and unnecessary air pollution generated by frequent stop-and-start traffic system (Das, 2012), user cost savings, accelerated economic development (Chakraborty & Chaudhuri, 1996) and travel time saving due to fast ride (Luis, 2013).

Conventional Toll Plazas in India

All highway toll plazas are manually operated, where an operator collects cash from the driver and provides a receipt. This procedure can be slow, which often results in traffic jams at the toll plazas on busy highways. The conventional toll plazas are having some difficulties like time consuming, more waiting time, manual payment time taking, unnecessary fuel wastage due to long waiting time, air pollution and risk of escaping the toll plaza without paying toll tax etc. According to a study, on an average each vehicle that passes through the toll plaza has to wait five hours, keeping their engines turned on. This figure is staggering, as if on an average we take 200 vehicles pass through the toll plaza each day, then yearly 72000 vehicles pass through the toll plaza, so each year 72000 vehicles waits for five hours keeping their engines on and thereby aiding pollution and wasting fuel and money (Nayan *et. al.*, 2018, pp 72-74).

While implementing the conventional toll plaza system the implementing agency has to face a number of problems such as limited number of toll booths, slow toll collection process at the toll booths resulting in a minimum of 10 minutes average waiting time per vehicle, fuel wastage due to long waiting time, air pollution, verbal arguments and physical fights among impatient travelers and the toll attendants and toll plaza accidents due to the sudden lane changing by drivers for faster clearance etc.. According to 2016 study by Indian Institute of Management, Calcutta, the country suffers losses of nearly Rs. 40,000 crore per year due to delays in transportation. The study also highlighted that the delays led to consumption of fuel worth Rs. 90,000 crore. (Amrin, 2019) These limitations in the conventional toll collection systems called for an immediate revamp in the Indian toll collection machinery. The manual system consists of a number of drawbacks such as huge cost of collecting cash from hundreds of fare collection locations around a city, security requires to take care of whole system and lot of manpower is expended counting coins and reconciling trips with the amount collected (Bhavana *et. al.*, pp 1303). To remove these drawbacks from the conventional system in India NPCI has developed the National Electronic Toll Collection (NETC) program which facilitates automatic toll collection through moving vehicle which is attached with a Radio Frequency Identification Technology (RFID) Tag known as FASTag.

Although, there are many lanes on toll booths to keep traffic moving as quickly as possible. On some lanes, one can pay with change or cash, while there are also other lanes called express lanes which are for the users who have an electronic pass attached to their vehicle. Special detectors senses vehicle's electronic pass and deducts amount directly from an account, such as a credit card or a bank account, whichever is connected to the electronic pass. Generally, these electronic passes are used by the commuters to travel the toll roads daily in order to avoid delay at toll roads to pay cash. The Electronic Toll Collection (ETC) system is currently used throughout the world. Some countries that have the ETC system are Canada, Poland, Japan, Italy and Singapore, among many others. Some Electronic Toll Collection Systems in India, owned by National Highways Authority of India operated by different toll management systems are NH-6 toll road at Kharagpur operated by Toll Tax Toll Collection System, Delhi - Gurgaon Expressway at Delhi operated by Metro Electronic Toll Collection Systems, Lucknow - Sitapur Expressway at Uttar Pradesh operated by Rajdeep Toll Management System, Madurai - Rameshwaram Express way and Cochin in Tamil Nadu operated by Technovaa Toll Management System, GMR Ambala - Chandigarh Expressway in Haryana & Punjab operated by Rajdeep Toll Management System etc. (Nayan *et. al.* 2018, 72-74)

FASTag as a Source of Social Innovation & Digital Transformation

Social innovations are new social practices that aim to meet social needs in a better way than the existing solutions. Social innovation includes the social processes of innovation, such as open source methods and techniques and also the innovations which have a social purpose. Social innovation is the process of developing and deploying effective solutions to challenging and often systemic social and environmental issues in support of social progress. Transformative social innovation not only introduces new approaches to apparently obstinate problems, but is successful in changing the social institutions that created the problem in the first place. These ideas are created with the goal of extending and strengthening civil society.

Digital Transformation – A Conceptual Framework

Any business can be a digital business, where the word 'digital' is an indication of speed and adaptability, not technology. A digital business requires informed leaders who can create a strategy using evidence, lead teams to work in different ways, educate themselves and their peers on how to approach challenges using data driven decision making and create constant cycles of agile and focused innovation. Digital transformation is a deliberate and ongoing digital evolution of a company, business model, idea process, or methodology, both strategically and tactically (Mazzone, 2014). It describes the fundamental transformation of the entire business world through the establishment of new technologies based on the internet with a fundamental impact on

society as a whole (PwC (2013) and can be seen as a digital landscape in order to meet the digital expectations of customers, employees and partners. (Berghaus & Back, 2016).

Digital transformation requires skills that involve the extraction and exchange of data as well as the analysis and conversion of that data into actionable information. This information should be used to calculate and evaluate options, in order to enable decisions and to initiate activities. (Schallmo *et. al.*, 2017). Nowadays, there is a focus on mobile devices and on creating value for customers by leveraging the kinds of personalised customer data that mobile technologies can generate on a massive scale. (Hess *et. al.*, 2016). As a result, organizations need to quickly adapt to the digital era in order to gain competitive advantages and offer added-value to their customers, based on a digital transformation strategy. Digital transformation needs mature and superb IT governance which helps to conduct business processes successfully.

Keeping in mind innovative ideas and digital transformation as the need of the hour the Government launched FASTag as a source of social innovation and digital transformation which enables the customers to make toll payments directly from the account linked to FASTag. National Highways Authority of India by introducing "FASTag" provides for seamless movement of FASTag affixed vehicles at toll plazas. Such type of highway tag brands are in operation in many developed countries of the west and are known by different names like SunPass in the US, e-Pass in Australia, Salik in Dubai etc. (Amrin, 2019)

FASTag is a simple and a reloadable tag that enables automatic deduction of toll charges when the drivers pass through the toll plaza without stopping for the cash transaction. It is affixed on the windscreen of the vehicle and presently operational at 555 toll plazas across National Highways (<http://tis.nhai.gov.in>). It was initially set up as a pilot project on the stretch of the Golden Quadrilateral between Ahmedabad and Mumbai in 2014. The system was implemented on the Delhi-Mumbai arm of the Quadrilateral on 4 November 2014 (Joshi, 2017). By April 2015, FASTag was rolled out to 247 toll plazas on national highways across India, representing 70% of all toll plazas in the country at the time. As on 23 November 2016, 347 fee plazas out of 366 on national highways across the country accepted FASTag payments. It is convenient to use FASTag as the customer may recharge his tag account online through Credit Card/Debit Card/ or net banking. It is compulsory that every individual has his specific bank account. This will be done by image processing, which will capture the number plate of vehicle. (Nayan *et. al.*, 2018, 72-74)

Electronic Toll System/ RFID

Electronic Toll Collection is a system enabling collection of toll payments electronically allowing for near-nonstop toll collection and traffic monitoring. Under the system, a RFID chip-embedded sticker is put on the vehicles allowing deduction of money at toll plazas automatically. RFID is one technique for Automatic Identification and Data Capture (AIDC).

Today, on one side the importance for secured access is growing in several fields and on the other side with technology advancements the RFID cards and readers are becoming low cost. Both these aspects are the primary reasons for rapidly growing RFID based authentication system. (Nayan *et. al.*, 2018, pp 72-74)

Every vehicle will have a tag (RFID) with a unique tag identification number. This identification number will be associated with the complete information such as vehicle number, owner, etc. and also most importantly with a cost value. This value will be deducted automatically every time the vehicle passes the collection unit. For the vehicles that do not have the tag, their identification will be sent along with the description of the vehicle to the control center identifying an illegal entry, thereby action can be taken. Then it can be done that, the particular vehicle not having the tag will be billed at their residence or via mail. Reducing these losses is the ample reason for which the need for ATCS is there. The loss of time puts in a lot of frustration in everyone having to wait for their turn to pay the tax. Most of us want a speedy transport without any obstruction. When it is a known fact that oil is depleting day by day, just standing, waiting and wasting oil does not make any sense. Loss of fuel is most at reduced speed. So there is a need for continuous motion. When a number of vehicles have to wait nobody bothers to switch off the engines while waiting and so fuel emission is most at this level. This is a major contributor to the already increasing pollution. So there is need for ATCS which will cut down on every loss and make it possible to achieve a speedy and non-obstructed transport. (Prasath & Dhanabal, 2015, pp 498)

Issuer Agency will electronically deduct the applicable toll fee from the customer's account linked to the FASTag. This deduction will be done post the toll transaction. The customer needs to adequately fund the account which is linked to FASTag. Customer will receive an SMS alert on registered phone number each time an amount is deducted from the FASTag account. (Amrin, 2019, pp 26)

FASTag saves fuel and time, ensures hassle free payment system, quick SMS alerts for transactions, easy and convenient online recharge, avoidance of cash and facility of Web portal for customers to access their statements by logging on the FASTag customer portal. (Nayan *et. al.*, 2018, pp 72-74) RFID tag cannot be cloned, so no one can be cheated, reduces wastage of money, consumption of oil, air pollution to a large extent and use of paper, provides speedy transport and better highway management, less congestion on the roads, comparatively less maintenance cost and **incentive/ discount on toll payments using FASTag**. But it does not work properly in cloudy & unconditional climate. So, to overcome from this drawback Near Field Communication (NFC), a communication protocol that works within 10 cm area (near field) for data transfer has been introduced. The main objective of the system is to present an efficient, secure & cost effective toll payment system using NFC technique with centralized web server application. RFID System consumes more power. It is one way communication. Data transmission speed is comparatively less and privacy concern arises in RFID. (Bhavana *et. al.* pp 1302-1304) While utilizing this latest technology on toll plazas one may have to face a number of challenges. It has been observed that FASTag charge is high for multi-axle vehicles. A truck requires more than Rs. 2,000 for 10 trips while a car can make 10 trips at a much lower value. Moreover, at times, the RFID scanner goes through technical issues, leaving a FASTag user in a fix to pay the toll amount in cash. Since the FASTag comes in a tag form, it can easily be stolen or lost. At times, due to technical glitches, a FASTag user may be wrongly charged. FASTag may face malfunction or damage. FASTag faces the issue of discipline at all most every toll plaza. Vehicles without the FASTags enter the designated lane while the ones with FASTags wait for their turn, behind these vehicles. National Highways Authority of India (NHAI) does not involve itself in FASTag payments, since, each bank is using its own software it has given rise to lot of payment related issues. (Amrin, 2019, pp 28-29)

Table 9 - Banks providing Services for FASTag Payments

S. No.	Name of the Bank	S. No.	Name of the Bank
1	ICICI Bank	6	HDFC Bank
2	Axis Bank	7	Syndicate Bank
3	IDFC Bank	8	Paytm Payments Bank
4	State Bank of India	9	Karur Vysya Bank
5	Equitas Small Finance Bank	10	Punjab National Bank

Source: <http://www.fastag.org>

REVIEW OF LITERATURE

Any research work needs background information which helps to understand the nature of the issues associated with the study under consideration and its significance in future. An in-depth study of literature about digital transformation strategy has been conducted, the most cited articles focus on understanding the digital transformation definitions, concepts, dimensions, phases, and components. Therefore, they do not propose an integrative framework that provides clear guidelines for building and monitoring digital transformation strategies. A digital transformation is the use of technology to radically improve performance or reach of organizations. (Westerman *et. al.*, 2014) The digital transformation is an important cornerstone for helping organizations improve their business processes in order to create business values and competitiveness. This transformation will be effective if it is established within the framework of a digital strategy. (Korachi & Bounabat, 2019a) Several works have studied the digital transformation concepts and concerns, they have studied: digital strategy definitions, characteristics of failed and successful digital strategies (Christine & Megan, 2018), standard for IT governance (Pena *et. al.*, 2013), standard for IT service management, maturity models (Ayyagari & Atoum, 2019), the stages of the digital transformation, the challenges of digital transformation, areas of focus for the digital transformation, IT opportunities, digital transformation priorities (Solis, 2019), digital strategy in a specific domain (WHO & ITU), and digital strategies for building smart cities (Korachi & Bounabat, 2019b). Researchers tried to find out a process that supports business goals and business strategy through the development of Information Systems. (Kamariotou & Kitsios, 2017) As an example for this purpose an Automated Toll Collection Systems has been introduced recently named as FASTag which employs RFID technology. (Joshi, 2017) Nowadays for paying the tax at tollgates there is a heavy rush/ traffic. In order to reduce the traffic congestion near Toll Plazas and to save the time, payment can be made in advance using an android app along with RFID tag. An android app is developed based on i-Beacon Technology which will communicate to the RFID readers at the toll gates for verification of payment. On selecting the route of travel the user can pay through the android app. If the payment has been done already toll gate opens, else the customer has to pay the toll tax manually. (Nandhini & Premalatha, 2019) India is the second most populated country in the world. Due to economic growth and rapid urbanization, there is rapid growth in population especially in metropolitan cities like Bangalore. This population growth causes lot of traffic congestion in urban

roads and sometimes, leads to accidents. This problems can be solved by effective use of intelligent transport systems. Electronic toll collection at urban Toll Plaza, needs to be implemented for avoiding congestions at peak hours. Also, separate bus lanes need to be constructed in congested areas of the city equipped with electronic fare collection, passenger information systems etc. (Rakesh *et. al.*, 2018)

OBJECTIVES OF THE STUDY

The main objectives set forth for the present study are:

1. To discuss various issues and challenges related to the conventional toll plaza system.
2. To identify the factors responsible for the introduction and challenges involved in the implementation of FASTag.
3. To give suggestions for further improvements.

RESEARCH METHODOLOGY

The present research study is a descriptive in nature based on secondary data compiled from secondary sources like websites, research papers, articles, reports, books, magazines & Newspapers etc. After a deep study of the available literature, suggestions have been given for further improvement.

CONCLUSION

Although RFID based FASTag is seen as an advantageous mode of toll collection system in India offering numerous socio-economic and environmental benefits to the user and the collector, until its drawbacks or the challenges are not uprooted to the base. Also, plans are afoot by the Petroleum Ministry and private oil marketing companies that FASTags could be utilized by consumers for buying petrol at petrol pumps and even for parking facilities. (Amrin, 2019, pp 29) All highway toll plazas are manually operated, where an operator collects cash from the driver and provides a receipt. Since this procedure can be slow, we often encounter traffic jams at the toll plazas on busy highways. Automatic process of toll collection will save time, effort, and man power. FASTag toll collection system speeds up the toll collection process and hence reduces the traffic jams at the toll plaza. (Joshi, 2017, pp 71) The RFID based smart toll system is the development of sustainable technology that reduces traffic congestion, regulates pollution and provides a stable and reliable tracking technology. It is an efficient method of collecting, managing, disseminating, storing and analyzing the information, and consequently offers high security. This reduces the cost and complexity of implementation. More number of customers can be served quickly. (Nandhini & Premalatha, 2019, pp 1222) It helps in smooth and efficient payment at toll plaza without waiting in long queues. This system is capable of reducing congestion of traffic. After successful payment the message is sent on registered mobile of the user. The whole system is very efficient and reduce the manual work on toll plaza. The amount of toll can be calculated very easily without any help of manual work. (Sawarkar *et. al.*, 2017) This system makes the work easier at both sides and to pay the amount in very efficient way. Wastage of time and fuel because of the large traffic jams has been solved by implementing this which is user friendly to use and make payment. (Fathima *et. al.*, 2018)

SUGGESTIONS

After a deep insight into the facts related to the scheme the following suggestions have been recommended:

1. There should be a separate lane at every toll plaza as very important persons cause a delay in the journey of FASTag users. (Amrin 2019, pp 28-29)
2. An immediate rectification is required for many payment related issues. (Amrin 2019, pp 28-29)
3. Concessional package should be offered for the users who have multiple vehicles crossing toll plazas very frequently.
4. The Government must ensure easy availability of FASTags through opening counters in banks so that less time consumed in verification of the account holder.
5. To educate the people on using the FASTag system.
6. Same FASTag to be used in case of the person having multiple vehicles.
7. Charges must be reduced in case of multi-axle vehicles.

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GREEN FINANCE: A SUSTAINABLE FINANCIAL SYSTEM FOR INDIA

¹Dr Puneet Kumar, ²Dr Surendra Tiwari and ²Dr Nitin Saxena**ABSTRACT**

Green finance may be a strategy for monetary sector and broader property development that's relevant round the world. However the context differs significantly for various countries. Developing countries, notably those with underdeveloped monetary systems, face specific challenges in financing national development priorities significantly, true in case of India. Financial systems in our country tend to be characterized by a banking sector, and have large areas of the economy that remain un-served by the formal financial sector.

INTRODUCTION

The relevance of green finance is constantly growing constantly over the past few years, and has now emerged as a key area both for the new policy dynamic promoting sustainable development and, increasingly, financial market development.

As Climate Change has a drastic cause and effect relationship with agriculture and rural development activities, it has been recognized that activities like forestry, agriculture and other land use activities, viz., dairy, soil conservation, energy use practices, use of renewable energy, etc. have tremendous potential for reducing emission of green house gases. Climate change and agriculture are interrelated and climate change may have significant effects on crop production and food availability. It is speculated that by 2050, there would not be any glacier in the world. The melting of ice would result in frequent floods and significant rise in sea level etc. It is estimated that transitioning to a low-carbon and climate resilient economy and more broadly “greening growth” over the next 20 years will require significant investment and consequently private sources of capital on a much larger scale than previously - particularly given the current state of government finances. Government policies are therefore needed to support the commercialization of new technologies and to correct market failures through carbon. In addition governments and/or multinational agencies can use so-called “Public Financing Mechanisms” to provide cover for risks which are new to pension funds or cannot be covered in existing markets.

CHALLENGES AHEAD OF GREEN FINANCE

The challenge for financial systems is twofold:

- To *mobilize* finance for specific sustainable development priorities and,
- To *mainstream* sustainable development factors across financial decision-making.

Capital needs to be mobilized for *inclusion* of remotely touched groups (e.g. Small and medium enterprises), raising capital for *sustainable infrastructure* (e.g. Energy, housing, transport, urban design) and financing critical areas of *innovation* (e.g. Agriculture, mobility, power).

Sustainability needs to become main stream for financial institutions. This commences with ascertaining Market integrity (e.g. Tax, corruption, human rights) and elongates to integrating environmental and social factors into risk management (e.g. Climate disruption, water stress). Sustainability additionally needs to be incorporated into the responsibilities and reporting of market actors to guide their decision-making.

Momentum is building to align financial systems with the financing desirability of an inclusive, sustainable economy. This is complementary to ‘real economy’ actions such as environmental regulations, reform of perverse subsidies and changes to resource pricing. However, while these are critical, it is increasingly appreciated that changes are needed in the financial system to ascertain that it is both more stable and more connected to the real economy.

What is a 'Financial System'

A financial system is the system that covers financial transactions and the exchange of money between investors, lender and borrowers. A financial system could be defined at an international, regional or organization level. The term “system” in “Financial System” indicates a group of complex and closely linked institutions, agents, procedures, markets, transactions, claims and liabilities within a economy.

BREAKING DOWN 'Financial System'

An associations monetary framework is the arrangement of actualized systems that track the money related exercises of the organization. On a territorial scale, the money related framework is the framework that empowers banks and borrowers to trade reserves. The worldwide money related framework is fundamentally a

more extensive local framework that includes every budgetary foundation, borrowers and loan specialists inside the worldwide economy.

There are various segments making up the money related arrangement of various levels: Within a firm, the budgetary framework includes all parts of accounts. For instance, it would incorporate bookkeeping measures, income and cost calendars, wages and accounting report check. Territorial money related frameworks would incorporate banks and other budgetary establishments, budgetary markets, budgetary administrations. In a worldwide view, monetary frameworks would incorporate the International Monetary Fund, national banks, World Bank and major banks that practice overseas lending.

Financial Market Components

Financial systems are strictly regulated because they directly influence financial markets. The stability of the financial markets plays a crucial role in the monetary protection of consumers. These financial systems are mostly handled by financial institutions which include commercial banks, central banks, public banks and cooperative banks. Cooperative banks and development banks managed by states are also listed under financial institutions that have heavily regulated financial systems.

Money related frameworks are not just obvious in bank monetary organizations. A few foundations have showcase expediting, speculation and hazard pooling administrations. In any case, these foundations are non-bank budgetary establishments that are not directed by a bank control firm or organization. Cases of non-bank money related organizations are organizations that offer shared assets, protection, and budgetary advances. Companies with commodity traders are also considered to be non-bank financial institutions that have financial systems.

Another component of financial systems are financial markets that trade commodities, securities and other items that are traded according to general supply and demand. Financial markets include the primary markets and secondary markets. Primary markets provide avenues for buyers and sellers to buy and sell stocks and bonds. Secondary markets provide a venue for investors and traders to purchase instruments that have been previously bought.

Besides financial institutions and markets, financial systems are also evident in financial instruments. These financial instruments include cash instruments and derivative instruments. Cash instruments include loans, deposits and securities. Derivative instruments are financial instruments that are dependent on an underlying asset's performance.

Financial systems are critical both in enabling large-scale projects and corporate ventures to mobilize capital and transfer risk, but also for small, medium and micro enterprises and households to plan and invest for the longer term.

Sources of Capital

Developing countries face particular challenges in mobilizing green and sustainable finance both in relation to:

1. The need for external capital flows for investment in areas such as energy, waste, transport, water, and agricultural improvements;
2. Underdeveloped financial systems in areas crucial for green investment such as structuring major projects and in providing credit and insurance to enable large and small businesses and households to make investments and manage the risks they face.

In many cases, low GDP and weak fiscal positions make developing countries dependent on international financial flows, particularly for longer-term investments, from international financial institutions (IFIs), Foreign Direct Investment (FDI), long-term commercial debt and aid. Remittances are also an important source of international resources in a number of countries.

Given the importance of international capital flows, and regulations and policies outside of their jurisdiction, developments related to financial policies and regulations in other jurisdictions may therefore be particularly important in enabling or constraining finance.

Financial Systems in developing countries

In general, financial systems in developing countries tend to be relatively smaller, more concentrated and less complex than systems in advanced economies, with banks playing a larger role than capital markets.

Banks provides for long-term finance, particularly for households and small firms, and in developing countries this sector make up 85-90 per cent of total financial assets. Banking in developing countries provide more of

short-term loans (only 12 per cent of bank loans in low and low-middle income countries exceed five years, compared to 33 per cent in high-income economies), more weakly supervised and more concentrated than in developed economies. State-owned banks have declined considerably, but still play a significant role. While calls for large and active state involvement in the financial sector which is aligned to sustainable development goals, it can also lead to political intervention in the allocation of loans resulting in high levels of non-performing assets, raising the cost of capital across the board. In addition to domestic banks, developing countries are also host to foreign banks and, particularly in recent years, those from other developing and emerging economies such as South Africa, Russia, Turkey and Brazil. Emerging market banks have expanded services into low-income countries in their regions. While foreign banks will be regulated locally in line with the terms of their banking licenses, they may also have obligations and organizational practices linked to policies and Institutional investors have tended to play a much smaller role than banks to date, however Demographic changes and the development of second-pillar pension reforms (privately managed savings accounts) have led to a rapid growth of assets under management of institutional investors in emerging and developing economies, from a small base.

Capital markets tend to be small, although many countries have established stock markets. The bond market grew considerably in emerging markets since the Asian financial crisis in 1997; however, it remains highly concentrated in selected larger emerging economies, such as China, India and Malaysia. In other countries, the bond market is often very small, with Access limited to a small range of participants. Turkey, Saudi Arabia, Kazakhstan, India, Russia and Nigeria has experienced the fastest growth in their corporate bond markets while Malaysia and China have the deepest domestic corporate bond markets. Some emerging market economies such as Bermuda, Barbados and the Bahamas are offshore financial centres and have relatively deep and important international corporate bond markets.

Insurance is critical for enabling financial inclusion and business risk taking, incentivizing risk management and facilitating resilience to shocks. Insurance markets are small but growing, with significant demand for insurance including health and life, agricultural, property and vehicle insurance, and catastrophe cover.

However less than 5 per cent of people on low incomes have access to insurance – and rarely to the products they need. Micro-insurance is an area of burgeoning development, through partnerships to provide simple insurance products to low-income groups.¹⁹ In the Philippines, for example, micro-insurance for climate risk is now issued by a wide range of organized community groups – church groups, community and professional associations, clubs, and others – who use the membership to neutralise the risk. This has vastly expanded the pool of the insured, especially among the poor who are most vulnerable to climate-related disasters. While banks, capital markets and institutional investors are at the core of the process of credit creation and capital mobilization, they are also supported by market infrastructures such as credit rating agencies, accountants, lawyers and analysts and by the availability of records documenting economic activities and assets. These underlying market infrastructures are also constrained in many developing countries. A study about the Peruvian economy estimates that five billion people live without adequate records to document their economic activities, their assets and even their existence. In absence of proper documentation bank accounts prevents them from borrowing against the land they own, and from taking out insurance. It greatly weakens their bargaining position compared to those whose property and business activities are legally documented. Informal financial service providers also play an important role.

Drivers and Issues for Green and Inclusive Finance

At the same time, environmental challenges are increasingly viewed through a financial and economic policy perspective. This was highlighted in a meeting in 2015 between finance ministers from 20 low- and middle-income countries susceptible to climate change.

They see rising heat and sea levels, and changes in weather variability as existential challenges to their economies and societies, and convened around the critical need not only to mobilize public and private climate finance but also to develop effective economic and financial policy responses.

Financial inclusion is a key priority for developing country financial regulators. While the number of people who lack access to financial services is falling, still 2 billion adults, or nearly 40 per cent of the adult population, lack a basic bank account, and many more are not well served by markets for savings products, credit and insurance. Greater financial inclusion promises more inclusive growth and development. Enabling access to finance for smes is a particular priority. 70 per cent of SME's cite lack of access to finance as an impediment to growth and another 15 per cent report they are underfinanced. As governor Ernesto Gove, of the

Banco de Moçambique, has put it: “If SMEs prosper, they can put nations to work, create a solid base of tax revenue, and be the primary driver of future growth.”

Therefore, concerns about green and sustainable finance are part of a wider agenda about the performance and development of the financial system in particular:

1. Improving the basic performance, integrity and reach of the banking system, particularly to SMEs.
2. Integrating and regulating informal financial service providers and widening access to financial products for savings and insurance.
3. Institutions in developing markets to provide for long-term finance, in particular institutional investors and bond markets to channel domestic savings and access international borrowing and lending.
4. Optimizing the policy and incentive structure around FDI such as reforming fiscal incentives and ensuring they are effective and not over-generous
5. Using public finance effectively to leverage private investment.

Financial Crime and Illicit Flows

Owing to its complex and intangible nature, finance, perhaps more than any other sector, is vulnerable to difficult-to-detect crime. Consumers of financial services are vulnerable to exploitation and fraud by those to whom they entrust their resources, financial institutions are vulnerable to theft, misappropriation and exploitation of insider information, and criminals are able to use financial institutions and loopholes to embezzle public assets, and to ‘launder’ ill-gotten gains.

Developing countries face the challenge of advancing financial inclusion, while at the same time ensuring financial integrity and consumer protection. Bringing more people into the formal financial system reduces their exposure to cash-based crime risks but exposes them to new risks such as ponzi schemes and identity fraud. At the same time, financial integrity regulations such as Know Your Customer (KYC) requirements can act as barriers to financial Inclusion. Regulators in countries such as the Philippines are increasingly recognizing that financial integrity and inclusion regulations can be complementary, and are working to ensure that KYC requirements do not prevent the private sector to develop new products that cater to the requirements of the poor.

Policy and regulatory inconsistencies, weak institutions, limited oversight and enforcement, Entrenched vested interests and the absence of transparent economic and governance processes enable ill-gotten gains from corruption, organized crime and international commercial fraud to be hidden. Such illicit financial flows (IFFs) are linked not only to loss of public revenues but also to undermining of environmental regulations, illegal exploitation of natural resources, illegal logging, fishing and mineral extraction, land grabbing, human rights abuses, counterfeiting of pharmaceutical drugs, seeds and other critical factors for development.

Efforts to stop IFF’s across borders include law enforcement, anti-money-laundering measures and initiatives to return of stolen assets. Work in the anti-corruption arena has also demonstrated the importance of a balanced approach that includes institutional strengthening, Since increasing the power and authority of law enforcement agencies in countries with weak Governance sometimes yields mixed results and does not always promote the rule of law.

Particular emphasis should go into understanding both the upside and downside risks associated with:

1. Innovation: understanding the role of possibly disruptive business models?
2. Public finance: understanding the role for public finance to provide the necessary change?
3. Investor responsibility: how to favour “productive” or “quality” investment in an environment where development finance is on the decline? What regulations are possible to screen out predatory investment that generates little development benefit, and how to insure that investment agreements allow and indeed favour this?

CONCLUSION

The proliferation of sustainability-linked initiatives in the Indian financial markets indicates a positive direction and momentum. Initiatives range from policy-mandated disclosure to energy trading. Large companies are low-hanging fruits: they have the financial and human resources capacity to adhere to sustainability mandates and are among the largest potential long-term beneficiaries as well. However, a number of challenges remain in mainstreaming sustainability through such companies. The largest challenge is perhaps one of incentives –

companies have no underlying incentive to report better and to perform better as far as sustainability is concerned. This incentive can only be created through financial market depth, so that retail investors can begin to signal that long-term factors such as ESG performance are as important as short-term factors and quarterly financial returns.

Many financial inclusion-linked policies and initiatives have also begun to create the conditions for broader market participation. The government's 'Jan Dhan Yojana' is one such flagship scheme that is focused on providing universal access to banking facilities for all households in the country. As of February 2016, 207 million new bank accounts had been opened under this expansive scheme. These accounts have also been linked to unique identification numbers under the 'Aadhaar Scheme'. The government envisions that

Through the trinity of mobile banking, unique identification numbers and banking inclusion, a paradigm change in financial inclusion and financial market participation can be enabled over time.

Despite such ambitious policy focus and implementation, retail investors as well as stakeholders at the bottom of the pyramid such as farmers continue to be at the margins of the sustainability discourse. Efforts to harness the growing sustainability ecosystem to their benefit have begun in earnest. This will also have to involve structural changes prompted by economic reforms that focus on financial inclusion beyond the operational of bank accounts. For instance, awareness initiatives will have to accompany a number of innovations such as weather insurance. At the same time, the products will need to be suitably in tune with India's sustainability challenges.

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ROLE OF CAPITAL BUDGETING DECISIONS IN PUBLIC SECTOR UNDERTAKINGS: A STUDY OF INDIAN RAILWAYS

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ABSTRACT

In Public Sector, Indian Railways is one of the world's largest organizations. My paper undertakes a analytical examination of railway procurement process to understand the process and institutional mechanisms which have derive over time for safeguarding institutional interests. The inspect issues such as institutional framework, acquisition institution, authority selection methodology, acquisition oversight, regulation and their result on the economy, ability, transparency and accountability aspects of acquisition. It is construct that a different combination of insight vigil, oversight oversight by independent group and organizational features contribute to robust acquisition processes.

In the light of the past revelations of discrepancies in acquisition in Indian Railways, this quick talk the acquisition patterns in the sector and reflects on the today's government reformative initiatives for the tendering processes in order to ensure departmental transparency and answerability. The existance of structural discrepancies in the sector mars the process of its acquisition through prevailing confining and autocratic practices. scrutinize cartels and other opposed acquisition practices in the sector, the little concludes with the proposal that an incremental and evolutionary explanation will not suffice to address centralization, non- transparency, inordinate delay and non-countable in business and other decision-making that the Indian Railways has reached. Rather, there is a requirement to shake the system out of its cultural position and to enthuse a new quintessence to reorient it to the path of sound and fast effective business like decision-making.

Keywords: Indian Railways, public sector organizations, network, traffic, public sector.

INTRODUCTION

In Public Sector, Indian Railways is one of the world's largest organizations. The Railway functions as a vertically integrated organization providing Passenger and Freight services. It is a single system which consists of 66,030 route km of track that criss-cross the country, on which more than 22,300 number of trains ply, carrying about 23 million passengers and hauling nearly 3.02 million tonnes of freight every day, thereby contributing to the economic growth of the country and at the same time promoting national integration. As compared to road transport, the railway has a number of intrinsic advantages as it is five to six times more energy efficient, four times more efficient in land use and significantly superior from the standpoint of environment impact and safety. Indian Railways, therefore, rightly occupies pride of place in the growth and development of the nation. The railway service is rendered through a nationwide rail infrastructure covering track, stations, sidings, freight terminals, locomotives, coaches and wagons and a myriad of infrastructure inputs like signaling, telecom, electrical installations, maintenance workshops etc. The output and outcomes achieved by the Railways in terms of Passengers and Freight carried results from the interwoven activities of the various infrastructure inputs comprising the Railway Infrastructure. While a direct one to one correlation in terms of inputs and outcomes of each activity is not easy to render in a transport sector like the Railways, the Performance cum Outcome Budget attempts to give a better insight in to the multifarious activities of the railways that, when combined, generate the outcome of transportation services.

REVIEW OF LITERATURE

The Indian Railway system, the second largest system in the world under a single management, and the fourth largest rail network with track length of over 64,600 kilometers is a public sector undertaking under the Ministry of Railways. 1 With a workforce of 1.4 million, it is the seventh largest employer in the world. Indian Railways is the lifeline of the country as it transports 25 million passengers and more than 2.8 million tonnes of bulk freight daily. 2 Railways commenced in India on 16th April 1853 when first train owned by Great Indian Peninsular Railway Company moved from Mumbai to Thana covering a distance of 22 miles. Rail traffic in Eastern India between Howrah to Hoogly was opened to public on 15th August 1854. In South India, the first railway line was opened on 1st July 1856 between Vyasarpadi and Wallajah Road, Arcot a distance of 63 miles. In the North, 119 miles of railway line was laid from Allahabad to Kanpur on 3rd March 1859. By 1880 Railways in India had a route mileage of about 9000 miles and were run by separate railway companies. The Railway Board was constituted in 1905 with the decision making power retained with the Viceroy of India. The Acworth Committee appointed in 1920 recommended nationalization of railway companies in India. In 1925

two big railway companies, The East India Railway Company and Great Indian Peninsular Railways were taken over by the state. The nationalization of entire railway system was completed in 1944. Electric Traction was first introduced in Railways in India in 1925. Air-conditioned coaches were introduced in 1936. By 1947 there were 42 rail systems in India with the total route length of railways as 543,760 kilometers. The Indian State Railways were added to Indian Railways in 1950.

After independence government regrouped the railways on zonal basis in order to secure economy, efficiency and uniformity in financial administration and control. The zones were further subdivided into divisions. At present there are 17 zones and 68 divisions. The Southern zone of Indian Railways was formed on 14th April 1951 with the merger of three state Railways - Madras and South Mahratta Railway, the South Indian Railway and the Mysore State Railway.

TRANSPORTATION

India has not given due importance to the development of transport infrastructure even after six decades of independence. Sreedharan E. (2010), stresses that if India need to have a place among developed nations, it is high time India gives adequate attention to its transport systems.

Goyal Ashima (2008) examines the weaknesses in India's public transport systems. It is suggested that the solutions are possible not just with ownership changes, industry structure and competition, but with individual motivation, changes in management structure and institutional design.

Public transport is said to consume less space per passenger and leads to lower congestion. Misra Siddhartha (2006) recommends that both incentive and disincentive for private transport are needed to promote their use and sustainability of public transport in India. Incentives include better quality and more comfortable public transport with higher frequency of trips, low waiting time and a unified transport system. Disincentives for private transport must include higher working and toll charges.

India is on the threshold of entering into the group of developed countries. Its power in science, engineering and technology has been recognized the world over. In transport infrastructure the nation is far behind even after 65 years of independence. Murthy V.A. (2005, 2004), finds that transportation in urban areas is in a very poor condition without tackling high budget new projects are being implemented. The paper states that in order to resolve the existing transportation problems and to implement new transportation projects in the urban transport in the urban areas in a cost effective way, India has to rely on innovative and indigenous equipments and methods.

In view of the limitation of capacity expansion as a structural solution and the complexities of travel demand as a strategic solution, Intelligent transport systems can assure optimal use of existing transportation infrastructure in general and road capacity in particular. In the light of increasing congestion in urban areas, Intelligent Transport Systems (ITS) represents a set of tools which, can enable local governments achieve integrated transport solutions as well as to ensure better use of existing transport infrastructure. Gupta Sanjay (2005, 2004), provides an insight into the potential application areas of ITS, reviews global practices and suggests possible priority areas for Indian situation.

The main objective of demand management policy is alleviation of traffic congestion thus improving traffic flow efficiency. Other common objectives include limiting adverse environmental impacts, reducing traffic accidents and risks, providing services for the urban poor as well facilitating economic activities of the city. According to Sharma Rajiv (2005, 2004), the role of demand management should however cover not just the negative approach of restraining transport demand but also encompass a positive and realistic managerial role of accommodating increases in transport demand through favorable changes in road user behaviour and modal split balance.

Sustainable transports can be defined as supportive system which will bear the traffic volume for long time both quantitatively and qualitatively and is a key factor for socio economic development. Qualitative and quantitative sustainabilities are interdependent and interactive due to common traffic attributes. Deshpande V.K. and Dalvi Ashwini (2004), present an integrated approach for developing the sustainable transport which includes solutions like improved travel choices, incentives for public transport usages, non pollutant fuel usages and technological innovations.

The problem of environmental degradation caused by growing vehicular traffic has been gaining both national and international attention. Pundir B.P. (2004) strikes a note of caution against adhoc and whimsical steps for controlling emission related problems. He calls for a studied and sustainable approach which can be implemented effectively and monitored easily. He emphasizes the need to strengthen the handling and

distribution facilities for alternative and non polluting fuels.

Feeder public transport system to High Capacity Transit System plays an important role in ensuring an integrated multi modal public transport operation. With the implementation of Mass Rapid Transit System (MRTS) in a metropolitan city, the existing road based public transport

PURCHASE OF TRANSPORT SERVICES

No policy or system of explicit payments exists for loss-making passenger Public Service Obligations (PSOs) in IR, but substantial internal cross-subsidy takes place for train operations within the passenger sector, as it does between individual ZRs. Also, most of the aggregate burden of infrastructure costs falls on freight customers. Therefore, the MOR (IRB) has accepted internal cross-subsidy of passenger services and an implicit tax on freight, rather than direct subsidy, to fund passenger service obligations. railway revenues covered railway operating costs and contributed about a third of capital investment. However, as of late, IR is facing difficulties balancing the budget. Passenger losses are placing an increasingly high burden on freight. Freight services in turn must compensate with high tariffs, reducing its competitiveness.

RAILWAY TRANSPORT MARKETS

IR is the world's second largest passenger railway and fourth largest freight railway after the U.S.A., China, and Russia. India's large and rapidly expanding population provided steady but relatively slow growth in railway passenger traffic during the last decades of the twentieth century as other modes gained market share. During the last decade, accelerated economic development increased purchasing power and, in combination with politically imposed low fares, boosted railway passenger traffic growth by nearly 100 percent. India has a mix of passenger services. Over the last 30 years, as cities have expanded, suburban passenger journey length has increased from an average of about 20 kms/trip to 34 kms/trip, and average journey lengths for inter-city services increased from about 87 kms/trip to 268 kms/trip. In terms of modal share, IR is estimated to carry about 15 percent of non-urban passenger traffic. Historically, IR's passenger transport services could be categorized as poor to middling quality, suffering from long ticketing queues, slow travel times, and limited journey comfort and amenities. However, a series of investments in faster lines and customer-services initiatives have resulted in continual improvement and customer satisfaction. Followed by grain, 10.1 percent, cement, 8.9 percent, and iron ore, 5.5 percent. Rapidly growing container traffic now constitutes 13 percent of traffic task. The average freight haulage length is 620 kms, and IR carries an estimated one-third of national inland freight task. Despite what appears as significant absolute growth in passenger volumes and a freight market that is on the surface conducive of rail transport, IR's market share since the 1950s has been severely eroded by a shift to road transport. While rail market shares of the 1950s are unlikely to be achieved, considerable potential exists to increase Indian Railways market share of freight. One of the major challenges for the freight rail market has been insufficient capacity for freight trains. Nearly two-thirds of the IR network is allocated to passenger trains, and freight trains are dispatched with no timetable and with the lowest operational priority. In addition, the fact is that investment in expansion of the rail network has not kept up with the immense growth of the Indian economy. The issue of insufficient capacity, combined with IR being slow in improving its service offerings, led to stagnated growth in both passenger and freight traffic.

GROWTH FOR INDIAN RAILWAYS

Revenue growth has been strong over the years; during FY07–17, revenues increased at a CAGR of 9.8 per cent to US\$ 25.62 billion in FY17. During April-December 2017, gross revenue of Indian Railways stood at US\$ 19.17 billion.

Revenues from the sector are estimated to reach to US\$ 44.5 billion by the end of FY20

Revenues would expand at a CAGR of 12.12 per cent during FY07– 20E

Indian Railway sector aims to boost passenger amenities.

In March 2017, Railways started a new segment of revenue generation channel through auctioning for advertising and branding contracts on 1000 trains. The front running brands are to sign this contract for 5 years.

CONCLUSION

India has one of the largest and busiest railways in the world, but also, IR is arguably the most traditional and monolithic in its basic structure. In fact, it closely resembles the archetypal railway described in this toolkit— prior to considering the alternatives. Traffic growth has underpinned management initiatives to attain steady and significant improvements in staff productivity and equipment utilization. Nevertheless, IR was historically not notably innovative in using modern rail technology, nor in transforming to more commercial management structures, nor focused on service quality or market-responsiveness. Instead, when seeking commercial focus, it

has tended to create semi-autonomous enterprises that bypass its own structures.

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HEALTH PROBLEMS: IN WORKPLACE HOW IT EFFECTS?

Riya Natta

ABSTRACT

This study is focused on various aspects in which we will focus on the health of an employee while working in an organization. An unsafe health facility environment such as broken furniture, poor light setting arrangement, lack of sanitation can risk the life of the employee and may boost lots of health issues in the long run. Health worker's productivity started to decline due to lack of as this adversely affects their morale and may give rise to poor motivation and no job satisfaction as a result, it becomes a challenge for the management to provide a safe work environment for the workers to ensure health, efficiency, productivity, and good performance. Hence it is important for management to focus on various aspects in workplace force on workplace safety and to look after employees welfare as they are the asset for the organization.

INTRODUCTION

The environment can be said as man's greatest gift but what is no safer? If this surrounding is wrongly manipulated, it may arise lots of problems and it will make mankind's life difficult to survive. The survival of the fittest will only work when the external environment will allow them to do so. Hazards in the workplace are the recipe for disaster. As the workplace makes plays a very important role for an employee to showcase their skills and perform well for the welfare of the organization hence safety in the workplace is important. Task performed in the workplace is directly proportionate to the environment of the organization how well it is designed so that the employees are safe and perform at the same time.

The physical environment plays a direct impact on humankind. This is because the place where meetings are taking place or the room their workstation is equally important. A large number of work environment studies have shown that workers are satisfied regarding specific workspace space where they feel comfortable. These features preference by users are highly significant to their productivity and workspace satisfaction, they are lighting, ventilation rates, access to natural light and sanitation, etc.

Bringing positivity is what matters a lot of small changes like lighting and furniture have also been found to have a positive influence on employee's health and consequently on productivity. Ambient features such as a change in temperature of air condition, wide wind doors, great positive quotes or some sorts of the motivating environment do plays an integral part in terms of productivity as employees are human being after all.

When the employees have the eagerness to work but they are not mentally or physically fit the point of turning up the next day becomes fatal. Absenteeism can be reduced by having a proper workplace environment; which can in turn increase employee performance and productivity and also motivate them to look forward to being more active towards their goal. Chandrasekhar stated in his great words that the connection or relationship between the work, workplace, and tools of work had become the most important aspect in their work itself. Now the management has the challenge to work towards the improvement of the workplace environment for more productivity and better results.

Today's workplace

The physical environment at work plays an important role in the overall growth and development of an employee. and on the other hand management has to actively participate and make an environment in such a way that an employee can function well in a given physical environment.. Management style can also influence worker's commitment and this should be monitored, these styles can be altered to suit the workers. This refers to changing aspects like ethics, behavior, commitment, drive, interpersonal relations, and professionalism.

Today's management has to change the style of functioning to bring about effective changes in these aspects also the focus is not only to meet the organizational goals but also to uplift the employees and make the environment familiar to gain productive results. Management has to spend more time focusing on the problem rather than micromanaging the whole situation. This will promote trust and loyalty among employees and help them to perform well. Besides, they develop a sense of ownership and belonging towards the organization. Maximizing health worker's productivity is centered on personal motivation and the infrastructure in the work environment.

Communication is the key to success an effective communication among management and the organization will bring effectiveness and make the employee feel motivated and the chances of absentee will eventually decrease. Work will be much more enjoyable and less of an argument and wastage of time will be there. When an

employee opens up with there problem within the organization productivity will increase and fewer complaints and more work out of it. It eventually makes the workplace more enjoyable and much less stressful and creates a positive environment.

Chandrasekar also confirms that unsafe and unhealthy work environments in terms of poor ventilation, inappropriate lighting, excessive noise, etc. affect workers' productivity and health.

Workplace environment factors

Health worker's performance can be influenced by the salary or wages increase or decrease as over here productivity plays a part that will only come with a proper physical environment. An employee engaged in an organization especially with their immediate environment, influence to a great extent their error rate or there thinking ability to innovate and various collaboration with there employee. But the ultimate is to stay engaged in the organization and be productive. This can be only possible when management takes a note. And understand the need of the organization.

Many studies have shown that the reason for an employee to leave the organization is directly linked to there people they meet immediately like a supervisor or the manger that is also a part of the physical environment is no longer conducive. One of the most important workplace factors that affect includes job aids, goal setting, incentives, performance feedback, and other environmental factors. Below shared some of the factors by which problems can be curbed and management can take insight and implement it into the organization.

Job aids: the employees are been provided with templates, some sort of soft training, checklists, etc. These are done to improve performance by identifying the problems in the required field. This boosts up the process and makes the work much easier and at the end of the day errors are much less than usual.

Goal-setting: this function is important in any sort of organization is to have a proper goal. When health workers are being involved during the process of setting goals by using a tool of KPI famously known as key performance indicators, this can be also done informally between supervisors and health workers. The ultimate is goal is to measure the key performance of the employee, which can be only done through management support.

Supervisor support: taking about management support the immediate supervisors play a vital role in this process they act as an advocate for the employees, for gathering and the required resources needed by the employees. To fulfill the organizational goals and maintain the physical environment.

Workplace incentives: the goal of any organization is to motivate employees as they are the asset of the organization and set up an informal as well as formal sort of structure where they can perform but rewards are something which anyone looks forwards to. By practicing this it changes the game and gets the required behavior that they want from the employee.

Performance feedback: after taking so many measures proper performance feedback is required to check the results. Both positive and negative feedback is welcomed and there should be room for improvement constantly. The performance report is maintained in many organizations to keep track records of the performance of employees.

Defined processes: Every organization struggles in one part are how the work should be performed through documenting processes and communicating etc and what should employees expect out of it.

Other environmental factors such as physical, social and environmental factors play an important role as we are talking about the physical environment.

Physical factors: the very first factor is a physical factor in a workplace such as overcrowding, layout problems and many more.

Social factors: Here the relationship between the health worker and the employers and the patient is considered. Poor interpersonal skills and attitude among colleagues can affect performance.

Environmental factors: Environmental factors such as temperature, lighting, and ventilation can have a direct impact on health-for example very high temperatures can lead to heat stress and heat exhaustion. This, in turn, affects the performance of the health worker.

Workers' incentive and reward system should be reviewed upwards. this may greatly motivate the workers and thereby improve their productivity.

Below are some of the observation that has been made in order to improve the physical environment of the organisation.

- Supervisor support should be improved.
- Brightening up the wall colors, office space and also the work area can greatly can create an energetic impression on the workers.
- Communication lines should be open with workers to seek out out what reasonably programs would motivate them.
- A feedback mechanism should be initiated where workers' performance is communicated to them and make room for improvement.
- Strong communication between management and workers should be developed.
- Revision of goals and objectives and involving workers in higher cognitive process that concerns them would make them feel like they're an integral a part of the organization.
- Adding some materials of nature like plants to the workplace will make the workers enjoy the environment way more.
- Recognition and award system should be encouraged.
- Renovation of office space, new furniture, and colours will have a positive effect on workers' performance.
- Improved work aids and more exposure to soft skills training should be initiated.
- Flexible period of time schedule for workers.

CONCLUSION

Health worker's job satisfaction should be the target for health system improvements. medical examiner satisfaction is related to intent to remain, and medical examiner retention is critical for the supply of prime quality health care. The results from this study have shown the effect of workplace environmental factor on doctors performance and productivity and suggest that efforts should be geared towards improving the physical environment, social environment, and work system related to the workplace. Effort should concentrate on providing healthcare workers with the infrastructure and tools they have to try and do their jobs.

This includes sufficient job aids, supervisor support, proper ventilation, lighting, incentives, recognition and reward system, and general infrastructure. additionally to being necessary for doctors to deliver prime quality care, this might foster medical examiner satisfaction, increasing the advantages of the investment. this can be important to think about within the context of the various ongoing experiments with purchase performance, which are unlikely to spice up satisfaction if weak infrastructure prevents doctors from successfully fulfilling their tasks.

SOCIAL INNOVATION FOR BETTER JOBS AND PERFORMANCE

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ABSTRACT

Social Innovation is a broader concept than organisational innovation. Many governments have established policies for social innovation, often with the stated aim of encouraging creative solutions to difficult challenges. Workplace innovation includes facets of management, flexible organisation, working smarter, incessant development of skills and proficiencies, networking between organisations and the renovation of labour relations and industrial relations. The structural engine of social innovation, then, pertains to whether the uptake of a socially creative strategy occurs through the two distinct, but interrelated, avenues of institutionalization: the social ecosystem and social structures. Conditions for success and failure appear to be multifaceted and partly dependant on local circumstances.

INTRODUCTION

Social Innovation is a broader concept than organisational innovation. It includes vibrant management, flexible organisation, working smarter, continual development of skills and competences, and networking between organisations. It is perceived as paired to technological innovation. Social Innovation is a part of process innovation as well as product innovation and also includes the rejuvenation of industrial relations and human resource management.

Social innovation has a long past, but the term has rapidly amassed acceptance recently as an umbrella concept defining a collection of social programs and initiatives deserving attention. Many governments have established policies for social innovation, often with the stated aim of encouraging creative solutions to difficult challenges. The European Union initiated a European Social Fund; the U.S. White House established an Office of Social Innovation and Civic Participation; and the Government of British Columbia started a Ministry of Social Development and Social Innovation.

The voluntary and private sectors are equally active on the matter of social innovation. Businesses often describe their social responsibility activities as social innovation – to such a degree that some say corporate social innovation is the new corporate social responsibility.

In the charitable sector, non-profit, social enterprise, and charitable service providers increasingly seek to be socially innovative in approaching their missions. International Committee for the Red Cross and Red Crescent (ICRC) Red Innovation program is an example in this regard.. Unfortunately, this spell of social innovation activity has not been based on rigorous theoretical basics. As practice, social innovation is chaotic: the term is deployed for numerous purposes and carries a range of inferences, leaving one a bit indistinct on its exact meaning. This limits policy effectiveness because absent a strong foundational knowledge of how social innovation operates one cannot hope to recognize how interventions, trade-offs, and externalities interact and, hence, how to meritoriously develop and implement successful social innovation policies.

SOCIAL INNOVATION

Social innovation is typically defined as ways of societal renewal in a general sense with reference to societal concerns ranging from social inequality to environmental pollution (e.g. Caulier-Grice et al. 2010; Howaldt/Schwarz 2010). It refers to socio-economic topics of various kinds.

Workplace innovation includes facets of management, flexible organisation, working smarter, incessant development of skills and proficiencies, networking between organisations and the renovation of labour relations and industrial relations (Totterdill et al. 2009; Totterdill 2010; Pot 2011). Workplace innovation is regarded as complementary and conditional to technological innovation. Empirical findings suggest that technological innovation accounts for 25% of the accomplishment in fundamental innovation, whereas workplace innovation accounts for 75% (Volberda et al. 2006). Research indicates that through workplace innovation a concurrent improvement in quality of working life and efficiency is possible, in particular in projects with sturdy employee participation (Eurofound 2005; Ramstad 2009)

Social innovation is a process encompassing the advent and adoption of socially inventive strategies that reconfigure social relations in order to objectify a given social goal. The numerous characteristics of this definition are worth observing. The definition presents social innovation as a process. The term ‘process’

defines a set of connected events occurring as per prescribed rules and parameters. Conceptualized as a process, social innovation condenses the sequence of steps and changes happening as a socially ingenious strategy progresses toward the end state of adoption.

Social innovation is neither a defined end state nor is it the socially ingenious strategy itself. Instead, we contend that social innovation is a process obsessed by two 'engines': an agentic engine and a structural engine. The terms 'agentic' and 'structural' reveals social science thinking on how individuals (agents) can influence events but at the same time constrained in doing so by social structures such as rules, roles, and organizations. In this aspect, the agentic engine refers to the actions and purposes of the individual or group of individuals within the process of social innovation. Generally, it consists of a value orientation or purpose that motivates an individual to develop a specific socially creative strategy. The structural engine, which is similar to the concept of institutionalization, includes: the background framework that shapes the content and strategic choices undertaken by socially creative actors and then the devices by which these socially creative strategies are produced or reproduced over time.

Second, the process of social innovation concerns the development and adoption of socially innovative strategies. The socially creative strategy is a significant reactant in the process of social innovation; the invention of a socially creative strategy initiates social innovation, yet the transformation of a socially creative strategy happens throughout the social innovation process. Consequently, the process of social innovation cannot initiate in absence of a socially creative strategy.

To establish social innovation, the socially creative strategy must be directed at reconfiguring social relations toward the goal of building social benefit.

By the reconfiguration of social relations we mean that a socially creative strategy must in some way alter how people interact with one another with regards to a given issue. This might comprise the invention of a dissimilar institution, for example through the Grameen Bank's introduction of microcredit i.e. in the form of small loans offered to borrowers that ordinarily would not qualify because they lack indemnity, a credit history, and stable employment.

It could also relate to a change of social norms or roles, for example through a program that trains hairdressers to identify signs of domestic exploitation in their clients and to retort appropriately by providing information to these patrons on how to seek help.

Reconfiguring social relations requires that the socially creative strategy involves somehow changing the interactions between individual human beings in some way that is related to a given social problem. As such, while a project that encourages the use of bed nets as a malaria-prevention tool might be considered a socially creative strategy, the invention and production of antimicrobial bed nets, by itself, would not be the agentic engine of social innovation.

The agentic engine of social innovation begins when a social entrepreneur (or social entrepreneurs, either individuals or organizations) devises a socially creative strategy – that is, when an actor, driven by a specific motivation and possessing a set of values, draws on his individual aptitudes like creativity, knowledge, and experience to put into practice an idea which reconfigures society's approach to a given social problem. The idea designed by the actor may take several forms, such as a new service to be delivered to a target community or a norm change. The social entrepreneur is prejudiced by the social environment and existing social structures, which may shape the opportunities available to him as well as his societal purpose and values through, Social Entrepreneur.

Although the tale of the adventurous social entrepreneur who single-handedly plans and implements his socially creative strategy is too naive, the concept of a social entrepreneur is significant for the study of social innovation for two reasons. First, it offers a unit of analysis connecting studies on creativity to the process of social innovation. Second, it highlights the role of agents during the entire social innovation process. As such, we comprise the social entrepreneur as an element of our framework.

THE STRUCTURAL ENGINE OF SOCIAL INNOVATION

Once a socially creative strategy is identified through an exercise of agency it must, in order to enact change, be produced and reproduced over time via the structural engine of social innovation. The structural engine of social innovation, then, pertains to whether the uptake of a socially creative strategy occurs through the two distinct, but interrelated, avenues of institutionalization: the social ecosystem and social structures. This occurs through the emergence and adoption, the two halves of the social innovation diffusion cycle.

EMERGENCE

Emergence is the stage in which a social entrepreneur gains entrée to an organizational platform for the promotion of his socially creative strategy, enabling early implementation of the socially creative strategy, for example through a pilot program or authorization by norm leaders. The socially creative strategy may be developed via prototyping or experimentation as advent takes place. Adoption relates to the wider implementation of a socially creative strategy such that it reaches the target audience. This can also be termed the 'institutionalization' of the socially creative strategy.

Emergence is the commencement of social innovation diffusion cycle. It consists of the process by which social entrepreneurs gather primary support for their socially creative strategy by association with builders and brokers. At this point in the social innovation process, support from within the social ecosystem is sought to deliver initial materials for developing the socially creative strategy, as well as participation to test its implementation. The characteristic device of this stage is persuasion by social entrepreneurs who use their position within the social ecosystem, as well as existing social structures, tactically in an effort to convince others to embrace the socially creative strategy. Precisely, the social entrepreneur pursues an organizational platform through which to endorse the socially creative strategy and to accomplish early adopters.

ADOPTION

If emergence effectively occurs, the social innovation diffusion cycle may move forward to the adoption phase of the social innovation process. Adoption is the institutionalization of a socially creative strategy across the social system more widely. As such, it comprises the revision of expected practice, learning, and perhaps even the internalization of new identities and interests. There are two key logics in the adoption phase: top-down institutionalization and bottom-up institutionalization. Top-down institutionalization consists of entering into "relatively stable and sustainable arrangements with the public administration".

SOCIAL ECOSYSTEM

A social ecosystem comprises the complex network of interacting individuals in a given social space; it is the physical and cognitive area within which members of a community interact, as well as the individuals and groupings themselves. As such, the social ecosystem is relevant to the process of social innovation in many ways. The social entrepreneur develops a socially creative strategy within a social ecosystem and actors promoting this socially creative strategy draw upon aspects of this ecosystem throughout. Social problems arise within a social ecosystem, are defined as problems within this space, and are framed in light of cognitive boundaries within and amongst social ecosystems.

SOCIAL STRUCTURES

Social structures are relevant to social innovation in several respects. For example, the process of social innovation is shaped by existing authorities; the institutional arrangements that structure social relations; and background norms pertaining to a social problem and the proposed solution. The social structure most often discussed in the study of social innovation is the institution. Institutions are the rules of the game; they constitute stable mutual expectations that both enable and constrain actors. This may include practices; identities and interests; , regulative, and procedural norms; organizations, rules and routines; or any other arrangement that prescribes, proscribes, and/or authorizes behavior. Although institutions can be created and modified through actions of individuals or groups of individuals, institutions also imply a hierarchy of influence.

SOCIAL GOAL

A completed process of social innovation may meet a social goal: the objective toward which the socially creative strategy was directed may be contented and the outcome might be a social improvement. There are, however, numerous reasons to expect that a socially creative strategy may be effectively adopted without refining society. First, propositions about the causes of a particular social problem may be erroneous; in this case, even if the new approach is consistently undertaken, better outcomes will not emerge. Second, negative externalities may result from the novel practice or intrusion. As such, while the process of social innovation consequences in the reconfiguration of a social problem it may not bring a 'social benefit,' and might even make conditions worse. For example, some have claimed that micro-loan programs harm society, as the majority of underprivileged beneficiaries end up with less incremental income after receiving a micro-loan. Though micro-loans encompass a usually cited example of social innovation, it is not agreed that they provide social benefit.

SOCIAL CHANGE

In addition to consequences affecting the objective social problem, the reconfiguration of society's practices on a specific subject also changes the wider social environment. For example, the adoption stage of social innovation may bring together and mobilize groups, creating a new social role or changing existing role relations. For example, Wheeliz created a French car share application precisely set up for vehicles that are disability adapted in order to improve access to mobility for physically disabled persons. This intervention brings together a group of people that were not previously connected.

CONCLUSION

Conditions for success and failure appear to be multifaceted and partly dependant on local circumstances. The commitment of management combined with involvement of the employees is certainly one significant condition for success on both factors. Some evaluation studies indicate that the effects are sturdier if more HR practices and/or organisational changes are implemented simultaneously. Although there is some evidence for the relation between learning and performance and for the relation between learning and innovation on personal and organisational level, the theoretical explanations for these relations are quite weak and have to be extended. Among other things, the notion of role portfolio, meaning one person having roles in different related processes like operation, control and support is promising in this respect. But we also have to look at cognitive processes.

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FINANCIAL INCLUSION – SOME POLICY INITIATIVES

Siddharth Kaul

*“Poverty is the worst form of violence.”***- MAHATMA GANDHI***In majority of the developing countries, access to finance is now being perceived as a public good, which is as important and basic as access, say, to safe water or primary education*

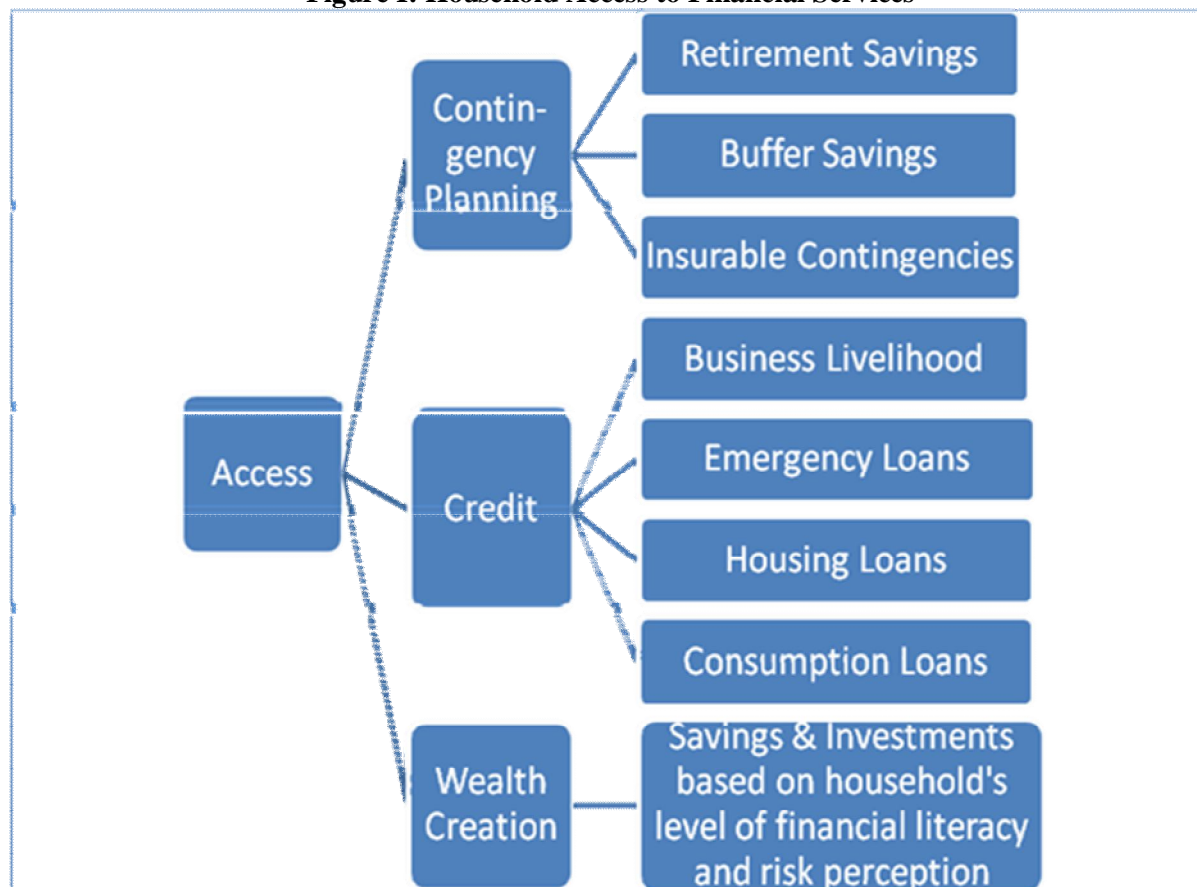
Concerted efforts have been made (and still are being made) to promote financial inclusion as one of the important national objectives of the country. Some of the major efforts made over decades include - nationalization of banks, building up of robust branch network of scheduled commercial banks, co-operatives and regional rural banks, introduction of mandated priority sector lending targets, formation of self-help groups, permitting BCs/BFs to be appointed by banks to provide door step delivery of banking services, zero balance BSBD accounts, etc. The fundamental objective of all these initiatives is to reach the large sections of the financially excluded Indian population.

DEFINITIONS

Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost (The Committee on Financial Inclusion, Chairman: Dr. C. Rangarajan).

Financial Inclusion, broadly defined, refers to universal access to a wide range of financial services at a reasonable cost. These include not only banking products but also other financial services such as insurance and equity products (The Committee on Financial Sector Reforms, Chairman: Dr. Raghuram G. Rajan).

The essence of financial inclusion is to ensure delivery of financial services which include - bank accounts for savings and transactional purposes, low cost credit for productive, personal and other purposes, financial advisory services, insurance facilities (life and non-life) etc.

Figure I: Household Access to Financial Services

Source: A Hundred Small Steps - Report of the Committee on Financial Sector Reforms (Chairman : Dr. Raghuram Rajan),

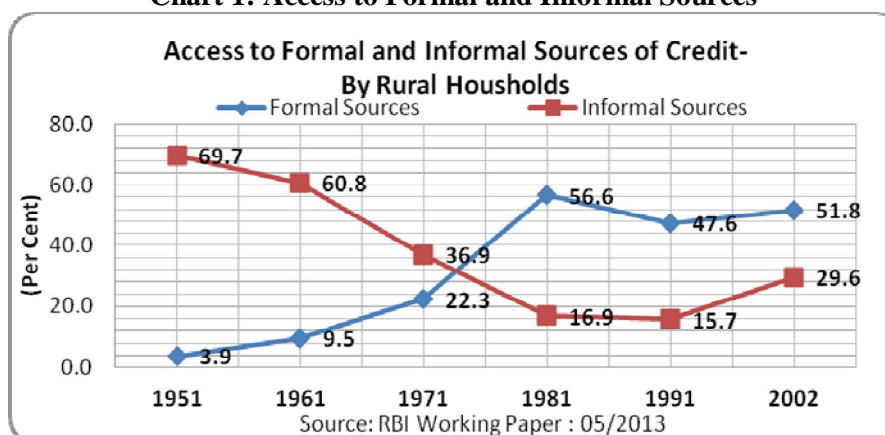
Why Financial Inclusion ?

Financial inclusion broadens the resource base of the financial system by developing a culture of savings among large segment of rural population and plays its own role in the process of economic development. Further, by bringing low income groups within the perimeter of formal banking sector; financial inclusion protects their financial wealth and other resources in exigent circumstances. Financial inclusion also mitigates the exploitation of vulnerable sections by the usurious money lenders by facilitating easy access to formal credit.

FINANCIAL EXCLUSION

- 51.4% of farmer households are financially excluded from both formal/ informal sources.
- Of the total farmer households, only 27% access formal sources of credit; one third of this group also borrowed from non-formal sources.
- Overall, 73% of farmer households have no access to formal sources of credit.
- Across regions, financial exclusion is more acute in Central, Eastern and North-Eastern regions. All three regions together accounted for 64% of all financially excluded farmer households in the country. Overall indebtedness to formal sources of finance of these three regions accounted for only 19.66%.
- However, over the period of five decades, there has been overall improvement in access to formal sources⁴ of credit by the rural households (Chart 1).

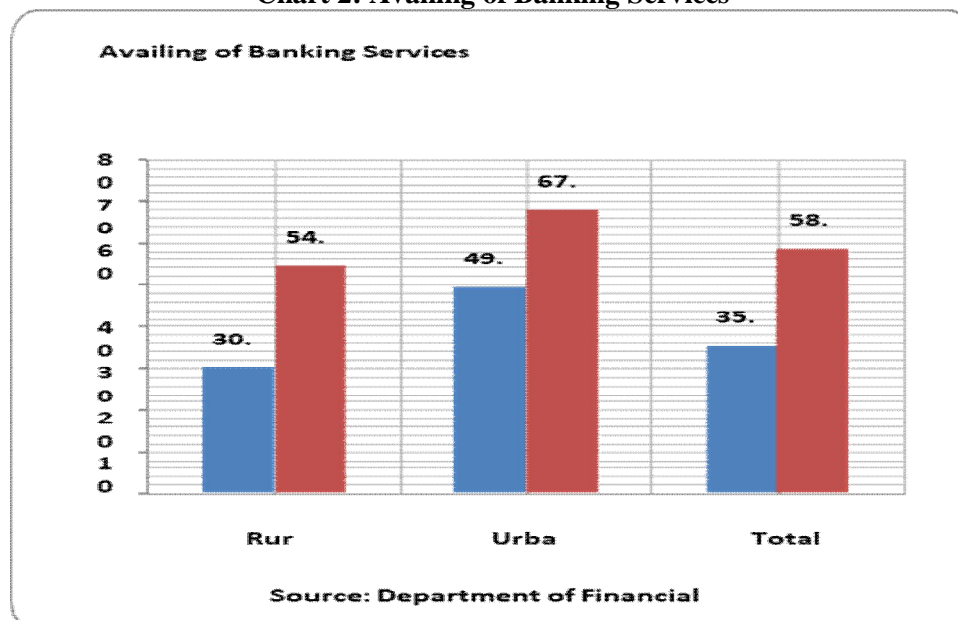
Chart 1: Access to Formal and Informal Sources

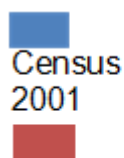


Government of India Population Census 2011

- ❖ As per census 2011, only 58.7% of households are availing banking services in the country. However, as compared with previous census 2001, availing of banking services increased significantly largely on account of increase in banking services in rural areas (Chart 2).

Chart 2: Availing of Banking Services





Census 2011

World Bank 'Financial Access Survey' Results

From the table 1 given below, it would be observed that in our country, financial exclusion measured in terms of bank branch density, ATM density, bank credit to GDP and bank deposits to GDP is quite low as compared with most of developing countries in the world.

Table 1: Select Indicators of Financial Inclusion, 2011

S.No	Country	Number of Bank Branches	Number of ATMs	Number of Bank Branches	Number of ATMs	Bank Deposits	Bank Credit
		Per 1000 KM	Per 0.1 Million	as % to GDP			
1	India	30.43	25.43	10.64	8.9	68.43	51.75
2	China	1428.98	2975.05	23.81	49.56	433.96	287.89
3	Brazil	7.93	20.55	46.15	119.63	53.26	40.28
4	Indonesia	8.23	15.91	8.52	16.47	43.36	34.25
5	Korea	79.07	...	18.8	...	80.82	90.65
6	Mauritius	104.93	210.84	21.29	42.78	170.7	77.82
7	Mexico	6.15	18.94	14.86	45.77	22.65	18.81
8	Philippines	16.29	35.75	8.07	17.7	41.93	21.39
9	South Africa	3.08	17.26	10.71	60.01	45.86	74.45
10	Sri Lanka	41.81	35.72	16.73	14.29	45.72	42.64
11	Thailand	12.14	83.8	11.29	77.95	78.79	95.37
12	Malaysia	6.32	33.98	10.49	56.43	130.82	104.23
13	UK	52.87	260.97	24.87	122.77	406.54	445.86
14	USA	9.58	...	35.43	...	57.78	46.83
15	Switzerland	84.53	166.48	50.97	100.39	151.82	173.26
16	France	40.22	106.22	41.58	109.8	34.77	42.85

Source: Financial Access Survey, IMF; Figures in respect of UK are as on 2010

Financial Inclusion – RBI Policy Initiatives

RBI has adopted a bank-led model for achieving financial inclusion and removed all regulatory bottle necks in achieving greater financial inclusion in the country. Further, for achieving the targeted goals, RBI has created conducive regulatory environment and provided institutional support for banks in accelerating their financial inclusion efforts .

Financial Inclusion Initiatives

- Advised all banks to open Basic Saving Bank Deposit (BSBD) accounts with minimum common facilities such as no minimum balance, deposit and withdrawal of cash at bank branch and ATMs, receipt/ credit of money through electronic payment channels, facility of providing ATM card.
- Relaxed and simplified KYC norms to facilitate easy opening of bank accounts, especially for small accounts with balances not exceeding Rs. 50,000 and aggregate credits in the accounts not exceeding Rs. one lakh a year. Further, banks are advised not to insist on introduction for opening bank accounts of customers. In addition, banks are allowed to use Aadhar Card as a proof of both identity and address⁹.
- Simplified Branch Authorization Policy, to address the issue of uneven spread bank branches, domestic SCBs are permitted to freely open branches in Tier 2 to Tier 6 centers with population of less than 1 lakh under general permission, subject to reporting. In North-Eastern States and Sikkim domestic SCBs can open branches without having any permission from RBI. With the objective of further liberalizing, general

permission to domestic scheduled commercial banks (other than RRBs) for opening branches in Tier 1 centres, subject to certain conditions.

- Compulsory Requirement of Opening Branches in Un-banked Villages, banks are directed to allocate at least 25% of the total number of branches to be opened during the year in un-banked (Tier 5 and Tier 6) rural centers.
- Opening of intermediate brick and mortar structure, for effective cash management, documentation, redressal of customer grievances and close supervision of BC operations, banks have been advised to open intermediate structures between the present base branch and BC locations. This branch could be in the form of a low cost simple brick and mortar structure consisting of minimum infrastructure such core banking solution terminal linked to a pass book printer and a safe for cash retention for operating larger customer transactions.
- Public and private sector banks had been advised to submit board approved three year Financial Inclusion Plan (FIP) starting from April 2010.

These policies aim at keeping self-set targets in respect of rural brick and mortar branches opened, BCs employed, coverage of un-banked villages with population above 2000 and as well as below 2000, BSBD accounts opened, KCCs, GCCs issued and others. RBI has been monitoring these plans on a monthly basis.

- Banks have been advised that their *FIPs should be disaggregated and percolated down up to the branch level*. This would ensure the involvement of all stakeholders in the financial inclusion efforts.
- In June 2012, revised guidelines on *Financial Literacy Centres (FLCs)*. Accordingly, it was advised that FLCs and all the rural branches of scheduled commercial banks should scale up financial literacy efforts through conduct of outdoor Financial Literacy Camps at least once a month, to facilitate financial inclusion through provision of two essentials

i.e. 'Financial Literacy' and easy 'Financial Access'. Accordingly, 718 FLCs have been set up as at end of March 2013. A total of 2.2 million people have been educated through awareness camps / choupals, seminars and lectures during April 2012 to March 2013.

Financial Inclusion Initiatives – Private Corporates

A few large private corporate have undertaken projects such as E- Choupal/ E- Sagar(ITC), Haryali Kisan Bazaar (DCM), Project Shakti (HUL), etc. Reportedly, these pioneering projects have brought about vast improvement in the lives of the participants and set the tone for economic development in their command areas; which is a pre-requisite for Financial Inclusion efforts to be undertaken by the banking system.

Way Ahead

Statistics show that India is going on a right path to the financial inclusion. However, there is a long way to go to define a 100% financially inclusive economy. Bank accounts may have been opened for a large section of the financially excluded, the question remains whether these accounts will be used for their desired purpose.

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ADOPTION OF INTERNET OF THINGS (IOT) BASED APPLICATIONS FOR LOGISTICS

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Logistics is a domain where Internet of Things is providing futuristic solutions. The positive impacts are already getting visibility in logistic control and improved logistics performances within organization and outside in supply chain. Internet of Things is about integrating diverse technologies of sensing, telecommunication, computing, and actuating. Therefore, in this research article, literature have been surveyed to find IoT adoption parameters in logistics domain. Adopting IoT applications bring paradigm shift in most of the areas. Therefore the article provide a framework that would be helpful in developing IoT adoption strategy. Also article provide academicians and practitioners a qualitative analysis so that they get the required constructs for IoT adoption decision in logistics domain.

Keywords: Logistics, Internet of Things (IoT), RFID, WSN, SCM

1. INTRODUCTION

Logistics is a service and operations supply support, which consists of all management activities, procedures, and techniques necessary to determine requirements to procure, store and dispose of inbound and outbound supplies, machines, spares and repair parts, to sustain services & operations. It is comprising of Packaging, Handling, Storage, and Transportation (Cirulis & Ginters, 2013). Unlike manufacturing, Logistics is mostly unorganized, especially in road freight and transportation where there are different suppliers for local, domestic, and international logistic services (Macaulay & Kückelhaus, 2015). Logistics & Transportation services are vital for any economy and is viewed as a value-adding processes in a supply chain (Daugherty, Chen, & Ferrin, 2011). A primary goal of organizations in supply chain is to create value for customer. Technology adoption has a positive impact on logistics capabilities, like innovativeness and service differentiation on one hand, and at the same time on logistics performance like efficiency and effectiveness (Ralston, Grawe, & Daugherty, 2013).

Logistics service innovation refers to a new idea, procedure, or practice in logistics operations that is different from a company's current practice (Grawe, 2009). Through logistics service innovations, a firm attempt to fulfill a customer orders by delivering right items in right quantities on time, damage free, and with errorless invoicing while keeping cost of operation in control (Stank, Keller, & Daugherty, 2001). Thus by focusing on logistics service innovation, it would help to build strong relationships with customers, generate barriers to competitors, increase customer loyalty and make market activities more efficient (Daugherty et al., 2011).

2. OBJECTIVE & METHODOLOGY

In the context of IoT, the efficiency of information sharing is largely improved by internet technologies, and it is used to exchange data with partner firms so as to serve the common customer and market (Li, Hou, Liu, & Liu, 2012). Therefore, the objective of article is to explore the established relationships between IoT technology adoptions in the area of logistics. A literature study, to compile the enabling factors from these relationships in logistics practices, help identifying possible innovative approaches directed towards adoption of IoT based applications. Further the article can list the benefits from IoT implementation, thereby emphasizing the factors, which need to be considered while developing any strategy for IoT adoption.

The knowledge around IoT is still evolving, however abundance of research papers of previous studies around semantic technologies like RFID, ICT, and Internet on Logistics is available. IoT development provides opportunities, which allows firms to acquire information more timely and accurately. This article has literature study for established relationships by researchers in the context of logistics processes, IoT infrastructure & application developments and affected logistics, supply chain (SC) or firm performances. IoT Technology in the area of Logistics has positive impact in the area of vertical functional integration and also on collaboration among logistics stakeholders in SC.

Therefore, the first objective of the article is to help the IoT adoption strategy in logistics and its decision making process by mapping key enabling factors in various stages of IoT assimilation and adoption in logistics. Further, a framework around the relationships in IoT technology adoption for logistics processes is second objective of the study. Such framework would help to envisage the key indicating factors to enable IoT adoption in the area of Logistics.

A literature review method to find these relationships with the help of search around composite key words comprising enabling factors, IoT, logistics performance. The established relationships has been categorized as: a) Pre-adoption stage, b) IoT technology implementation stage, c) Post-implementation stage. These stages as reflected from literature review and empirically tested constructs of previous researchers have helped in consolidating the study as well.

3. LITERATURE REVIEW

Internet of Things is a new communication dimension of ICT with development to Anytime-Anywhere-Anyhow level of the “A-A-A” communication paradigm (Ji, Ganchev, O’Droma, Zhao, & Zhang, 2014) also known as “Ubiquitous” technologies. Information & Communication Technologies (ICT) has always been innovation enabler in logistics and transportation processes (Jing, Vasilakos, Wan, Lu, & Qiu, 2014). Now-a-days Internet of Things (IoT) is widely used in the logistics industry and it is changing the entire gambit in logistics processes. The development in internet has already brought a paradigm shift in integrated logistics management. Integrating IoT into the traditional ICT systems can be unique because it brings intelligence, autonomous and pervasive features (de Vass, Shee, & Miah, 2018). Particularly in logistics applications IoT through seamless integration of both RFID and Wireless Sensor Networks (WSNs) in the Internet scenario provide disruptive capabilities and solutions. Any integrated logistics management and process monitoring improve the efficiency of logistics performance thereby reduce logistics cost, and also improve enterprise information quality. Implementation of intelligent logistics achieves optimum inventory management, speedy goods delivery, automated billing and other business functions with security (Jing et al., 2014).

WSNs are composed by low-power embedded IoT devices like RFID characterized by limited computational capabilities that actively communicate among them to fulfill complex tasks (Petracca et al., 2013). Since RFID can be tagged on items, containers, pallets and vehicles, the IoT adoption is success for supply chain operations (Tu, 2018). Container tracking, cross-docking, electronic data interchange (EDI), radio frequency identification (RFID), and temperature-control technology for warehouses and containers are some examples of how innovations have impacted the traditional approach in logistics (Matopoulos, Vlachopoulou, & Manthou, 2009). Implementation of intelligent logistics system includes receiving, transfer, sorting, sending, transportation and other associated subsystems. Each subsystem achieves inventory management, goods delivery, automated billing and other business functions (Jing et al., 2014).

[3.1] Areas in Logistics Processes

A research by (Matopoulos et al., 2009) relates the impact of e-business adoption to customer service, ordering process and procurement. Innovation in the logistics context has not only benefited in the field of logistics, they have impacted in marketing, sales, finance, and end consumers. Containerization, cross-docking, EDI, RFID, and temperature-control technology are only some examples of how innovations in logistics have impacted the business processes.

With RFID initiatives from major retailers like Wal-Mart, Target, Mark & Spencer, Metro AG and Tesco likely to influence the whole retail industry, track shipment of goods through their distribution network (Srivastava, 2010). The objectives include cost reduction, service improvement, improved communication and interaction among supply-chain partners, and increased flexibility in terms of delivery and response times. Internet and Web technologies have contributed firms in the forms of efficient and timely order fulfillment, reduced cycle times, electronic payments, e-procurement, and more for improving their supply-chain performance (Ranganathan, Dhaliwal, & Teo, 2004). Table 1 below list the various functional areas in logistics.

	(Cooper, Lambart, & Pagh, 1997)	(Mentzer, Keebler, Nix, Smith, & Zacharia, 2001)	(Lai, Ngai, & Cheng, 2002)	(Daugherty, Richey, Genchev, & Chen, 2005)	(Sahay & Mohan, 2006)	(Wang et al. 2010)	(Gleissner & J.C. Femerling, 2013)	(Faber, de Koster, & A. Smidts, 2013)	(Harris et al., 2015)	(Barreto, Amaral, & Pereira, 2017)	(Gunasekaran, Dartmouth, Subramanian, Kingdom, & Papadopoulos, 2017)	(Martí et al., 2018)
Transport	✓		✓				✓					
Freight Forwarding			✓		✓							✓
Third Party Logistics Services			✓		✓							
Warehousing	✓						✓					✓
Procurement, purchase and deliveries						✓	✓		✓			
Reverse Logistics				✓	✓							
Transshipment							✓					
Order processing							✓					
Inventory management							✓					✓
Invoicing							✓					✓
Information flow											✓	
Material flow		✓									✓	
In-bound logistics		✓			✓			✓		✓		
Out-bound logistics		✓			✓			✓		✓		

Table 1: Functional areas in logistics

This list is important to consider in the study to explore where IoT may bring positive impact and then the overall effective implementation can be realized. The implementation in certain areas won't be beneficial and if the overall efficiency measures are not measured and improved than the whole affair can be and expansive exercise.

[3.2] Internet of Things (IoT)

The term 'Internet of Things' is closely connected to the technologies of ubiquitous computing which stands for the connection of (computer) networks with physical objects. In logistics RFID is often seen as a prerequisite for the IoT (Jia et al., 2012) (Atzori, Iera, & Morabito, 2010). IoT can further the RFID improvement of logistics operations and increasing transparency in supply chains (Macauley, Buckalew, & Chung, 2015). An item, component, sub-assembly, product, container, vehicle can be attached with a tag and microchip which can be read and tracked and on events updated the movement. Such objects are said to be smart objects - "An open and comprehensive network of intelligent objects that have the capacity to auto-organize, share information, data and resources, reacting and acting in face of situations and changes in the environment" (Madakam, Ramaswamy, & Tripathi, 2015).

Key Technologies in IoT include the RFID, infrared sensors, global positioning systems (GPS), scanners and other information sensing devices which communicate according to the some agreed protocol. Information is exchanged, in order to achieve intelligence like identify, locate, track, monitor and manage a network (Sun, 2012) (Baurai, Bajpai, & Khurana, 2019). RFID has been used in the fields of Logistics and Supply Chain, Manufacturing, Agriculture Management, Health Care and Medicine, Marine Terminal Operation, Military and

Defense, Payment Transactions, Environment Monitor and Disaster Warning, Transportation and Retailing, Warehousing and Distribution Systems (Jia et al., 2012).

Other enabling technology for IoT is cloud computing. Cloud computing provide a platform to store the data and applications remotely, while providing access to the infrastructure through internet (Yeboah-Boateng, Ezer Osei Essandoh, 2014). In the future of “Ubiquitous” technologies, the variety of wirelessly connected devices as well as the importance of machine-to-machine (M2M) communications is expected to grow significantly (Smura, Kivi, & Töyli, 2009) (Foschini, Tarik Taleb, Corradi, & Bottazzi, 2011).

IoT in combination with ICT is perceived to bring a significant improvement in supply chain as well as firm performance (de Vass et al., 2018). The effective strategy of Internet of Things (IoT) can help firms to grasp the emerging opportunities from the IoT and then improve their competitive advantage. With IoT implementation market-based exploratory capabilities play a more important role for firms adopting get-ahead strategy, and market-based exploitative capabilities play a role for firms adopting catch-up strategy in market. Especially, information sharing in supply chain contributes to the improvements of both market-based and technology-based exploratory capabilities, and internal industry information sharing contributes to the enhancement of both market-based and technology- based exploitative capabilities (Li et al., 2012).

[3.3] IoT applications and logistics

Radio-Frequency Identification (RFID) is basic device for IoT in logistics (Jia, Feng, Fan, & Lei, 2012) also called Internet of Logistic Things (IoLT). RFID are tags which could store limited data and cloud computing services to provide distributed storage of logistics applications and database (Harris, Wang, & Wang, 2015). Considered as a wireless AIDC (Automatic Identification and Data Capture) technology, RFID not only refers to the tag containing a chip, but an interrogator(Reader), and antennas to communicate through radio frequency, and finally, a middleware that manages, filters, aggregates and routes the data captured (Bendavid, Lefebvre, Lefebvre, & Fosso-Wamba, 2009). These RFID tags have low-cost and low-power technology called passive devices, which store the information with it and are able to send it when powered by electromagnetic fields generated by an RFID reader (Petracca et al., 2013). RFID is emerging as an important technology for revolutionizing a wide range of applications, including supply chain management, retail, aircraft maintenance, anti-counterfeiting, baggage handling, and healthcare (Sun, 2012). RFID tagging is often used with EPC encoding like scheme. RFID readers retrieve the information from a RFID tag through radio waves, which allows for batch scanning of products. Compared with barcode technology, RFID technology can repeatedly write data into the memory blocks of a tag. Moreover, RFID tag can survive harsh environments, and are reliable. To maximize the benefit and minimize the risk associated with RFID, retailers need to identify critical success factors for increasing competitive advantage through the use of the technology, and assess the challenges and issues that it poses (Koh, Kim, & Kim, 2008). RFID is one of the key IoT technology which has positive impact in tracking and tracing the Logistics Things (Jia et al., 2012).

4. IOT ADOPTION AND IMPLEMENTATION STAGES

Technology assist in creating capabilities with differentiated methods in a firm which adopt it to improve performance. Creating capabilities can result in improved performance for a firm (Bhardwaj, 2000). Other than technology a firm which successfully utilize resources to develop capabilities have the potential to create a competitive advantage, again resulting in higher performance. This is why a relation between logistics innovativeness and logistics service differentiation (capabilities), which impact logistics performance (Ralston et al., 2013).

RFID in the area of Logistics has got a good interest among researcher therefore the incorporation of IoT capabilities would critically be analyzed from the point of the established factors for implementation. A large scanning over more than 300 research papers, only few articles have empirically tested factors from established constructs of researchers, as most articles are conceptual papers.

From the literature review it is evident to have the categorization for the enabling factors in three groups: a) Pre-Adoption stage, b) IoT Technology implementation stage and c) Post-Adoption stage, which got mention in the proposed framework. IoT applications when implemented bring improvements in two dimensions, one by integrating the internal function of organization and two by improving collaboration across supply chain partners. A proposed framework Figure-2 depicts this categorization and relationships. Proposed framework is helpful in qualitative analysis for enabling factors for three categories, which are listed in subsequent sections.

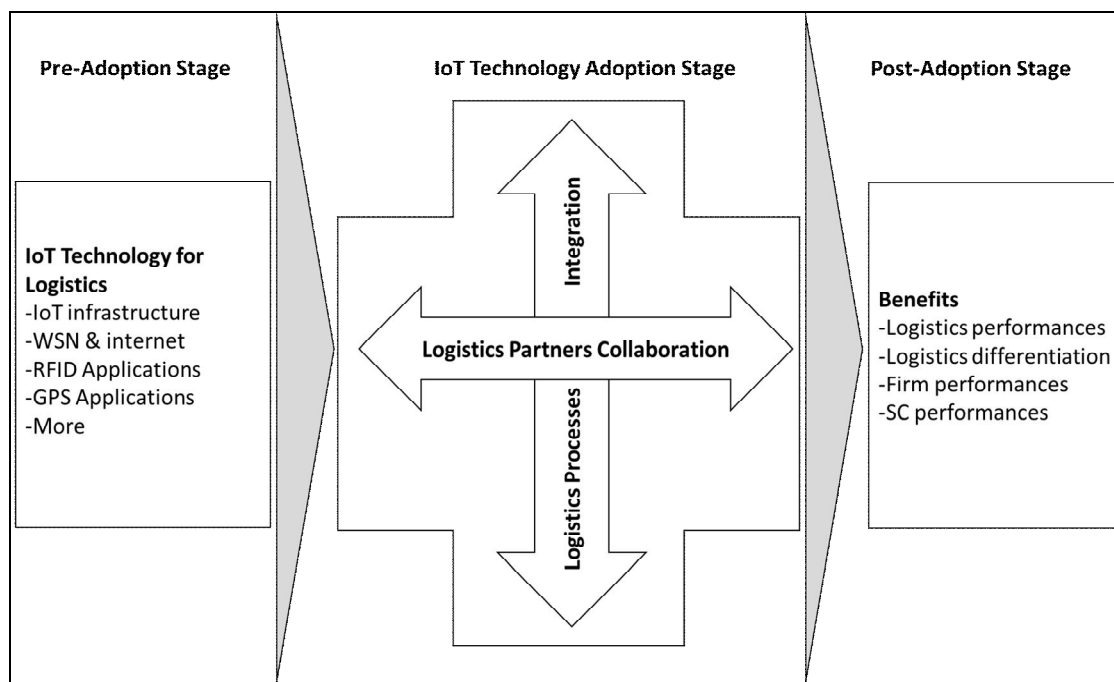


Figure-2: IoT technology adoption stages in the area of Logistics.

Source: Self

Framework is useful when identifying the KPIs for strategizing the implementation of IoT in the area of logistics. This framework along with the factors listed from literature review would be useful when deciding the IoT adoption strategy and key factors to be considered by the organization. The various stages are pre-adoption stage, IoT technology implementation stage and post adoption benefits.

The first stage pertains to various technologies developments, associated infrastructure, associated standards and protocols and the various factors as listed for the customer's processes. This proposes that technology being adopted be fully compatible with existing values in addition to other value additions. The various factors as reflected from the literature study for the technology adoption and therefore IoT adoption mainly indicates two major achievements which need to be in focus while implementing the technology in an organization. These are Integration (Vertical) and collaboration (Horizontal). Integration is comprising of various departments and divisions of the organization so that they no more function in siloes and help in decision making process. Whereas collaboration factors are for providing a market place to exchange information among the partner organization in supply chain, up-stream, down-stream and logistics partner companies (Stank, Keller, & Daugherty, 2001). Ultimate beneficiary out of collaboration is the common customer of the partner companies. The factors in this stage are the benefits expected from IoT adoption. The list from literature study is not exhaustive however distinct improvements in firm performance factors, logistics performances, logistics differentiation factors and supply chain performances are mentioned.

5. IOT ADOPTION ENABLING FACTORS

There has to be a strategic alignment between technology being adopted and the customer vision. Achieving alignment requires strong support from senior management, good working relationships between functional and IT management, strong leadership, appropriate prioritization, trust, effective communication, as well as a thorough understanding of the business environment.

5.1 Enabling factors in Pre-Adoption stage

This stage pertains to technology evaluation and its suitability for the adoption. While taking difficult decisions, valuable information must be available at the right place, at the right time, to right people who approach the problem for an out of box solution (Barratt, 2004). To win customer, firms must have what customers want when and where they want it. Internet of Things is providing very innovative solutions in all above and is going to impact processes radically. The IoT vendor and technology adoption depends how the customer's need are supplied with economy compared to other technology suppliers. Close relationships with suppliers land to high demand and helping satisfy the customer expectations (Stank et al., 2001). High integration and relationships IoT as technology and logistics processes are the enabling factors and the absence of the factors would become

inhibitors. Achieving alignment demands focusing on maximizing the enablers and minimizing the inhibitors (Luftman, Papp, & Brier, 1999).

From the literature review, a list has been prepared as below in Table-2 to group such enabling factors which are important to be considered during pre-adoption stage.

Table 2: Enabling factors in Pre-Adoption stage:

	Enabling factors	Description	Authors
[1.1]	Perceived usefulness of technology	According to technology acceptance model (TAM) the usefulness matters for the end user in accepting IoT or new technology.	(Davis, 1989), (R. G. Fichman, 2000), (Kevin et al., 2003), (Wu & Shu-Ching, 2005), (Schmitt et al., 2008), (Gao & Bai, 2014b)
[1.2]	Compatibility with existing values	The IoT technology need to be compatible with existing processes and technology already in use.	(Rogers, 1995), (Prater et al., 2005), (Levy, Powell, & Worrall, 2005), (Matopoulos et al., 2009), (Sheko & Spaho, 2018), (Tu, 2018)
[1.3]	Integrated centralized database and information quality	The factor is comprising of various sub-factors for technology capability to support an integrated database of the enterprise and have accuracy & timeliness attributes of information quality.	(Stank et al., 2001), (Simatupang & Sridharan, 2005), (Rai et al., 2006), (Claassen et al., 2008), (Macaulay & Kückelhaus, 2015), (Sheko & Spaho, 2018)
[1.4]	Perceived ease of use	Another important factor suggested in TAM in accepting IoT or new technology.	(Davis, 1989), (R. G. Fichman, 2000), (Daugherty et al., 2005), (Wu & Shu-Ching, 2005), (Gao & Bai, 2014b)
[1.5]	System norms & integration	The attribute pertains to system ease of integration.	(Rogers, 1995), (Srivastava, 2010), (Macaulay & Kückelhaus, 2015), (de Vass et al., 2018)
[1.6]	Technology standardization (Data formats and communication)	Technology maturity and capability for universal acceptance	(R. G. Fichman, 2000), (Schmitt et al., 2008), (Srivastava, 2010), (Macaulay & Kückelhaus, 2015), (Tu, 2018)
[1.7]	Relative advantage of innovation	In comparison to other options with customer	(Rogers, 1995), (Joo & Kim, 2004), (Prater et al., 2005), (Matopoulos et al., 2009)
[1.8]	Complexity of innovation	Complex solutions demands higher skills and training to man-power which cause cost increase.	Rogers, 1995), (Schmitt et al., 2008), (Matopoulos et al., 2009)

[1.9]	Risks involved in technology adoption	Risks in terms of safety and security of individual personal information and corporate intellectual property	(Prater et al., 2005), (Wu & Shu-Ching, 2005), (Macaulay & Kückelhaus, 2015)
[1.10]	Return on investment	Knowledge from past implementations	(Simatupang & Sridharan, 2005)

5.2 Enabling factors for IoT technology adoption/ implementation stage

Successful supply chain management requires a change from managing both individual functions to integrating activities into key supply chain processes (Cooper et al., 1997, p. 5) i.e. collaboration. Therefore IoT adoption have two objectives- a) Integration of internal functions to realize logistics differentiation and b) Collaboration with partner firms in supply chain.

(a) Integration for internal functions to realize logistic differentiation

Capability of ICT technology implementation brings integration of internal function of an organization which benefit in efficiency, effectiveness, transparency, faster decisions and delivering best to customer. This exploratory research attempts to enumerate the factors for internal integration. There is empirical evidence that integrating-specific internal functions such as manufacturing and purchasing will lead to higher performance. Research confirms that logistics integration is linked to increased efficiency and productivity (Pagell, 2004) (Nthiga & Moronge, 2017). An empirical research by studying the link between supply chain integration (SCI) and its impact on performance is from (Fabbe-Costes & Jahre, 2008) and there are multiple researches supporting it.

A key reason for the popularity of integrated logistics and transportation through IoT have made supply-chain coordination a viable managerial and strategic option (Petracca et al., 2013). Integration is a process of interaction and collaboration in which manufacturing, purchasing and logistics work together in a cooperative manner to arrive at mutually acceptable outcomes for their organization (Pagell, 2004).

Table 2: Enabling factors for IoT technology adoption and implementation stage

	Enabling factor	Function Area Description	Authors
[2.1]	Top management vision commitment & support	To sponsor and to bring any radical change need top management support. This include IT involved in strategy development & Managerial awareness of technology.	(J C Henderson et al., 1992), (R. G. Fichman, 2000), (Barratt, 2004), (Pagell, 2004), (Prater et al., 2005), (Schmitt et al., 2008), (Fawcett et al., 2008), (Matopoulos et al., 2009), (Macaulay & Kückelhaus, 2015)
[2.2]	Purchasing (Cost reduction quality & time)	Purchasing Process gets significant improvement.	(Levy, Powell, & Worrall, 2005), (Fawcett et al., 2008), (Koh et al., 2008), (Claassen et al., 2008), (Matopoulos et al., 2009), (Bendavid et al., 2009), (de Vass et al., 2018)
[2.3]	Business - IT partnership & alignment	IT department who implement the IoT and other technology need be fully integrated in strategic decisions of organization.	(R. G. Fichman, 2000), (Barratt, 2004), (Pagell, 2004), (Li et al., 2012), (Sheko & Spaho, 2018)
[2.4]	Organization size & structure	To bring sufficient efforts for the radical change.	(R. G. Fichman, 2000), (Kevin et al., 2003), (Joo & Kim, 2004), (Schmitt et al., 2008) , (R. Fichman, 2018)

[2.5]	Communicability & Information sharing	Information transparency helps in integration.	(R. G. Fichman, 2000), (Barratt, 2004), (Pagell, 2004), (Daugherty et al., 2005), (Li et al., 2012)
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(b) Collaboration with partner firms in supply chain

Managers must be able to think innovative approaches to logistics and supply chain problems. External forces drive organizations to align and form strategic supply chains so as to align SC action with external environmental demands. Researches have proved immense benefits and case studies of success out of collaboration in supply chain that technology provide (Fawcett, Magnan, & McCarter, 2008). RFID technology acts as a disruptive enabler of collaborative supply chain (Bendavid et al., 2009). Collaboration, when it is put in the context of the supply chain for mutuality of benefit, rewards and risk sharing together with the exchange of information as the foundation of the collaboration (Stank et al., 1999a; Barratt and Oliveira, 2001). Collaboration may share large investments, pool risks, and share resources, causing growth and return on investments and has led to new strategies, such as Quick Response (QR), Efficient Consumer Response (ECR), and Vendor Managed Inventory (VMI), and Collaborative Planning, Forecasting and Replenishment (CPFR) has been increasingly adopted in industry (Chen, Yang, & Li, 2007).

Logistic strategy have seen a different approach when QR, VMI, CPFR, and ECR has been in place with the supply chain partners (Ireland and Bruce, 2000; Barratt, 2002). This paper identifies the major factors of supply chain collaboration. Technology and IoT add to collaboration within the supply chain partners however Supply chain collaboration does not need to be based on technology always (Barratt, 2004).

Table 3: Enabling factors for IoT technology adoption stage: Collaboration with partner firms

	Enabling factor	Function Area Description	Authors
[3.1]	Communicability & Information sharing	Information transparency helps in collaboration among partner firms.	(R. G. Fichman, 2000), (Barratt, 2004), (Pagell, 2004), (Daugherty et al., 2005), (Li et al., 2012)
[3.2]	Decentralized self-control containers	With IoT a radical change where entire movement of containers can be traced and monitored in real time.	(Macaulay et al., 2015), (de Vass et al., 2018)
[3.3]	Sensor monitor for shipment status - Track & Trace	With IoT shipment track & trace in real time.	(Macaulay et al., 2015), (de Vass et al., 2018)
[3.4]	Provide container/box/pallet identification	The fast changes in retail sector due to IoT impact in collaboration with partner firms.	(de Vass et al., 2018)
[3.5]	Improve account payable process	With huge impact of IoT and technology the account payable is a huge success.	(de Vass et al., 2018)

5.3 Enabling factors for Post adoption stage

The impact post-adoption has to be various benefits one may expect from a successful IoT adoption. Very significant impact can be seen on logistics performances from successful technology adoption like increased inventory turnover, increased revenue, and cost reduction across the supply chain (Daugherty et al., 2005). Collaboration not only enables partners to reduce one another's costs but also allows inventory to cycle through to customers faster. The two-fold result is increased revenues and decreased costs that can be shared across the chain. Two other core benefits include decreased order cycle times and greater product availability (Stank et al., 2001). Additional benefits are market responsiveness, added economic value, capital utilization, decreased

product time to market, and logistics cost reduction (Mentzer et al., 2000; Sun, 2012). Revenue growth lower costs using fewer assets translates into improved performance.

Advances in Information Technology are constantly transforming competitive marketplace. For example benefits of RFID are numerous in retailing industries. Some of these benefits include reduced labor costs, simplified business processes, improved inventory control, increased sales, and reduced shrinkage (Koh et al., 2008). In the table below we list such benefits in more detail.

Table 4: Enabling factors for Post adoption stage

	Enabling factor	Function Area Description	Authors
[4.1]	Industry competitiveness	Logistics differentiation: IoT technology would have this differentiating impact.	(R. G. Fichman, 2000), (Kevin et al., 2003), (Ranganathan et al., 2004), (Joo & Kim, 2004), (Schmitt et al., 2008), (Matopoulos et al., 2009), (Grawe, 2009), (Li et al., 2012), (R. Fichman, 2018)
[4.2]	Customer service (cost quality & response time)	Firm performance: IoT technology impact favorably in customer service to bring differentiation.	(Prater et al., 2005), (Levy, Powell, & Worrall, 2005), (Simatupang & Sridharan, 2005), (Fawcett et al., 2008), (Koh et al., 2008), (Claassen et al., 2008), (Matopoulos et al., 2009), (Ralston et al., 2013), (de Vass et al., 2018)
[4.3]	Speed in goods dispatch and on-time delivery	Supply chain performance: Transportation and Order process improvement in supply chain.	(Levy, Powell, & Worrall, 2005), (Simatupang & Sridharan, 2005), (Fawcett et al., 2008), (Bendavid et al., 2009), (Ralston et al., 2013), (de Vass et al., 2018)
[4.4]	Reduced inventory cost & Inventory velocity	Firm performance: Inventory cost reduction among the partners in supply chain.	(Simatupang & Sridharan, 2005), (Rai et al., 2006), (Fawcett et al., 2008), (Koh et al., 2008), (Bendavid et al., 2009)
[4.5]	Order fulfillment lead-time	SC performance: Reduction with IoT technology adoption.	(Chen et al., 2007), (Fawcett et al., 2008), (Bendavid et al., 2009), (Srivastava, 2010), (Ralston et al., 2013)
[4.6]	Profitability & Sales revenue growth	Firm performance	(R. G. Fichman, 2000), (Simatupang & Sridharan, 2005), (Rai et al., 2006), (Chen et al., 2007)
[4.7]	Better asset utilization - Cash-to-Cash Cycle time	Firm performance	(Simatupang & Sridharan, 2005), (Rai et al., 2006), (Fawcett et al., 2008), (Bendavid et al., 2009)

[4.8]	Accuracy in managing inventory	Firm performance	(Koh et al., 2008), (Srivastava, 2010), (de Vass et al., 2018)
[4.9]	Market share & profits	Firm performance	(Simatupang & Sridharan, 2005), (R. Fichman, 2018)
[4.10]	Cost of logistics	Logistics performance	(Ralston et al., 2013), (de Vass et al., 2018)
[4.11]	Inventory turns	Firm performance	(Macaulay et al., 2015)

6. QUALITATIVE ANALYSIS FOR IOT ADOPTION AND PROPOSED FRAMEWORK

Based upon the literature review, adoption of IoT applications for logistics has the following characteristics:

1. More efforts and successful developments and testing of IoT application including software and hardware is taking shape into new types of IoT platforms and infrastructure which have capability of efficient and effective solutions for diverse area of logistics with complete paradigm shift.
2. The challenges of inter and intra integration so that not only the processes with in logistics organizations are integrated but inbound and outbound logistics are integrated to realize collaboration among the upstream and downstream partners.
3. A successful implementation of IoT applications would reflect in improved logistics performance measures and benefits to customers.

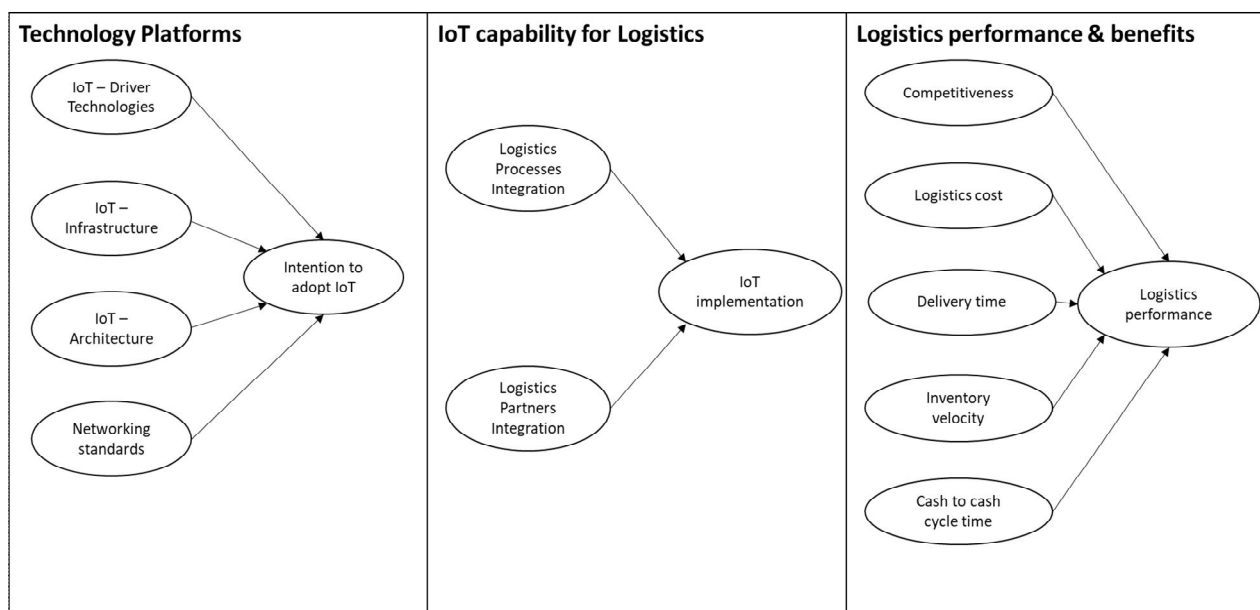


Figure-3: IoT technology adoption framework in the area of Logistics.

Source: Self

The framework depicts the three stages and factors relationships in the IoT adoption in logistics.

7. CONCLUSION

The Internet of Things is becoming a reality in the business world, despite the ongoing researches that ultimately seeks, new products, services or processes, may not always followed by the expected adoption. Therefore it is always important to approximate the adoption trend to support research which would fetch business value. Both IoT and Logistics are wide and multidisciplinary in nature. So technology research is followed by basic research to ensure the adoption of these technologies over time where this study is targeted to contribute.

In the article it can be concluded that to innovate successfully and implement Internet of Things based applications, in a logistics organization for logistics processes to facilitate more effective services to customer are complex issues. Therefore an alignment between IoT as technology, and improved logistics performances as

objectives, is a must strategy for successful adoption. Identifying KPIs for this purpose is first thing to do where the proposed lists of factors and framework may help. These factors are based upon empirically tested and proven models of previous researches in the area IoT solutions for logistic applications. Therefore, this tool would always be useful when developing IoT adoption strategies in logistics as well as can be helpful in other sectors simultaneously.

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ROLE OF SOCIAL AWARENESS IN EMPLOYEE COMMITMENT AND PERFORMANCE

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ABSTRACT

Employee Performance has become an essential requirement for technology-based organizations to survive in modern economy. The growth of an organization depends upon the commitment and performance of an employee. Engaged employees are willingly ready to put in extra efforts when the organization needs. According to various surveys, overall employee performance has gone down tentatively compared to last years. Hence, organizations have been adopting various measures to increase employee performance levels, social awareness being one of them. Thus, this paper is an attempt to look into the role of social awareness in employee performance through strategy/ model.

Keywords: Employee Performance, Social awareness, Listening, Barriers.

INTRODUCTION

“Employees look forward to a good working atmosphere where meritocracy is respected, employee performance activities are practiced, good talent is recognized and opportunities are provided to grow.” (Priya.C Nair, 2010).

The employee performance has considerable focus of researchers over the past few years, due to a variety of factors including the positive psychology movement and business's needs to maximize the impact of their employees. The positive psychology movement was initiated through Seligman and Csikszentmihalyi's (2000) research into exploring the optimal performance of human beings at work place. The business in today's era is facing intense and global competition, which in turn requires the employees to be physically, emotionally and cognitively committed towards company, customers and work. Performance of each and every employee has become necessary for every organization for its sustainability and growth.

Employee performance is the level of commitment and involvement an employee has towards organization and its values. Performance at work was initially conceptualized by Kahn, (1990) as 'harnessing of organizational members' selves to their work roles. In performance, people employ and express themselves physically, cognitively, and emotionally during role performances. An engaged employee is a person who is fully involved in, and enthusiastic about work. Engaged employees care about the future of the company and are willing to invest the discretionary effort (Seijts, and Crim 2006). Engaged employees feel a strong emotional bond to the organization that employs them. These employees work with passion and feel a profound connection with company. However, researchers claim that only 29% of employees are actively engaged in their jobs (BlessingWhite, April 2008). People who are actively engaged, help to move the organization forward. An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organization.

Aspects of Employee Performance

In fact its on the part of employees incumbency to provide conducive environment and culture for employee. Apart from the global study, the following are aspects of Employee Performance:-

- The experience in psychological make-up of employees.
- The conducive environment created by the employer to promote employee performance is a unique ability of employer.
- The social awareness among employee at all the levels for better understanding.

Employee Performance

Employee performance has become a burning issue today. There has been practically no empirical research in the organizational behavior literature.

Performance is a precursor to job involvement. The individual, who experience deep performance in their roles, comes to identify with their jobs. Kanungo (1986) maintained that job involvement is a Psychological phenomenon. It results from a cognitive judgment about the needs satisfying abilities of the job. Furthermore performance entails the active use of emotions.

Employees are said to be engaged when they show a positive attitude toward the organization and express commitment to remain with the organization.

An organization's productivity is measured not in terms of employee satisfaction but by employee performance. Further, organizations, with good culture, promote employee performance and organizational commitment. Dimensions of organizational culture are significant predictors of organizational commitment. (Shannawaz and Hazarika, 2004). Organizational culture also plays a critical role in motivating innovative behaviour, as it can create commitment among employee of an organization in terms of believing in innovation as an organizational value and accepting innovation-related norms prevalent within the organization. (Hartmann Andreas, 2006).

Methods to increase Employee Performance

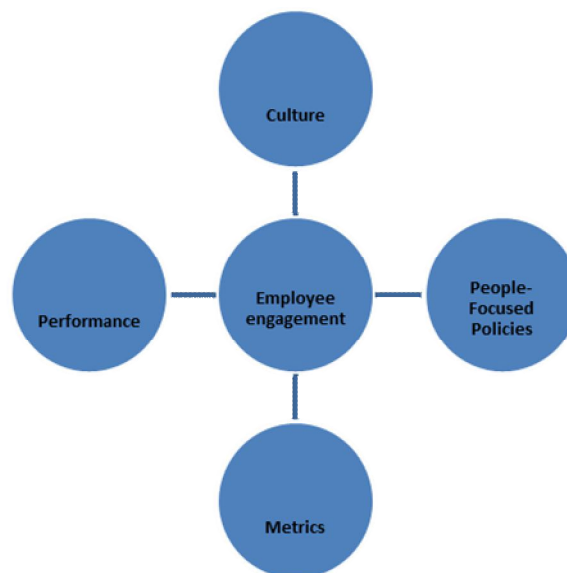
The following measures may be adopted by organizations to increase employee performance:

Culture: It consists of a foundation of leadership, vision, values, effective social awareness, a strategic plan, and HR policies that are related with employee.

Continuous Reinforcement of People-Focused Policies: Continuous reinforcement exists when senior management provides staff with resources to accomplish the work, and empowers them.

Meaningful Metrics: They measure the factors that are essential to the organization's performance. Because the performance of organization's is depended upon people greatly. These metrics will naturally drive the people-focus of the organization and lead to beneficial change.

Organizational Performance: It ultimately leads to high levels of trust, pride, satisfaction and success.



(Increasing Employee Performance, 2009)

Advantages of Employee Performance

An employee's good performance is an asset in any organization who can deliver unexpected results. The following can be noted as advantages of employee performance:-

- The employee whose performance is good stays longer period of time in organization. Therefore it works as mouth advertisement for organization's image, product and service. Over and above the contribution in the bottom line for its success cannot be ignored.
- These employees are highly motivated.
- These employees are also attached emotionally with the organization and stays for a longer period.
- The employee who performs better are highly engaged and develops trust and respect for the organization.
- The employee performance helps in the creation of highly energetic work environment.
- It's a linked with profitability of organization.
- It enhances the growth and image of the organization.

“Employee performance is highly important in the IT Industry especially where everything revolves around employee’s skill and knowledge. When employees are committed and positively engaged with the organization, their attitude and commitment towards the company’s client also grows and this directly impacts the customer service level and satisfaction. Thus a successful employee performance plan helps to create the building blocks at the work place and not just a workforce.” Notes Mr. Darakshan Ali, founder, D-Sys Data Solutions. (Times of India, Ascent Global, Jan 6, 2010) He has also suggested the following advantages of employee performance:-

- The lower attrition rate.
- Boost business growths
- Spread positive information and keep up the company’s image
- Create a healthy work environment in peer groups.
- Build employee commitment, trust towards the organization and help to achieve the organization’s goal.
- Increase productivity and foster organizational growth.

Importance of Employee Performance

Employee performance is required for higher turnover, customer satisfaction – loyalty, safety and to a lesser degree, productivity and profitability criteria (Harter, Schmidt & Hayes, 2002). Organizations that embraced employee performance fared better in terms of company focus, performance, staff retention, morale and, profitability. (Smythe, 2007). Hence, the organization must work to develop and nurture performance, which requires a two-way relationship between employer and employee. Latter’s commitment and loyalty depends on good leadership, social awareness, recognition and training, (Gilbert 1996). An organization’s capacity to manage employee performance is closely related to its ability to achieve high performance levels and superior business results.

There is a significant link between employee performance and profitability too. Further engaged employees will stay with the company, be an advocate of the company and its products and services, and contribute to bottom line business success. □ They normally perform better and are more motivated. □ □ They form an emotional connection with the company. This impacts their attitude towards the company’s clients, and thereby improves customer satisfaction and service levels. □ Employee Performance also builds passion, commitment and alignment of an employee with the organization’s strategies and goals. □ □ Moreover; it increases employees’ trust in the organization and creates a sense of loyalty in a competitive environment. □ It also provides a high-energy working environment and makes the employees effective brand ambassadors for the company. (Employee Performance, 2009).

Role of Social awareness in Employee Performance

Social awareness networks play a crucial role in this aspect. Employee Performance means physically energized, emotionally connected, mentally focused and spiritually aligned. It can be better achieved through effective social awareness skills. The characteristics of social awareness (frequency, diversity, and centrality) along with the content of social awareness (shared vision, shared task knowledge, and shared social knowledge) significantly affect the elements necessary to build technological innovation. (Prasad and Martens, 2008, Ebadi and Utterback, 1984) And innovations can only be done when process of employee performance is existed.

Social awareness is a personal process which occurs between people. It involves change in behaviour and it is a method to influence others. It is also the expression of thoughts and emotions through words & actions. It is used as tool for controlling and motivating people. Thus it is a social and emotional process.

Studies have shown that social awareness as a critical factor of culture can lead to effective Employee performance. Performance is the buzz word term for employee social awareness. The later has strong ties to the very core of organizational existence. Organizations cannot exist without social awareness. (Keyton, 2005). The company should follow the open door policy. There should be both upward and downward social awareness with the use of appropriate social awareness channels in the organization. If the employee is given a dialogue in decision making and has the right to be heard by his boss. The performance level is likely to be higher. It is rapidly gaining popularity and importance in the workplace and impacts organizations in many ways. Employee performance emphasizes the importance of employee social awareness in the success of a business.

We convey a thought or feeling to someone through social awareness. How it is received depends upon a set of events, stimuli, person exposes to. “How does one say”, “What does one say” play an important role in social

awareness. It is the art of transmitting informations, ideas and attitudes from one person to another. Social awareness is the process of meaningful interaction and interface among human beings.

Definition of Social awareness

Social awareness is also a dynamic, unending and non linear process. "It is a process in which interrelated elements work together to achieve a desired outcome or goal" (Barker, 1984). We are exposed to innumerable bits of information, ideas and thoughts which we process, evaluate and store. This stimulus changes us daily to some extent on a regular basis. The recipient becomes the communicator and this cycle is repeated over and over. In the context of service delivery, this is quite appropriate as "services are seen as processes co-generated together with the consumer, and all contact-points between the consumer and the service company are moments-of-truth" (Gronroos, 1987). Effective social awareness during service encounters helps in organizational development as it goes a long way in contributing to the quality of the service and satisfaction of the customer. (Jain, et al. 2009).

The techniques of social awareness are needed in modern business environment for an employee to perform and, to be satisfied socially and emotionally and also to facilitate task accomplishment. Further, these types of social awareness also help to maintain employer-employee and employee-customer relationship. Johlke and Duhan (2000) found that employee satisfaction can be increased by increasing the frequency of the supervisor-employee social awareness. In their meta-analysis, Mathieu and Zajac (1990), showed the importance of leader social awareness for commitment, suggesting that "a supervisor who provides more accurate and timely social awareness enhances the work environment and thereby is likely to increase employees' commitment to the organization". An organization in search of higher growth must focus on manager's interpersonal social awareness, clarity and frequency of the messages. The ways messages are sent, especially their clarity, and a leadership style that can engender the trust. These are some of the highest important when HR managers wants to enhance employee commitment in an organization. The ability to listen actively and the ability to lead in a collaborative way are most important. (Bambacas and Patrickson 2008),

Pattern of Behaviour of people having Social Awareness

It is claimed that effective listeners adopt the following patters of behaviour (Robbins and Hunsaker, 1996):

- Establish eye contact
- Show an interest in what has been said by a nod of the head an appropriate facial expression.
- Avoid distracting actions and body gestures.
- Seeks clarification by asking questions of what has been said in order to aid understanding and avoid confusion if any.
- Does paraphrasing of what the speaker has said.
- Do not over talk.
- The effective listener has to be adapted in making a smooth transition between speaker and listener, and vice versa.

Thus we can say social awareness skills is responsible for performance of an employee and profit of an organization. Social awareness in an effective manner can also help in the growth and development of employee which in turn would help them to be successful in their work.

HR Problem caused by poor social awareness

It appears that the managers in Indian organization do not field social awareness with employees quite effectively. The social awareness basically involves too major factors. One is the clear thinking, experience and ability to articulate based on personality of an individual. Secondly, the system of social awareness such as verbal, non verbal and written. All play a vital role and are interrelated to. In fact any problem/ failure at HR front will reveal poor social awareness as a cause. Therefore the social awareness can never be paid scant attention to keep the employee committed and engaged in organization. (Diwedi, 2008).

The growth of an organization depends upon the commitment and performance of employee. The level of commitment and performance of an employee is basically towards organization and its values. The committed and engaged employees know and are aware about the duties and responsibilities. Thus the accomplishment of the job becomes quite easy. The aspect is also shows the positive attitude towards organization and its values. Engaged employees are willing and wishfully ready to put in extra efforts as and when the organization needs. Vinit Durve, VP-Corporate HR, ZICOM Electronic Security Ltd put it as, "An engaged workforce results in

lower level of management that assist in ensuring talent retention. Also an engaged workforce is more effective and efficient and work towards continuous improvement. (Times of India, 2010)

Social awareness skills help to increase performance and commitment

In general we can say that effective social awareness skills will help to increase the performance and commitment in employee which in turn will:-

- Increase organization profit and turnover rate (Mowday et. al., 1982), (Angle & Perry 1981).
- Increase trust, job involvement, and job satisfaction, (Loui 1995).
- Increase job involvement, (Wiener & Vardi 1980).
- Increase motivation, organizational citizenship behaviour and organizational support, (Kwon and Banks, 2004).
- Increase self-awareness and self-confidence in employee
- Understand customer needs in a better way
- Help to work in a group
- Decrease prejudices and discriminations in the organization
- Increase technological innovation and creativity, (Mohanty 1999 and Coleman, 1996).

Suggested Essentials of Social awareness for Employee Performance

Following are the essentials of social awareness which are needed for employee performance:-

- Always think before you say.
- Use simple words and phrases that can be understood by every body.
- Enhance your knowledge on the subjects you require speaking to.
- Speak clearly and audibly.
- Check with the listener whether one has understood accurately
- In case of an interruption, always does a little recap of what has already been said.
- Always pay proper attention to the speaker while listening.
- While listening, make notes of important points if necessary.
- Always ask for clarification if you fail to grasp other's point of view.
- Repeat what the speaker has said to check whether you have understood accurately.

Social awareness is at the heart of many interpersonal problems faced by the employers during full performance. Understanding the social awareness process and working at improvement provide managers a recipe for becoming more effective communicators.

Factors of Effective Social awareness

In a study of companies with very good internal social awareness processes at critical time, a number of factors associated with the effectiveness of social awareness were identified, as follows (Young and Post, 1993):

- There was a firm commitment to social awareness by chief executives.
- Words were backed by actions.
- There was balance between upward and downward social awareness.
- There was an emphasis on face to face social awareness.
- Managers and supervisors at all levels were actively sharing information with their work groups.
- The employees were encouraged to share good and bad news as well.
- Messages were relevant and appropriate to the need of the target audience.
- The employees were made aware of the facts as quickly as possible and give them opportunities to draw conclusion.

Innovative Step of Bharati Airtel for Employee Performance

Bharati Airtel dovetails HR with Corporate Social Responsibility (CSR) to come up with first of its kind employee performance. It's a taste of new age Corporate Social Responsibility peppered with human resource management via online auction. On offer among a host of bid items in time with Bharati Airtel's senior management the employee can bid for morning job to dinner at night. However, the money collected through this way would be donated to Satya Bharati School, Bharati Foundation's Flagship programme for a noble cause. And the company too equally contributes in it. The idea gets a thumbs-up from HR experts. Nina Chatrath, Senior Consultant, Korn/ Ferry leadership and talent consulting put it in this way, "Leaders in their day to day lives rarely get to interact with the employees who are not their direct reports. These are the best interaction for employee performance." Further CEO and Joint Managing Director, Manoj Kohli of Bharati Airtel adds, "The idea reflects on one side the commitment of company to education especially of the girl child. Also it's a form of performance with employee. Basically, in the beginning the idea was not to use it as employee performance mechanism but the concern of workforce for corporate social responsibility. Krish Sanker of Bharati Airtel said, "The learning for us is that there is a group of people for whom CSR matters. So now we realize if we want to engage employees, here is an innovation. (Bhattacharya, 2009).

The fact that Indian Employees are most engaged workers across Asia Pacific but the downturn has taken its toll with its employee involvement dwindling at work place, revealed by the study conducted by Watson Wyatt Work Asia in 2008-09. The study further revealed that employee performance score, measured in term of performance, commitment and line of sight has declined by three percent in India compared to last year. The survey further revealed that overall employee performance has gone down by four percent compared to last year. Its now obvious question whether the organization be worried about the decline in employee performance? The answer is Yes, as lower level of performance means overall decline of performance, top performers becoming prone to quitting and disperformance even at top level." Said N.S.Rajan, Partner Human Capital and Global Leaders, HR Advisory Ernst and Young. (Economic Today, 2009)

CONCLUSION

Today, the impact of globalization of business and liberalization of trade has brought immense opportunities along with challenges. And, to face these challenges one must perform well in his organization. Employee Performance has become an essential requirement for technology-based organizations to survive in modern economy. Performance is a highly practical, scientifically based approach to managing energy more skillfully. Commitment to long-term objectives and learning are considered as indispensable for employee performance. Social awareness networks play a crucial role in this aspect. Social awareness is a dynamic, unending and non linear process. Thus, we can say, effective social awareness skills are prerequisite for employee performance which in turn is responsible for technological innovation, higher turnover rate and better relationship between employee, employer and customer. One can engage his spirit, mind, heart and body through effectual social awareness skills. It helps to fully ignite our talent and agility in workplace.

The techniques of social awareness need to be kept opened. Its imperative for employee to appreciate and understand the following aspect of the organization:-

- Policies
- Rules
- Procedure
- Practice and deeds/ Action

Unless the employees understand above mentioned aspects of organization, it is very difficult to get the whole hearted cooperation from them. It is prerequisite for better health of any organization. At the same time it falls on the incumbency of management to be proactive in approach and anticipate the problem of employee well in advance rather than reacting on happening.

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INDIA IS OLDER, BUT IS IT WISER? BARRIERS TO THE PATHWAY OF BETTER EDUCATION

Urmila Yadav

ABSTRACT

India will be the most populous country in the world and will grow to about 1.5 billion people by 2030. This demographic change could propel India in becoming a powerful engine of economic growth and development but only if the education system changes as per the requirements of the growing economy. India's higher education system is the third largest in the world. With 119 million young Indians, the current education system will be quite inadequate. Sustaining education standard and providing employability security will become a challenge. There is a need of value based higher education system which empowers youth for self sustainability by Inculcating holistic approach, employment skills and consequently reducing poverty. This paper examines the challenges to the pathway of better education in India and also proposed educational reforms and explained the critical aspects of managing and delivering superior value of the higher education system in India.

Keywords-Value education, employability, Sustainability, employability, youth, higher education Research Method-The research is based on secondary data taken from different research reports, articles, and research papers

OBJECTIVES OF THE STUDY

To find out the fields of knowledge where India does it lag?

To find out the barriers to sustaining education standard and employability

To give suggestion upon which universities should focus to accomplish the desired goals of Indian higher education system

INTRODUCTION

Higher education system is essential for national, social and economic development of the country. "higher education is no longer a luxury; it is essential to national, social and economic development" (World bank 2000:39) India's higher education system is the world's third largest in terms of students, next to China and the United States. Rapid changes have been coming both within and outside India, in politics, economy, technologies and the environment, in demography and aspirations, all indicated a future that will be very different from present. Though we cannot foresee the future, one can at least try and be better prepared for it. And knowledge is key to that preparation.

India's Higher education presents a depressing picture. Although the massive expansion – from 8 million to 36 million – from 2000 to 2017, certainly improved access, it was a mystery that what exactly the median student in a median college in India learns. But it is clear that these students will have aspirations, is likely to have student debt and very unlikely to get a job that matches either.

if we talk about India's knowledge creation abilities? Data from the US National Science Foundation indicates that India's share in worldwide refereed science and engineering (S&E) publications increased from 2% to 5% from 2000 to 2018. While much of this was of low quality, in the top 1% cited article index, between 2000–16 India's score increased from 0.41 to 0.70, meaning that its share of the top 1% of cited articles relative to its total publications, increased from less than half to 70%. In the same period China's top 1% cited article index more than doubled, from 0.4 to 1.1.

What are the fields of knowledge where does India lagging behind? India does comparatively better in material science, computer and information sciences, chemistry and mathematics and statistics, while it does worse in biological and biomedical sciences, health and social sciences. For the first time since 2012, there was no Indian institution among the top 300 in the Times Higher Education (THE) World University Rankings list. We are slipping in relation to the world. In India universities are running after degrees in place of excellence and the same was being upon the students as well. While the western universities focused upon one subject and work towards specialization. Not only that, but students have easily accessible high quality information that is freely available and have trained, articulate higher education marketers.

Barriers to sustaining education standard and employability:

The Indian education system has been always tormented by bureaucracy, mainly in financial and procedural matters. The allocation of fund for education has dipped from 6.15% to 3.71% of the Union Budget between

2014 and 2017. Of these meager funds, a disproportionate amount is being thrown at a few selected institutions so that they may dramatically improve their ranking. In fact, such skewed priorities will ensure the decline of Indian universities as a whole from their always lack luster performance.

In recent years, however, actual teaching and research had come under increasing control. Appointments are guided by an 'Academic Performance Index'. Stipends and scholarships from the human resources development (HRD) ministry were delayed by months. The UGC had imposed a standard mandatory curriculum on all universities. Incredibly, even research funding is being restricted to fields of undefined 'national interest'. Going a step ahead, the National Education Policy (NEP) proposes vetting each specific topic. This not only rules out all dissent against State policy (most damagingly on developmental and technological issues) but all truly innovative inquiry, which, by definition, cannot be anticipated, least of all by a committee. Such a policy spells doom for fundamental research, of which, against all odds, a modicum is currently conducted at Indian universities..

The biggest problem with the Indian education system is that it is **not holistic in nature-teaching** the basic skills on which professionals are tested on daily basis the reading, writing, comprehension and reasoning. The emphasis is on memorizing, where students do not really learn anything, merely commit facts to memory and give superficial exams that actually test nothing. While planning for a carrier, there is no structured career counseling that taken into account the skills and mindset of the student. Most of Indian children do not take up courses because of interest or an innate skill but to please their parents or confirm to social norms.

With the quality of teachers in government –funded schools dropping, so is the standard of education and people choose to leave the country for greener shores.

Barriers to Research & Development areas; we are not focusing on research because in India it is seen as a cost, not investment. At this point, Indian universities and colleges have almost no standing and recognition.

Weakness of international collaboration- One reason why the quality of India's knowledge creation suffers is the failing of international collaboration. The proportion of worldwide articles produced with international collaboration – that was, by authors from at least two countries – had doubled over the last two decades and most of the large producers of S&E scholarly articles in 2018 were highly collaborative: the UK (62%), France (59%), Canada (56%), Germany (53%) and Spain (53%). In comparison, the figure for India was just 18%. And despite the very large number of Indian students in the US and the large increased in publications by Indian researchers, the share of US international articles with a coauthor from India was barely 3.74%. While the index of internationally coauthored S&E publications increased between the US and most other major research countries from 1996 to 2018, India was one of the very few countries where it had declined, despite strengthening ties between the two countries during this period.

The link between knowledge creation and the economy was especially manifested in knowledge and technology intensive sectors of the economy industries that are defined by their research and development (R&D) intensity ie the ratio of an industry's R&D expenditures to its value-added output. While the United States was the world's largest producer of output in high R&D intensive industries (with nearly a third of global share), between 2002 to 2018 India's share in high R&D intensive industries grew from 0.6% to 1.9%. In the same period, China's global share skyrocketed from 5.6% in 2002 to 20.6% in 2018.

Scarcity of resources-The scarcity of resources is one key obstacle to India's emergence as a knowledge powerhouse. While domestic Research & Development expenditures in India increased annually by 8% between the years of 2000-15, yet its "R&D intensity" – the ratio of R&D expenditures to GDP – declined from 0.74% to 0.62% of GDP. In the same period China's R&D expenditures increased from 0.89% to 2.15% of GDP – on a GDP base that was nearly five times larger. This reflects relative priorities. While China looks to building its future on research and technology, India thinks that building a statue to honour Sardar Patel is a better use of scarce resources.

Ensuring quality in higher education is the foremost barrier being faced in India today. Faculty shortages and the inability of the state educational system to attract and retain well qualified teachers have been posing challenges to quality education for many years.

Poor Infrastructure-Another barrier faced by institutions is poor infrastructure. Mainly the institutes run by the public sector suffered from poor physical facilities and infrastructure.

Further, most of the educational Institutions are owned by the political leaders, who are playing key role in governing bodies of the Universities. In India's universities, not only students, but faculty also, find themselves

victims of unthought-out and unproductive policies in which they have no influence. Their frustration finds vent in protest and, worse, in failure of morale leading to underproduction.

But possibly the utmost hindrance is how Indian society and those who are in power view knowledge and what steps must be taken to create a favorable atmosphere for creativity and knowledge creation to flourish. While the regulation and governance of Indian universities has been vitiated by all governments over the last four decades. It can be threaten to undermine the growing shoot of research and knowledge creation.

SUGGESTIONS AND CONCLUSION

Suggestions upon which universities should give focus to accomplish the desired goals of Indian higher education system-

Today, students have started to respond to the changing nature of work and to take more control over their own learning. Learners must be able to access an education which not only provides them with a basic knowledge but actually links their knowledge to better employment prospects and job opportunities.

The government should adopt policies that allow for more diversity of content and learning, which allows freedom of choice to students and educators to use content that helps in the cause of adaptive learning for the future of work.

The mindset of policy makers has been shaped by the rise of the fourth industrial revolution which has infused emerging technologies in every aspect of our lives.

The increasing use of automation also means that individuals must focus on continued learning rather than resting on an academic degree earned decades ago.

The education system needs **to equip our next generation with core skills to operate successfully in this environment**. There is a need and demand from students and parents to develop soft skills such as critical thinking, problem solving, and creativity as part of education. This will create an edge over machines and automation, alongside their basic knowledge of STEM, to achieve success in their careers.

There is a dire need to create and circulate content that can support conceptual learning as opposed to the current pattern of rote-learning, leading to better skills and employability. If they work strategically, both public and private entities can come together to realise India's ambition of becoming a knowledge economy.

Investing on research perhaps may be the smartest way forward for India. With more research brains & skills, better knowledge repositories, the education system will have added assets in every generation. For every institution research could be the strongest strand of its vision and mission. The scholars can take the equality levels to international levels, driving the education sector forward. Research is a large and expensive topic with many sides to it— but ultimately, the best international researchers will work with Indian universities only if the latter have excellent facilities-the latest journals, labs, international networks, a common code of publication and research ethics and so on.

Many scientists are most interested in working with applications. For this reason there are needs to be a strong encouragement in India of incubation centers, where basic science can get translated into products and services that have strong and immediate value-either financial or societal. The prospect of working in intellectually strong, dynamic, diverse teams—full of motivated scientists, entrepreneurs, postdoctoral fellows etc.-is what may well bring talented scientists to India.

Providing employability Security- with better quality, vocational training institutes will lose their stigma. They will get better candidates and this evolution will improve their quality of output. Some technology skills could now become full fledge specialization because that is the need of hours

A fundamental change is needed for the way education is perceived, imparted and utilized in India. There is dire need of greater transparency and accountability. For the same, the role of universities and colleges in the new millennium, and emerging scientific research on how people learn is of utmost important. Student exchange programs which provide a platform to develop skills and understand world better are just beginning to trend in India. If knowledge is imparted using advanced digital teaching and learning tools, and society is made aware of where we are currently lagging behind, our country can easily emerge as one of the most developed nations in the world.

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COMPARATIVE DU PONT ANALYSIS OF OYO ROOMS

Vishal¹ and Dr. Shuchita Singh²Student¹ and Assistant Professor², I.T.S Ghaziabad**ABSTRACT**

We can calculate return on equity by using traditional way as well as Dupont analysis model. Here an effort is made to analyse Return on equity of Oyo rooms. Dupont analysis, a common form of analysis of the financial statements of the company, breaks down return on investment in three distinct elements. The dupont analysis begins with an assessment of the components which contribute to return on investment to ascertain the offering of the company's profit margin and management effectiveness.

Data analysis used in this paper is based on financial report of Oyo rooms For the year 2017-2018. Interpretation is made by comparing dupont analysis of oyo room's competitors (make my trip,airbnb).

Keywords: FINANCIAL ANALYSIS ,RETURN ON EQUITY ,DUPONT ANALYSIS .

INTRODUCTION

For any business in the private sector, there are numerous of models to describe how well the business is running. Among these the DuPont model was created in the early 1900s which is still a model valid to be used for assessment of the profitability. Using the DuPont model for risk analysis is not very common but if a risk analysis specialist wants to talk the language of business, it can be valuable. The model was created by F. Donaldson Brown who came up with the model when he was assigned to clean up the finances in General Motors and has ever since been an important model for financial analysis. Remarkably it has not been used in the security community for risk prioritization or impact analysis. The original DuPont method of financial ratio analysis was developed in 1918 by an engineer at DuPont who was charged with understanding the finances of a company that DuPont was acquiring. He noticed that the product of two often-computed ratios, net profit margin and total asset turnover, equals return on assets (ROA). The elegance of ROA being affected by a profitability measure and an efficiency measure led to the DuPont method becoming a widely-used tool of financial analysis. In the 1970's, emphasis in financial analysis shifted from ROA to return on equity (ROE), and the DuPont model was modified to include the ratio of total assets to equity. Before discussing the mechanics and usefulness of Du Pont, it may be of some interest to learn about its development. The maturity of the Du Pont model parallels the progress made in the field of financial analysis itself. Three distinct versions of Du Pont have been created and used to help unravel the underlying drivers of profitability and return over time, beginning nearly 90 years ago. In 1918, four years after he was hired by the E. I. DuPont Corporation of Wilmington, Delaware, to work in its treasury department, electrical engineer F. Donaldson Brown was given the task of untangling the finances of a company of which Du Pont had just purchased 23% of its stock. (This company was General Motors) Brown recognized a mathematical relationship that existed between the two commonly computed ratios, namely net profit margin (obviously a profitability measure) and total asset turnover (an efficiency measure), and ROA. The product of the net profit margin and the total asset turnover equals ROA, and this was the original Du Pont model, $ROA = (\text{net income} / \text{sales}) \times (\text{sales} / \text{total assets}) = (\text{net income} / \text{total assets})$.

OBJECTIVES OF THE RESEARCH

- To analyze profitability performance of oyo rooms by using DuPont method.
- To examine the ROE of Oyo rooms, MMT,airbnb for last 2 years.
- To compare the ROE Oyo rooms and mmt,airbnb for last 2 years.

RESEARCH MEHODOLOGY

This study is purely based on secondary data which was collected from Annual Reports of selected firms from capitaline.

Limitations- I have to relies on the secondary data which is taken from capitaline, it was difficult to find current year data .

REVIEW LETREATURE

Financial Analysis of Pharmaceutical Companies in India Akanksha Puwar¹, Kashish Jalan², Ashim Garg³ Indian Institute of Technology Delhi, Hauz Khas, Delhi, 110016. Forecasting operating profitability with DuPont analysis: Further evidence Mark P. Bauman Review of Accounting and Finance, 2014, vol. 13, issue 2,

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ANALYSIS

The analysis of Du Pont is not only been done for OYO Rooms but also for the competitor companies. On the basis of study of the data tables and ratios calculated then, has been very useful for drawing interpretations for each of the companies chosen.

Final conclusion for OYO rooms is the also mentioned at the end of the analysis.

Dupont of OYO rooms

	Oravel Stays Pvt Ltd		
	Industry : Travel Agencies		
YEAR		2017(in Cr.)	2018(in Cr.)
PROFIT MARGIN (PM)	PBIDT/Sales	-3.78	-1.13
ASSET TURNOVER (AT)	Sales/Net Assets	0.27	0.16
EQUITY MULTIPLIER (EM)	Assets/Equity	1.01	1
RETURN ON EQUITY (ROE)	PM*AT*EM	-1.03	-0.18

Interpretation

- Profit Margin of oyo rooms is negative due to huge loss occurred in 2017 and 2018 as well .
- Asset turnover of oyo rooms is low due to under utilization of asset.Total Turnover ratio of the oyo rooms. decreasing year by year. It indicates that, the management of oyo rooms are not using its assets to produce the sales. More assets of the oyo rooms.
- Lower Equity multiplier is signifying inefficiency in creating value for shareholders.
- Return on equity of oyo rooms is negative , A firm is in financial distress, since ROE is a profitability indicator because ROE comprises aspects of performance.

Dupont of make my trip -2

	MakeMyTrip India Pvt Ltd		
	Industry : Travel Agencies		
YEAR		2017(in Cr.)	2018(in Cr.)
PROFIT MARGIN (PM)	PBIDT/Sales	-0.178	-0.228
ASSET TURNOVER (AT)	Sales/Net Assets	7.06	6.15
EQUITY MULTIPLIER (EM)	Assets/Equity	3.44	-6.05
RETURN ON EQUITY (ROE)	PM*AT*EM	-4.32	8.48

Interpretation

- Profit Margin of MMT is negative due to loss occurred in both the years.
- The efficiency of total assets of MMT is decreasing in 2018 .it means management of the company not using its assets to drive the sales.
- Equity multiplier in 2017 upto the mark but in 2018 it decline to negative that signifying inefficiency in creating value for shareholders.

- Return on equity MMT is negative IN 2017 But positive in 2018 due to equity multiplier , A firm using proper utilization of its assets to generate sales.

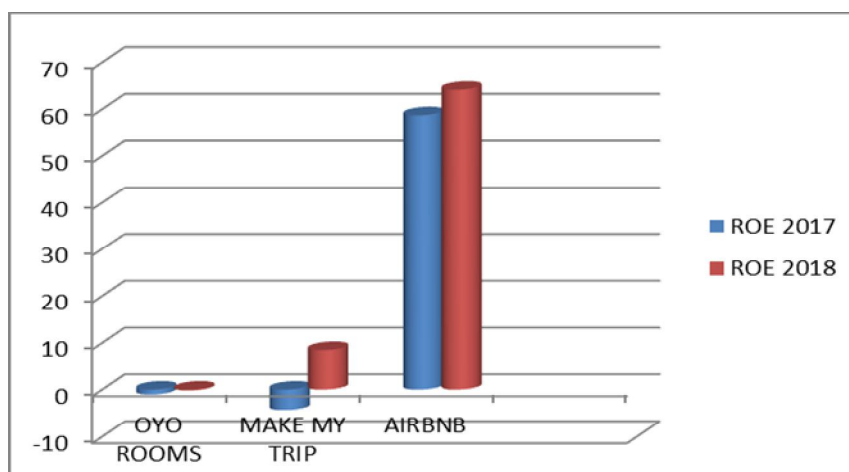
Dupont of airbnb

	Airbnb India Pvt Ltd		
	Industry : travel agency		
YEAR		2017(in Cr.)	2018(in Cr.)
PROFIT MARGIN (PM)	PBIDT/Sales	6.2	9.97
ASSET TURNOVER (AT)	Sales/Net Assets	8.61	6.01
EQUITY MULTIPLIER (EM)	Net Assets/Net Worth	1.1	1.07
RETURN ON EQUITY (ROE)	PM*AT*EM	58.72	64.11

Interpretation

- Profit Margin of Airbnb is positive due to profit occurred in 2017 and increase in 2018.
- Asset turnover of Airbnb is low due to under utilization of asset in 2018.
- Lower Equity multiplier is signifying inefficiency in 2017 but improve in 2018 due to higher profit margin.
- Return on equity of airbnb is above the ideal mark which show the good performance of the company in 2017 followed by 2018.

COMPARISON



The ROE of airbnb is much higher than the OYO rooms & MMT, ROE of MMT in 2017 is negative but in 2018 it increased because of increased ROE(2018), In comparison to other two companies, OYO room's ROE is lower continuously in both the 2017 and 2018.

CONCLUSION

- ROE is refers to as stockholders return on investment it tells us the rate that shareholders earning on their shares. In this research,the attempt to measure ROE to find out the profitability and made comparison against its competitors by using DuPont model of the oyo rooms.and make my trip and Airbnb. At the end, it is concluded that the DuPont analysis made by calculating ROE of three travel agency Companies (oyo rooms, make my trip and Airbnb) and result portrays that Airbnb have better profitability performance and creating value for their shareholders followed by makemytrip comparing to oyo rooms. if ROE greater than 15% indicate good performance but in case of oyo rooms its in negative.

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STUDY OF STABILITY AND SOLUTION OF A SYSTEM OF ORDINARY DIFFERENTIAL EQUATIONS: LINEAR ALGEBRA

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1. ABSTRACT

A conclusion has been developed for global existence of the nature and solution of the system of homogeneous and non homogeneous ordinary differential equations by matrix method. The system of equations is a tool to formulate a mathematical form of the physical problems which arise in many different areas of society and day to day life of common man. The solutions of such system of equations will be useful to study the data or information which is to be formulated in the governing system of differential equations and the results is verified by some examples.

Keywords: Stability, Ordinary Differential Equations, Matrix Method

2. INTRODUCTION

Linear algebra is an important centric subject to almost all areas of mathematics which is concerning linear equations such as $a_1x_1 + a_2x_2 + \dots + a_nx_n = b$. In mathematical term, linear functions such as $(x_1, x_2, \dots, x_n) \rightarrow a_1x_1 + a_2x_2 + \dots + a_nx_n$ represent a linear map $V \rightarrow W$, which hold the geometry of particular areas or case where it is applied and preserves the operation of addition and scalar multiplication.

The basic concept is considered that the system of algebraic equations which is given and explain in [3] and [4] has given the general solution for global existence for homogeneous and non homogeneous case which has very important role and uses in various domain of education and research. Further [5] describe the same system by ordinary differential equations and analyses the result by rank method.

In the present paper we have discussed the stability and solution of a system of ordinary differential equation by Eigen values and Eigen vectors.

3. METHODOLOGY

Let $x_1, x_2, x_3, \dots, x_n$ be variables, $a_{11}, a_{12}, a_{13}, \dots, a_{mn}$ cost of the articles and $b_1, b_2, b_3, \dots, b_m$ be the total cost for the particular combinations then a system of linear equations with these variables is defined as:

$$a_{11}x_1 + a_{12}x_2 + a_{13}x_3 + \dots + a_{1n}x_n = b_1$$

$$a_{21}x_1 + a_{22}x_2 + a_{23}x_3 + \dots + a_{2n}x_n = b_2$$

$$a_{31}x_1 + a_{32}x_2 + a_{33}x_3 + \dots + a_{3n}x_n = b_3$$

$$\dots \dots \dots$$

$$\dots \dots \dots$$

$$a_{m1}x_1 + a_{m2}x_2 + a_{m3}x_3 + \dots + a_{mn}x_n = b_m$$

System written in matrix form as

$$A X = B \dots \dots \dots (i)$$

Where

$$A = \begin{bmatrix} a_{11} & a_{12} & a_{13} & \dots & a_{1n} \\ a_{21} & a_{22} & a_{23} & \dots & a_{2n} \\ a_{31} & a_{32} & a_{33} & \dots & a_{3n} \\ \dots & \dots & \dots & \dots & \dots \\ a_{m1} & a_{m2} & a_{m3} & \dots & a_{mn} \end{bmatrix}, \quad X = \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ \dots \\ x_n \end{bmatrix} \quad \text{and} \quad B = \begin{bmatrix} b_1 \\ b_2 \\ b_3 \\ \dots \\ b_m \end{bmatrix}$$

Matrix “A” is called the coefficient matrix of the given system of equations of order $m \times n$, “X” is the variable matrix and “B” is called constant matrix.

Type I. If the matrix ‘B’ is a zero matrix i.e. all $b_1, b_2, b_3, \dots, b_m = 0$, then the system is called homogeneous system of linear equations.

Type II. If the matrix “B” is not zero i.e. all $b_1, b_2, b_3, \dots, b_m \neq 0$, then this system is called linear non-homogeneous system.

The matrix obtained by adding to the coefficient matrix an additional column of constant matrix is called augmented matrix for the linear system.

$$[A : B] = \begin{bmatrix} a_{11} & a_{12} & a_{13} & \dots & a_{1n} & : & b_1 \\ a_{21} & a_{22} & a_{23} & \dots & a_{2n} & : & b_2 \\ a_{31} & a_{32} & a_{33} & \dots & a_{3n} & : & b_3 \\ \dots & \dots & \dots & \dots & \dots & \dots & \dots \\ a_{m1} & a_{m2} & a_{m3} & \dots & a_{mn} & : & b_m \end{bmatrix}$$

Case (i) If the given system of linear equations is such that the equations are all satisfied simultaneously by at least one set of values of the variables, then it is said to be consistent. Such a set of values of the variables is called a solution.

Case (ii) The system is said to be inconsistent if the equations are not satisfied simultaneously by any set of values of the variables, that is if the system has no solution.

4. SYSTEM OF ORDINARY DIFFERENTIAL EQUATIONS

Consider a system of 2 simultaneous first order ordinary linear differential equations

$$\frac{dx_1}{dt} = ax_1 + bx_2 \quad \text{Or} \quad x_1' = a x_1 + b x_2$$

$$\frac{dx_2}{dt} = cx_1 + dx_2 \quad \text{Or} \quad x_2' = c x_1 + d x_2$$

The matrix form is

$$x' = \begin{bmatrix} x_1' \\ x_2' \end{bmatrix}, \quad A = \begin{bmatrix} a & b \\ c & d \end{bmatrix}, \quad X = \begin{bmatrix} x_1 \\ x_2 \end{bmatrix}, \text{Hence}$$

$x' = Ax$, if A is already known from context.

If $ad-bc \neq 0$, the A is a non singular matrix and the characteristic equation is $\lambda^2 - (a + d)\lambda + (ad - bc) = 0$ which is given by $|A - \lambda I| = 0$ ----- (ii)

The possibilities that the equation (ii) has

Case (i) two distinct real eigenvalue

Case (ii) complex conjugate eigenvalue

Case (iii) a repeated eigenvalue

Stability of the system of ordinary differential equation: Let λ_1 and λ_2 be roots of equation (ii) then

I. If λ_1 and λ_2 are real unequal and have the same sign, then the nature of the critical point is node and will be

(i) Asymptotically stable if λ_1 and λ_2 are negative

(ii) Asymptotically unstable if λ_1 and λ_2 are positive

II. If λ_1 and λ_2 are real unequal and have the opposite sign, then the nature of the critical point is a saddle point and will be unstable.

III. If λ_1 and λ_2 are real and equal then the nature of the critical point is a node and will be

(i) Asymptotically stable if λ_1 and λ_2 are negative

(ii) Asymptotically unstable if λ_1 and λ_2 are positive

IV. If $\lambda_1 = \alpha + i\beta$ and $\lambda_2 = \alpha - i\beta$ i.e. conjugate complex then the nature of the critical point is a spiral point and will be

(i) Asymptotically stable if real part of the root is negative

(ii) Asymptotically unstable if real part of the root is positive

V. If λ_1 and λ_2 are purely imaginary then the nature of the critical point is a centre point and will be stable but not asymptotically stable.

Solutions of the system of ordinary differential equation: There are three possible solutions

Case (i). If the coefficient matrix A has two real and distinct real eigenvalue λ_1 and λ_2 and their respective eigenvectors are p_1 and p_2 , then the system $x' = Ax$ has the general solution is $x' = \begin{bmatrix} p_1 \\ p_2 \end{bmatrix} \begin{bmatrix} c_1 e^{\lambda_1 t} \\ c_2 e^{\lambda_2 t} \end{bmatrix}$

Case (ii). If the coefficient matrix A has complex conjugate eigenvalue i.e. $\alpha \pm i\beta$, let $\lambda_1 = \alpha + i\beta$ and $\lambda_2 = \alpha - i\beta$ and their respective eigenvectors are p_1 and p_2 , then the system $x' = Ax$ has the general solution is $x' = \begin{bmatrix} p_1 \\ p_2 \end{bmatrix} \begin{bmatrix} c_1 e^{\lambda_1 t} \\ c_2 e^{\lambda_2 t} \end{bmatrix}$

Case (iii). If the coefficient matrix A has a repeated eigenvalue i.e. λ_1 and λ_2 same value and eigenvectors are p_1 and p_2 , then the system $x' = Ax$ has the general solution is $x' = \begin{bmatrix} p_1 \\ p_2 \end{bmatrix} \begin{bmatrix} c_1 e^{\lambda_1 t} \\ c_2 e^{\lambda_2 t} \end{bmatrix}$

Example 1: Consider the system of equations $\frac{dx_1}{dt} = x_1 + 3x_2$ and $\frac{dx_2}{dt} = 3x_1 + x_2$

The matrix form of the ODEs is

$$x' = \begin{bmatrix} x_1' \\ x_2' \end{bmatrix}, A = \begin{bmatrix} 1 & 3 \\ 3 & 1 \end{bmatrix}, X = \begin{bmatrix} x_1 \\ x_2 \end{bmatrix}$$

Characteristic Equation $\lambda^2 - (a + d)\lambda + (ad - bc) = 0$ gives $\lambda = -2, 4$, let $\lambda_1 = -2$ and $\lambda_2 = 4$

Case (i) Eigen values are real and distinct

Stability & Solution: Since the root are real and distinct (unequal) and of opposite signs, hence critical point is saddle point and unstable. Here eigenvector are (1,-1) and (1,1) and solution obtained by $x' = \begin{bmatrix} p_1 \\ p_2 \end{bmatrix} \begin{bmatrix} c_1 e^{\lambda_1 t} \\ c_2 e^{\lambda_2 t} \end{bmatrix}$

Example 2: Consider the system of equations $\frac{dx_1}{dt} = -\frac{1}{2}x_1 + x_2$ and $\frac{dx_2}{dt} = -x_1 - \frac{1}{2}x_2$

The matrix form of the ODEs is

$$x' = \begin{bmatrix} x_1' \\ x_2' \end{bmatrix}, A = \begin{bmatrix} -\frac{1}{2} & 1 \\ -1 & -\frac{1}{2} \end{bmatrix}, X = \begin{bmatrix} x_1 \\ x_2 \end{bmatrix}$$

Characteristic Equation $\lambda^2 - (a+d)\lambda + (ad-bc)=0$ gives $\lambda = -\frac{1}{2} \pm i$, let $\lambda_1 = -\frac{1}{2} + i$ and $\lambda_2 = -\frac{1}{2} - i$

Case (ii) Complex Eigen values

Stability & Solution: Since the root is in complex conjugate form, hence critical point is spiral point and stable.

Here eigenvector are (1,-i) and (1,i) and solution obtained by $x' = \begin{bmatrix} p_1 \\ p_2 \end{bmatrix} \begin{bmatrix} c_1 e^{\lambda_1 t} \\ c_1 e^{\lambda_2 t} \end{bmatrix}$

Example 3: Consider the system of equations $\frac{dx_1}{dt} = x_1 - x_2$ and $\frac{dx_2}{dt} = x_1 + 3x_2$

The matrix form of the ODEs is

$$x' = \begin{bmatrix} x_1' \\ x_2' \end{bmatrix}, A = \begin{bmatrix} 1 & -1 \\ 1 & 3 \end{bmatrix}, X = \begin{bmatrix} x_1 \\ x_2 \end{bmatrix}$$

Characteristic Equation $\lambda^2 - (a+d)\lambda + (ad-bc)=0$ gives $(\lambda - 2)^2 = 0$, let $\lambda_1 = 2$ and $\lambda_2 = 2$

Case (iii) a repeated eigenvalue

Stability & Solution: Since the root is real and equal, hence critical point is node point and unstable. Here

eigenvector are (1,-1) and (-1, 1) (say) and solution obtained by $x' = \begin{bmatrix} p_1 \\ p_2 \end{bmatrix} \begin{bmatrix} c_1 e^{\lambda_1 t} \\ c_1 e^{\lambda_2 t} \end{bmatrix}$

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MOMENT MARKETING: A NEW HASHTAG HYMN

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ABSTRACT

In the recent business world, business war has been evolved into the marketing war, as of all the business revolve around marketing. Now a days we are becoming more digitalized and mobile devices have directly influenced the user behavior & emotional states. People are spending more time on scrolling through social apps than watching T.V. or reading newspaper.

And moment marketing is working as gasoline in the marketing fire .Because user behavior is traceable through micro-moments, and Moment marketing is attacking those aspects.

This paper is oriented towards explaining the new possibilities that moment marketing is opening for the businesses and the impact it is exerting on the consumer buying behavior .

Findings are made on the basis of our analysis , which will empower the possibilities of direct marketing in the digital era .

INTRODUCTION**WHAT IS MOMENT MARKETING ?**

Delivering , the right message to the consumer at the right time is a key factor of any marketing campaign.

“MOMENT MARKETING is a new phenomenon of marketing which refers to creating relevant and consistent connections between offline & online media in real time “

Moment marketing is a process by which companies tap on recent trends going on in society and build a marketing campaign around it to connect more efficiently with the customers . Brand aims to catch people’s attention by becoming part of a conversation around a trend .

Because people can relate themselves more easily with memes and other trends which helps companies to build a strong brand retention in the minds of the consumers .

“Given the pace with which one needs to come up with and disseminate content on topical subjects , traditional media vehicles are not best suited for the moment marketing . Social media becomes the default choice . Right from optimizing the content to disseminating it and having a high amount of earned media , technology helps in proving efficient reach,” MAYANK SHAH Category Head PARLE PRODUCTS LTD.

Many companies are practicing MOMENT MARKETING like ZOMATO actively doing it on INSTAGRAM .Like the story of SONU named delivery guy of ZOMATO who is trending on INSTAGRAM .And ZOMATO kept his picture as their INSTAGRAM profile to convey that their employees are satisfied with their policies.

Another example is of FEVICOL , the company tweeted around the time of YUVRAJ SINGH’S retirement with a #MAZBOT JOD . (Brand Equity, Economic Times) .

An international airline company “NORWEIGIEN’S “ used the event of BRAD PITT and ANGELINA JOLIE break up and converted it into capitalization by making a marketing campaign that shows –

“**BRAD IS SINGLE , FLY TO LA IN \$169** “.(Banner Flow).

Paytm used the campaign of “PAYTM KARO” during the phasa of demonetization .(Best Media Info.Com).

WHY COMPANIES ARE ADOPTING MOMENT MARKETING ?

To be successful in a high pace world it is vital to win a consumer’s heart . Consumers are evolving in a diverse market to brands should also adopt progressive techniques to garner actionable insights .

So brands are adopting MOMENT MARKETING because they have realized that MOMENT MARKETING is helping them to reach their target audience in a quick time at a marginal cost.

There is a visible and a prominent increase in the sales of various brands adopting moment marketing which can be highlighted by the reports of various brands .

RAJIV DUBEY- Head Of Media Dabur India Ltd quoted that in Dabur , brands like Hajmola has made a leverage on moment marketing through brand memes . The strategy is cheaper and the effect is viral and so many brands are applying it .(Best Media Info.Com).

Most of the FMCG companies are adopting moment marketing because these products have a nature of impulse buying and the consumer is not looking for a long term purchase cycle as stated by the Sudhir Ramanujan , Founder ,Ceo, Brand .Comm

Summing up to the above information , lesser advertising cost , quicker reach and greater brand retention are some of the reasons why companies are adopting moment marketing .

IMPACT ON CONSUMERS

Moment marketing is making a greater impact on consumers as there is a significant increase in the sales of various products .Brands are adopting moment marketing to hit at the right spot on consumer's perception ,and they are doing it so well that today people are able to recall the brand through the ads they have seen through this technique .

Increased likes and shares on the posts by the brands is also a proof that moment marketing is effective at some extent , people are liking this concept and they are recalling brands easily .

The current marketing trend on the 'moments' Is more 'guesstimate' marketing , where brands rely on some metrics , not necessarily the right metrics often guessing the consumer's expected behavior , leading only to a 50% chance of success . Brands instead must understand the buying propensity of consumers on an ongoing basis , such that each such 'moment' can have a brand reaction that will lead to relevant long term outcomes for the brand . N CHANDRAMOULI , CEO, TRA research.

Today brands are scrounging for audience 'mind space' and cannot afford to be lazy . The power is in the hands of consumers , and they don't enjoy anything that is passé .

Moment marketing has become imperative for brands to foster deeper relationships because it thrives on the current and drives innumerable two –way conversations

SRINIVASAN mentions that you cannot attribute Moment Marketing to sales or footfalls . “it will be tough to ask . The purpose should be to share it and have fun for a moment . These are organic trends , one cannot promote . It is difficult to say that a consumer saw a particular creative ad and as a result he/ she remembered the brand and hence made the purchase .

Moment marketing is impacting the consumers but one cannot say to what extent but it can be can said that this practice of marketing is very fruitful for the businesses in terms of cost , and reaching the customers , and consumers also are getting a taste of amusement marketing which makes them happy and helps them to recall the brand in a happening manner .

LITERATURE REVIEW

SINHA and Modak in the research paper “Impact of moment marketing on consumer buying behavior for fast moving consumer goods “stated that There is a positive relation between both moment marketing and consumer buying behavior. The authors used the simple linear regression method to prove their objective. The paper also concluded that all the marketers should adopt moment marketing strategy as it is way much cheaper than the other kind of marketing strategies and if the companies can capture micro moments and work on them, then they can influence the consumer buying behavior which results in the increased sales of the brand.

ANTUN BILOS, DAVORIN TURKAL J AND IVAN KELIC In Micro moments of user experience : an approach to understanding online user intention and behavior stated that :-

With the change in technology , consumers now have a wide and global reach to the digital information and they can even search, interact, socialize and even make purchases with the help of a smart phone. Certain incidents takes place in this mobile social world which are called micro moments. Micro moments are intent driven moments of decision making and preference shaping that occur during entire user journey .

With the rapid adoption of mobile devices the marketers see this as an opportunity and capture the micro moments, shaping new opportunities to the marketers to capture and utilize these moments.

HASSAN GILANI in Impact of micro moments on fashion retail shopper's journey stated that :-

Customers bought goods online because of discount opportunities , after sales services, ease to use and many more benefits and the brands capturing micro moments can influence the consumer behavior because when a consumer sees such a moment he behaves in two ways:-

Either he purchases it

Or searches about it for the future purchase

So, the fashion retail shoppers should incorporate the moment marketing technique so that there is a brand loyalty among the customers and the customers search about the brand leading to the intention to purchase.

One of the very famous blog TVTY in its research mentioned that The marketers find it way more expensive to capture the attention of audience through conventional marketing techniques due to which 34% of the brands have adopted moment marketing technique. In moment marketing marketer captures the micro moments and builds a campaign around it which normal people can relate to .Targeting the moments and micro moments is helping the brands to capture the market with minimum cost.

NAFISA SHAHEEN in her blog **Moment marketing : how brands are picking up on the trends stated that:-**

With moment marketing , brands are embracing current events by creating campaigns around them which people can relate to easily .

She mentioned that digital marketing is a concept which has benefitted the marketers the most .But now moment marketing has come up to the front stage in recent years.

Moment marketing is working on the conscious part of human brain and helping the brands to strengthen their retention in consumer's mind .

FINDINGS

- Moment marketing brings the humor in the advertisement and desire of customer to laugh makes moment marketing a successful mantra for the companies.
- Moment marketing speaks the language of the customers to which they are able to connect with and about the topics they are discussing in their social circle and hence it becomes a part of their life.
- Many marketers have accepted that Moment marketing is much economical as compare to the other modes of marketing.
- Increased usage of mobile devices among the customers has given an edge to is the main driver of moment marketing.
- 34% of all the marketers around the world have adopted moment marketing technique.
- Products having impulse sales have a greater advantage of advertising themselves through moment marketing technique.
- In some cases moment marketing is not successful and is creating a negative impact on consumers.

CONCLUSION

The overall aim of this paper was to understand the concept of moment marketing and its impact on companies and consumer behavior . Moment marketing keeps track on micro moments and tries to build a marketing campaign around it to which people can relate to .Turned out that moment marketing is actually resulting in increased sales and brand retention .The practice of this technique requires a thorough observation of various trends going on in the social environment .Also it is observed that due to the increase in the global reach to social network through mobile devices people are actually interconnected and they do contribute to this marketing culture . Moment marketing is also way more financially feasible than the conventional marketing techniques . Summing up we can say that moment marketing have a greater scope for brands in the future ,and the one who is aware and understanding this concept will definitely have a competitive advantage .

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ASSESSMENT OF LEVELS OF EMOTIONAL INTELLIGENCE IN MANAGERS OF INFORMATION TECHNOLOGY AND INFORMATION TECHNOLOGY ENABLED SERVICES ORGANIZATIONS

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ABSTRACT

Emotional Intelligence is the ability to recognise the meanings of emotions and their relationships and to reason and solve problems based on them. EI is seen as the capacity to perceive emotions, assimilate emotion-related feelings, understand the information of those emotions, and manage them. The paper assesses the levels of Emotional Intelligence in the managers of IT and ITES organizations. The study has highlighted that levels of emotional intelligence are very different in the managers of both organizations. The results signified that even though both type of organizations belong to the same industry, still the levels of emotional intelligence in their managers differ significantly.

Keywords: Emotional Intelligence, Information Technology, Information Technology Enabled Services.

(A) CONCEPTUAL FRAMEWORK**1. INTRODUCTION**

Mayer and Salovey (1990) researched upon ability of conceptual reasoning and emotions, thus propounded a theory of Emotional Intelligence (EI). As per them, EI is the ability to recognise the meanings of emotions and their associations to reasons and solve problems based on them. EI is ability to recognize emotions, absorb emotion related thoughts, figure out the information of those emotions, and deal with them. Goleman (1995) in his book Emotional Intelligence referred EI as fine social behavior. In modern world EI relates to various factors, including empathy, motivation, sociability, warmth and hopefulness. Mayer and Salovey (1997) offered two models of EI: (i) ability models and (ii) mixed models. Ability Model of EI is parallel to Intelligence Quotient (IQ - cognitive intelligence), while Mixed Models of EI comprise of non-cognitive models (BarOn, 2006) and competency-based models (Goleman, 1995). The mixed models generally blend with traditional models of personality and use self-reports for assessment.

Petrides (2010) proposed an abstract difference between the ability based model and mixed models. He propounded a trait based model of EI. Trait Emotional Intelligence is a group of emotional self-perceptions located at the lower levels of personality. Generally speaking, trait EI refers to an individual's self-perceptions of their emotional abilities. This definition of EI covers up behavioral temperament and self-perceived aptitude and is calculated by self report. It contradicts the ability based model which is based on actual abilities, it is difficult to prove such abilities scientifically. Trait EI may be examined inside a personality framework. Another model similar to trait EI is of self-efficacy. This model is general and includes the Goleman model. The fundamental concept of EI as a personality trait leads to a construct that lies outside the classification of human cognitive ability.

Zeidner, Roberts and Matthews (2001) identified that the leaders having high level of interpersonal skills and intelligence deliberated improvised solutions for prescribed set of problems and were more successful. Such skills comprise of empathy, high level of awareness, insight and the skill to give correct advice. Leaders manage stressful encounters using emotional intelligence. Hence, emotional intelligence is the key to manage stress.

Srivastav and Bharamanaikar (2004) have found the product of emotional intelligence to leadership excellence, success and job satisfaction. The findings of the research gave significant correlation between emotional intelligence and transformational leadership and success. An attempt was made to prove that emotionally intelligent persons can have higher rate of success in their tasks. Punia (2005) tried to build a model of leadership effectiveness which included change management as a parameter along with EI. His study revealed that leaders with higher emotional intelligence see changes as opportunities for betterment. Such leaders are high performers and influence their teams perform to their best.

Rosete and Ciarrochi (2005) found relation between emotional intelligence and workplace measures of leadership effectiveness, using SMART parameters of performance and a 360° assessment tool. The findings highlighted that managers having high EI have higher achievement of their targets and also are respected as effective leaders by their teams and superiors. Alon and Higgins (2005) studied the importance of emotional and cultural intelligence in global organizations. Global leaders may utilize emotional intelligence to maximize success by understanding the work in diverse environments. This multiple intelligence framework should

become an integral part of leadership development programs across the organization. Thus, to gain success globally it's not just important to achieve the KRAs, but also to understand and respect the demographic emotional diversity.

Mayer, Salovey & Caruso (2002) highlighted that people having a greater ability to process the information of emotions can guide their own behaviour in better way and monitor their thinking processes to perform better than others. Boyatzis et al. (2012) identified that flourishing directors and leaders are capable to concentrate on learning social, psychological and emotional capabilities. Such capabilities enable them to predict efficiency and effectiveness in professional, administration and leadership roles across the society and the organization.

Yip & Cote (2013) found that capability to recognize emotions facilitates better decisions. Therefore, people who have better understanding of the emotions can properly spot the situations which generate their emotions. This ability helps in protection against the consequence of nervousness under stressful situations. Thus, emotional intelligence enables making better decisions relating to the occupation of a person. Modern dynamism of the industries lead to stressful lives of employees hence, they need to be emotionally strong to prevent burnout.

INFORMATION TECHNOLOGY INDUSTRY

There has been a rapid growth in the international business in past two decades. With the globalization, India has become the focal point for IT / ITES companies. Thus, IT industry in India represents a model for high technology industry with diversified workforce. With the development of these industries and creation of multiple job opportunities, IT industry is looked upon by youngsters for their professional endeavours. In recent past, the growth of IT industry has been more than any other industry. It can generally be classified as IT Services, Engineering Services, ITeS BPO Services. IT Services deal with Electronic System Design, ERP, Design Validation Testing, Industrialization, Industrial Design, Mechanical Design, Software Development, Hardware Infrastructure Management and Prototyping.

IT enabled Services are services that use telecom networks or the Internet. Remote maintenance, Back office operations, Data processing, Call centres, Business process outsourcing, etc. come under ITeS-BPO services. In view of boom in IT industry in Silicon Valley, the developing countries showed a special interest to focus on software industry as a tool for their economic growth. This special focus led India to become a major world centre for producing and exporting computer software to the developed economies in the world immediately after the commencement of India's economic reforms. It is also noted that IT industries undertake many innovative programmes and invest huge amounts of money for the development of leadership. Here, the researcher makes an earnest attempt to explain the evolution and growth of the Indian software industry.

Compared to the performance of other industrial sectors in India, the Indian software industry has shown rapid development during the past two decades. The growth of the Indian software Industry has been unique when measured on the basis of standard indicators, such as growth in sales, employment, exports, etc. The Indian software industry, unlike Israel software industry, concentrated mostly on customized software services rather than products. The customized software service has a large market across the world. The Indian software industrial growth, unlike the Irish software industry, was led by domestic rather than foreign firms. The customized software export products are largely developed by the Indian firms. It is evident that out of the top 20 exporters in 2000-01, only five firms were subsidiaries of foreign firms (Athreya, 2005).

The growth of software industry region-wise is quite uneven. By 1990, the states of Maharashtra (Mumbai), Karnataka (Bangalore), Tamil Nadu (Chennai) and Delhi had the major share of exports and the states of Uttar Pradesh (Noida), Andhra Pradesh (Hyderabad) and West Bengal (Kolkata) also had software exports, albeit at lower levels (Arora and Badge, 2006). The regional growth of the industry was encouraged by the policies of regional Governments, especially after 1990s, when the Central Government had initiated to permit more freedom to the states in formulating their own development policies. In 1991, the Central Government liberalized the foreign investment norms and consequently many multinational companies (MNCs) set up their subsidiaries in India (Athreya, 2005). Since the foreign subsidiaries mainly concentrated in Bangalore, Hyderabad, Chennai, Mumbai and Delhi-Noida, these tier one locations became the leading centres for the development of the software industry in 1990s. Since 2010, the focus of IT and ITES companies has moved to tier two cities. Centres like Indore, Bhubaneshwar, Ahmedabad and Jaipur are the new destinations for these two types of organizations.

2. RATIONALE

There have been many researches in the area of Emotional Intelligence, but an attempt was required to assess its levels in Information Technology and Information Technology Enabled Services organizations which fall under IT industry.

3. OBJECTIVES OF THE STUDY

The objectives of the study are:

1. To assess the Emotional Intelligence in the managers of IT and ITES organizations. .
2. To open the new vistas of research.

(B) RESEARCH METHOD

The study will be an exploratory research to empirically analyze Emotional Intelligence in the two set of organizations.

Emotional Intelligence: High

Low

Type of Organization: IT

ITES

1. The Sample

The final sample consisted of 150 executives (middle level managers) chosen on random basis from IT and ITES companies. The extraneous variables like age, gender and income were be controlled by randomization and elimination.

2. Tools

2.1 Tool for Data Collection: The respondents were administered on Emotional Intelligence Scale (EIS) by Anukool Hyde, Sanjyot Pethe and Upinder Dhar.

2.2 Tools for Data Analysis: MS Excel was used for applying Z test for data analysis.

(C). Results

H₀: There is no difference in Emotional Intelligence between the managers of IT and ITES organizations.

Z test was applied to compare the means of responses receive from mangers for emotional intelligence and its factors. The summary of results is given hereunder:

	IT Organizations		ITES Organizations		Z Value
	Mean	Variance	Mean	Variance	
Self Awareness	17.59	0.79	12.99	0.36	36.34*
Empathy	23.11	1.64	18.72	0.77	23.91*
Self Motivation	27.12	2.24	18.40	1.38	39.24*
Emotional Stability	17.56	0.68	14.83	0.36	22.36*
Managing Relations	16.97	0.62	14.49	1.85	13.11*
Integrity	13.67	0.68	11.83	0.25	15.63*
Self Development	9.52	0.93	6.96	0.15	20.50*
Value Orientation	9.41	0.98	6.88	0.27	18.85*
Commitment	8.76	0.62	6.04	0.15	25.86*
Altrustic Behavior	8.83	0.44	6.03	0.08	32.43*
Emotional Intelligence	152.53	38.17	117.16	14.76	41.99*

* Significant at 0.05 level of significance

H₀ gets rejected.

There is a significant difference in the level of Emotional Intelligence (z stat 41.99) and all it factors namely Self Awareness (z stat 36.34), Empathy (z stat 23.91), Self Motivation (z stat 39.24), Emotional Stability (z stat 22.36), Managing Relations (z stat 13.11), Integrity (z stat 15.63), Self Development (z stat 20.50), Value Orientation (z stat 18.85), Commitment (z stat 25.86) and Altrustic Behavior (z stat 32.43) among the managers of IT and ITES organizations.

(D). Discussion

GOMATHY (2013) in PhD thesis found that Emotional intelligence did not differ with age group of the respondents. However significant difference was found in Emotional intelligence among education and monthly income. Respondents with professional degree and higher income group had relatively higher emotional intelligence.

The present research also gave similar results as ITES employees are mostly plain graduates or undergraduates while employees in IT industry are mostly engineers or management graduates. Thus, level of emotional intelligence and its factors is higher in managers of IT organizations in comparison to the managers of ITES organization.

(E). Conclusion, Limitation, Suggestions and Implications

Though the two types of organizations IT and ITES are both service and human oriented organizations but the work culture, professionalism, and Leadership differ among them. The managers in IT organizations have high level emotional intelligence in comparison to the managers in IT organizations.

The present study is limited to comparing two types of organization of similar nature in India. There can be further research by comparing different set of organizations. Many variables like age, gender, personal effectiveness, socio-economic background etc. were not a part of this research and can be researched further. The study can also be expanded to cross cultural domains to explore the influence of cultural dissimilarities on Emotional Intelligence and explore whether Emotional Intelligence dimensions emerged in Indian context are consistent across cultures.

This research may be useful for Leaders in the two set of organizations under study to understand the level and need of emotional intelligence in their organizations. The human resource practitioners, academicians and researchers may use the finding of this research for analyzing the emotional intelligence in two types of organizations.

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