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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 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.

ABOUT IARA

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 gathers 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.

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-2019)”. 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, 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-2019).

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-2019).

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 their efforts this conference would not have been possible.

With best wishes

Prof.(Dr.) Ajay Kumar
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

Prof.(Dr.) Manoj Kumar Jha
Conference Convener
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A STUDY ON FINANCIAL ANALYSIS OF NESTLE INDIA LIMITED

Dr. Kalpeshkumar Trikamlal PatelAssistant Professor, Shree G. N. Patel Commerce College, Nanikadi, Gujarat

ABSTRACT

Finance is the lifeblood for every business and for any organization. Finance plays an important role for business success and its expansion. Without finance no one can success or no one can start any simple business. So, finance is the base of starting any big or even small company. In the mid 1867 nestle a trained pharmacist named HENRI NESTLE began experimenting with various combination of cow's milk, wheat flour and sugar in an attempt to develop alternative sources of infant nutrition. His ultimate goal was to help combat the problem of infant mortality due to malnutrition. He called the new product ferine lactee nestle. Nestle is a Swiss transnational food and drink company headquartered in Switzerland. It is the largest food company in the world, measured by revenues and other metrics, since 2014. Nestle is today the world's leading company with a 130 years history and operation in virtually every country in the world. Main aim of this analysis is to know about the financial performance of various aspects of company through net profit ratio analysis, earnings per share and growth rate analysis by using various components of financial statement of nestle food industry for five years.

Keywords: Financial Analysis

INTRODUCTION

Finance is the lifeblood for every business and for any organization. Finance plays an important role for business success and its expansion. Without finance no one can success or no one can start any simple business. So, finance is the base of starting any big or even small company.

The study of financial analysis is important in organization to taking various decisions related to liquidity, profitability. Simply researcher defines ratios as, logical relationship between two related items or components of financial statements. It indicates financial position of business and ability to make a profit. It involves the study of day to day affairs of the company. The motive behind the study is smoothly running business organization and to help the company in developing the efficient ratio analysis. So it helps in future planning and control decision. Growth rate analysis has shown positive or negative growth in particular components of balance sheet and profit & loss account, in comparison of previous year. Researcher has shown positive and negative growth in graphical manner also.

HISTORY OF NESTLE INDIA LIMITED

In the mid 1867 nestle a trained pharmacist named HENRI NESTLE began experimenting with various combination of cow's milk, wheat flour and sugar in an attempt to develop alternative sources of infant nutrition. His ultimate goal was to help combat the problem of infant mortality due to malnutrition. He called the new product ferine lactee nestle. Nestle is today the world's leading company with a 130 year history and operation in virtually every country in the world. Their principal assets are not office building, factories, or even brand. Rather, it is the fact that they are a global organization comprised of many nationalities, and ethics background all working together in one single unifying corporate culture. On 28th march 1995, the company was incorporated at New Delhi. The company was promoted by nestle alimantan.

RESEARCH METHODOLOGY**Research Objective**

- To study ratio analysis, earning per share and growth rate analysis of Nestle India Limited.

Research Design and Data

The Study was done by applying descriptive research.

Hypothesis of the study

- H_0 = There is no significant difference of net profit ratio of Nestle India Limited.
- H_1 = There is significant difference of net profit ratio of Nestle India Limited.

Sampling Technique

I have used non probability sampling technique, in that convenient sampling was used in the study, because it was convenient with regards to time, cost and place of the research and also for analysis of the data. I have used Quota Sampling (Non-probability Sampling) method in research.

Sample Size

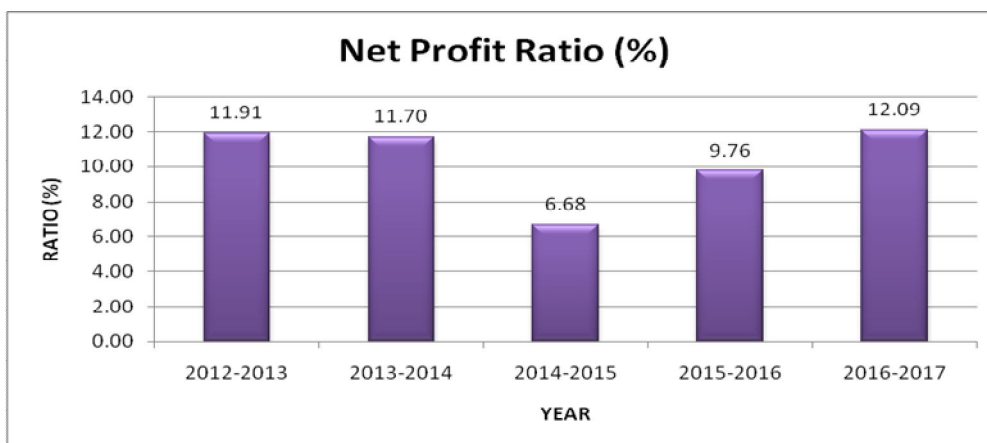
I have taken 6 years annual report of Nestle India Limited.

NET PROFIT RATIO

$$\text{Net Profit Ratio} = \frac{\text{Net profit} \times 100}{\text{Sales}}$$

Year	Net Profit (Crore `)	Sales (Crore `)	Net Profit Ratio (%)
2012-2013	1117.13	9379.87	11.91
2013-2014	1184.69	10129.50	11.70
2014-2015	563.27	8430.44	6.68
2015-2016	926.54	9491.72	9.76
2016-2017	1225.19	10135.11	12.09

Source: Dion Global Solutions Limited



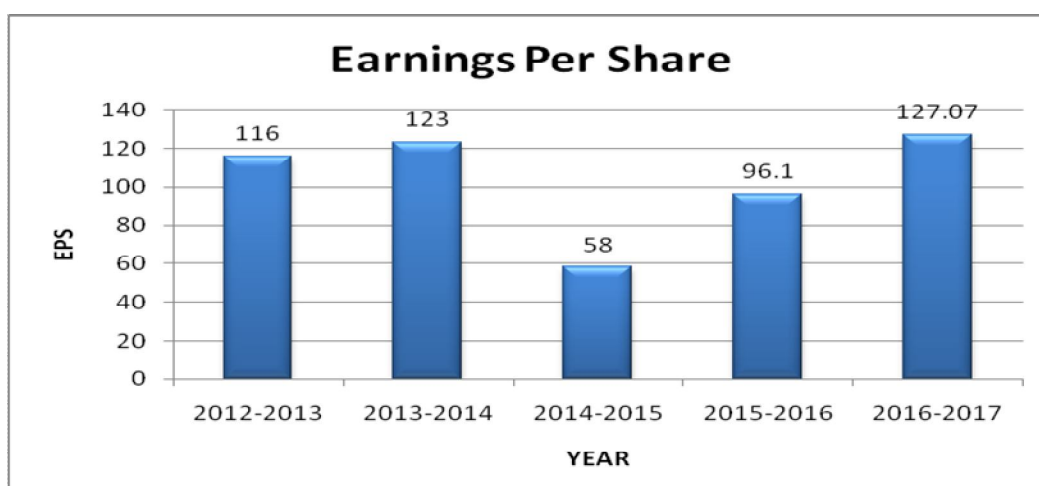
INTERPRETATION

This ratio measures the relation between the net profits and sales of the firm. In first year 2012-2013 company's net profit ratio was 11.91 %. Then after it was continuously decreased. In year 2013-2014 it was 11.70 %. Then in year 2014-2015 it was 6.68%. Then in year 2015-2016 it is increased to 9.76 %. In year 2016-2017 it is increased to 12.09 %. From the above chart we can say that overall ability of earning profit of company is moderate in last five year.

EARNINGS PER SHARE

Year	EPS (₹)
2012-2013	116.00
2013-2014	123.00
2014-2015	58.00
2015-2016	96.10
2016-2017	127.07

Source: Dion Global Solutions Limited



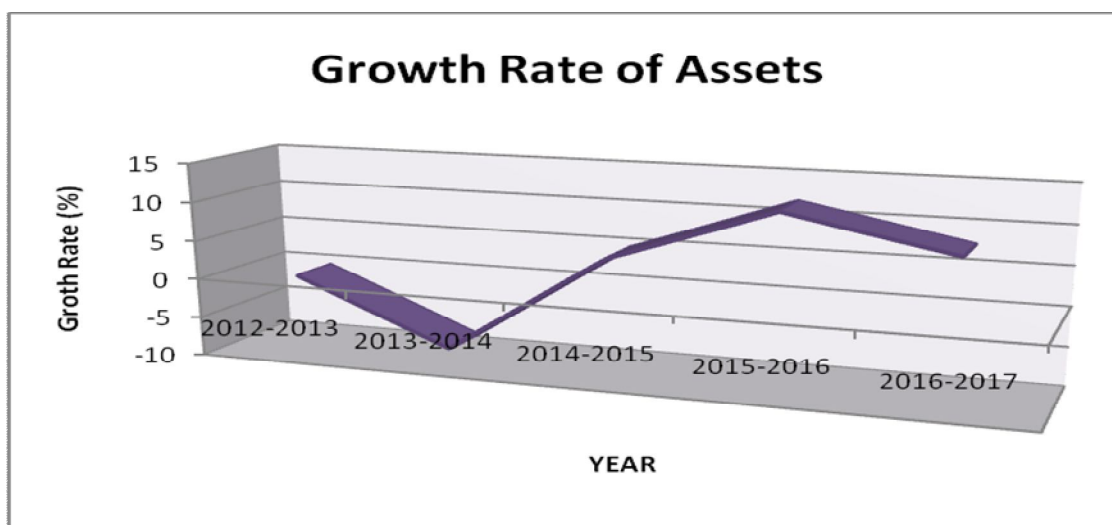
INTERPRETATION

This chart shows Earnings Per Share of the company in last five year. In first year company's Earnings Per Share is 116 `. In next year (2013-2014) company's Earnings Per Share is increased to 123 `. Then after two year (2014-2015 and 2015-2016) it is reduced to 58 ` and 96.1 ` respectively. Further in last year 2016-2017 it is increased to 127.07 `. It shows that Earnings Per Share of the company is more than its previous years.

GROWTH RATE ANALYSIS FOR TOTAL ASSETS

Year	Total Assets (Crore `)	Growth Rate (%)
2012-2013	6314.27	22
2013-2014	5819.5	(8)
2014-2015	6086.33	5
2015-2016	6805.99	12
2016-2017	7362.59	8

Source: Dion Global Solutions Limited



INTERPRETATION

This chart shows growth of the company's assets in last five year. In first year company's growth rate is 0% because there is no base year taken. In next year (2013-2014) company's growth of assets is decreased 8%. Then after two year (2014-2015 and 2015-2016) it is increased to 5% and 12% respectively. Further in last year 2016-2017 growth of business is minor decreased to 8%. In year 2015-2016 there is more growth of company's assets.

HYPOTHESIS TESTING

H_0 = There is no significant difference of net profit ratio of Nestle India Limited.

H_1 = There is significant difference of net profit ratio of Nestle India Limited.

t-Test: Paired Two Sample for Means		
	Net Profit (Cr.)	Sales (Cr.)
Mean	1003.364	9513.328
Variance	73653.31	489301.3
Observations	5	5
Pearson Correlation	0.938567	
Degree of freedom	4	
P(T<=t) one-tail	9.7295	
t Critical one-tail	2.1318	

$$T_{cal} > T_{tab}$$

H_1 is accepted.

H_1 = There is significant difference of net profit ratio of Nestle India Limited.

CONCLUSION

This study on financial analysis of Nestle India Limited for five years from 2012-2013 to 2016-2017. Main aim of this analysis is to know about the financial performance of various aspects of company through net profit ratio analysis, earnings per share and growth rate analysis by using various components of financial statement of Nestle India Limited for five years.

Nestle India Limited has good and strong position in the Indian market. It is not easy for the company to continue in same way. It could take three years for Nestle to completely recover its India revenues following impact of the Maggi issue.

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WEBSITES

- www.nestle.in
- www.moneycontrol.com

DETERMINANTS OF FOREIGN DIRECT INVESTMENT (FDI) IN BIMSTEC ECONOMIES: A DYNAMIC PANEL DATA ANALYSIS

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ABSTRACT

The present research work is an attempt to examine the “relationship between foreign direct investment (FDI) and economic growth in the seven BIMSTEC economies namely, Bangladesh, India, Myanmar, Sri Lanka, Thailand, Nepal and Bhutan during the period of 2004-2017”. The study uses dynamic panel data analysis to examine the significant determinants of FDI in BIMSTEC economies. The study takes into account Market Size, GDP, Trade Openness, Inflation and Labor force as potential determinants of Foreign Direct Investment (FDI). The above factors are based on their relative importance from previous empirical studies. The results show that GDP, Market size, Labor force are statistically significant variables in determining FDI.

Keywords: BIMSTEC Economies; FDI; Dynamic Panel; GDP; Trade Openness; Market Size; Labour Force; Inflation.

INTRODUCTION

“The BIMSTEC, which represents Bay of Bengal initiative for Multi-sectoral and Technical Cooperation comprises of Bangladesh, India, Myanmar, Sri Lanka, Thailand, Nepal and Bhutan, is a sub-regional cooperation initiative formed in February 2004. This group involves some of the small, and less developed countries in Asia, as well as other middle-income country (Thailand), and the second most populated country in the world (India). It has the potential to broaden the network of Asia-wide cooperation. The heterogeneity of members however poses challenges, particularly as some of the members (e.g. Nepal and Myanmar), are also facing severe governance challenges. An important feature of this grouping is that currently all the members (except Sri Lanka) are connected by land, providing a stronger potential for greater connectivity among them. In February 2004, the members established a Framework Agreement for a Free Trade Area (FTA), which covers liberalization, advancement and facilitation of trade in goods, services and investments, as well as engaging in broader economic cooperation. Thus, BIMSTEC goes beyond trade”.

Economic engagement and disengagement are part of political economy and geopolitical concerns. The recent non-participation of India in the South Asian Association for Regional Cooperation summit has proved fatal. This has resulted in the shift of attention of the major Asian countries towards The Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation (BIMSTEC) region for world trade and foreign direct investment (FDI).

Foreign Direct Investments are very crucial factor for any developing economy. It is an important factor which helps in the contribution to economic growth & development. FDI mainly contributes towards new investment, better technology, expertise, employment generation and various other resources. FDI helps linking backward as well as forward processes for enhanced productivity & creating jobs. Major determinants of FDI are identified so as to attract more policymakers to facilitate the process. Therefore, lot of research is happening with respect to determinants of FDI which gives policymakers a direction of FDI flows. Similarly, this study also provides recommendations in relation to attract FDI.

“Through the last two decades, economies in transition have finished big reforms with the purpose of creating an economy of open trade. They have faced three essential stages: a) stabilization and structural alteration programs; b) reform of the legal and regulatory framework; and c) industrial competitiveness and regional cooperation policies to reap economies of scale in production and to increase firm-level capability building” (UNCTAD, 2013).

Due to Globalization competition has increased to an extent that countries are forced to lower their entry regulations, taxes, and various other clearances so as to attract FDI in the nation.

LITERATURE REVIEW

S. No.	Title	Author	Year of Publication	Time Frame of Study	Variables	Tests	Significant& Non-significant Variables Description
1	"A Panel Data Analysis of Foreign Trade Determinants of Nepal: Gravity Model Approach"	Subash Acharya	2013	2005-2010	Independent Variables: 1.Imports 2. Exports 3. Trade Balance Dependent Variables: 1.Real GDP	1. Gravity Model 2.Regression models 3.Econometric Models 4.Hausman's specification test 5. Lagrange Multiplier (LM) test 6. Modified Wald test	Significant variables: Trade Balance, Imports, Exports
2	"Determinants of foreign direct investment in BRICS economies: Analysis of economic, institutional and political factor"	Pravin Jadhav	2012	2000-2009	Independent factors: 1.economics factors 2.Institutional factors 3.Political factors Dependent factors: 1.FDI	1. Panel unit root test 2. Multiple Regression model 3. Levin, Lin & Chu test 4. General Equilibrium Model	Significant factors: Economic factors Insignificant factors: Institutional factors, Political factors
3	"Determinants of FDI in BRICS Countries: A panel analysis"	Narayana murthy Vijayakumar, PerumalSridharan, Kode Chandra Sekhara Rao	2010	1975-2007	Independent variables: 1.Market size 2.Labour cost 3.Infrastructure 4.Currency value 5.Gross Capital formation Dependent variables: FDI	1.Panel data model 2.panel co-integration test 3.F-test 4.Hausman specification test 5.regression models	Insignificant factors: Economic Stability and Growth prospects, Trade openness
4	"Foreign Direct Investment and Economic Growth in BRICS Economies: A Panel Data Analysis"	Gaurav Agrawal	2015	1989-2012	Independent variables: 1.Economic growth 2.Bidirectional causality 3.economic development Dependent variables: 1.FDI	1.Panel Unit Root Test 2.VEC Granger Causality/Block Exogeneity Wald Test 3.Pedroni's Panel Cointegration Test 4.Granger Causality Test	Significant factors: 1.Economic Growth 2.Bidirectional Causality 3.Economic Development
5	"The Factors Affecting Nepal's Trade: Gravity Model Analysis"	Sunil kumarchaudhary, Li xiumin, Muhammad kamran khan	2018	1990 to 2016	Independent Variables 1.Income of the Countries 2.Exchange Rate 3.The Distance between the Countries Dependent Variables: 1.GDP	1.Gravity Model 2.Econometric Model 3.Reggression Models 4.Linnemann's Model 5.Heckscher-Ohlin Model 6.Monopolistic Competition Model	Significant Factors: 1.Income of the Countries 2.Exchange Rate 3.The Distance between the Countries
6	"The Gravity Model Specification for Modeling International Trade Flows and Free Trade Agreement"	KonstantinosKepaptsoglou , Matthew G. Karlaftis and Dimitrios	2010	1999-2009	Independent variables: 1.Trade Policy Implications 2.Effects of Free Trade Agreements	1.Gravity model 2.Econometric methods 3.Simulation models 4.Computable generalized equilibrium models	Significant: 1.Free Trade Agreements 2.Trade Policy

	Effects: A Review of Empirical Studies”	Tsamboulas			Dependent variables: 1.International Trade	5.Stochastic Varying Coefficients model 6.OLS and Fixed effects model	
7	“Determinants of FDI in China”	Shaukat Ali and Wei Guo	2015	1983 -1991	Independent variables: 1.Market Size 2.Liberalized FDI Policy 3.Regional distribution of FDI Dependent variables: 1.FDI incentives 2. Historical cultural links with foreign investors	Primary research	Significant: 1.Market Size 2.Government incentive policies 3.Other key factors (labor costs and global integration)
8	“The New Global Determinants of FDI Flows to Developing Countries”	Tony Addison and Almas Heshmati	2003	1988-1990 to1998-2000	Independent variable: 1.Industrialization 2.Information and communication technology (ICT) 3.Wages and salaries 4.Inflation	1.Granger causality test 2.F-test 3.Hausman test 4.Ricardian model 5.Ricardian model	Insignificant variables: 1.Wages and salaries 2.Inflation 3.Infrastructure 4.ICT investment Significant variables:1.Industrialization
9	“A Panel Data Analysis of Locational Determinants of Chinese and Indian Outward Foreign Direct Investment”	Jing-Lin Duanmu, Yilmaz Guney	2009	1982 to 1992	Independent variables: 1.market size 2.GDP growth 3.volumes of imports from China or India 4.corporate tax rates Dependent variables: 1.direct investment	1.Hausman test 2.Gravity Model 3.Western model 4. Other models	Significant: 1.market size 2.volumes of imports from China or India Insignificant: 1.GDP growth 2.corporate tax rates
10	“Does Foreign Direct Investment Accelerate Economic Growth?”	Maria Carkovic and Ross Levine	2002	1979-1989	independent variables: 1.Influence on growth Dependent variables: FDI	1.Sargan test 2.regression 3.serial correlation tests 4.Hansen’s test 5.Dynamic Panel Data Models 6. Growth Models	Insignificant factors: growth Dependent FDI
11	“Foreign Direct Investment-Led Growth: Evidence from Time Series and Panel Data”	Luiz R. de Mello, Jr.	1999	1970-90	Independent variable: 1.capital accumulation 2.output 3.total factor productivity Dependent variables: growth	1.unit root test 2.ADF test 3.Phillips Perron test 4.Time Series Test	Significant factors: 1.capital accumulation 2.output 3.total factor productivity
12	“Foreign Direct Investment,	Signe Krogstrup	2006	1988-2003	Independent variables:	1.Endogenous growth model	Insignificant factors: 1.Financial

	Absorptive Capacity and Growth in the Arab World”	, Linda Matar			1.Growth benefits 2.Financial incentives Dependent variables: 1.FDI	2.neoclassical growth model 3.Main theoretical model	incentives 2.Growth aspects
13	“Regional Integration and FDI in Emerging Markets”	Kubny, Julia; Mölders, Florian; Nunnenkamp, Peter	2008	1980-2005	Independent variables: 1.country-specific factors 2.member countries 3.regional heavyweights Dependent variables: 1.FDI	1.empirical model 2.regression model	Significant factors: 1.country-specific factors Insignificant factors: 1.member countries 2.regional heavyweights
14	“FDI by firms from newly industrialised economies in emerging markets: corporate governance, entry mode and location”	Igor Filatotchev, Roger Strange, Jennifer Piesse, and Yung-Chih Lien	2007	1991-2003	Independent factors: 1.corporate governance factors 2.risk preferences of shareholders 3.network-based business culture 4.entry mode and location Dependent factors: 1.Foreign direct investment 2.newly industrialised economies	1.family-centred model 2.Asian model 3.entry mode model 4.econometric model 5.multinomial logit model 6.discrete choice model	Significant factors: 1.network-based business culture 2.entry mode and location Insignificant factors: 1.corporate governance factors 2.risk preferences of shareholders
15	“Volatility, employment and the patterns of FDI in emerging markets “	Joshua Aizenman	2002	1989-1993	Independent variables: 1.macroeconomic volatility 2.diversification 3.inputs production Dependent variables: 1.employment and investment decisions 2.FDI	1.Empirical test 2.non-stochastic model 3.hybrid model 4.vertical and horizontal model 5.knowledge-capital model 6.paper’s model	Significant factors: 1.macroeconomic volatility 2.diversification 3.inputs production
16	“Risk, Financial Stability and FDI”	Neil M. Kellard, Alexandros Kontonikas, Michael J. Lamla, Stefano Maiani, Geoffrey Wood	2018	2009-2016	Independent variables: 1.financial system risk 2.institutional risk aversion 3.institutional affinity 4.bank-related risks Dependent factors: 1.FDI	1.baseline model 2.gravity model 3.Distress Prediction Model 4.Z-Score Model 5.Bayesian model	Significant factors: 1.financial system risk 2.institutional risk aversion Insignificant factors: 1.institutional affinity 2.bank-related risks
17	“Does the Economy Size Affect FDI?- Evidence from Western Balkan Countries”	Xhavit Islami & Enis M. Ulloli	2016	2005-2014	Independent variables: 1.economy size 2.specific policies of places 3.trade liberalization Dependent variables: FDI	1.Pearson Correlation technique 2.regression model	Significant factors: 1.economy size Insignificant factors: 1.specific policies of places 2.trade liberalization

18	“The Influence of Macro-Economic Factors on Foreign Direct Investment Flows in Kenya for The Period Of 2002-2013”	George Otieno, Amos Njuguna	2016	2002-2013	Independent variables: 1. inflation 2. real interest rate 3. real exchange rate 4. development expenditure Dependent variables: FDI	1. regression model 2. correlation analysis 3. econometric model 4. panel model 5. autoregressive integrated moving average (ARIMA) using standard tests	Significant variables: 1. development expenditure Insignificant variables: 1. inflation 2. real interest rate 3. real exchange rate
19	“A study on Foreign Direct Investment in Thilawa special economic zone”	Chu Myat Thu	2018	2014-2018	Independent factors: 1. capital 2. infrastructure 3. marketing know-how Dependent variables: FDI	1. liberal economic model 2. single-factory model	Insignificant variables: 1. capital 2. infrastructure 3. technology
20	“Impact on European Economy by Indian OFDI An Empirical Pre and Post Demonetization Analysis”	Dr. Syed Mohammad Faisal	2019	2013-2018	Independent factors: 1. Demonetization 2. Economic Implications Dependent factors: FDI	1. panel data analysis 2. Hypothesis Testing 3. Augmented Dickey-Fuller test 4. Markova Regime-Switching Models (MSMs)	Significant variables: 1. Demonetization 2. Economic Implications

POTENTIAL VARIABLES DETERMINING FDI INFLOWS

Based on the literature review, this study gauges a set of potential determinant variables that influence the FDI flows and are further being classified into 7 broad categories, which are Market Size, GDP, Trade openness, Inflation, Gross fixed capital formation, Real interest rate & Labor force.

Market size

“Larger market size should receive more inflows than that of smaller countries having lesser market size. Market size is generally measured by Gross Domestic Product (GDP), GDP per capita income and size of the middle class population”.

Trade openness

Trade openness is considered to be a key determinant of FDI as discussed in the above literatures, much of FDI is export oriented and may also require the import of complementary, intermediate and capital goods.

Labor force

“The importance of cheap labor in attracting multinationals is agreed upon by the proponents of the dependency hypothesis as well as those of the modernization hypothesis, though with very different implications. There is, however, no unanimity even among the comparatively small number of studies that have explored the role of wage in affecting FDI: results range from higher host country wages discouraging inbound FDI to having no significant effect or even a positive association”.

Gross Domestic Product (GDP)

The macro-economic variable of which one is GDP plays a major role as a determinant of FDI. It is argued that the host countries capacity to absorb FDI productively is linked to their GDP per capita. Host countries with a better endowment of human capital are benefitted more from FDI-induced technology transfers.

Inflation: It is the measure in quantitative terms of the rate at which the average price level of a basket of selected goods and services in an economy increases over a period of time. And it is a major determinant of FDI in the literature available.

Variable	Symbol	Source
GDP (current US\$)	GDP	World Development Indicator, World Bank Group
Trade (% of GDP)	Trade	
Foreign direct investment, net inflows (% of GDP)	MKT Size	
Inflation, consumer prices (annual %)	Inf	
Labor force, total	LF	
Foreign direct investment, net inflows (BoP, current US\$)	FDI	

RESEARCH METHODOLOGY

In order to identify the determinants of FDI in BIMSTEC Economies, Generalized Method of Moments (GMM) model of Dynamic panel is used as the dependent variable FDI is assumed to be affected by its lag value. The BIMSTEC, which represents Bay of Bengal initiative for Multi-Sectoral and Technical Cooperation comprises of Bangladesh, India, Myanmar, Sri Lanka, Thailand, Nepal and Bhutan, is a sub-regional cooperation initiative formed in February 2004. The duration of the study is selected from its inception to the latest available data i.e. 2004-2017.

OBJECTIVE OF THE STUDY

The research objective of this study is to find out the determinants of Foreign Direct Investment in BIMSTEC group of countries.

Regression model

A typical regression equation of dynamic panel is as follows:

$$Y_{it} = \alpha + \beta_1 x_{it1} + \beta_2 x_{it2} + \dots + \beta_k x_{itk} + \varepsilon_{it} \quad (1)$$

Where,

Y is the dependent variable

i denotes the number of countries and t denotes the time period

x_1, x_2, \dots, x_k are the independent variables.

α is the constant term

$\beta_1, \beta_2, \dots, \beta_k$ are the slope parameters that represent the partial effects of x_i on y keeping all other factors constant

ε represents the unobserved factors that change over time and affect stock price.

Dynamic panel regression equation for the study

$$FDI = \alpha + \beta_1 GDP + \beta_2 TO + \beta_3 MS + \beta_4 INF + \beta_5 LF + \varepsilon$$

Where,

FDI = Foreign Direct Investment

α = intercept

$\beta_1, \beta_2, \beta_3, \beta_4, \& \beta_5$ are regression coefficients

GDP = Gross Domestic Product

TO = Trade Openness

MS = Market Size

INF = Inflation

LF = Labour Force

ε = error term

DATA ANALYSIS AND INTERPRETATION:

The data set consists of yearly observations for the period 2004-2017 for the seven developing nations namely Bangladesh, India, Myanmar, Sri Lanka, Thailand, Nepal and Bhutan (BIMSTEC countries). The required data set for the selected countries were obtained from 'World Development Indicators (WDI), World Bank Group'. The dependent variables in this study is the FDI inflow in current USD and the independent variables that are expected to determine FDI flows are carefully chosen, based on previous literature and availability of dataset for the selected period. The independent variables in this estimation include Market Size, GDP, Trade openness, Inflation and Labor force.

In connection with previous section, this study proposes an estimation model which is as follows, where the selected variables are expected to determine the FDI inflows:

System dynamic panel-data estimation

```
. xtddpdsys FDI GDP Trade MKTSize Inf LF, lags(1) artests(2)
```

```
System dynamic panel-data estimation      Number of obs      =      91
Group variable: coid                     Number of groups   =       7
Time variable: Year

Obs per group:
      min =      13
      avg =      13
      max =      13

Number of instruments =      81           Wald chi2(6)       =      666.84
                                           Prob > chi2        =      0.0000
```

One-step results

FDI	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
FDI						
L1.	.256913	.0764266	3.36	0.001	.1071196	.4067064
GDP	.0069403	.0020604	3.37	0.001	.002902	.0109786
Trade	-5894184	2.35e+07	-0.25	0.802	-5.19e+07	4.01e+07
MKTSize	1.97e+09	3.42e+08	5.76	0.000	1.30e+09	2.64e+09
Inf	-6.53e+07	7.99e+07	-0.82	0.414	-2.22e+08	9.13e+07
LF	26.25788	6.511742	4.03	0.000	13.4951	39.02067
_cons	-2.45e+09	1.72e+09	-1.42	0.155	-5.81e+09	9.23e+08

Instruments for differenced equation

GMM-type: L(2/.) .FDI

Standard: D.GDP D.Trade D.MKTSize D.Inf D.LF

Instruments for level equation

GMM-type: LD.FDI

Standard: _cons

Interpretation: System dynamic panel-data estimation represents that the test applied on data series at panel level is best fit model as Prob. Value of χ^2 is 0.000 which is less than 0.05 or 5%. It is one of the most important requirements before analysis. The estimation is done with the help of p-value, if it is less than 5% then the selected variable is significant, otherwise insignificant. According to the results of this analysis it has been observed that some variables are significant whereas some are insignificant. Significant variables include- GDP, Market size and Labor force whereas insignificant variables include: Trade openness, Inflation.

CONCLUSION

The study suggests that the determinants of FDI are more generic and holistic in BIMSTEC economies. Results support the previous empirical researches on the basis of statistical analyses of determinants of FDI during the period of 2004-2017. Further system dynamic panel data estimation test have been applied. According to system dynamic panel data estimation test, significant variables include- GDP, Market size, Labor force whereas insignificant variables includes: Trade openness, Inflation.

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A STUDY ON E COMMERCE CHANGING THE CONSUMPTION PATTERN IN INDIA

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ABSTRACT

The main goal of the paper is to obtain quantitative describing the actuality of internet shopping in the case of India in order to explain the development of internet shopping and its impact on consumer behavior. The paper build on the relevant literature and at the same time examines consumer behavior by questionnaires. Furthermore, the future development of internet shopping will be measured and deep comparison of consumer behavior between different countries. This paper support the research questions that including recent trends and various issues in internet shopping, and principle factors for consumer behavior. Also, the result of the study shows that internet consumer trust and perceived risk have strong impacts on their purchasing decisions. Consumer`s trust, privacy concerns, security concerns are the major factors for using internet for shopping, the trust on websites influence to the purchasing decision of any consumer. More specifically, the empirical result suggests how the E-commerce companies make marketing strategies according the research data and analyzing result.

Keyword: E-commerce, internet shopping, consumer behavior, consumer trust

1. INTRODUCTION

Electronic commerce or e-commerce refers to a wide range of online business activities for products and services. It also pertains to "any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact. E-commerce is usually associated with buying and selling over the Internet, or conducting any transaction involving the transfer of ownership or rights to use goods or services through a computer-mediated network. After 2014 the MILLION DOLLAR year E-commerce has observed a great unfold and the un-plundered area was flooded with investments. The beginning of E-commerce goes back to market worth \$3.8 million in 2009 which reached upto these numbers due to the digital revolution. With the end of 2014 the E-Commerce sector touched upto \$17 billion.

The sector is expected to cross the \$100 billion mark within the next five years, contributing over 4% to India's GDP. Online travel, one of the key drivers of India's e-commerce market, accounts for nearly 71% of e-commerce business in India. Though the online retail market in India is currently worth \$1.6 billion, which is a very small part of India's overall \$500 billion retail industry.

The invasion of mobile commerce more often known as m-commerce a part of e-commerce has been constantly supplementing its parent industry. Shopping online through smart phones has totally changed the scenario, and it service providers believe 70% of their revenues will be generated from it.

A strong booster to the sector is expected due to the invasion of Indian Government's goal of 'Digital India' with a strong budget of \$17 billion which aims to introduce internet and broadband to remote corners which will increase trade. This investment will not only add to connectivity but generating employment which will enable invasion of more buyers for companies due to rise in per capita income E-commerce has an estimated growth of 33 percent in 2015 and climbing upto 37% in 2018 with Asia-Pacific emerging as a major leader.

By 2016 a number of 653 million people in the Asia Pacific region are expected to buy goods and services online, a figure which translates into over 48 percent of internet users in the Asia Pacific region purchasing products or services online. Some of the most popular product categories among online shoppers in the region include airline tickets and reservations, baby supplies, cosmetics, clothing, accessories and shoes, as well as computer hardware and software. According to recent data, the number of digital buyers in India alone is expected to reach 41 million by 2016, representing some 27 percent of the total number of internet users in the country. Furthermore, a growing number of people in the Asia Pacific area are increasingly using their mobile devices for online shopping. In India, some 9 percent of the country's population had made a purchase via mobile phone within the past month, as of the fourth quarter of 2014.

2. LITERATURE REVIEW

Kuester, Sabine (2012) in his study considers, consumer behavior as the study of individuals, groups, process and organizations they use to secure, select, and arrange of experience, products, services, experiences, or ideas to satisfy the consumer and society. It balances components from sociology, psychology, management and economics. It tries to know the decision-making processes of consumers

both exclusively and in clusters. It makes emphasis on individual consumers and their characteristics such as demographics and behavioral variables to understand customers want. It also tries to assess the effects on the consumer from family, friends, groups, and also society in general. Petrovic Dejan (2006) in his study on Analysis of consumer behavior online explained that the most appropriate behavioral appearances of online customers and inspect the ways they find, associate and estimate product information. Comparison of survey data with the present customer performance theory stemmed in detection of an amount of issues related to an explicit customer group. The objective of this report is to transform these results into a set of execution activities at strategic and technical level. Implementation of these recommendations will end in better adaptation of customers. Shun & Yunjie (2006) in their study revealed that there are different kinds of product, which are additional possible to be sold online such as book, software, electronics and music. Motive for such belongings is that when buying these kinds of products, one does not need individual examination, if not all products, can be drawn in the product explanation and descriptions. Most goods in the mobile phone family fit to this group. According to the new study on customer behavior, there are four different customer groups with diverse purposes and motivations. They also found that regular efficient collection of music videos. A great level of technical assurance inside this cluster tends to be an hopeful feature when it comes to product evidence research online. Anita desai (2003) in her study E-tailing is the practice of selling retail goods on the Internet explores that e-marketing is the reduced version of "electronic retailing" which basically creates business to buyer business. While the concept of e-tailing is no longer in its budding stage; it remains to change, as progressive e-commerce requests act as a strong promoter in developing e-marketing. The idea of e-marketing differs from a diverse range of products and services as against direct shopping experience. Therefore, e-tailing/online marketing is just not restricted to consumers purchase. As consumers are well-informed, they can take good decisions. This includes a fair price comparison, product research, and proving the credibility of the e-store online shopping. Jarvenpaa, Tractinsky and Vitale (2000) explore how customers professed store size and status inspire their trust in risk perception, attitudes and willingness to purchase from the specific store. They realize that there is a positive correlation between customer belief in internet stores and the stores supposed reputation and scope. Higher customer belief correspondingly decreases perceived risks related to internet shopping and produces more promising attitudes near to shopping at a specific store, which in turn raises readiness to buying from store.

3. RESEARCH OBJECTIVES

The objectives of the study are as follows

- a) To understand the level of awareness of e commerce among the society to understand the level of satisfaction of consumers using e commerce
- b) To study the issues faced by consumers with the use of e commerce
- c) To study the advantages of e commerce in comparison to the traditional shopping methods
- d) To study the whole e commerce set up and application and directly differentiating it from the traditional shopping method
- e) Studying the consumption pattern in India

4. HYPOTHESIS

- 1) e-Commerce system helps to create better business environment for businesses.
- 2) e-Commerce system helps to increase governing capabilities as well as public participation.
- 3) e-Commerce system reduces the cost and it increases the productivity of administration.
- 4) e-Commerce system reduces the complexity of processes and thus improves the relationship between business and citizens.

5.1 CURRENT SCENARIO OF E-COMMERCE

The year 1991 noted a new chapter in the history of the online world where e-commerce became a hot choice amongst the commercial use of the internet. At that time nobody would have even thought that the buying and selling online or say the online trading will become a trend in the world and India will also share a good proportion of this success. Now consumer mentality and shopping patterns is changing very fast. Earlier online shopping was a simple medium for shopping with fewer options. The users can just place an order and pay cash on delivery. But, now with the changing face of online market this field has been renovated to a high extent and hence mesmerized many customers. Today, the online shopping has become a trend in India and the reason behind the adoption of this technique lies in the attractive online websites, user friendly interface, bulky online

stores with new fashion, easy payment methods and cash-on delivery, no bound on quantity & quality, one can choose the items based on size, color, price, etc. Despite being a developing country, India has shown a commendable increase in the ecommerce industry in the last couple of years, thereby hitting the market with a boom. Though the Indian online market is far behind the US and the UK, it has been growing at a fast pace. Further, the addition of discounts, coupons, offers, referral systems, 30days return guarantee, 1-7 days delivery time, etc. to the online shopping and the E-Market have added new flavors to the industry.

The Key drivers of growth of Indian ecommerce have been:

- a) Increasing standard of living and buying power of middle class families
- b) Availability of much wider product range
- c) Busy lifestyles and lack of time for offline shopping and difficulty in traditional means of shopping
- d) Increased usage of online categorized sites Increasing usage of credit and debit cards coupled with a growing young population who spend significant time on the internet Social networking sites likes Facebook, twitter are very much influencing in driving online retail in India. Many vendors are using it as a strong tool to get marketing and sales influence top drivers of online shopping growth are faster delivery, Cash on Delivery facility, discounted rates, access to branded products and cash-back guarantee on faulty goods Increasing broadband Internet and 3G penetration.

5.2 Future growth prospects of online shopping in India

India's e-commerce and online market has been getting bigger and better day by day. With fastpaced lives, cut-throat competitions and money changing hands within seconds, the online market keeps evolving by the second. "It was driven by rapid technology adoption led by the increasing use of devices like smart phones and tablets and access to the Internet through broadband, 3G, etc, which led to increase in online consumer base. India's online market is, however, relatively very small compared to the more mature markets of the US and the UK, but the growth rate has been phenomenal.

6. CONCLUSION

More than 3 quarters of Indian consumers by 2016 have become very well aware about e commerce but not as efficient in using it. The major user base comes from tech savvy students or the salary based employees. The whole study has shown a massive change in the consumption pattern of India, which show how Indian consumers have had a mental flip in a way that earlier they wished to attain possession of their purchased goods as soon as they buy it, however now it is being seen that consumers have become comfortable with buy today deliver tomorrow concept.

The main reason for achieving the trust of Indian consumers in e commerce and beating up the traditional set up is availability of wide variety of products, overcoming of interaction with sellers which seemed to be display of rude and unacceptable behavior at many instances, the Indian concepts like cash on delivery and easy return policies have made Indians purchase more frequent. The development of banking systems have allowed consumers to pay online for their purchases and further more providing a developing reason for technological and electronic sectors as well.

However studies and India's age graph depicts a glowing positive signal in the upcoming years with the number of users of e commerce which would be multiplying due to increase in working individuals. However a major reason of dissatisfaction which makes Indian consumers chooses traditional over e commerce is the lack of trust worthiness of sellers and information displayed online. So we can see e commerce is changing consumption pattern in India and eating up the traditional shopping set ups.

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A STUDY ON THE AWARENESS AND ACCESS OF E-GOVERNANCE SERVICES AMONG WORKING-WOMEN IN ERNAKULAM DISTRICT

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1.1 INTRODUCTION

Revolutionary developments in Information and Communication Technology (ICT) have impacted businesses as well as governments in a profound manner and E-governance is one of such developments. Governments today are increasingly exploiting the enormous opportunities provided by ICT to deliver services in a more efficient and effective manner, which provides a more citizen-centric government and reduces the operational costs. Especially in a country like India, where the number of ICT initiatives are large under the “Digital India” campaign, which aimed to transform the country into a ‘Digitally Empowered Society and Knowledge Economy’, the role of E-governance is very important.

E-governance is a form of e-business in governance comprising of processes and structures involved in deliverance of electronic services to the public or citizens. It also involves collaboration with business partners of the government by conducting electronic transactions with them. Besides, it entails enabling the general public to interact with the government, through electronic means, for getting the desired services. In other words, e-governance means application of electronic means in the interaction between

1. Government (G) and Citizens (C), both ways (i.e. G2C and C2G),
2. Government and Businesses (B), both ways (i.e. G2B and B2G), and
3. Internal Government Operation (G2G).

The ultimate aim is to simplify and improve governance and enable people’s participation in governance through e-mail and internet. Several e-Governance projects across the country implemented are focussing on improving public service delivery, bringing greater transparency in government processes and ensuring more effective accountability. The National e-Governance Plan (NeGP), based on the learning from these projects was approved in May 2006 and comprises of 31 Mission Mode Projects (MMPs) and 8 Components with a vision to “make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man”. The cornerstones of NeGP are citizen centricity, identification of services & service levels, centralised planning & decentralised implementation and Public Private Partnership (PPP). There is now a greater consensus that citizen participation and civic engagements are the building blocks for good governance. Hence e-Governance is a critical component of good governance. Also, as the government is considering the enactment the Electronic Delivery of Services Law, the possibility of e-Government projects becoming pervasive in all domains of public services is increasingly becoming a reality. It marks a paradigm shift in delivery of public and essential services – from human to technology based interfaces. The use of a technology interface for delivery of services throws up many challenges especially those related to management of change from human interface to technology interface, adoption of a particular technology, differential access to such services etc. To make it a success, this essentially means creating awareness in, training of and continuous engagement with both the service provider as well as the service seeker to use new tools for better service and more effective interaction with public.

1.2 OBJECTIVES OF THE STUDY

1. To study the Working-Women’s awareness on e-Governance services
2. To study the Working-Women’s access of e-Governance services
3. To study the barriers faced by Working-Women in accessing e-Governance services.

1.3 HYPOTHESIS OF THE STUDY

1. To test whether the access of e-Governance services is related to the educational qualification of the respondents.

H_0 : The access of e-Governance services is independent of the educational qualification

2. To test whether the access of e-Governance services is related to the monthly income of the respondents

H_0 : The access of e-Governance services is independent of the monthly income

1.4 SIGNIFICANCE OF STUDY

The efforts which have put forward by government to make its activities more citizen centric is large and commendable. The efforts under National E-governance Plan, which has made the government services accessible online have made the overall governmental process more easier and transparent. The shift from material to knowledge-based resources has opened up vast opportunities for developing India. It has accelerated the pace of development manifold. However reaching a huge and heterogeneous democracy as India with a population of 1,210,193,422 (Census 2011) remains an uphill task. Thus the government faces many challenges and barriers in its way. Due to patriarchal nature of the Indian society the biggest challenge has been the inclusion of women in the E-governance. The deeply rooted gender biased equations in the society have constrained the mobility and access of the women to E-governance schemes. Poverty may be a gender neutral attribute but certain gender specific antecedents impede women's access to it. Out of 637 million women in India, only 65.46% of the women are literate. 34.54% of the women are still illiterate. The socially and culturally backward norms have made women a weaker section. This has affected the economy of India.

This study's importance lies in enhancing the economic role of women in terms of knowledge base and governance as users of ICT. Because the global economy has influenced by the changing gender roles. Both men and women have to be benefitted equally from the use of ICT and especially e-governance. However achieving gender equality has always been a big task for a country like India, whatever be the aspects.

Due to the problems such as poverty, low literacy, unemployment, low digital literacy etc. it finds extremely difficult to include women in e-governance. But, other than the above mentioned core constraints there are certain other factors also that limits the participation of women in these ICT initiatives. These are the constraints faced mainly by the women who are literate, employed, makes their own money for living hence who are capable of participating actively in the governmental processes. There are factors such as, fear of security while availing services online, regarding the extra cost that they may incur, some may find it difficult to understand the things, lack of interest and also due to the fear of changes i.e. fear to deviate from the traditional path etc. Due to these factors it becomes even more difficult to include women in the e-Governance initiatives. It is a critical situation when there is less participation by those who are actually willing to participate. If this kind of hesitance is there in the part of those who can engage actively in e-Governance, then how hard it will be for the authorities to include every single women right from the bottom part of the society in e-Governance. This is a very big challenge in front our country to make it a completely "Digital Society". Hence, this study focuses on the access and awareness regarding e-Governance among working women, who are capable to engage actively in it and also to find out the factors that restricts their active participation in e-Governance. The actual women empowerment comes from their ability to participate in governance. Also this is crucial for making our country a Digital Society.

This study focusses the women in India in spite of the traditional gender stereotypes, and where women have a very important role in the family income generation in the current setup of the society. This study was conducted in the state of Kerala, where the status of women in terms of education and professional positions are much higher when compared to other states of India.

1.5 METHODOLOGY OF THE STUDY

Methodology specifies the way researcher proceeds while collecting the data and analysing it. This particular study focuses on the working women in Vazhakulam Block in Ernakulam District, Kerala.

1.5.1 Area of Study

This study was conducted in Vazhakulam Block in Ernakulam District, where the Female Literate Population is the highest according to Census 2011. The area of study were Kizhakkambalam Village and Choornikkara Town which was selected randomly from among the panchayats where the Total Female Working Population is the highest.

1.5.2 Selection of Sample

The samples were selected using the Multi-stage Random Sampling technique. From the Total Female Working Population of Kizhakkambalam and Choornikkara Panchayats, 2% from each were randomly selected as the sample. Thus, a total of 114 samples which consist of 53 and 61 samples from Kizhakkambalam and Choornikkara respectively.

1.5.3 Source of Data

This study used both primary and secondary data. Primary data were collected by questionnaires and survey method. Secondary data were collected from published sources such as journals, websites etc.

1.5.4 Statistical Tools

Statistical tools were used for systematic arrangement and analysis for data. Simple tables and percentages are used to explain the data. Chi-square test was used to test the hypothesis. Appropriate diagrams like bar charts, pie charts were also used to present data.

1.5.5 Type of Analysis

The present study is both descriptive and analytical.

1.5.6 Period of Analysis

This study was conducted during the period from 2017 to 2018.

2.1 EVOLUTION OF E-GOVERNANCE

Even though historically it was Chile which implemented real e-governance solution as early as the seventies, the current interest and attention on e-governance applications all over the world, has its roots in the "Information Super Highway" concept initiated by the US Vice President Al Gore in early 1990s. The Information Super Highway was defined in terms of the information infrastructure at the national level by many countries including the US, UK, Canada, Australia and India. The focus was then largely on development of component of the infrastructure, such as fiber optic networks across the States or Nations. Subsequently, the interest was widened to include socio-economic considerations encapsulated in the concept of Information Society or Knowledge Society, which naturally has to encompass e-governance. That is how e-governance concept came into being in a formalized and focused manner, even though attempts to implement Information Systems in the government departments and other public organizations have been made with partial success in various countries including India. Such earlier attempts did not receive the state patronage on a broad-based manner while individual or stray attempts may be cited to have succeeded.

In general, during 1980s and 1990s, the governments all over the world lagged behind the commercial world in accepting and implementing Information and Communication Technology. However, visible success cases of ICT application include the 24hours ATM services, 24 hours Call Centers, electronic shopping on the Web, the use of DTV, integrating cable TV with internet, etc. The list could be unlimited. The skilled software manpower and also unskilled operational manpower have been available at low cost in countries like India, which formed the bulk of the 'software exports' activity in countries such as India, Ireland, Israel and China. Apart from these developments, governments were the last in the bandwagon of institutions attempting to harness ICT in their activities. However, though late, the governments all over the world finally woke up to realize the potential of ICT in all their activities.

The initial efforts of e-governance simply resulted in only partial automation of the existing paper based manual procedures and did not result in any significant reengineering or optimization. In addition to potentially delivering significant improvements in government services, ICT has been visualized by some as having much deeper and wider impact on society and even capable of affecting the quality of life and nature of democracy. Thus the scope of ICT implementation in government machinery resulted in

- Improvement of efficiency and effectiveness of the executive functions of government, including delivery of public services;
- Greater transparency of government to citizens and business, permitting greater access to the information generated or collated by the government;
- Fundamental changes and improvement in relations between citizen and the state thereby improving the democratic process; and
- Better interactions and relationships amongst different
 - Wings of the same government,
 - State or local governments within a country,
 - Countries whose governments are web-enabled.

2.1.1 EVOLUTIONARY STAGES IN E-GOVERNANCE

E-governance evolves gradually from the simplest to advanced levels. The evolution may not be the same in all cases. Several stages of evolutionary progress could be identified. The following stages of e-governance can definitely be perceived in any government department or government organization:

1. Use of e-mail and setting up of internal networking

2. Creation of intranets infrastructure for access of internal activities
3. Allowing public access to information through internet
4. Allowing two-way interactive communication with stakeholders to enable Internet enabled transaction (including financial transactions)
5. Allowing online transactions by the citizens
6. Enriching digital democracy
7. Electronically integrated or joined government with Legislature and Judiciary.

The citizen participation in e-governance plays an important role that it would bring about transformation in the existing forms of governance as they change the nature of citizen-governance relationship and bring in new agents and mechanisms to influence the governance processes. They foster democratic control over the governments' economic, social and welfare policies by citizens and civil society organizations – a key process requirement for good and responsive governance.

- They open up avenues for flow of information both vertically and laterally to encompass a wider foundation of the civil society. The right to voice and expression gets gradually embedded among citizens through digital means.
- Information becomes difficult to be capitalized by a few political gains at the expense of ignorance of citizens.
- There is a greater scope to influence policy makers and members of civil society through collective opinion, direct participation, participation in public debates and use of advocacy tools.
- Policy makers become more aware of voices of people and can effectively involve them in policy-making mechanisms.

2.2 ICT AND GENDER

The technology revolution of the 20th century minimized the importance of geographical, economic, social and political barriers and reduced transaction and information costs, thus boosting productivity and growth, making governance more transparent and empowering the citizen. It propelled not only democracy, but also the market economy. Its impact on social relations, especially on gender relations, was significant, with the commodification of labor, the disintegration of traditional family models, and the separation of the work and living spaces creating the distinction between productive and reproductive work and diminishing the socioeconomic status of women. One can only speculate how the technological revolution of the 20th and 21st centuries will ultimately impact gender relations as we are still in the process of change to a fully-fledged digitized society. There is mixed evidence on the empowering or disempowering potential of ICTs for women. New technologies clearly seem to have the potential of removing women-specific barriers to participation and organization and leveling centuries-old gender inequality. The gender gap in access and usage, however, reveals that women are not able to tap the empowering potential of new technologies at par with men. The gendered socio-cultural and economic environment in which ICTs are embedded as well as the gendered design and regulatory framework of the new technologies obstruct ICTs from unfolding their empowering potential for women.

It is indisputable that the advent of new ICTs - the mobile phone and the internet in particular and the social spaces they create, transform time and space, and irreversibly impact the social, economic and political spheres of our societies, making them more democratic and inclusive. The internet allows access to unlimited information and knowledge and provides a platform for economic, social and political participation. The mobile phone transforms isolation into connectedness and empowers the individual in the economic and social spheres. The formerly excluded and marginalized are able to participate and are given a voice and new identity in our information societies. Women in particular benefit from these avenues for participation and organization, as the new technologies overcome women-specific barriers to female participation. Women's responsibilities within the household and their limited mobility affect the time available to them and the spaces they can access. ICTs, however, minimize the importance of time and space. The anonymity of the internet makes the gender of the 'user' invisible and as a consequence precludes gender bias, allows women to express their opinion fearlessly, access information without censorship and provides a platform for organization and networking.

2.2.1 ICT AND GENDER BIAS

The so-called 'Digital Divide', which signifies that certain regions or groups benefit more than others from the new technologies, has many faces. However, it is the poor, rural Third World woman who benefits least from the ICT revolution. Evidence on the involvement of women with ICTs reveals that women do not participate on par with men in the development of ICTs and do not access, use and even value the new technologies equally. It is estimated that the chances for women of benefitting from the opportunities of the information society are one third less than for men. Fewer women than men are also represented in science, technology, engineering and management and their participation is mostly confined to stereotypical roles in lower-level employment.

2.2.2 E-GOVERNANCE AND WOMEN EMPOWERMENT

Many studies have shown that, a proper gender responsive e-Government interventions can lead to many positive outcomes for gender equality. They enhance women's self-esteem, enable women to challenge traditional norms and build peer connections, boost their confidence to participate in the job market, bring them vital information on entitlements, and give them access to mechanisms of redress. They also transform public institutions, making them technically and politically more capable of delivering gender inclusive services. The move to digital by default in public service delivery therefore must not see merely as a shift in tools used by governments. E-government is increasingly a sign of sound public administration that expands the meaning of good governance, giving governments the wherewithal to reach out to, and promote the rights of, women. E-government can and should be seen as a creative policy instrument to achieve the normative goal of women's empowerment.

The 2014 United Nations E-Government Survey highlighted the potential of e-government to facilitate participatory decision-making and inclusive service delivery for vulnerable groups, including women, through e-participation and a multi-channel approach. E-government can advance the rights of women through better institutional coordination and gender mainstreaming across line ministries, accountability mechanisms that help respond to women's needs, as well as online channels to engage women in co-creating or co-producing services that better serve their own needs. The four areas in which e-government can make a difference for women are: access to ICTs, information literacy, effective service delivery, and participation in the online public sphere.

2.3 E-GOVERNANCE: AN OVERVIEW OF INDIA

The term E-Government came into existence with the advent of government websites in late 1990s. E-Governance or "Electronic Governance" refers to the use of Information and Communication Technologies (ICTs) to provide citizens and organizations with more convenient access to the government's services and information. In other words, e-Governance involves ICTs, especially the internet, to improve the delivery of government services to citizens, businesses and government agencies. It is not limited to the public sector only but also includes the management and administration of policies and procedures in private sector as well. The use of internet not only delivers the services faster but also brings more transparency between the government and the citizens. But, in developing countries like India, where literacy level is very low and most of the people are living below poverty line, it is very much difficult for the government to provide its services to such citizens via means of internet. Even the e-Readiness Rank of India is very low. E-Readiness is defined as the ability to use information and communication technologies to develop one's economy and welfare. According to the Global Information Technology Report 2012, the e-Readiness rank of India is 69 with the score of 3.89 out of 10 that means the use of ICTs in India is very low. Many other factors like privacy and security related to user's personal information, digital divide etc. are also huge challenges for the implementation of e-Governance in India.

2.3.1 NATIONAL E-GOVERNANCE PLAN

Over the years, a large number of initiatives have been undertaken by various State Governments and Central Ministries to usher in an era of e-Government. Sustained efforts have been made at multiple levels to improve the delivery of public services and simplify the process of accessing them. E-Governance in India has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency. Lessons from previous e-Governance initiatives have played an important role in shaping the progressive e-Governance strategy of the country. Due cognizance has been taken of the notion that to speed up e-Governance implementation across the various arms of Government at National, State, and Local levels, a programme approach needs to be adopted, guided by common vision and strategy. This approach has the potential of enabling huge savings in costs through sharing of core and support infrastructure, enabling interoperability through standards, and of presenting a seamless view of Government to citizens.

National e-Governance Plan takes a holistic view of e-Governance initiatives across the country, integrating them into a collective vision, a shared cause. Around this idea, a massive countrywide infrastructure reaching down to the remotest of villages is evolving, and large-scale digitization of records is taking place to enable easy, reliable access over the internet. The ultimate objective is to bring public services closer home to citizens, as articulated in the Vision Statement of NeGP. Make all Government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realise the basic needs of the common man.

The Government approved the National e-Governance Plan (NeGP), comprising of 27 Mission Mode Projects and 8 components, on May 18, 2006. In the year 2011, 4 projects - Health, Education, PDS and Posts were introduced to make the list of 27 MMPs to 31 Mission Mode Projects. The Government has accorded approval to the vision, approach, strategy, key components, implementation methodology, and management structure for NeGP. However, the approval of NeGP does not constitute financial approval(s) for all the Mission Mode Projects (MMPs) and components under it. The existing or ongoing projects in the MMP category, being implemented by various Central Ministries, States, and State Departments would be suitably augmented and enhanced to align with the objectives of NeGP.

In order to promote e-Governance in a holistic manner, various policy initiatives and projects have been undertaken to develop core and support infrastructure. The major core infrastructure components are State Data Centres (SDCs), State Wide Networks (SWAN) Common Service Centres (CSCs) and middleware gateways i.e National e-Governance Service Delivery Gateway (NSDG), State e-Governance Service Delivery Gateway (SSDG), and Mobile e-Governance service Delivery Gateway (MSDG). The important support components include Core policies and guidelines on Security, HR, Citizen Engagement, Social Media as well as Standards related to Metadata, Interoperability, Enterprise Architecture, Information Security etc.

One of the nine pillars of Digital India is e-Governance. The process of e-governance implementation in India includes the following:

Government Business Process Re-engineering: is making changes to the existing procedure and processes to make it more efficient and effective with the help of ICT and their services like, online application submission requesting for services and tracking process. Eg: online application submission requesting for Birth certificate.

Electronic database: is digitizing the data of various entities involved with the government such as citizen's data, government records, tenders. Services like workflow automation are automating the process of work within the government departments. Public grievance redressal follows IT process to solve the grievances of the citizens.

2.3.2 E-GOVERNMENT DEVELOPMENT INDEX OF INDIA (EGDI)

According to United Nations E-government Knowledgebase, the "E-Government Development Index (EGDI) presents the state of E-Government Development of the United Nations Member States. Along with an assessment of the website development patterns in a country, the E-Government Development index incorporates the access characteristics, such as the infrastructure and educational levels, to reflect how a country is using information technologies to promote access and inclusion of its people. The EGDI is a composite measure of three important dimensions of e-government, namely: provision of online services, telecommunication connectivity and human capacity".

Table No-2.1: EGDI of India in various years

YEAR	EGDI SCORE	RANK
2003	0.3731	87
2005	0.4001	87
2008	0.3814	113
2010	0.3567	119
2012	0.3829	125
2014	0.3834	118
2016	0.4638	107
2018	0.5669	96

Source: UN E-governance Survey (2003-2018)

According to the United Nations E-government survey 2018, India was able to achieve a great milestone this year as it jumped into one among the top 100 nations in the E-government Development Index. The latest 2018 version of the e-governance index released on July 19 shows India at the 96th position out of 193 with a score

of 0.5669, a massive leap from the 107th rank in 2016. India scored well on the Online Services sub-index with a score of 0.9514. Another great achievement was that India is one among the top 15 nations in the E-participation sub-Index with a score of 0.955, India also emerged as the sub-region leader in this category.

2.3.3 E-GOVERNANCE: CHALLENGES

The basic aim of E-governance is to bring about transparency between the government and the citizens through the use of internet. But in India, which is a developing country, the literacy rate being very low, the communication process via means of internet gets extremely difficult. E-readiness is defined as the ability to use ICT (Information and Communication Technology) in order to develop the country's economy and welfare. According to the Global Information Technology Report 2012, the e-Readiness rank of India is 69 with the score of 3.89 out of 10 that means the use of ICTs in India is very low. Many other factors like privacy and security related to user's personal information, digital divide etc. are also huge challenges for the implementation of e-Governance in India. The major obstacles can be explained under the following heads;

Language Barrier: India is a country inhabited by people of different culture and religion. They speak and understand different languages. But, the E-governance websites and applications are based in English which is not understood by all. Thus, it becomes a challenge for the government to communicate with all the citizens.

Low Literacy: Literacy is not only the ability to merely read and write but also the competence or knowledge in a specific subject. The literacy rate in India is very low. 74.04% of citizens are literate. Thus, this comes across as a huge obstacle in the implementation of E-governance.

Low IT Literacy: India has a low literacy rate and even among the people who are literate, not many have knowledge on Information Technology.

Unawareness or recognition by citizens: Expensive access to the internet, below poverty line and high illiteracy rate, people are unaware of the E-governance initiatives. Only the privileged section of the society has full access to these facilities. Recognition of the e-Governance facilities by the citizens is another huge challenge.

User-friendly environment: Users of e-Governance applications are often non-expert users who may not be able to use the applications in a right manner.

Privacy Issues: Privacy of life and confidentiality of the personal data are highly valued when it comes to the establishment of the website. A breach of their privacy may result in loss of trust, which in turn may affect the economy.

Security Issues: It is another serious technical challenge. Citizens are afraid to use E-service website due to security reasons. They feel the website are not secure enough to protect their private information from being misused or distorted by hacker.

Infrastructure: Lack of necessary infrastructure, for example electricity, internet, and technology to support the E-governance website is necessary. This basic infrastructure is not strong enough in India.

Large Population: India is currently second most populated country in the world after China. The population of India is 1,210,193,442 (Census 2011). Thus reaching out to all the citizens is an uphill task.

Social and Cultural Issues: Out of 121 million population (Census 2011), 70% of the population still belongs to rural areas. 30% of the total population is still illiterate and this is even higher in case of rural and less developed areas. Bihar, Orissa and U.P. rank the lowest in literacy level. Due to the overwhelming dominance of the internet this rural population finds itself difficult to interact and connect with the government, thus falling back in the technological spheres.

Economic Constraints: According to the World Bank Survey (2010), approximately 68.8% of the population in India survive on \$2 a day. Thus getting a telephone or internet is a far-fetched dream. Internet access is still very expensive in India. Most of the E-governance initiatives go unnoticed. In developing country like India, cost remains a serious obstacle in implementation of E-governance. Thus the maintenance of these applications i.e. the hardware and software becomes an issue.

Technical Issues: As E-governance is entirely built on ICT which is of technical nature, the first and foremost step is to construct a relevant IT infrastructure. As the technology is of dynamic nature, the hardware as well as the software may get incompatible with time. Thus upgrading the technology is a primary concern.

Attitude of Government Departments: In India, the efficiency of the government services is still considered very poor in comparison to the private sector. The government initiatives are slow in implementation. Any effort or change made in the system is met with resistance.

Legal Issues: Legal issues are closely related to security and privacy. They strengthen each other. So in order to make the security and privacy measures more particularly empowering, it is important to enforce legal measures.

2.4 PARTICIPATION OF WOMEN IN E-GOVERNANCE: A MAJOR CHALLENGE

E-Governance being a huge step faces many challenges and barriers in its way. In a country like India where women upliftment has been the prime focus of every scheme and every election, the pertinent question arises is whether women have been actually benefited from the policy of E-governance. Illiteracy, reproductive and productive roles, lack of financial independence and deeply rooted cultural and religious taboos among women are important barrier to E-Governance in India. It has been said that India is moving towards achieving e-governance but leaving alone the flattering terms and utopian dreams about the scheme, has this policy been actually inclusive. According to the study on “E-governance and its challenges inclusion of women in E-governance policy in India by Harssimrat Kaur”, reaching a huge and heterogeneous democracy as India with a population of 1,210,193,422 (Census 2011) remains an uphill task. Thus the government faces many challenges and barriers in its way. Due to patriarchal nature of the Indian society, the biggest challenge has been the inclusion of women in the E-governance. The deeply rooted gender biased equations in the society have constrained the mobility and access of the women to E-governance schemes. Poverty may be a gender neutral attribute but certain gender specific antecedents impede women’s access it to. Out of 637 million women in India, only 65.46% of the women are literate. 34.54% of the women are still illiterate. The socially and culturally backward norms have made women a weaker section. This has affected the economy of India.

Even though India promises digital inclusion and digital opportunities, rural India still remains under the grip of digital divide. Therefore, the real challenge that lies before the government is encouraging women participation and inclusion in the E-governance initiatives. Patriarchy has restricted the mobility of the women. Due to this, women are made to depend on their male counterparts. They are not allowed to step out of their house or make multiple trips to far off offices or chase officials to get their work done. Such chores automatically fall under the responsibilities of the males. This has become a part of their culture in rural areas. Women are subject to household chores only. For this purpose they are deprived of their right to education, let alone the basic knowledge of Information Technology. Being a rural setup, poverty also plays a major role in this scenario. Therefore the E-governance initiatives which are meant to benefit women, fail to have any significant impact on their lives. The study also have given a special reference to the study of “Intel Women and Web Study 2013”, which showed a surprising result that, a woman in India is 27% less likely to have internet access than a man. Another report by GSMA development Fund and Cherie Blair Foundation, which has revealed that ‘only 28% of Indian women own a mobile phone in comparison with 40% of men’, which is included in the study.

The study by Harssimrat Kaur also gives information on the gender distribution of internet users in India as of October 2015, sorted by urbanity. During this period of time, 88 percent of rural Indian internet users were male and 63% of urban internet users were also male.

There are five key areas of E-Governance where women gender equality can be fostered;

- Design of E-Governance policies and strategies.
- Delivery of basic E-services.
- E-Participation of citizens and more specifically of marginalized groups, women and youth
- Access to ICTs
- Access to public information via ICTs

The first and foremost step is to ascertain how responsive government services are to the needs of men and women is the gender analysis. This should be done before the budgets and the resource allocation. One of the aims of E-Governance is to encourage the participation of men and women in decision making process via both ICT networks and networking with government. But without the access to ICT it is impossible to bring out the full capacity of the E-Governance initiatives. The gender differences affect the opportunities in connectivity and access. For example, in India the women IT literacy is a barrier. Therefore additional investment is needed in order to educate and train women so that they may have access to ICT and benefit from the E-Governance initiatives. Similarly they have limited access to internet cafés and other similar venues. Extra funds are needed to form societies and communities which stand up for the rights of the women. The study has also included the gender distribution of internet users in India as of October 2015. During this period of time, 29 percent of Indian internet users were female. And the majority of internet users were male.

The 'Internet in India Report 2017', released by the Internet and Mobile Association of India says that, the overall female internet users is approximately 30% of the total internet users, ie, 143 million females users out of 481 million (as on December 2017). So in India, not even 50% of the total internet users are female, then how disappointing will be the result if we consider the access of e-governance by women in India.

2.5 E-GOVERNANCE IN KERALA

Kerala has emerged as first 'Digital State' in the Country, a feat realized through the visionary measures of the Government to open up the doors of digital literacy to its citizens to make God's own country the first 'e-literate' State, through launching the Akshaya Project and IT@School programme way back in 2002. The dream of digitization in Kerala has come into existence with the functioning of Kerala State IT Mission (KSITM) together with National Informatics Centre (NIC), Centre for Development of Imaging Technology (CDIT), Centre for Development of Advanced Computing (CDAC), Indian Institute of Information Technology and Management-Kerala (IIITM-K) etc. These centers have actively involved in most of the IT enabled applications and have changed the mind-set of the working community in the Government to make use of the latest state of the art technology in their day to day activities. In the 'Digital Kerala', the report published on October 2016 says that, the proactive policy of the State Government in allowing the telecom service providers to network the State through Optical Fibre Cable (OFC) has enabled its citizens to get online, both through broadband and mobile. Kerala had established its first State Data Centre (SDC) in 2005 to deliver e-governance services. This was further strengthened with the setup of second SDC in 2011, which is offering industry leading cloud infrastructure and enhancement to core connectivity infrastructure such as Kerala State Wide Area Network (KSWAN), National Optical Fibre Network (NOFN) and National Knowledge Network (NKN).

In keeping with her position as one of India's best "connected" states, Kerala boasts a large number of websites and portals which enables her own citizens as well as interested users worldwide to access information about the state, swiftly, easily. The main one is the official website of Kerala government (www.kerala.gov.in). This site provides access to government services by providing online application forms for services from various departments like the electricity board, revenue department, corporations, public distribution system. Besides facilitating online application for grievance redressal, the site carries information of government machinery, contact details of elected representatives and a discussion forum. It also provides links to various govt., NGOs and educational institutions. Each department / ministry has their own portals with different projects for citizen welfare

The Digital Empowerment Campaign is a project formulated by Govt. of Kerala to empower the citizens to reap the benefits of various e-Governance initiatives to ensure digital inclusion, befitting the achievements made by the State. Digital empowerment campaign is targeted to touch 3 million citizens in the state in a phased manner covering the courseware on digital literacy, e-Services and information security. Though this empowerment campaign, ordinary citizens will be trained to use e-Governance systems and services to avail entitlements without any intermediary and, thereby, boost the self-esteem of citizens. This silent revolution in citizen empowerment helps the citizen realize the potential of e-Governance and democratization of the society.

As a result of these policies and projects, Kerala has achieved major progress in the transformational journey towards "Digital State". According to the 'Digital Kerala' report by the Government of Kerala, the major achievements of the State includes:

- Kerala emerged as the FIRST Digital state in the country, announced by the Hon'ble President of India in February 2016
- Government of India Commissions India's FIRST Hi-Speed Rural Broadband Network (NOFN) in Idukki, Kerala
- Malappuram is the FIRST e-Literate state in the country
- FIRST state in the country to issue over 2.4 Crore e-Certificates
- 100% of the Gram Panchayats are connected through optical fibre network
- Over 2600 Akshaya Centres(CSCs) in the state operational for the last one decade
- Over 3.44 Cr Aadhaar enrolments
- Adoption of Aadhaar based identification & DBT services
- Established CERT-K in 2010 to improve State's cyber security posture

- ~ 100% compliance to civil registrations on-time
- Over 9000 ATMs across state enabling ease of access to Banking
- High tele-density of 99%, with a rapid increase in the usage of smart phones
- High internet penetration of 40.18 %
- Over 30,000 km OFC laid across the state, which is growing
- Shared Government Citizen Call Centre in operation for last one decade

As a result of these proactive policies and projects, Kerala has the highest mobile penetration with close to 32 million connections for a population of 33 million, with a rapid increase in the usage of smart phones. It also has high internet penetration, covering about 20% of the households through broadband and another 15% through mobile. The ever-changing technology landscape and the recent growth of internet as well as the smart mobile phones penetration of the State, together with the proactive measures of the Government to digitally empower the citizens, helped the State make significant strides in turning Kerala to a knowledge-powered economy and also in realizing its vision of being the first digital society of the country.

2.5.1 WOMEN AND E-GOVERNANCE IN KERALA

The quality of socio-economic indicators of Kerala has its reflection also in the socio-economic position of its women population. Compared to other states of the country, the female population of Kerala have many pre-eligibilities in terms of the educational qualifications, health indicators, employment, per-capita income etc. But, when comparison is made between the position of rural and urban female in Kerala, there is a huge divergence is visible,

The study on “ICT – A Sustainable Strategy for Women Empowerment in Kerala”, by Vijesh Venugopal says that, the opportunity question for women entrepreneurs in the programmes and initiatives of the state in Kerala, the state is the main provider of ICT education, training and services. This is mainly done through the various programmes initiated by the Kerala State Information Technology Mission (KSITM) KSITM is the nodal agency for implementing the various programmes of the Department of Information Technology. The objectives of the KSITM include 'ICT dissemination to bridge the digital divide'. Accordingly, the Akshaya programme was initiated in 2002 to enable an expansion in citizens' ICT use, in Kerala. The programme has evolved from its initial emphasis on e-literacy and has come to take on a variety of government to citizen services. The officials of the programmes holding different portfolios were interviewed for the purpose of the research. Additionally, women engaged in the IT units of Kudumbashree also form a key part of the universe of women entrepreneurs in Kerala. (Kudumbashree is the poverty alleviation programme of the state government of Kerala where women's micro-enterprises are used as the main strategy for both poverty eradication and women's empowerment. In Kerala, the responses to women's location in the whole ICT ecology of the state were invariably foregrounded by comments on the position of women in Kerala. According to the Director of the Akshaya programme, “women in Kerala have been much more advanced than women in the rest of the country” and that “Kerala women enjoy an equal status with the men”. Moreover, “Kerala has been a society which has historically taken up causes of marginalised segments of society like the lower castes, tribes, and women.” The Women Development Corporation (WDC) representatives also concurred with view that women were largely absent from public spaces, In Kerala parents are not ready to let women engage in the public domain. That is the main challenge that we face in getting women to participate in our programmes. Though the government gives certain advantages to the women, the parents are reluctant because they fear harassment at time of marriage. This, somewhat paradoxical, social status of women marked the Kerala landscape in which ICTs were introduced. Women were seen as suitable for the IT industry in many ways. Women are the ideal workers for the IT industry in Kerala since “the attrition rate is lower amongst women and they are more committed to work. The likelihood of getting organised and creating difficulties is also less in case of women.” The IT industry in Kerala had come to employ women, who are 'equally if not more educated than men on an average in Kerala' Women have come to manage more than fifty percent of the Akshaya centres, and the IT units of Kudumbashree are solely run by women. Additionally, some women (like the poorer fisher women) have encountered ICTs in the various extension programmes of the government. ICTs had subtly changed gender norms regarding work. It was with the coming of the IT industry that 'industries or companies were allowed to function beyond 10 to 5 kind of hours and women were permitted to work around the clock'. It was felt that with the opening of IT Parks, which have been planned in order to decentralise the IT industry, and Kudumbini, a 'household BPO concept', more and more women would be encouraged to work. The Consultant to the e-kirishi programme pointed out the commercial opportunities for women in the

programme. Aggregation of produce from different farmers and their online trading is one of the components of the e-kirishi programme.

There are so many sides those are exclusively made for helping women or enhancing women empowerment. These sides given women's liberty to registered their cases on the websites and then government and NGO's investigate the problem and give them support to solve the problem and take corrective actions.

Implementation of E-Governance in Women Empowerment

- E- governance (ICT) can be used by women after awareness of the technology for that the government should take some action to make women aware for the ICT technologies.
- Examples of women's empowerment through ICT include
- Training in the use and design of computer applications, such as e-mail, word-processing and design applications, builds marketable skills.
- Marketable skills create alternative possibilities for income generation and the possibility of upward mobility.
- An independent income is the basis for individual autonomy, increased agency and control and, frequently, increased self-esteem and self-confidence.
- Increased agency and self-confidence allow women to travel more and develop a wider network of contacts. Such travel and networking expose them to the availability of more economic opportunities.
- ICTs open new avenues for education, communication and information sharing.
- ICTs can be a valuable tool for the organization and mobilization of women's advocacy and interest groups.
- Education and information increase knowledge about the world and the political, economic, social and cultural factors that shape women's lives.

2.5.2 KERALA WOMEN: USE OF ICT AND E-GOVERNANCE

According to the Census 2011 data, Kerala has the highest female literacy rate of 91.98%, ie. 92%, among the states of India. The kind of challenges that women have to face, apart from acute competition with men, even in a state that enjoys high female literacy rate, low maternal and infant mortality and a healthy sex ratio compared to other Indian states, has been baffling to many. According to the latest NSSO data of 2011-12, female work participation rate (FWPR) in rural areas in Kerala was 22.1 compared to that of men at 56.5. The FWPR at all-India level for the corresponding year was 24.8. In urban areas, however, FWPR in Kerala (19.1) is slightly higher than the all-India average (14.7) even though it is still highly skewed in favour of men (55.2). Second, Kerala may be a state that displays excellent social indicators comparable to developed countries, but the specter of patriarchy still looms large over the state. In that respect, Kerala is not different from rest of India.

Even though Kerala is one among the states who have achieved greater heights in its social, economic and technical indicators, in certain aspects the state lacks its quality. An example has already been discussed above which is the paradox between the high female literacy and less female work participation rate of the state. Similarly, there are several other areas in which we can see the divergence between the male and females of Kerala.

One among those areas is the use of ICT and the use of e-Governance services by women. Kerala has the highest mobile penetration with more than 30 million connections for a population of 33 million, with a rapid increase in the usage of smart phones. It also has high Internet penetration, covering about 20 per cent of the households through broadband and another 15 per cent through mobile, as per the TRAI's (Telecom Regulatory Authority of India) latest figures. Kerala is among the top five states if teledensity is concerned (95.70 persons with telephone connections for every 100 individuals). The other e-statistics are as follows: 34.71 Internet subscriptions per 100 population, 12.31 million Internet subscriptions, 2.68 million wireline subscriber base of which 65 per cent is rural and 31.13 million wireless subscribers. But here also we can see that comparatively less women have proper access to mobile and internet.

In the report of "Digital Literacy Training to Non-IT Literate Citizens: Impact Assessment of the National Digital Literacy Mission", with the help of National Sample Survey report of 2015 shows that, there has been huge difference between the male and female in their ability to use a computer.

Table No.2.2 Ability to Operate a Computer (Percentage in the Population of a Particular age group)

Male				Female			
Age group				Age group			
14-29	30-45	45-60	60+	14-29	30-45	45-60	60+
81	34	16	6	74	25	9	2

Source: Digital Literacy Training to Non-IT Literate Citizens: Impact Assessment of the National Digital Literacy Mission (2015)

From the above table itself the divergence between the male and female is clear. Among all the age groups, the percentage of females who are able to use computer is much less than that of male. A similar result can also be seen in the percentage of use of computers for different purposes by male and female.

Table No.2.3 Ability to use a Computer for Various Uses (Percentage of Respondents aged 14 years and above)

Male			Female		
Typing	Internet for		Typing	Internet for	
	Search	E-mail		Search	E-mail
37	35	33	30	25	22

Source: Digital Literacy Training to Non-IT Literate Citizens: Impact Assessment of the National Digital Literacy Mission (2015)

From the above table it is clear that there is a clear male and female divide in the use of internet in Kerala. If such a divergence can be seen in the use of internet, then this issue will also be visible in the use of online government services by the women in Kerala.

The basic factors that restrict women from using e-Governance services can be as follows:

- Low literacy
- Unemployment
- Low income
- Low e-literacy
- Non-access to computer, mobile and internet
- Non-awareness of the services etc.

But, there is another section in the society, who are able to participate but are not willing to engage or use these services. These section of the society includes who are educated, employed, have access to at least mobile / smartphones, computers and who have the basic knowledge to use them, and those who use internet for certain purposes, and still haven't made an effort to access the online government services, at least the government utility services. This is a much untouched area while considering the spread of e-governance use in the society.

The reasons for the wilful non-participation of women can be as follows:

- **Affordable access:** Affordable access entails a number of questions, including location of the technology (household, work, or public place); ease of accessibility; ownership and control of the technology; cost; complexity of use and sustainability of the technological resources, which could hinder the use of these services.
- **Threats that prevent access and use:** Women tend to disclose more on line than men and this may be due to factors such as socialisation, gender stereotypes and attitudes but also ways of handling personal information. Women value interpersonal relationships more and tend to discuss online with their friends in greater depth and breadth than men. Such behavioural patterns make them vulnerable to online threats and risks.
- **Digital literacy and confidence:** As mentioned, the multiple opportunities and possibilities offered by ICTs and the Internet require a certain degree of skills on the part of the user. A question of relevance is in what ways these skills are in-built during the design phases of the particular technology and the implications of this fact for women's ability to use the ICT application, product or Internet content in question.

- **Relevant content, applications and services:** In a way that is more or less obvious, content has to do with language. Even among the literate females there is barrier of language. More generally, the issue is what language are women more likely to use in their daily livelihood activities and tasks.
- **Lack of interest:** There are women who have access to social media but at the same time haven't accessed any government transactions online. This is due to their lack of interest in this, because they think that other provisions to access these services. Another reason for this is that, they have somebody to depend on to access these services for them. For example, in a family setup especially in Kerala, mostly the male member will be in charge of fulfilling the governmental transactions.

Hence, this study focusses on the awareness and access of e-governance services by the working-women of Kerala. This study also try to find out the barriers or the limiting factors that restricts the use of online government services by women. Because, in today's fast developing world, women only being educated and employed cannot empower them, rather they have to walk along with the development, and must also contribute to the development of the country. Only then we can say that, there is the ultimate empowerment of women. E-governance is such a tool to raise the standard of women in our society.

2.6 E-GOVERNANCE SERVICES

The following are the government services which are available online for the citizens, especially women, arranged in a life cycle pattern according to the requirements at various stages of life.

BIRTH

- ❖ Birth Certificate

EDUCATION

- ❖ Apply Scholarships
- ❖ Examination results

EMPLOYMENT AND EMPOWERMENT

- ❖ Kerala PSC (Public Service Commission)
- ❖ Vanitha Commission (To file complaints/cases)
- ❖ Motor Vehicle Department (Apply leaner's licence, Licence renewal, Apply duplicate licence, Duplicate RC, Mock test for leaners licence)
- ❖ Apply Passport/Visa
- ❖ Railway ticket booking
- ❖ KSRTC-Saarathi (Bus ticket booking)
- ❖ Aadhar (Download e-Aadhar, make updations etc.)
- ❖ Ration card
- ❖ Electrolal Roll (Apply Voter's ID, search electrolal roll etc.)

UTILITY SERVICES

- ❖ e-district (To apply for various certificates)
- ❖ Income tax payment
- ❖ PAN Card (Apply and Update)
- ❖ Property tax payment
- ❖ Marriage Certificate (Access and File marriage registration)
- ❖ Court Case Status
- ❖ File search (Secretariat files)
- ❖ KSEB (Bill Payment)
- ❖ BSNL (Recharge)
- ❖ Water Authority (Bill Payment)
- ❖ Police (File missing person cases, register cyber crime and anti-piracy complaints)

SENIOR CITIZEN SERVICES

❖ Pension (Pensioners search, download application)

❖ Death Certificate

2.7 AREA OF STUDY: ERNAKULAM DISTRICT

The area selected for this study is Ernakulam district. Ernakulam district is a district of the state of Kerala in southern India, blessed with beauties of nature enjoys prominent position in the history and culture of the Kerala state. The district has a total geographical area of 3068 sq.km the largest metropolitan region of the state Greater Cochin. It is the third most populous district in Kerala, after Malappuram and Thiruvananthapuram. Ernakulam is one among the major IT hubs in Kerala. Looking at the district profile, according to the Census 2011 released by Directorate of Census Operations in Kerala, Ernakulam had population of 3,282,388 of which male and female were 1,619,557 and 1,662,831 respectively. In 2001 census, Ernakulam had a population of 3,105,798 of which males were 1,538,397 and remaining 1,567,401 were females. Ernakulam District population constituted 9.83 percent of total Maharashtra population. In 2001 census, this figure for Ernakulam District was at 9.75 percent of Maharashtra population. There is change of 5.69 percent in the population compared to population as per 2001. In the previous census of India 2001, Ernakulam District recorded increase of 9.35 percent to its population compared to 1991. The average literacy rate of the district is 95.89%. There is difference between the male and female literacy rates, which is 97.36% and 94.46% respectively, which clears the fact that more males are literate than women in a district where female population outnumbers the male population. The district falls under the category of Top 10 literate districts in India, which is a greater achievement of the district.

The IT sector in Ernakulam has shown remarkable growth in the recent years. With low manpower costs, supportive state information technology policies, and a robust infrastructure, the city is fast emerging as a key IT hub. The state government offers various incentives to IT businesses such as single-window clearance, concessional power tariffs, and sops for green buildings. Kochi has a dedicated IT park – Infopark – developed by the government of Kerala. The 350 acre campus spread across four locations in Kochi, houses over 200 companies, including IT majors such as Tata Consultancy Services, Wipro, Cognizant, Affiliated Computer Services, OPI Global, IBS Software Services, and US Technology. As the district tops in its development of ICT infrastructure, the district has also achieved its recognition in the aspect of e-literacy. The report got as a result of RTI (Right To Information) filed by Medianama in 2013, Ernakulam have achieved only 85% e-literacy during Phase II of Akshaya project.

Table No-2.4: District Wise E-literacy Rate Through Kerala Akshaya Project

District Wise E-literacy Rate Through Kerala Akshaya Project		©MEDIANAMA
District	E Literacy Rates Through Akshaya	E Literacy Through Other Sources
Kollam	3,17,648	2,10,066
Ernakulam	3,43,753	1,68,517
Thrissur	2,98,739	1,40,393
Malappuram	5,97,598	63055
Kozhikode	4,12,417	1,53,878
Kannur	3,30,384	85616
Kasargod	1,62,555	35661

Source: www.medianama.com/2013 (kerala-akshaya-rti-e-literacy)

From the above table it is clear that, after Malapuram and Kozhikode, Ernakulam takes the top position in the e-literacy rate through the Akshaya project. According to the same report on the number of Akshaya centres in Kerala, Ernakulam stands at fifth place with a total of 169 Akshaya centres.

In the recent past, an initiative by students called “e-Jaalakam”, that briefs the services available in around 60 government websites a women may need in her lifetime. They are arranged in a life cycle pattern from birth to death enabling access according to requirements at various stages of life. This is a milestone when we consider the e-governance initiatives in Ernakulam. Hence, this study tries to focus the light on the awareness and access of e-governance services by working-women in Ernakulam district.

2.7.1 VAZHAKULAM BLOCK

Vazhakulam is a Block placed in Ernakulam district in Kerala. Positioned in urban region of Kerala, it is one among the 16 blocks of Ernakulam district. According to the government register, the block code of Vazhakulam is 75. The block has 9 villages and there are total 56663 families in this Block. As per Census 2011, Vazhakulam's population is 238877. Out of this, 118630 are males whereas the females count 120247 here. This block has 26859 kids in the age group of 0-6 years. Among them 13671 are boys and 13188 are girls.

Literacy rate in Vazhakulam block is 83%. 199182 out of total 238877 population is educated here. Among males the literacy rate is 85% as 100924 males out of total 118630 are educated while female literacy rate is 81% as 98258 out of total 120247 females are educated in this Block. The dark part is that illiteracy rate of Vazhakulam block is 16%. Here 39695 out of total 238877 people are illiterate. Male illiteracy rate here is 14% as 17706 males out of total 118630 are illiterate. Among the females the illiteracy rate is 18% and 21989 out of total 120247 females are illiterate in this block. Vazhakulam Block is at the top position considering the Total Female Literate population which amounts to, 98258. The rural female literates amounts to 21178 and that of urban is 77080. Another achievement is that when we look at the Total Female Working population Vazhakulam block panchayat positions 3rd in it with a total of 20101 females. Also looking at the Main Working Population Female in Ernakulam district, Vazhakulam stands in the 2nd position with a total of 14444 females. This is the reason why this study selected Vazhakulam Block. Among the 3 villages and 6 towns in Vazhakulam Block, this study chooses one village and one town for selection of samples, they are, Kizhakkambalam (village) and Choornikkara (town).

2.7.1.1 KIZHAKKAMBALAM VILLAGE

Kizhakkambalam is a village placed in Vazhakulam Block of Ernakulam district in Kerala. Placed in rural part of Ernakulam district of Kerala, it is one among the 3 villages of Vazhakulam Block of Ernakulam district. According to the government records, the village code of Kizhakkambalam is 627951. The village has 5551 houses. According to Census 2011, Kizhakkambalam's population is 23186. Out of this, 11375 are males whereas the females count 11811 here. This village has 2254 kids in the age bracket of 0-6 years. Among them 1119 are boys and 1135 are girls. Literacy rate in Kizhakkambalam village is 85%. 19830 out of total 23186 population is educated here. Among males the literacy rate is 87% as 9918 males out of total 11375 are literate while female literacy rate is 83% as 9912 out of total 11811 females are educated in this Village. The dark side is that illiteracy rate of Kizhakkambalam village is 14%. Here 3356 out of total 23186 people are illiterate. Male illiteracy rate here is 12% as 1457 males out of total 11375 are illiterate. In females the illiteracy rate is 16% and 1899 out of total 11811 females are illiterate in this village. The count of employed individual of Kizhakkambalam village is 9075 yet 14111 are non-working. And out of 9075 employed person 434 persons are fully reliant on agriculture. The village is one among with the highest Total Female Working population which amounts to 2645 in Vazhakulam Block.

2.7.1.2 CHOORNIKKARA TOWN

Choornikkara is a town placed in Vazhakulam Block of Ernakulam district in Kerala. Located in urban part of Ernakulam district of Kerala, it is one among the 6 towns of Vazhakulam Block of Ernakulam district. As per the government records, the town code of Choornikkara is 627980. The town has 8563 homes. According to Census 2011, Choornikkara's population is 35446. Out of this, 17205 are males whereas the females count 18241 here. This town has 3867 kids in the age group of 0-6 years. Among them 1938 are boys and 1929 are girls. Literacy rate in Choornikkara town is 85%. 30154 out of total 35446 population is educated here. Among males the literacy rate is 86% as 14858 males out of total 17205 are literate however female literacy rate is 83% as 15296 out of total 18241 females are literate in this Town. The Negative side is that illiteracy rate of Choornikkara town is 14%. Here 5292 out of total 35446 individuals are illiterate. Male illiteracy rate here is 13% as 2347 males out of total 17205 are illiterate. Among the females the illiteracy rate is 16% and 2945 out of total 18241 females are illiterate in this town. The count of employed person of Choornikkara town is 12351 yet 23095 are non-working. And out of 12351 working person 33 peoples are totally dependent on agriculture. The total Female Working Population here is 3025 which is one among the highest in Vazhakulam block.

3.1 FINDINGS

The major findings of the study are as follows

1. Regarding the Age-Wise distribution of the respondents it was found that, majority of them are under the age of 45 years. Only 27% belongs to the category of above 45 years.
2. Considering the Caste-Wise distribution among the respondents, it was found that large proportion of the respondents belongs to the General category and the proportion of OBC category is only 4% higher than that of SC/ST category.

3. The Marital status of the respondents shows that around 78% of the respondents are married. Only 15% comes under the single category. Only small proportion of the respondents comes under the category of widowed and divorced.
4. The educational qualification of respondents showed that majority of them have proper educational qualification. More than 80% of the respondents have either a degree/diploma or post-graduation and above. Only the remaining proportion of respondents have secondary level education or below.
5. Looking at the nature of occupation of the respondents, 75% of them are working in the formal sector. The proportion of those engaged in informal sector is comparatively less. Hence, majority of the respondents have proper job security.
6. The analysis of the monthly salary of the respondents showed that, more than half of them i.e. 82% earns a monthly salary above Rupees 15000/-. Around 39% of them earns above Rupees 25000/-. Only a small proportion of them earns a salary less than Rupees 15000/-.
7. The analysis on whether the respondents owns Smartphone or Personal computer showed that 93% of them owns Smartphone. Even though all of them seemed to have mobile phones, 7% of the sets are not necessarily a smartphone. Whereas in case of Personal Computer, 64% seemed to have either their own PC or one at home.
8. Considering the use of internet by the respondents, it was found that more than 80% of them use internet, which is a good indicator showing that the internet use among women is increasing. Only a few percentage of them seemed not using internet, which is either because of that they do not have the facility to access it or due to lack of interest and less knowledge regarding internet.
9. Looking at the platform used to access internet, all of them were found accessing internet through their Smartphone. 24% among them found also using their PC or Laptop to access internet. And none of them use Cafe browsing as a source of internet.
10. The main purpose of using internet of the respondents found to be Social media and Web Surfing. It is quiet surprising that the major use of internet among them is Social media. The second major use of internet is Online banking, but it is surprising that 25% of working women do not use Online banking where as they have access to Social media at the same time. The third major use of internet is for Entertainment purpose and the least percentage of only 34% does Online shopping.
11. Looking at the frequency of use of internet, it was found that they use internet at least once in a day as the major use of internet is Social media among the respondents. Hence, the overall result on the frequency of usage showed that they use internet daily or at least once in alternate days.
12. Regarding the trust on online services the result found was that, majority of the respondents trust online services only to an extend. Comparatively, only a small percentage of the respondents are of the opinion that they do not trust online services at all. Around 43% of the respondents trust online services completely.
13. The difficulties that people had to face from the traditional government procedures were, lengthy process involved in governmental procedures, which in turn takes so much time for getting these services delivered. Another major flaw is that they have to be physically present in the concerned office to fulfil their needs, which makes it difficult to access. And a much lower proportion of them agrees that it will incur cost in terms of money. Also it was found that, they are willing to afford the cost incurred for on-time delivery of services.
14. The respondent's awareness regarding the 'National E-governance Plan' showed that all of them were aware of the initiative by the Government in order to promote digital governance.
15. The result on awareness regarding the 'E-governance' showed that all of the respondents are aware that Government has made its services available online. This is a good indicator that women have a basic idea regarding this. Because in our present society having a job itself cannot make the life easier, especially for women.
16. The awareness on Mobile Governance among the respondents also showed a positive result. All of the respondents are aware that the government services such as utility services are accessible through Mobile phones. But the extent of knowledge regarding this found to be varied among them.

17. The extend of awareness by the respondents on the utility services showed that, out of total 25 main utility services, more than half of the respondents are aware of above half of the services available. No one was found to be unaware of at least one service. Those who are aware of almost all the services amounts to around 51%. Hence, it shows that there is strong awareness among the respondents on the utility services.
18. The various measures that could promote the use of online governance among women are, proper awareness programs and training sessions. Another solution is to open Kiosks via public buildings, which would benefit the society as a whole. Other suggestions were, motivation from the part of government officials, which could motivate the public.
19. Another major finding was on whether it is necessary for women to access these services by themselves. It was found that all respondents on the same opinion that, it is very much necessary for women to be capable of accessing these services by themselves, which was a very motivational result.
20. The necessity of use of E-governance by women found to be, that it would helps in empowerment of women, it will reduce women's dependence, it will ensure effective participation of women in governance, it will increases the self-confidence and in addition to all these it would increase the contribution to the country's development.
21. The results on women's access of online government services did not show an impressive result. Because, out of the total respondents only 54% found accessing online governance. Here, those who haven't accessed e-governance services also include the non-internet users and also those who don't have the facilities to access it by themselves.
22. Another significant finding was, when we looked at the use of internet among the respondents it was found that 87% of women have accessed internet using their smartphone, where almost all of them uses internet for social media, at least on alternate days. But, when we looked at the access of online government services only 54% among the internet users found those who have accessed online governance. This shows a huge gap between the internet users and those who have accessed the e-governance services.
23. The hypothesis tested showed a remarkable result that, the access of e-government utility services by working women found to be depending on their educational qualification and the income earned by them. The women who are more educated and earns comparatively more income found to be accessing the services more. Hence, education and income level of women are two important factors that influences the access.
24. The trust on online government services by the respondents showed that majority have complete trust on government services provided online. Whereas less than half of the respondents trust them only to an extend, because anything online is always prone to fraudulence especially in current world. And, only a few seemed who are comfortable with the traditional form of governance.
25. The response on the effectiveness of online government services, showed that, some of them disagree that there is fast delivery, ease of access and security of transaction for online government services. Another positive result was that all of the respondents agree that online government services will reduce the cost of availing the services and also it will help in empowering the citizens of the country.
26. The major barriers faced by those who have accessed e-governance services are; difficulty in accessing websites due to the maintenance, the modifications that is made to the websites or changes in the procedure of accessing services and the fear of security in disclosing the personal and financial details online.
27. The major barriers faced by those respondents who haven't accessed any online government services by themselves even though they use internet are; the lack of need and lack of interest in using these services which holds them back. Another major barrier is the lack of proper awareness on the use of online government services. Then comes the factors such as difficulty in understanding, fear of security and the barrier of language, which hinders the access of e-governance services by them.

3.2 RECOMMENDATIONS

The study tends to give the following recommendations based on the findings

- Even though the respondents belongs to the working-women category their interest on the access of utility services do not found satisfactory. So proper awareness and motivation has to be given to them to ensure their effective participation because the scope for development is more in working-women compared to unemployed women.

- The mere awareness on the e-governance and its advantages is not enough for the effective participation, rather it requires proper training sessions for them.
- The use of social media among the working-women found to be higher, compared to the access of e-governance services. A major reason is the lack of interest among them or else they are dependent on others. This trend has to be changed.
- Another important issue is that, the benefit of these kind of new initiatives are not reaching to the lower sections of the society, especially the low income category. Even though they are aware of these services, they have no provision to access it by themselves. Hence authorities need to make it sure that the benefits are reaching equally to all.
- The barriers in accessing these services has to be minimized to the maximum. Efforts has to be made to erase the fear of security among the users of these services.

3.3 CONCLUSION

Working-women in our society plays an important role in the development of the nation. In the present society, the employment of women themselves cannot solve the persisting gender issues. The Information and Communication Technology is a very powerful and effective tool in improving the skill development and decision making power of women. The gender equality and empowerment of women is one among the main motives of every new initiatives taken by our Government. E-governance is such an initiative, which includes the scope of ICT and which can ensure gender equality. The study found out that, the educational qualifications and incomes are important factors that influences the access of online government services by working-women. The awareness among them regarding this governmental initiatives found to very satisfactory. But, their lack of interests and needs found to be the major reasons for the reduced access of these services. This mind-set need an immediate change, because including women in e-Governance is a major challenge facing by our country. Our present society consist of women who uses social media without any hindrances, but at the same time, those who are reluctant or have fear to use online government services. This trend also need a change. Hence, proper awareness and motivation is required for the effective participation of women in e-Governance. If those women who are educated and employed are willingly not participating, then how hard it will be to ensure the participation of every women in e-Governance. This is hence a big challenge in front of the transformation of the country into a Digital Society and, also for the overall empowerment of women in the country.

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EMPLOYEE ENGAGEMENT IN SPINNING MILLS AT DINDIGUL DISTRICT

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ABSTRACT

The Employee Engagement it is a concept in the employee involvement and it's understand the employee and describe the employee and also organization, both in the quantitative and quality, the relationship between an industry and its employees. In the employee engagement denoted as engaged employee is completely engaged by and wholehearted their work and so takes positive action to supplementary the organization's status and interests. Commitment is a those psychological connection to the organization. A few of the factor such as job related factors, compensation, work life balance, working environment, job flexibility. The present study focused exclusively on job commitment influenced the employee participation in spinning mills at dindigul district, Tamilnadu.

Keywords: Employee Engagement, job commitment, Employee participation

INTRODUCTION

The Employee engagement is the stage of involvement and commitment an worker have towards their business and its ethics. An engaged employee is awake of business circumstance, and workings with colleagues to develop performance surrounded by the job for the profit of the organization. The business necessity work to enlarge and raise engagement, which require a two-way correlation between employer and worker.

Employee engagement is an evolving possession of the association involving an business with its employees. An "engaged employee" is single who is completely engrossed by and adoring about his or her effort and so proceed with encouraging action to promote the organization repute and welfares. There is a buzz regarding an organization where employees are actually engaged. Employees believe self-assured, valued and empower. They are delicately loyal and individually involved; there are enormous level of stimulus and eagerness.

DEFINITION OF EMPLOYEE ENGAGEMENT

Employee engagement: "an employee's involvement with, commitment to, and satisfaction with work. Employee engagement is a part of employee retention." This definition integrates the classic constructs of job satisfaction (Smith et al., 1969), and organizational commitment (Meyer & Allen, 1991).

NEED OF THE STUDY

Employee engagement many organizations attribute their employees. Without hardworking and creative employees, most organizations would not be where they are today. It is reasonably apparent that several of these employees are not purely affecting their assign responsibilities; they are increasing beyond and further than their job narrative to promote the association as a whole.

SCOPE OF THE STUDY

This study is mainly for employee engagements. In this study the researcher to find empower the employees in order increases the productivity and its ability to analyze the employee's commitment and involvement in their organization.

OBJECTIVES OF THE STUDY

- To study the demographic profile of the respondents
- To analyze the factors influencing employee engagement.
- To study the stage of engagement in spinning mills

RESEARCH DESIGN

This research is descriptive in nature; it described data and uniqueness about the inhabitants or happening organism deliberate. The major trait of this technique is that the investigator has no direct over the erratic. It can only report what has happened or what is happening. It seeks to describe something that this style of explore is highly structured and rigid in its approach to data collection.

SAMPLE UNIT

The population of this research is consisted of the spinning mills employees of dindigul city. Five mills are preferred to contribute in this research, and 286workers were selected in this research.

SAMPLE SIZE

A sample is acknowledged as the sub-unit of population which the similar features. The quantity of unit in the sample is famous as the sample size. Employees were selected in this research. 286 employees were selected in this research.

SAMPLING METHOD

The sampling was prepared base on proportion sampling. A residents proportion, commonly denote by P and in some text book π is a factor that describe a percentage worth allied with a population. 10% of the proportion . The population proportion and other inhabitants' parameter are unknown. A populace proportion is usually predictable throughout an equitable sample statistic obtained from an observational study.

NATURE OF DATA COLLECTION

Primary sources of data : The primary data are those which are collected afresh for the first time, and thus happen to be new and original in nature these data are the first hand information generated to achieve the purpose of research.

Secondary sources of data : Secondary source is that information that is obtained from those sources other than direct sources and the information is collected through the mentioned ways.

Company's website, Library, Text Book published on human resource management, Internet websites and search engines, Magazines and journals.

STATISTICAL TOOLS AND INSTRUMENTS

The following statistical tools and instruments were used in the study:

The collected data has been coded and represented by calculating the frequency and average. Based on this suitable interpretations were made, Percentage analysis, SPSS, Chi – square test

HYPOTHESIS

H1: there is a significant association between Qualification of respondents and promotion opportunity

H2: there is a significant association between marital status and satisfaction of faire salary & incentives

LIMITATION OF THE STUDY

The current study intended to test the employee engagement. It contributed to the literature in terms of the employee engagement. This study was carry out in spinning mills in dindigul where taken the 286 samples. This research conducted the analysis by using SPSS. The data collected through the questionnaire. Some of the respondents are co-operated to collect the data

LITERATURE REVIEWS

Christian, Garza and Slaughter (2011) In parallel with the development of the SHRM field, researchers in psychology and social psychology have been concerned with exploring how the attitudinal construct of employee engagement could help explain individual performance outcomes. As we shall see below, definitions of engagement have varied considerably, but evidence has accumulated on the basis of quantitative studies to suggest that high levels of engagement are associated with high levels of performance, citizenship behaviour and individual well-being.

Schaufeli (2013) argue that engagement is a distinct concept defined as 'a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption'. In their work, the Utrecht team refer to 'work engagement' rather than 'personal engagement' and propose that engaged workers are likely to perform better than their disengaged peers

Townsend, K., Wilkinson, A., and Burgess, J.(2013) In their article, Chris Rees, Kerstin Alfes and Mark Gatenby turn their attention to the link between employee voice and engagement, within the framework of social exchange theory. Drawing on self-report survey data from 2310 employees in two UK-based service sector firms, Rees and colleagues found positive relationships between perceived employee voice, the employee-line manager relationship, trust in senior managers and engagement. This paper bridges debates within the HRM and engagement fields and raises important questions about employee experiences of voice from a unitarist perspective, which has also been the subject of Townsend et al.'s study.

Shahidan, A. et al., (2016) in their paper "Linking Work Environment, Team and Co-worker Relationship and Organization Well-being in Increasing Employee Engagement." propose a conceptual framework on the key determinant of employee engagement. They study the three key determinants that will have impact on employee

engagement. These determinants will be used as independent variables which are work environment, team and co-worker relationship, and organization well-being. Employee engagement acts as a dependent variable.

Anitha (2014) studied the drivers of employee engagement and its impact on employee performance in India. Samples taken from lower and middle management of small scale organizations. This study found there are two significant factors which drive employee engagement and subsequent performance. The drivers are working environment and team and co-worker relationship in the organization. This study further suggests that employees would enjoy considerable attention in terms of work place environment, healthy collegiality, workplace wellbeing and the methods taken by the organization to enhance employee engagement.

Biswas, Varma and Ramaswami(2012) the link between job design and engagement and between justice and engagement

ANALYSIS AND INTERPRETATION OF EMPLOYEE ENGAGEMENT

Table-1: Age wise classification of the respondents

Age	No of respondents	Percentage
Below 20years	42	15
20-30years	104	36
30-40years	111	39
above 40years	29	10
Total	286	100

Source: Primary data

Inference: From the above table shows the age of the respondents in which the 39% of the respondents are in the age group 30-40years, 36% of the respondents are in the age group 20-30years, 15% of the respondents are in the age group Below 20years, 10% of the respondents are above 40years,. So this table found that the majority of the respondents are in the age group 25-30 years.

Table-2: Gender wise classification of the respondents

Gender	No of respondents	Percentage
Male	185	65
Female	101	35
Total	286	100

Source: Primary data

Inference: From the above table identify that the gender is respondents 65% of the respondents are male and 35% of the respondents are female. This is show's majority of the male respondents are working in this organization.

Table-3: Marital status of the respondents

Marital status	No of respondents	Percentage
Married	165	58
Un married	121	42

Source: Primary data

Inference: From the above table shows the marital status of the respondents 58% of the respondents is married and 42% of the respondents are Unmarried. The majority of the respondents are married.

CHI-SQUARE – TEST ANALYSIS

Table-3: Analysis using chi-square comparison between Age and Career development

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.459E2 ^a	9	.114
Likelihood Ratio	168.781	9	.000
linear-by-Linear Association	6.227	1	.013
N of Valid Cases	286		

Inference: From the above table shows that the association between demographic profiles age with career development. The p value is greater than .114 > 0.05 hence the null hypothesis at 5% level of significant concludes that there is no significant association between age and career development

Table-4: Analysis using chi-square comparison between marital status of employee and fair salary & incentives

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.653 ^a	2	.732
Likelihood Ratio	54.584	2	.143
Linear-by-Linear Association	4.725	1	.030
N of Valid Cases	286		

Inference: From above table inferred that the association between marital status with salaries and incentives. The p value is greater than significance value $.732 > 0.05$ hence the null hypothesis accepted. So there is no association between marital status and salaries incentives

SOCIO- DEMOGRAPHIC PROFILE OF THE RESPONDENTS

- 39% of the respondents belong to the age group 30-40 years, 36% of the respondents are 20-30 years.
- 65% of the respondents are male, 35% of the respondents are female.
- 58% of the respondents are married, 42% of the respondents are unmarried.
- 38% of the respondents are graduates, 36% of the respondents are HSC in spinning mills.
- 49% of the respondents' belong to the income level RS.10, 000-15,000 per month, 23% of the respondents belong to the income level RS.15, 000-20,000 per month.
- 41% of the respondents have 1– 5 years of experience, 31% of the respondents have 5-10 years.

FACTORS THAT INFLUENCE EMPLOYEE ENGAGEMENT

- Job related factors
- Working environment
- Compensation
- Job flexibility
- Career development and training
- Work life balance
- Job commitment

Chi-square relationship between demographic profile and employee engagement factor

- The association between demographic profile of age and gender with employee engagement factor of p value is greater than significance value (i.e $.114 > 0.05$) and (i.e $.732 > 0.05$) null hypothesis is accepted. So that there is no association between career development with age and gender.
- The association between demographic profile of age and gender with promotion opportunity p value is greater than significance value (i.e $.025 > 0.05$) null hypothesis is accepted. So that there is no associations between promotion opportunity with age and gender.

SUGGESTIONS

1. Job satisfaction is solitary of the leading drivers of employee engagement consequently managers be supposed to focus supplementary on fulfilling the employees in the work place.
2. Manager should create a positive work culture.
3. Build self esteem and confidence in employees.
4. Company should give team building activities among group to build teams.

CONCLUSION

The study was carried out to assess the employee engagement in spinning mills. In this research to found that were no significant relationship with demographic factor of age and gender with employee engagement, work life balance, compensation, and commitment. It Can be conclude that this study to contribute employee engagement. The success of any organization is ultimately dependent on its human resources. The organization should therefore be able to inspire the human resources through exceptional practices. This will definitely help the organization to achieve high quality and productivity with less cost and will be instrumental in developing the institutions.

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FACTORS AFFECTING INTEREST RATE SPREAD: A STUDY OF PRIVATE SECTOR BANKS IN INDIA

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ABSTRACT

The study was focused to factors that affecting interest rate spread of private sector banks. The study was performed on private sector banks in India on secondary data based. 16 private banks were selected on their CAP size with 128 observations for the period 2011-2018. Regression analysis was used to measure the impact of probable factors on interest rate spread and results validate significant cause & effect relationship.

Keywords: Factors, IRS, Regression, Private sector banks, India

INTRODUCTION

The concept of interest spread is the difference between loan and deposit interest rates. It is a main source of revenue for financial intermediaries especially banks. It represents their return for the provision of deposit taking, credit provision and payment facilitation services. The amount by which the interest earned on investment exceeds or fails to exceed its own interest liability. If a bank pays depositors on an interest rate, and lends the deposited money out at a higher interest rate, the difference between those two interest rates is the interest rate spread. Net interest spread is calculated by considering the difference in borrowing and lending rates of financial institutions (such as banks) in nominal terms. It is considered equivalent to the gross margin of non-financial companies. Banking sector always carries some financial and non-financial risks simultaneously with its operational activities. And these activities are governed by different factors. The current research is carried out to trace the impact of these possible risk parameters on banks' interest rate spread.

REVIEW OF LITERATURE

Mujeri and Younus, (2009) the object of the study is to bring out several systemic actions and measures at the bank level to improve earnings and profitability of the banks. The analysis shows that non-interest income of banks is important and the higher the non-interest income as a ratio of total assets of a bank, the lower will be its spread. Similarly, the market share of deposits of a bank is a significant determinant of the spread. The statutory reserves requirements and the high NSD certificate interest rates also contribute to higher interest rate spreads in the banking sector in Bangladesh.

Ghasemi and Rostami, (2015) this study is done to consider affecting factors on spread rate and define a suitable model of spread rate in banking industry. The results of the econometric model assumptions have been proven at an acceptable level. The exchange rate fluctuations can influence decision of people who are not willing to risk, therefore it can be concluded that in uncertain situations, the increase in inflation and examine the investors decisions are derived by the risk factor, the study supports the idea of volatility in risk bearing capacities of the people which is derived by some factors like exchange rate and upward phase of inflation. These factors have strongly explained the interest rate spread of banks. Study has revealed the significant relationship between inflation, exchange rate and interest rate spread.

Kamran, Johnson and Sammer, (2016) the purpose of this research is to examine the relationship between bank specific and macro-economic characteristics over bank profitability by using data of forty-four Pakistani banks over the period 2005-2009. The empirical results have found strong evidence that both internal and external factors have a strong Inflation on the profitability. High owner's equity, firm size loan and deposit ratio and macroeconomic factors are the determinants of profitability. Inflation and GDP has discussed as the drivers of profitability and significantly affects the financial performance of banks.

Were and Wambua, (2014) the paper empirically investigates the determinants of interest rate spread in Kenya's banking sector based on panel data analysis. The study has disclosed that credit risk is the most influencing risk parameter to the interest rate spread of the banks. Further study has exposed that bank size is a significant determinant of interest rate spread. Loan to deposit ratio which confirms the liquidity position of any firm is also significantly affect the banks spread rates.

Paul, Grace and Ugochukwu, (2015) this study examined the impact of interest rate spread on the performance of Nigerian banking industry for the period of 1986-2012. The study has revealed that in long run bank performance is negatively affected by interest rate spread.

Wahyudi, et.al, (2018) this study examines the effect of Capital Adequacy Ratio, Financing to Deposit Ratio, board of directors' size, sharia supervisory board, bank size, and interest rate and sharia bank ownership status to Return on Deposit. The study has uncovered that capital adequacy ratio and bank size has negative causal relationship with return on deposits. While the Financing to Deposit Ratio, board of directors' size and interest rate have a significant positive effect on return on deposit. Meanwhile, dividend per share and sharia bank ownership status have no significant effect on return on deposit.

Bosire, et.al, (2014) this study was designed to evaluate the factors that influence a wide interest rate band in Micro Finance Institutions (MFIs) is new developments in the financial sector due to financial reforms in the year 2004. The study is performed on time series, where financial cost, profitability, cost of administration and growth trend considered as determinants of interest rate spreads. It is well defined in the study that micro finance institutions are the drivers of financial sector in the current scenario. Interest rate band is a crucial factor to decide the growth rate MFIs in the era of financial reforms.

Ansari and Goyal, (2014) to examine post financial-reform interest rate pass through for Indian banks after controlling for all factors. The association between interest rate and the strategies of different banks had a negatively associated, which indicates the impact of competition on interest rate band.

Georgievska, et.al, (2011) the purpose of this study is to quantify the effect of various factors on lending rates and interest rate spreads during the last decade. The results indicate that lending rates are mostly influenced by bank size and market share, and to a somewhat lesser extent by deposit rates and non-performing loans.

Maiti and Jana, (2017) carried out their study to find the determinants of five major bank groups in India namely, State Bank of India & its Associates, Nationalised Banks, New Private Sector Banks, Old Private Sector Banks and Foreign Banks. The study has revealed that bank's profitability is significantly explained by profit per employee, net interest margin, NPAs and non-interest income.

Tan, (2012) suggested that interest margins in the Philippines rise with bank size, bank capitalization, foreign ownership, overhead costs and tax rates. It was found that higher growth, lower inflation, higher reserve requirements, greater banking sector development, smaller stock market development and lower government deficits reduce net interest margins.

Bhattarai, (2018) analyzed the impact of bank specific and macroeconomic variables on investment of commercial banks in Nepal. This study concludes that NIE, CD, GDP and ER the major factors are affecting the investment of commercial banks in Nepal. Whereas NIE is positive impact on Investment and rest three variables are negative effects.

Bhatia, Mahajan and Chander, (2012) examined the determinants of profitability in the private sector banks in India for the years 2006-07 to 2009-10. The results show that Spread ratio, Provisions and contingencies, Non interest income, Operating expense ratio, Profit per employee, Investment/ deposit ratio and Non performing assets are significant variables in affecting the profitability of banks in the private sector of Indian economy.

Kumar, (2017) examined the impact of interest rate risk factors on the interest rate derivatives (IRD) usage by commercial banks in India. The results indicate that asset size, the impact of interest rate shock on equity capital are positively related to use of derivatives for hedging as well as trading and use of derivatives for hedging and trading is negatively associated with interest rate sensitivity.

Tumwine, et.al, (2010) investigated the effect of factors on interest rate in banking financial institutions (BFIs) of Uganda. The outcome of the study exposed that liquidity management, operational efficiency, capitalization and lending rate significantly affect the interest rate and credit risk has no significant effect on interest rate.

OBJECTIVE OF THE STUDY:

- To check the impact of factors determined interest rate spread.

RESEARCH METHODOLOGY

The study is causal in nature. It is aimed to find out the impact of factors on interest rate spread. The study is done to analyse the relationship in Indian context. Data of capital adequacy ratio, bank size, return on assets, liquidity ratio, cost to income ratio, net interest margin, interest income ratio, non-interest income and operating cost were taken to define the factors, while the IRS was taken as a parameter of financial performance. The data have taken for the previous 8 years (2011 to 2018). All the Private Sector Banks were taken as the population of the study and sampling frame was 16 Private Sector Banks in India. Sample elements were taken capital adequacy ratio, bank size, return on assets, liquidity ratio, cost to income ratio, net interest margin, interest income ratio, non-interest income, operating cost and IRS.

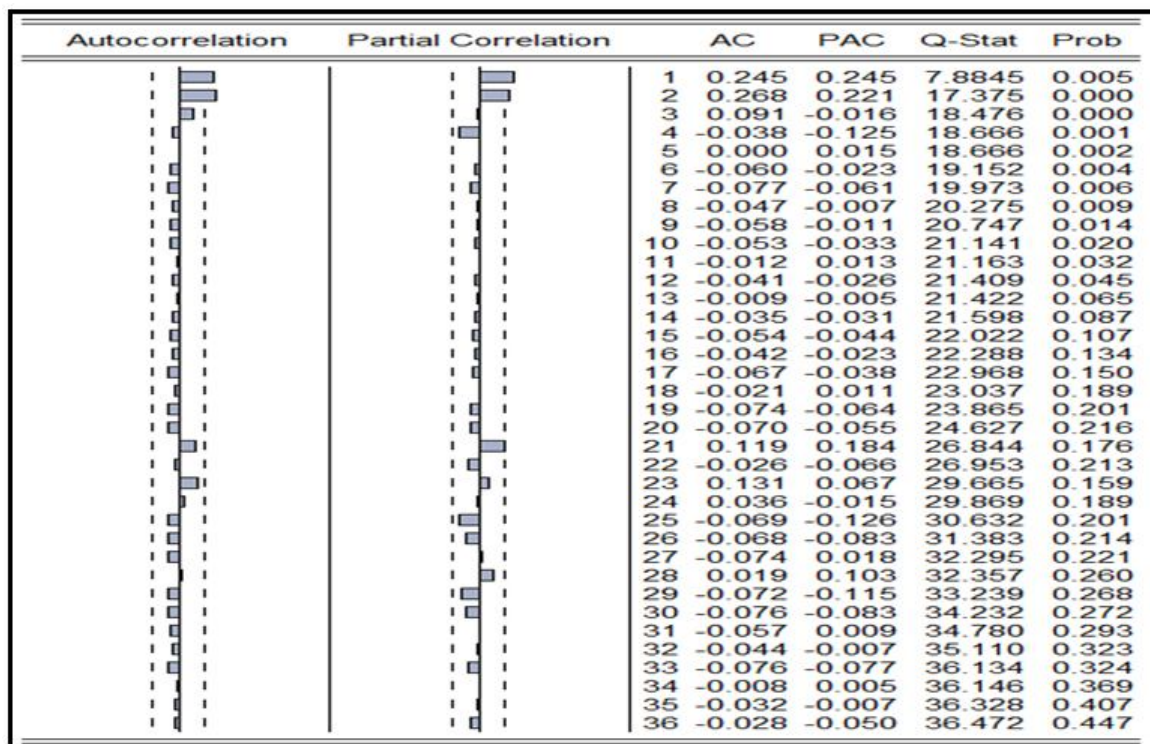
RESULT & DISCUSSION:**Unit Root Test**

Since time series data was employed, it is important to test for the stationarity of the variables in order to avoid spurious regression. The Augmented Dickey – Fuller test was used for unit root testing. The results of the unit root test for the variables are presented below:

Table-1: Unit Root Test results

Variable	ADF-statistic	Critical value	Probability value	Level of significance	Order of integration
Bank size	-3.285245	-3.482453	0.0176	1%	Level
CAR	-5.201657	-3.482453	0.0000	1%	Level
CIR	-5.935013	-3.482879	0.0000	1%	Level
IE	-5.293672	-3.482879	0.0000	1%	Level
LIQR	-3.846040	-3.482453	0.0032	1%	Level
IRS	-6.773806	-3.482453	0.0000	1%	Level
NIE	-2.791979	-3.482453	0.0622	1%	Level
NIM	-2.858652	-3.482453	0.0532	1%	Level
OC	-4.231655	-3.482453	0.0009	1%	Level
ROA	-8.501757	-3.482453	0.0000	1%	Level

The Unit Root tests showed that all variables stationary at level Order of integration. Augmented Dickey- Fuller unit root test statistics are greater than their critical values considered at 1% level of significance was considered.

Correlogram Residual Test of Stationarity**Chart-1**

Correlogram residual test was applied on the variables CAR, BS, CIR, LIQR, NIE, IE, NIM, OC, ROA(independent) & IRS (dependent) of our proposed research. The assumption of this test is that all the spikes must be restricted within the fitted (regression / estimated or predicted) line and actual line. Thus, there is no autocorrelation in the data and it explained the stationarity of the data.

Statistically, stationarity is checked by measuring the last P value of the Q-Statistics. The assumption of this test is, the corresponding p value of Q- Statistics must be greater than the standard value (0.05). Here, in the above table, last P value of the Q-Statistics (**0.447**) is more than the standard value (0.05), hence these results recommend that the data is stationary.

REGRESSION ANALYSIS

H_0 – There is no significant effect of factors determinants the IRS.

Table-2: Regression Analysis

VARIABLE	COEFFICIENT	STD.ERROR	T STATISTIC	PROB.
C	-5.113002	1.260764	-4.055481	0.0001
BS	0.032949	0.060600	0.543711	0.5877
CAR	1.663696	0.368805	4.511050	0.0000
CIR	0.214732	0.508101	0.422616	0.6733
IE	2.825820	0.723725	3.904550	0.0002
LIQR	0.435959	0.066499	6.555913	0.0000
NIE	-0.134754	0.223453	-0.603055	0.5476
NIM	-1.293274	0.433766	-2.981500	0.0035
OC	0.727216	0.418333	1.738366	0.0848
ROA	0.011172	0.088242	0.126606	0.8995

The outcome of regression model has shown that the Prob. value of t-statistic of independent variables; Capital adequacy ratio (0.0000), interest income (0.0002), Liquidity ratio (0.0000), NIM (0.0035) are less than 0.05 so, there is a significant effect of CAR, LIQR, IE & NIM on IRS but the Prob. Value of t-statistic of independent variables; Bank size (0.5877), Cost to income ratio (0.6733), Operating cost (0.0848), ROA (0.8995) and Non-interest income (0.5476) are more than 0.05 so, there is no significant effect of BS, CIR, OC, NIER, ROA on IRS.

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 + b_9x_9 + e$$

$$\text{IRS} = -5.113002 + (0.032949) (\text{BS}) + (1.663696) (\text{CAR}) + (0.214732) (\text{CIR}) + (2.825820) (\text{IE}) + (0.435959) (\text{LIQR}) + (-0.134754) (\text{NIE}) + (-1.293274) (\text{NIM}) + (0.727216) (\text{OC}) + (0.011172) (\text{ROA}) + e$$

Table-3: Model Summary

R-squared	Adjusted R-squared	Durbin-Watson statistic	F-statistic	Prob.(F-statistic)
0.515949	0.479030	1.831197	13.97512	0.000000

The above table (Table-3) defines the results of regression analysis. The coefficient of determination 0.479030 means that 47.9 % of the variation in IRS is being explained by the independent variables capital adequacy ratio, cost to income ratio, net-interest margin and non-interest earning ratio. Durbin-Watson statistic (1.831197) is close to idle value 2, thus there is no autocorrelation among the variables. Value of F-statistic 13.97512 is significant at 0.0000 % which is less than 5% reveals, model is good fit.

REGRESSION'S ASSUMPTION TESTS**Heteroskedasticity test**

H_0 - residuals are not Heteroskedastic.

Table-5

F-statistic	0.908971	Probability	0.5200
Obs*R-squared	8.298689	Probability	0.5043

From the above table it is resulted that P-value (**0.5043**) of **Observed R-square** is more than standard value (**0.05**) so, null hypotheses is not rejected. It means the residuals are not Heteroskedastic.

ARCH LM test

H_0 – there is no ARCH effect in the series.

Table-6

F-statistic	1.426809	Probability	0.1657
Obs*R-squared	16.53422	Probability	0.1680

From the above table it is resulted that P-value (**0.1680**) of **Observed R-square** is more than standard value (**0.05**) so, null hypotheses is not rejected. It means there is no ARCH effect in the series.

DISCUSSIONS

Current study is supported by (Ghasemi and Rostami, 2015); and (Kamran, Johnson and Sammer, 2016) that bank-specific factors play a relatively more fundamental role in the determination of the interest rate spread in

the banking sector. These include bank size, liquidity risk and return on average assets. In general, the research findings disclosed relatively significant effect of return on average assets was found on interest rate spread. bank size, liquidity risk, credit risk (net interest income ratio) also taken as determinants of interest rate spread but these all have not any significant effect on interest rate spread. (Bhatia, Mahajan and Chander, 2012) Considered interest rate spread as a determinant of profitability in the private sector banks in India for the years 2006-07 to 2009-10 which shows significant effect on profitability of banks; while the current study was focused to know the variables that explains the interest rate spread and one of the measure of profitability and financial performance was considered as an independent variables and ROA is not explaining the interest rate spread in the current study. Research completed by (Tan, 2012) suggested that interest margins in the Philippines rise with bank size, bank capitalization, foreign ownership, overhead costs and tax rates and various macroeconomic variables like; higher growth, lower inflation, higher reserve requirements, greater banking sector development, smaller stock market development and lower government deficits reduce net interest margins. Our study was an attempt to bridge this gap that interest rate spread is determined and explained by various risk parameters with the absence of any macroeconomic variable and results of current study supported the causal relationship between risk parameters and interest rate spread in private sector banks in India. The current study was carried out in Indian context on private sector banks and found that few bank specific factors have significant effect on interest rate spread and explained it; but the study carried out by (Jayaraman and Sharma, 2003) was applied on cross sectional data of interest rate spread across the world and results have exposed that magnitude of interest rate spread, however, varies country wise financial environment.

CONCLUSION

The study examined the factors affecting interest rate spread of private sector banks in India. Various bank specific factors and risk parameters were measured through statistical tools such as stationarity test and regression analysis was utilized in testing the hypotheses for the desired research problem carried as objective of the research. The empirical results determine that overall significant effect of factors used as independent variables on interest rate spread. It was found that Capital adequacy ratio, interest income, Liquidity ratio, Net interest margin have significant effect on interest rate spread whereas Bank size, Cost to income ratio, Operating cost, Return on assets and Non-interest income have no significant effect on interest rate spread.

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FOSTERING GREEN FINANCE FOR ECONOMIC DEVELOPMENT & SUSTAINABILITY OF A NATION

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ABSTRACT

Green finance is a phenomenon that combines the world of finance and business with environmentally friendly behavior. Green finance refers to the inception of sustainable development projects, environmental friendly products & policies or ethical concerns that encourage financial investment to stimulate more sustainable economy. Green lending has increased substantially over recent years as a result of efforts to boost renewable energy, sustainable agriculture, green industry & ecotourism. This paper shows the trend of the refinancing projects for green growth which reduces greenhouse gas emissions and air pollutant emissions significantly. The challenges for achieving a green transformation to a low-carbon economy are high; aligning the financial sector with sustainable development will be a key element for economy to succeed. In this paper an attempt has been made to describe green financing of commercial banks to protect human being from environmental disasters.

Keywords: Green Financing, Carbon Intensity of India, Socially Responsible Investments (SRIs) of Banks, Sustainable Finance Policies of India, Green Lending by Risk Management, Lending & Investment barriers.

INTRODUCTION

Green Financing becomes essential part not only in business but also in environment science from 21st century onwards. Green financing is a proponent to preserve the planet that combines money & business activities in an environmental friendly behavior. Green financing can contribute to transistors for the efficient & low-carbon industries; that can increase & improve the lives of people in a consistent way with sustainable development. Green financing is the principle of green credit to produce pollution treatment facilities such as grant loan to enterprises & institutions who are developing new energy resources, green goods production, ecological agricultural production etc. at concessionary low interest rates in order to achieve environmental protection & economic development.

Green finance covers the improvement of the areas of environmental degradation, such as, air pollution, water pollution and scarcity, infringement of rivers, improper disposal of industrial medical and house-hold waste, deforestation, loss of open space and loss of biodiversity. It must be eco-friendly and can contribute to poverty alleviation. 'Green Banking is an umbrella term referring to practices and guidelines that make banks sustainable in economic, environment, and social dimensions. It aims to make banking processes and the use of IT and physical infrastructure as efficient and effective as possible, with zero or minimal impact on the environment.' 'Green Banking' focusing on reduction in paper usage as well as saving transaction time. This is a pioneering concept which would save both paper and time resources. Referring to exploitation of resources beyond replaceable limits, the banker said: "It is because of our arrogance over science and technology that we have forgotten our wisdom and balance that is important to protect nature. If we do not maintain it (the balance), it will be a catastrophe of our own making."

Green finance thus involves making investments in environmentally sustainable products & projects which aims improvement of the areas of environmental degradation such as air pollution, water pollution & scarcity, industrial pollution, infringement of rivers, improper disposal of industrial medical & house-hold waste, deforestation, loss of open space & loss of biodiversity. It must be planet-friendly, ecological & can contribute to poverty alleviation. It also includes green investments such as stocks, exchange traded funds & mutual funds of the companies whose operations aims at improving the environment.

Green finance covers the improvement of the areas of environmental degradation, such as, air pollution, water pollution and scarcity, infringement of rivers, improper disposal of industrial medical and house-hold waste, deforestation, loss of open space and loss of biodiversity. It must be eco-friendly and can contribute to poverty alleviation.

OBJECTIVES OF THE STUDY

In this paper, I would like to describe green financing to the businesses as an essential part of the sustainability of organizations, society & nation. The objectives of the study are as follows:

1. To study the recent developments in the financial world.

2. To study the financial & business policies for reducing the impact of environmental degradation.
3. To study the kind of green financial products & services being offered by Indian banks.
4. To create awareness & importance of green financing among businessmen & general people.
5. To understand the green financing practices that support environment friendly projects resulting environmental benefits.

METHODOLOGY OF THE STUDY

The research is the descriptive and analytical nature based on the secondary data of the researches on green financing. Secondary information has been collected from literaturereviews, various work-paper, banks' websites, journals and articles. I have taken an attempt to intimate the readers, academicians & students about green financing. Every society need green finance for the eco-friendly business to make the earth as a living place while protecting natural resources.

REVIEW OF LITERATURE

The existing literature in this area emphasizes upon the role of Green Banking in promoting environmental sustainability through its eco – friendly strategies and practices.

Dr. LoluruNagarjuna (2015) studied the investment avenues of green finance by way of green stocks and green debt which would add to the goodwill of the companies and increase the market price of the shares thus contributing to the objective of financial management. He suggested that the finance officers of banks must take into consideration the importance of environmental aspects in each of its policies and products due to growing demand for green commodities. This can be done by development of Green Indices.

Sharifi& Hossein (2015) studied the growing importance of green banking in Indian public sector banks. It was found that green banking is a time saving and cost reducing practice. But it faces challenges in form of security issues to the customers, lack of training of bank employees, geographical barriers, etc. However, there exists an increase in scope of green banking practices as more consumers are becoming internet technology friendly. The authors suggested evaluation of green finance projects, LEED certified buildings and training programs for building awareness among the bank employees as measures to improve green banking initiatives.

Nath, Nayak et al. (2014) attempt to study the green rating standard given by RBI, the World Bank's environmental and social norms and the initiative taken by bank in adopting green practices. Green Rating Standard is known as Green Coin Rating. Under this banks are evaluated on the basis of carbon emissions and amount of recycling activities. World Bank has formed environmental and social norms for financial institution. These norms provide ways to reduce environmental impact. Banks are required to do Environmental Impact Assessment, Annual Reporting and adopt sustainable technology. If the Indian banks want to achieve some position in global economy then they have to act as good corporate citizens.

Sudhalakshmi and Chinnadorai (2014) concluded that green mantra is essential for emerging economies like India. Every step taken today will mean a better global environment in future. Therefore, banks are required to include their green aspect in the lending principle. Indian banks are running behind time in adoption of this green phenomenon. Serious steps are required to be taken in this regard.

Yadav Rambalak& Pathak Govind (2014) analyzed that Public sector banks have taken greater initiatives in this regard. In private sector banks only ICICI bank has been pro- active in using green data centers, using energy efficient alliances, promoting pollution control measures, giving preferences to evaluation of green financing projects along with the basic practices of paperless banking, recycling etc.

ChandichalShilpa& Dr. MisraSheelan (2013) recognized that the banks are realizing the importance becoming responsive to the environmental and social factors to achieve sustainability in banking decisions. It emphasized on quality improvement tools of e – CRM based Website services, Six Sigma, Business Process Re-engineering which would help the banks to implement paperless banking services.

Choudhury et al. (2013) highlighted the final challenge with two main objectives, the maximum benefits facing the strategic aspects of Green Banking. They advised that banks will play active role in green environment and to actively adopt environmental aspects of banking and to change the client's practice of banking business. The use of appropriate environmental technology and management methods will not only be suitable for the environment, but will provide benefits as a more effective functioning.

Dr. JhaNishikant&Bhome Shraddha (2013) conducted an empirical study on steps taken to go green, to check the awareness of bank employees, associates and general public on green banking issues by primary data

collection. The researchers found that online banking, green loans, power saving equipments, green credit card, use of solar and wind energy and mobile banking were the widely adopted banking strategies.

D. Khandewal (2013) explained the concept and benefits offered by “green bank” in his paper. He also studied the Green banking practices IndusInd bank, ICICI bank, IDBI bank, HDFC bank, SBI and Yes Bank. It also suggested tips for green banking by way of online banking, waste management, clean and hygienic environment, green banking in rural branches, green credit cards and green loans.

Rajput, Kaur et al. (2013) found that there is a small group of banks in India that lead in environmental aspect. Response of Indian banks towards international initiative for environment is sluggish. In the United Nation Environment Programme Finance Initiative there is no single Indian signatory. Using factor analysis they conclude that risk of failure of business to peers and lack of RBI mandates are the obstacles to moving towards sustainability. The gaps in India are the awareness and consciousness on the environmental issues. Carbon Disclosure Projects- India requires public disclosure of emissions.

Bahl (2012) highlights the means of creating awareness about Green Banking to ensure sustainable growth. Garrett's ranking technique is used to analyze the most significant strategies in respect of Green Banking. If the goal is to attain sustainable development this can be achieved only through creating awareness and imparting education. Among the internal sub systems emphasis should be given to publications, newsletters so as to create awareness and effective means for external sub systems are event meetings, media and websites. A proper formulated green policy guideline is needed for effective Green Banking.

PURPOSE BEHIND GREEN FINANCE

India in its “*Intended Nationally Determined Contribution*” for the time period 2021-2030 has set the following targets:

- To reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 level.
- To reap approximately 40 percent cumulative electric electricity established capability from non-fossil gas primarily based energy assets by means of 2030 with the assist of transfer of era and coffee fee global finance consisting of from Green Climate Fund (GCF).
- To create an additional carbon sink of 2.5 to 3 billion tons of CO₂ equivalent through additional forest and tree cover by 2030.

Carbon Intensity of India

(CO₂ Emissions (Kg per 2010 US \$ of GDP)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CO ₂ Emission	1.24	1.21	1.17	1.14	1.10	1.07	1.06	1.13	1.16	1.04	1.04	1.08	1.03	1.05

Source: World Development Indicators (December 2017)

Integrating environmental and social considerations into lending decisions and product design is only a first step in making the financial systems instrumental in funding the required transformation towards a green economy in the region. The funding of energy efficiency, renewable energy and sustainable infrastructure requires new concepts and new financial instruments which are adapted to local circumstances.

Sustainable Finance Policies in India

2007	Corporate Social Responsibility, Sustainable Development and Non-Financial Reporting – Role of Banks
2011	Ministry of Corporate Affairs: National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business
2012	Securities and Exchange Board of India (SEBI): Annual Business Responsibility Reporting
2014	SEBI: Infrastructure Investment Trusts (InvIT) Regulations
2015	Reserve Bank of India: Priority Sector Lending – Targets and Classification Indian Banks Association: National Voluntary Guidelines for Responsible Financing
2016	SEBI: Guidelines for the Issuance and Listing of Green Bonds
2017	SEBI: Disclosure Requirements for Issuance and Listing of Green Bonds

Source: Compiled from the Information of Sustainability Disclosure of RBI & SEBI

Green Banking Practices of Top Leading Indian Banks

SBI	<ul style="list-style-type: none"> • Introduction of Green Channel Counter (GCC) facility at their branches in 2010 to promote paperless banking and expand it to all the branches. • Collaboration with Suzlon Energy Ltd. to employ wind power as an alternative to thermal power in some branches of Gujarat, Tamil Nadu and Maharashtra by setting up of wind mills. • It became member of Carbon Disclosure Project to undertake environmentally sustainable banking practices. • Interest charged at concessional rates on green projects to encourage reduction of greenhouse gas emissions.
PNB	<ul style="list-style-type: none"> • The bank exercises green building practices like energy efficient lights, immediate repair of any water leakages, printing on both sides of paper, promoting rain water harvesting and extensively using renewable sources of energy for electricity generation. • Granting of loans to projects being approved by the Pollution Control Board ensuring compliance with the social and environmental safeguards including rehabilitation and resettlement of people affected by project.
BOB	<ul style="list-style-type: none"> • It gives sanction to those projects which are permitted by the Pollution Control Board and also they are not extending finance to environmental hazardous substances. • It extends loans to projects which values the use of wind energy and solar energy to earn carbon credits.
ICICI	<ul style="list-style-type: none"> • Offering green products and services of Insta banking and concessional auto loans to the customers purchasing cars using alternative sources of energy. • Green Communications includes promoting paperless banking through encouraging online fund transferring, filing of e-returns, making of e- FDs, online bill payments, demat trading etc.
HDFC	<ul style="list-style-type: none"> • Setting up of 20 solar ATMs and replacing the batteries in ATM with Lithium – ion batteries. • The bank is accepting the projects which are rated by Energy stars and have a prior approval of Central pollution Board. • Implemented a refinance scheme for small, medium and micro enterprises energy saving projects.
Axis	<ul style="list-style-type: none"> • The head office at Mumbai has been converted into platinum LEED certified Green Building. • Ten solar based ATMs installed in Coimbatore under Independent ATM Deployment (IAD) Model. • Waste management & prevent emission of greenhouse gases. • It started using water from rain water harvesting and water treatment plants, made furniture from the recycled materials.

GREEN FINANCIAL PRODUCTS & SERVICES IN INDIA

Green Bonds: Green bond is a debt instrument which has characteristics similar to that of a standard coupon bond but the difference is only that the issuer of this bond utilizes the proceeds from this bond in energy efficient projects relating to renewable energy, emission reduction, reforestation, etc. SEBI has proposed new norms for the issuance and listing of green bonds in 2016. Exim Bank of India has issued a five-year US\$500 million green bond in 2015.

Green Insurance: Green insurance schemes are those schemes which provide risk cover at a low premium and enhanced coverage for green products to minimize the impact of climate change, thereby fostering good corporate behavior. HSBC collaborated with Allianz to provide its customers with green reinvestment insurance.

Green Loan Schemes: Green loan schemes are the financing schemes offered by commercial banks and financial institutions at concessional interest rates directed towards providing support to investment in energy efficient projects. IREDA has launched loans and raised \$91 million for renewable energy using bond issue in 2013.

FUTURE SCOPE OF GREEN FINANCE

In India a Council on Climate change under the supervision of Prime Minister was constituted in 2007 and reconstituted in 2014 for adaptation and mitigation of climate change. It has launched various programs like National Action Plan on Climate change, Jawahar Lal Nehru National Solar Mission, National water Mission, National Mission for Enhanced Energy Efficiency, National Mission on Strategic Knowledge for Climate Change, National Clean Energy fund. Other programs like Auto Fuel vision and Policy 2025, Expert groups on Low Carbon Strategies, etc. In 2015 the Green Climate Fund set up under the framework of the United Nations Framework Convention on Climate Change (UNFCCC) has accredited NABARD as National Implementing Entity (NIE) to finance clean energy projects in India. The recent government policies and initiatives which have increased the scope of Green financial products in India are as follows:

- India's National Action Plan on Climate Change recommended that country should generate 10% of its power from renewable energy resources by 2015 and 15% by 2020. Of India's installed power generation capacity of 2, 55,012.79 megawatt (MW), renewable power has a share of 12.42% or 31,692.14 MW which shows that there exists a huge scope for investment in this sector.
- The Ministry of New and Renewable Energy (MNRE) has revised its targets for energy capacity to 1, 75,000 MW till 2022, comprising 1, 00,000 MW solar, 60,000 MW wind, 10,000 MW biomass and 5,000 MW small hydro. These revised targets demand a huge investment. Since, the sanctioned budget would not suffice so MNRE has asked the public and private sector financial institutions such as Power Finance Corporation (PFC), Rural Electrification Corporation (REC), Indian Renewable Energy Development Agency (IREDA), IFCI Ltd, SBI Capital Markets Ltd and ICICI bank Ltd to raise funds.
- The finance ministry has increased the clean energy cess on coal by Rs.100 per metric ton to fund clean environment initiatives. The government has also proposed the use of renewable energy resources in railways sector. It includes use of CNG in train operations, setting up of water recycling plants, use of solar energy to illuminate coaches, station buildings and platforms. There is also a proposal to change the design of locomotive cabin to reduce the noise level.

CONCLUSION

Banks hold a pioneer role in an economic system which affects production, business and other economic activities through their financing activities. In the last two decades of the 20th century and the beginning of the 21st century green financing has started Global warming creating numerous problems in the economy due to greenhouse gas emissions. Banks hold a pioneer role in an economic system which affects production, business & other economic activities through their financing activities. Therefore, they must ensure protection of the environmental pollution while financing a new project or providing working capital to the existing enterprises. Eco-friendly & energy efficient business activities such as waste management, watershed farm development (farm pond), green housing, habitat-rain water harvesting, renewable energy, cultivation of biofuels, agroforestry, energy from biomass etc. will be given preference in financing by bank with the aim of reducing carbon footprints. It can be concluded that India has a great potential to create a green infrastructure needed for green finance by overcoming the barriers and creating awareness among the corporate citizens.

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GREEN COMPUTING: STRATEGIC PLANNING FOR SUSTAINABILITY

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Research Scholar², Mewar University**ABSTRACT**

The modern English word green emerges from the Middle English and Anglo-Saxon word grene, from the same Germanic root as the words "grass" and "grow", commonly associated with nature, youth, spring, hope, positivity, fertility and envy.

Destruction of this fertility, gave rise to Green technology which is an application of environmental science offering economically feasible solutions that take care of the natural environment and resources, and restraint the negative footprints of human involvement. Green technology can be implemented successfully with the help of "Green Computing" which in turn depends on "Green Devices", especially in the case of Information Technology. This paper aims at exploring the impacts, applications, strategies towards Green Computing.

Keywords: Green Computing, Green Technology, Green Devices, Green Chemistry, Cloud Computing.

INTRODUCTION

Green Computing - a philosophical approach adopted by IT industry to minimize the environmental impact of both the user and the manufacturer. This requires making computers as energy efficient as possible, using materials that can be recycled or are biodegradable, and using fewer toxic materials and disposing of them safely.

Green Computing can be achieved with the use of Green Devices -the machines less energy intensive and are progressively designed to minimize energy use and have less of an impact on the environment. They even tend to use renewable and natural materials when possible.

In a 2008 article San Murugesan defined green computing as "the study and practice of designing, manufacturing, using, and disposing of computers, servers, and associated subsystems — such as monitors, printers, storage devices, and networking and communications systems — efficiently and effectively with minimal or no impact on the environment." Murugesan lays four paths along which he believes the environmental effects of computing should be addressed: Green use, green disposal, green design, and green manufacturing.

Green computing also cultivates solutions offering benefits by "lining up all IT processes and practices with the basic principles of sustainability, which are reduce, reuse, and recycle.

Green Computing also aims to find ingenious ways to use IT in business processes in order to deliver viable benefits across the enterprise and beyond".

WHY GREEN COMPUTING?

Till now, the paper has explained the concept of Green Computing, Green technology & Green Devices. Now, the question arises as "What is the need of Stepping towards Greening?". The answer to this is :

- Cooling of Electronic Products: cooling and ventilation equipment led to an ever-increasing demand of energy like fans, servers, network devices etc.
- Decomposing hazardous materials: Computers contain several hazardous materials like lead, mercury, cadmium, and others. Of particular concern is the exposure of children and pregnant women to lead and mercury. These metals are highly toxic and can harm children and developing foetuses even at low levels of exposure.

EXISTENCE OF TOXIC MATERIALS

- Brominated flame retardants (BFRs) in plastic casings.
- Cadmium and selenium in circuit boards.
- Cathode ray tubes (CRT) in old monitors.
- Lead in solder.
- Mercury in LCD Screen backlights.

In order to diminish the serious environmental and health concerns , these need to be decomposed affectively.

- Going Green cost effective for companies as there is a drastic decrease in electricity bills by using renewable and natural sources of energy rather than other technical sources.

This can be better explained with the help of following

	MOTIVATION		
		ETHICS	MONEY
FOCUS	External	Activists “right thing to do”	Marketing “make money”
	Internal	HR “right thing to do”	Finance “save money”

SURVEYS & RESEARCHES

➤McKinsey report estimates that IT Sector produces about 1 gigaton of emission every year which accounts approx. 2 percent of Total Global Emissions and this will increase upto 1.54 gigaton or 3 percent of Global Emissions by 2020.

➤In February 2003, the European Union passed the Restriction of Hazardous Substances Directive (RoHS). The directive restricts the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment, including computers. The legislation requires enforcement in every member state of the European Union. RoHS helps reduce damaging effect to people and the environment in third-world countries where much of today's e-waste ends up.

➤Greenpeace ranked Internet companies based on a sampling of recent data center construction projects and estimates over energy use and fuel mix.This can be represented as:

Company	Clean Energy Index	Coal Intensity	Energy Transparency	Infrastructure Siting	Mitigation Strategy
Akamai	NA	NA	B	D	C
Amazon Web Services	26.8%	28.5%	F	D	D
Apple	6.7%	54.5%	C	F	C
Facebook	13.8%	53.2%	D	F	D
Google	31.5%	34.7%	F	C	B
HP	9.9%	49.4%	C	D	C
IBM	10.9%	51.6%	C	C	B
Microsoft	25%	34.1%	C	C	C
Twitter	21%	42.5%	F	F	F
Yahoo!	55.9%	18.3%	D	B	C

Source: <http://www.cnet.com/news/greenpeace-dings-cloud-providers-on-dirty-energy/>

CHALLENGES TO ATTAIN “GREEN”

Though many private companies, firms and business are trying to attain the “Go Green” strategy, there are some challenges in front of them which can be explained as:

- Sustainability: making changes that are sustainable over time, while adding business value.
- Green Vs Stakeholders: balancing the needs of various stakeholders.
- Reliability: assessment of the substituted product to ensure its environmental and health impact.
- User Friendly: addressing end user satisfaction, management restructuring, regulatory compliance, and return on investment (ROI).
- High resource usage for basic tasks: Performing the same task by the same user on two different devices, say in a laptop or tablet and then on a powerful laptop or desktop computer with multiple attached monitors, leads to different environmental footprint.
- Distraction of workers from key task: Various applications like email, chat programs such as Yahoo!Chat or Salesforce Chatter, and social networking tools available and in sight distracts a user in doing his work. This may lead to increase the decrease the efficiency and speed of the work, leading to increase in energy consumption.

GOVERNMENT INITIATIVES

➤ In 2010, the American Recovery and Reinvestment Act (ARRA) was signed into legislation by President Obama. The bill allocated over \$90 billion to be invested in green initiatives (renewable energy, smart grids, energy efficiency, etc.) In January 2010, the U.S. Energy Department granted \$47 million of the ARRA money towards projects that aim to improve the energy efficiency of data centers. The projects provided research to optimise data center hardware and software, improve power supply chain, and data center cooling technologies.

➤ By 2008, 26 US states established state-wide recycling programs for obsolete computers and consumer electronics equipment. The statutes either impose an "advance recovery fee" for each unit sold at retail or require the manufacturers to reclaim the equipment at disposal.

➤ The U.S. Environmental Protection Agency's Energy Star program has developed compliance requirements for computer equipment. The U.S. House of Representatives Resolution 5646, passed in July 2006, calls for the EPA's Energy Star program to research:

- The amount of power consumed by corporate and federal data centers
- Industry measures to develop energy-efficient servers
- Possible incentives to convince businesses to use energy-saving technologies.

In Europe, government agencies have set up a number of environmental regulations addressing waste management, recycling, disposal of certain types of waste, industrial emissions and pollution control. The European Union is also setting up a system that encourages business to voluntarily develop their own environmental standards and practices.

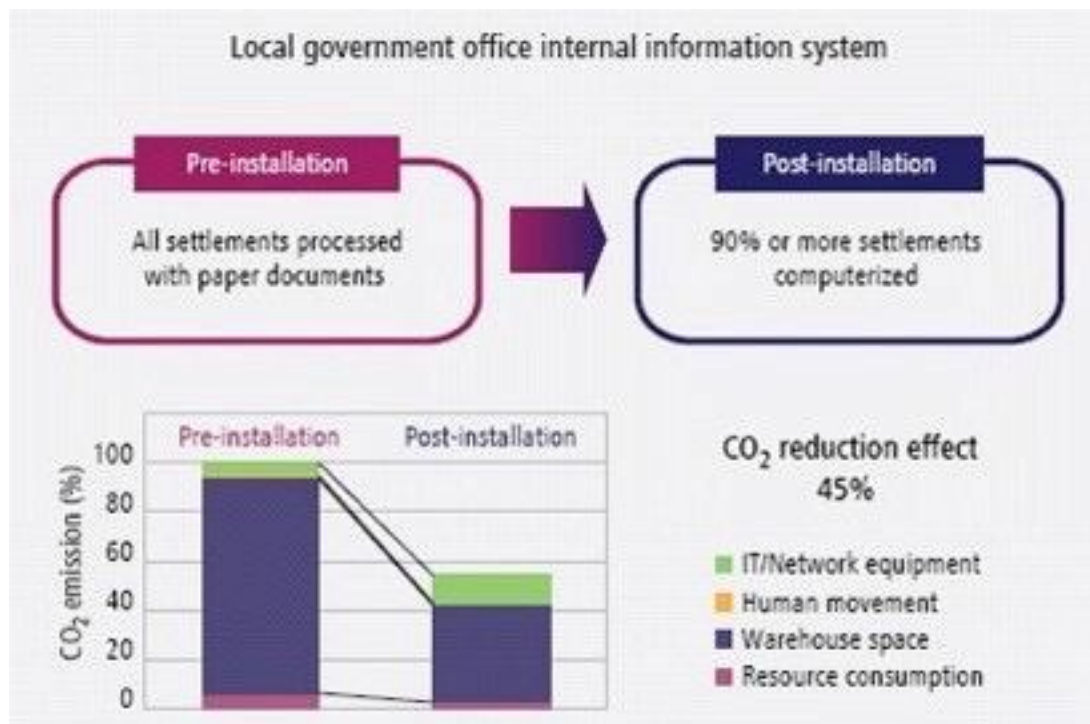
➤ SPECpower - the first industry standard benchmark measures power consumption with reference to performance of server for server-class computers. Other such benchmarks measuring energy efficiency include SPECweb, SPECvirt, and VMmark.

➤ Green Comm Challenge is an organization that promotes the development of energy conservation technology and practices in the field of Information and Communications Technology (ICT).

➤ The Green Grid is a global consortium dedicated to advancing energy efficiency in data centers and business computing ecosystems. It was founded in February 2007 by several key companies in the industry – AMD, APC, Dell, HP, IBM, Intel, Microsoft, RackableSystems, SprayCool (purchased 2010 by Parker), Sun Microsystems and VMware. The Green Grid has since grown to hundreds of members, including end-users and government organizations, all focused on improving data center infrastructure efficiency (DCIE).

➤ The Green500 list rates supercomputers by energy efficiency (megaflops/watt), encouraging a focus on efficiency rather than absolute performance.

➤The first major landmark in the history of green computing was the U.S. Environmental Protection Agency (EPA)'s Energy Star program, launched in 1992. "Energy Star" is a voluntarily labeling program that segregates computers, monitors and other equipment based on their energy efficiency.



Sources: <http://www.itu.int/net/itunews/issues/2009/10/14.aspx>

INDUSTRY INITIATIVES

➤Climate Savers Computing Initiative (CSCI) is an endeavour started on 12 June, 2007. It aims at reducing the electric power consumption of PCs in active and inactive states by providing a catalog of green products from its member organisations, and information for reducing PC power consumption. The WWF is also a member of the Computing Initiative.

➤On 24th January, 2007, US President George W. Bush issued Executive Order 13423, which requires all United States

Federal agencies to make use of EPEAT while purchasing computer systems. Electronic Product Environmental Assessment Tool (EPEAT) offered by Green Electronics Council helps in the purchase of "greener" computing systems. It assesses computing equipment on 51 criteria - 23 required and 28 optional - that measure a product's efficiency and sustainability attributes. Then, depending on how many optional criteria these products have met, they are rated as Gold, Silver, or Bronze.

NEW VISION

➤Cloud Computing promises an efficient and environmentally friendly way of computing as it results in about 17 fold reduction in the number of server.

Moreover, Cloud data centre hubs, which are located near remote, zero-emission energy sources eliminates power line transmission loss and construction costs.

Example: Google's largest data centers is located near Portland, Oregon, where inexpensive hydroelectric power is drawn from the Columbia River.

PRACTICES, POLICIES AND PLANNING

➤Develop a sustainable green computing plan. Try to inculcate business plans that include recycling policies, recommendations for disposal of used equipment, government guidelines and recommendations for purchasing green computer equipment.

➤Recycle. Used or unwanted electronic equipment must be discarded in a convenient and environmentally responsible manner. Recycling of possible elements should be promoted. Purchase decisions must be environmentally sound. EPEAT (Electronic Product Environmental Assessment Tool) must be strictly implemented. EPEAT is a procurement tool promoted by the nonprofit Green Electronics Council

which enable purchasers (be it institutional, marketer or others) to evaluate, compare and select electronic products like desktop computers, monitors and notebooks based on environmental attributes by providing consistent set of performance criteria for the design of products. It also reduces environmentally sensitive materials, designing for longevity and reducing packaging materials

Paper Consumption should be minimised. Use of e-mail, electronic archiving, use the “track changes” feature in electronic documents, rather than red- line corrections on paper, should be encouraged. Also, while printing, one must take care that both sides of the paper should be used. Moreover, using smaller fonts and margins also helps in reducing paper consumption.

➤Conserve energy. Turn off the computer when not in use for an extended period of time or Turn on power management features during shorter periods of interval, which allows monitors or computers to enter low-power states while sitting idle.

➤Reducing hazardous materials. Do not use hazardous materials like CFC, lead and others.

➤Promote Policies. promoting practices such as energy cost accounting, virtualisation and eWaste recycling.

➤Change in lifestyle. Adopt habits aimed at energy conservation.

➤Promote biodegradability. Biodegradability of defunct products and factory waste must be promoted.

CONCLUSION

This paper proposed that one of the important factor which leads to the achievement of sustainable level of used resources is the patterns of individual’s consumption. Researches, Surveys and Applications with reference to attain Green Computing needs more study and analysis. It also needs to focus on the people affecting and different methods to approach these people. The paper reveals and has promoted vast area to be explored in the near future. This paper seeks to determine the extent to which the IT sector has influenced the nature and different eco sustainability strategies to be adopted by them.

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HUMAN RESOURCES MANAGEMENT IN SOCIAL ENTREPRENEURSHIP

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Social Entrepreneurship and the conceptualization of the construct includes many dimensions such as social mission, continuous innovation, use of resources, credibility, accountability, sustainability, creating social value, opportunity recognition, commitment to collective purpose, etc. As the organizations of the process of social entrepreneurship, social enterprises are located at the intersection of market, public policies and civil society. There are some factors which facilitate the growth of these enterprises recently. Today, social entrepreneurs are working in many countries to craft avenues for independence and opportunity for those who otherwise would be locked into lives without hope. Personality traits are natural characteristics that impact the choice of abilities, motives, attitudes and temperament of an individual. Big Five Model (BFM) is a organized structure employed for analyzing personality traits comprising openness, extraversion, agreeableness, conscientiousness and neuroticism. Human Resources Division can play a very important role not only for profit driven organizations but also for Social Enterprises (SEs) by practicing effective leadership role where employees' are considered as being the key to competitive advantage rather than just the implementing the organizational core strategy.

INTRODUCTION

With the rise of social entrepreneurship, social enterprises have got acknowledgment as socially innovative organizations which attempt to balance their economic and social tasks. In the competitive setting of social economy, good management and investment in human resources have become necessities of social enterprises for their endurance. Among the management practices, human resources management acts as a tool for gaining competitive advantage and it constructs mutual trust between the staff and the organization. Emphasizing the importance and challenges of human resources management, this paper explains key aspects of human resources management in social entrepreneurship.

In literature we find various definition of Social Entrepreneurship and the conceptualization of the construct includes many dimensions such as social mission, continuous innovation, use of resources, credibility, accountability, sustainability, creating social value, opportunity recognition, commitment to collective purpose, etc. (Waddock & Post, 1991; Leadbeater, 1997; Dees, 1998; Sullivan Mort, Weerawardena, & Carnegie, 2003). As can be derived from these extents, in social entrepreneurship social needs are tried to be convened by achieving sustainability (Mair & Marti, 2004) which leads us to acknowledge social entrepreneurship as the interface of social mission and economic goals.

Social entrepreneurship can be regarded as a reply to unmet individual and societal needs (Haugh, 2007) while encompassing constructing of social enterprises (Haugh, 2005). Unlike traditional for-profit sector, social enterprises in the dominion of social entrepreneurship has emerged as mission-driven organizations which have come out in reaction to social, economic and/or environmental problems. The relationship between social entrepreneurship and social enterprise can be established in some of the definitions in the field. For instance, social entrepreneurship is seen as, the entrepreneurship leading to the establishment of new social enterprise, and the continued innovation in existing ones (Sullivan Mort, Weerawardena, & Carnegie, 2003).

Global Entrepreneurship Monitor (2006) also regards social entrepreneurship as any effort at new social enterprise activity or new enterprise creation (Harding, 2007). Thus, it is extremely probable that social entrepreneurship leads to the formation or the growth of a social enterprise; however a social enterprise is not essentially or eternally engaged in a social entrepreneurship process (Brouard & Larivet, 2010).

As the organizations of the process of social entrepreneurship, social enterprises are located at the intersection of market, public policies and civil society (Nyssens, 2006). There are some factors which facilitate the growth of these enterprises recently. One contributing factor is the former donor-dependent organizations' seeking of more commercial sources of revenue -like earned income- due to the change in benevolent giving. In addition, market opportunities for new entrants emerged because of the change in public service delivery. Also, new forms of capitalism have intended for attention and resources towards the market potential of social enterprises. Consequently, with the rise of social enterprises' blending social and economic values, boundaries between for-profit, non-profit and public sectors have been hazing (Doherty, Haugh & Lyon, 2014). Within this context, as

social enterprises develop in number and also in quality, management of these organizations has become a vital issue. First, establishment and foundation of these organizations, and then their legality and sustainability require good managerial knowledge and practice (Borzaga & Solari, 2001).

LITERATURE REVIEW

Social Entrepreneurship- Back ground

"Social entrepreneurs are not content just to give a fish or teach how to fish. They will not rest until they have revolutionized the fishing industry."

— Bill Drayton, CEO, chair and founder of Ashoka, a global nonprofit organization devoted to developing the profession of social entrepreneurship

- Jane Addams established Hull-House in 1889, a social settlement to improve conditions in a poor immigrant neighborhood in Chicago, then expanded her efforts nationally. Addams got international recognition as an advocate of women's rights, pacifism and internationalism, and served as the founding president of the Women's International League for Peace and Freedom. Her work eventually resulted in protective legislation for women and children.
- Maria Montessori, the first female physician in Italy, began working with children in 1906 and formed a revolutionary education technique that supports each individual child's unique development. Montessori schools allow each child to realize his or her full potential by fostering social skills, emotional growth and physical coordination, in addition to cognitive preparation.
- Muhammad Yunus revolutionized economics by founding the Grameen Bank, or "village bank," in Bangladesh in 1976 to offer "microloans" to assist impoverished people to get economic self-sufficiency through self-employment, a model that has been imitated in 58 countries around the world.

As the actions of these historical figures illustrate, the term "social entrepreneur" may be comparatively new, but the fact is not. **Social entrepreneurs includes the following**

- **Ambitious:** Social entrepreneurs deals with major social issues, from increasing the college enrollment rate of low-income students to fighting poverty in developing countries. These entrepreneurial leaders function in all types of organizations: innovative nonprofits, social purpose ventures such as for-profit community development banks, and hybrid organizations that mix elements of nonprofit and for-profit organizations.
- **Mission driven:** Generating social value-not wealth-is the fundamental criterion of a flourishing social entrepreneur. While wealth creation may be component of the process, it is not an end in itself. Promoting systemic social change is the genuine objective.
- **Strategic:** Like business entrepreneurs, social entrepreneurs see and act upon what others miss: opportunities to get better systems generate solutions and formulate new approaches that produce social value. And like the best business entrepreneurs, social entrepreneurs are extremely focused and hard-driving-even relentless-in their quest of a social vision.
- **Resourceful:** Because social entrepreneurs operate within a social framework rather than the business world, they have limited access to capital and traditional market support systems. As a result, social entrepreneurs must be remarkably skilled at gathering and mustering human, financial and political assets.
- **Results oriented:** Ultimately, social entrepreneurs are ambitious to create measurable returns. These results alter existing realities, open up new pathways for the marginalized and disadvantaged, and unlock society's potential to effect social change.

Today, social entrepreneurs are working in many countries to craft avenues for independence and opportunity for those who otherwise would be locked into lives without hope. They range from Jim Fruchterman of Benetech, who uses technology to address pressing social problems such as the reporting of human rights violations, to John Wood of Room to Read, who helps deprived children gain control of their lives through literacy. They include Marie Teresa Leal, whose sewing cooperative in Brazil honours the environment and fair labor practices, and Inderjit Khurana, who teaches homeless children in India at the railway stations where they beg from passengers. Whether they are operational on a local or international scale, social entrepreneurs share a obligation to pioneering innovation that reshape society and benefit humanity. Quite simply, they are solution-minded realists who are not afraid to tackle some of the world's biggest problems.

RESEARCH METHODOLOGY

- The research design of this paper is Descriptive Research Design.
- The data type is Secondary in Nature

SOCIAL ENTREPRENEUR PERSONALITY TRAITS : THE BIG FIVE MODEL (BFM)

Personality traits are natural characteristics that impact the choice of abilities, motives, attitudes and temperament of an individual (Brandstätter, 2011). While the nature view holds that a person's genetic origins may have an impact on his/her mental and behavioral processes, the nurture view specifies that the environment, upbringing and childhood experiences will strengthen the embryonic personality. Thus, personality is visualized as a stable average/mean personal state that is partly and deliberately chosen and partly randomly or unconsciously tailored. Personality traits have been utilized to establish entrepreneurial intentions and entrepreneurial performance of traditional entrepreneurs (Zhao et al., 2010; Leutner et al., 2014; DeNisi, 2015).

. The Big Five Model (BFM) is a organized structure employed for analyzing personality traits comprising openness, extraversion, agreeableness, conscientiousness and neuroticism (McCrae and John, 1992; Brandstätter and Opp, 2014).

1. Openness to Experience (OPEN) refers to the likeness to embrace new experiences, complex and innovative ideas as well as creativity (Zhao et al., 2010). It includes the intellect (analytical ability, innovative idea creation, appreciation of abstract concepts and philosophical debate), acceptance of different ideas, cultures and arts (Ciavarella et al., 2004; Brandstätter and Opp, 2014). While OPEN individuals are generally intrusive, curious and impulsive -instrumental in generating creative ideas-, they could be individualistic and have difficulty in developing interpersonal relationships (Yong, 2007; DeNisi, 2015). Building a social business and self-employment are non-conventional labor approaches, which involve enthusiasm and aptitude to innovate (Zhao et al., 2010). Entrepreneurs cope with these challenges by conceiving efficient ways to manage their resources, driving continuous learning (Miller et al., 2012; Braga et al., 2014; Ovais and Li, 2016). In SE start-up intention, OPEN has been found to have significant positive influence on social vision, innovativeness and ability to generate financial returns in Malaysia (Nga and Shamuganathan, 2010). OPEN enables innovation in making impactful changes to marginalized sectors. Individuals who possess OPEN are more willing to explore new business models involving social innovation (Wood, 2012).

2. Extroversion (EXTRO) EXTRO is related to one's ambition, sociability and individuality (Ciavarella et al., 2004; Brandstätter and Opp, 2014). Ambition relates to the individual's initiative, persuasiveness and leadership, and Sociability, to the ease in adapt to others and an outgoing ability to grab opportunities. Extroverted individuals are often described as sociable, expressive, outgoing, warm, friendly, self-confident, optimistic, energetic and able to communicate easily with others (Llewelyn and Wilson, 2003; Zhao et al., 2010). EXTRO often endorses positive emotions and proactivity (Brandstätter, 2011). EXTRO influences commercial entrepreneurial intention (Zhao et al., 2010; Espiritu-Olmos and Sastre-Castillo, 2015).

A UK study found that while EXTRO exerted a noteworthy influence on social entrepreneurship, corporate entrepreneurship and income, it had a major negative influence on the invention dimension (Leutner et al., 2014). However, it did not put forth a significant influence on SE dimensions in Malaysia (Nga and Shamuganathan, 2010). A limitation to extent the results of the aforesaid studies is that most of them employed student samples. Within the Peruvian and Argentinian practitioner context, where has been estimated that approximately 20% of the population live below the poverty line, SEs may display greater determination to make social impact.

3. Agreeableness (AGREE) AGREE involves the degree of cooperativeness and consideration towards others (Ciavarella et al., 2004; Brandstätter and Opp, 2014). It is pro-social, community focused and, is linked to concern for others, philanthropy, trust and modesty (Llewelyn and Wilson, 2003; Brandstätter, 2011). Highly agreeable individuals find it easier to recognize the needs of others and to forge trust-based relationships (Zhao et al., 2010). Entrepreneurs operate within entrenched social networks and cannot make decisions in isolation. Their decisions are often advice-giving and delicately influenced by stakeholders and significant others including investors, co-workers/staff, financiers (banks), friends and family. Within these contexts, there are likely conflicting stakeholder expectations and demands. AGREE may reduce and diffuse these social tensions to ease communication, strengthen social ties and cultivate trusting relationships (Aldrich and Zimmer, 1986; İrengün and Arikboğa, 2015; Ovais and Li, 2016; Sengupta and Sahay, 2016). Entrepreneurs who build trust-based and courteous relationships with their customers can expect superior revenue growth. Enhanced

stakeholder relational capital also assists technology exchanges (Ciavarella et al., 2004; Leutner et al., 2014). However, the influence of AGREE on entrepreneurial intention is mixed (Zhao et al., 2010; Saeed et al., 2013).

In studies on SE among business students in Malaysia and Istanbul, agreeableness has been found to significantly influence the social vision and financial returns dimension (Nga and Shamuganathan, 2010; İrengün and Arikboğa, 2015). AGREE in SEs promotes the appreciation and identification with the dilemma of the less fortunate, willingness to support social dignity and justice of the under-privileged and, associate with them even to the extent of making disliked decisions.

4. Conscientiousness (CONSC) Highly CONSC individuals abide by with rules or regulations and are scrupulous at work (Llewelyn and Wilson, 2003), often characterized as being industrious, conscientious, hardworking, persevering and goal driven (Ciavarella et al., 2004; Brandstätter and Opp, 2014). CONSC is also associated with capabilities such as deliberated action, delayed gratification, planning and organization, task prioritization and goal-oriented behavior (Brandstätter, 2011). In tandem with social skills, CONSC develops cohesiveness, self-sacrifice, kindness and dependability practices in the workplace (Abraham, 2004). Past research has positively linked this personality feature to entrepreneurial profiles, intention and performance among commercial entrepreneurs (Schmitt-Rodermund, 2004; Zhao et al., 2010; Brandstätter, 2011). CONSC is associated with the need for achievement, found to be higher among practicing SEs compared with their viable counterparts (Smith et al., 2013). However, in studies employing student samples, the influence of the need for achievement and entrepreneurial intentions is mixed (Sesen, 2013; Espiritu-Olmos and Sastre-Castillo, 2015). CONSC also has noteworthy positively relation with STB and FR dimensions of SEs in Malaysia (Nga and Shamuganathan, 2010). Conversely, İrengün and Arikboğa (2015) conclude that in cultures with tendency to prioritize monetary income and to avoid uncertainties, people with high level of CONSC would be less motivated to become SEs.

5. Neuroticism (NEURO) Commonly illustrated as emotional instability, highly NEURO often experience abrupt mood changes, impulsivity and low self-esteem (Llewelyn and Wilson, 2003; Brandstätter, 2011). They are vulnerable to feelings of anger, guilt, envy, anxiety and lack of control over the facing situation. In contrast, emotional intelligence and control requires the aptitude to be self-aware, self-regulate one's emotions as well as exercise empathy and social skills to engineer the desired/expected outcome (Psilopanagioti et al., 2012; Azouzi and Jarboui, 2013; Ilievová et al., 2013).

Entrepreneurs require self-control and emotional intelligence to deal with with insurmountable challenges and criticism (Cross and Traveglione, 2003). Thus, they need to be emotionally stable and optimistic in starting a business and ensuring its survival. Past research have often found negative relation between NEURO and the intent to start a business and sustain it in the long term (Zhao et al., 2010). Entrepreneurship may be interpreted as a personal risk, with extreme challenges and no guaranteed benefit or employment security (Ciavarella et al., 2004; Zhao et al., 2010). In terms of social entrepreneurship, NEURO has been found to have a major negative influence with social networking (Nga and Shamuganathan, 2010).

MOTIVATIONAL FACTORS IN SOCIAL ENTREPRENEURSHIP

Since there is modest research into the motivations for social entrepreneurship, and social entrepreneurs are a subtype of entrepreneurs who differ in their mission and in how starting their business, it was essential to consider the existing literature on motivations for commercial or conventional entrepreneurship (Dacin, Dacin, & Matear, 2010).

Motivation, which is used to clarify the effort and persistence through a given action (Latham & Pinder, 2005), plays a significant role in the formation of new organizations (Segal, Borgia, & Schoenfeld, 2005), since it influences the decision's taking, including the one referring a new business creation (Shane et al., 2003).

Motivation manipulates entrepreneurial behavior in three complementary modes: influences on the preference of the individual, i.e., the direction of the action; influences the power of the action, based on the importance or value that the action has for the entrepreneur and influences the diligence of action, based on the clearness of the path to achieve this value (Locke, 2000).

The motivations in general, and also in the entrepreneurship domain have been examined in the light of diverse theories, generally referred to content and process theories. Content theories seek to understand the "why" of certain behavior, i.e., what moves individuals, and seek to identify the specific factors that motivate people to a particular choice (Beardwell, Holden, & Claydon, 2004). Allow therefore to understand what leads individuals to create their own business. Process theories focus on understanding the "how", i.e., the intensity of dedication and persistence that the person is willing to put in the activities (Segal et al., 2005), and provide a

description and analysis of how the behavior is initiated, sustained and stopped (Borkowski, 2009). They also seek to understand the difficulties and expectations that influence the entrepreneurial process. All these theories, provide a logical framework that allows us to understand the procedure of setting up a business (Hechavarria, Renko, & Matthews, 2012). All these theories provide a systematic framework that allows us to recognize the process of setting up a business (Hechavarria et al., 2012). These models are utterly or overtly based on the basic design that the intentions of an individual to become an entrepreneur are provided for the answer to two questions: (1) entrepreneurship is desirable for me? (i.e., leads me to achieve the results and goals that I desire?) and (2) entrepreneurship is feasible for me? (i.e., do I have what it takes to succeed as an entrepreneur?) (Segal et al., 2005).

BEHAVIOURAL FACTOR OF SOCIAL ENTREPRENEURSHIP

Attitude

The aspect of attitude was first brought to attention by Darwin as cited in Ndubisi and Sinti whereby it was described by him as a passion that is largely derived from individual's physical expression. In the later years, it has been stated that attitude is formed on the basis of psychological viewpoint of individuals. Moreover, attitude is has remained essential element when it comes to understanding human intention as the element of attitude is an essential part of theories of Ajzen such as TRA and TPB that focuses on understanding human behaviour. In these theories attitude is straight associated with individual's intentions and gives rise to one's behavioural intention. These beliefs in turn are referred to as cognitive and affective aspects of beliefs (2010). Moreover, it has been further clarified by researchers that the positive as well as the negative assessment of the intended behaviour is greatly impacted by one's attitude. Literature bear witness that a wide number of studies have undertaken for testing how attitudes affect one's intention and the outcomes of the studies have demonstrated that attitude definitely has an important effect toward humans' behavioural intention. A good number of researchers have found that attitude was a significant predictor of entrepreneurial objective. A research conducted by Marques et al. found that attitude was a strong and direct influencing factor when it comes to envisaging entrepreneurial intention. Krueger and Brazeal tested the attitude-intentions of students; the finding showed that attitude had a noteworthy influence toward intention. These results were like to a research conduct in Malaysia which also found that the student had a high entrepreneurial attitude. In a study done by Hazzouri et al. it was identified that the intention to take part in entrepreneurial activities was based on their entrepreneurial attitude. It was also disclosed that in order to enhance entrepreneurial attitude role models and information passed down from personal experience was needed.

Self-Efficacy

From an historical perspective, the overall concept of self-efficacy was first introduced by Bandura. According to the author, self-efficacy indicates the beliefs about an individual's capability to learn or execute behaviours at designated levels. Shelton has noted that the term "self-efficacy" indicates an individual's conviction pertaining to their potential in achieving goals as well as overcoming hindrance faced in their daily lives with the expectation that he/she can effectively perform a given behaviour. Wilson et al. have mentioned that an individual's self-efficacy is synonymous to his/her self-confidence about self-perceptions regarding skills as well as abilities for performing certain tasks successfully. Furthermore, he has also added that the concept of self-efficacy is a reflection of a person's innermost thoughts regarding whether he or she has the capabilities that are considered very important for performing certain tasks, as well as the belief that these capabilities will help him or her to effectively perform those tasks in order to deliver the chosen outcome (s). Past studies have demonstrated that an individual's success in effectively as well as successfully performing a particular task greatly relies on his or her level of self-efficacy. This is because as it has been shown by the results of the study by Bandura that individuals who uphold high self-efficacy toward performing a exacting task are also more inclined to pursue and then continue with the respective task. Therefore, he has noted that the concept of self-efficacy is significant for understanding how people feel as well as how they think and act. A person who has low degree self-efficacy is often supposed to bear low self-esteem and, they are very much pessimistic about their accomplishments as well as personal development. The aspect of self-efficacy has been intensively studied in past researches primarily in the clinical as well as health related fields. However, an appraisal of prior literature has revealed that the facet of self-efficacy has also been introduced to the arena of managerial studies specifically researches focusing on entrepreneurship; particularly entrepreneurial career choice, intention of becoming an entrepreneur as well as entrepreneurial performance. Entrepreneurial intention generally denotes the decision of an individual to construct as well as manage his or her own business (Kuratko, 2014). Thus, an individual's entrepreneurial decision is influenced by different factors. Krueger and Brazeal have stated that one of the critical basics of a potential entrepreneur is entrepreneurial self-efficacy (ESE). From a theoretical as well as empirical perspective the concept of self-efficacy has been allied with managerial and career choices;

particularly self employment career choices such as entrepreneurship . According to Drost, ESE designates the strength of a person's belief that he/she has the potential of successfully executing and performing the respected roles, tasks and activities of an entrepreneur. A line of researches have revealed a clear connection between an individual's intention of becoming an entrepreneur and his or her self-efficacy whereby, they have found that respondents who hold high self-efficacy are more inspired to begin their new business enterprise .

CONCLUSIONS

Human Resources Division can play a very important role not only for profit driven organizations but also for Social Enterprises (SEs) by practicing effective leadership role where employees' are considered as being the key to competitive advantage rather than just the implementing the organizational core strategy. Human Resources Division/Department highlights on increasing employees' strengths. Results on employees can positively affect on organization's strategy for achieving mission and vision. Human Resources Division/Department practices strategic human resources leadership that helps organization to recruit potential employees' and transform them as human capital. Moreover, strategic human resources leadership helps organization to recognize and develop the leadership behaviors by which organization can attract skilled employees for joining and retaining them for long term. Through strategic human resources leadership, organization can acquire sustainability by unlocking employees' productive potential. Additionally, Human Resources Division/Department introduces the practices of enhancing employees' skilled, motivation and participation. Therefore, social enterprises human resources divisions/departments can play a decisive leadership role by linking employees and performance in the mission driven social enterprises. Strategic leadership in social enterprises can unbolt the employees' potential and may be formed a well link with motivation to achieve organizations' mission and vision. Besides, Human Resources Division/Department through the effective leadership insists management to set up extrinsic and intrinsic factors of motivation that attract employees to join in the organization and stay for a long term. Thus, Human Resources Division/Department can align its strategy with the help of skilled human resources along with organization's core strategy for attaining mission and vision.

The motivations for social entrepreneurship are closely related, on the one hand, with the profile of the person, since they can have a personal interest in this work and a selfless mission in seeking the welfare of others. On the other hand, the motivations are also closely linked to their previous experiences (for example, volunteering), and their learning and expectations. Their beliefs that it is likely to change the others they work with, i.e., social impact creation, the object for the creation of their projects, makes them even more motivated. Generating income is not a key objective for the social entrepreneur, although there is a challenge in every project: to ensure their sustainability. The motivation seems to have a gigantic impact in achieving the goals of the entrepreneurs and the success of their initiatives. The study highlights the main obstacles in the formation and development of a social enterprise: the mobilization of human and financial resources and time management, the core skills needed for the social entrepreneur --- perseverance, leadership and empathy, as well as some recommendations to whom might want to start a project of this scope, including strengthening the resilience needed to succeed.

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**IMPACT OF MACROECONOMIC DETERMINANTS ON GROWTH IN BRICS ECONOMIES:
DYNAMIC PANEL APPROACH**

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ABSTRACT

The Present study investigates the impact of macroeconomic variables on Economic growth of Emerging Economies of BRICS (Brazil, Russian Federation, India, China, South Africa) countries in order to test that whether a growth in macroeconomic variables lead to Economic growth in respect of selected countries. For the purpose of the study, on the basis of extensive review of literature, 9 macroeconomic variables are selected Viz. General Government Final Consumption Expenditure, Gross Domestic Savings, Manufactures Exports, Fuel Exports, Ores & Metal Exports, Agricultural Raw Materials Exports, Inflation, Broad Money Growth, Foreign Direct Investment as independent variables and Annual GDP Per Capita Growth as dependent variable. Secondary data for 15 years ranging from 2003 to 2017 analysed using Static Panel Analysis, Dynamic Panel Analysis, Arellano-Bover/Blundell-Bond estimation for Dynamic Panel Analysis using Generalised Method of Moments for Panel multiple regression is applied to check the impact of macroeconomic variables on the BRICS GDP. The results reveal that 3 variables like Gross Domestic Savings, Broad Money & Inflation have significant impact on the BRICS Economic Growth (GDP). Inflation exerts negative impact while Gross Domestic Savings, Broad Money have positive significant impact.

Keywords: BRICS Countries; Economic Growth; Emerging Economies; Static Panel Analysis, Dynamic Panel Analysis, Arellano-Bover/Blundell-Bond estimation, Generalised Method of Moments (GMM); Panel Regression; Macroeconomic Variables; World Bank National Accounts Data, OECD National Accounts Data, International Monetary Fund Financial Statistics.

INTRODUCTION

It has been an entrenched acceptance that Economic Growth is viewed as a yardstick of the financial and monetary prosperity of the individual country. Economic Growth acts as a crucial elementary factor to reduce poverty, thereby uplifting the standard of living of masses & paves the way for development in all respects. Devoid of all this, Economic Growth still remains a debatable subject since varied economists perceive growth from different theories, bases & index along with their respective subjective application towards various developed and developing economies. That's why this study is based upon BRICS Countries in order to represent a holistic view and composite picture taking an association of both developed and emerging economies. BRICS countries constitute major share of 41% and above of the World's Population. Not only this, but it is also characterised by vast pool of expertise in terms of human and conventional natural resources, quality education and also collectively constitute about 23.2% of the Gross World Product along with 27% of world's land surface, members of which are being well known for their significant influence on regional affairs. For sure, a moment change in its respective country's separate development will cause certain effect into the BRICS association as a whole and thereby upon the overall world economy at large as well and consequently macroeconomic determinants come into spotlight. Macroeconomic determinants are the measuring sticks for estimating financial strength of a country and henceforth shows as of now experiencing patterns in the economy. These factors can be comprehended as pursues: Variables reverberating general money and banking contemplations i.e. Broad Money Growth, General Government Final Consumption Expenditure, Gross Domestic Savings, Inflation. Factors copying value of trade and balance of payments levels, for example, Manufactures Exports, Fuel Exports, Ores & Metal Exports, Agricultural Raw Materials Exports, Variables including global exercises are : FDI and plenty of different other large scale pointers. Present examination selected 9 macroeconomic variables to find the impact on economic growth measuring stick for example GDP Per Capita Growth (Annual %) for a time period ranging from 2003 to 2017. Empirical tests are being performed to assess the impact of the previously mentioned free factors onto the reliant factor for example GDP Per Capita Growth lists on a yearly premise.

Table-1: Macroeconomic Variables

S. No.	Symbols	Variables	Nature	Source
1	GCE	General government final consumption expenditure (% of GDP)	Independent Variable	“World Bank national accounts data, and OECD National Accounts data files”.
2	GDS	Gross domestic savings (% of GDP)		“World Bank national accounts data, and OECD National Accounts data files”.
3	ME	Manufactures exports (% of merchandise exports)		“World Bank staff estimates through the WITS platform from the Comtrade database maintained by the United Nations Statistics Division”.
4	FE	Fuel exports (% of merchandise exports)		“World Bank staff estimates through the WITS platform from the Comtrade database maintained by the United Nations Statistics Division.”
5	OE	Ores and metals exports (% of merchandise exports)		“World Bank staff estimates through the WITS platform from the Comtrade database maintained by the United Nations Statistics Division”.
6	ARE	Agricultural raw materials exports (% of merchandise exports)		“World Bank staff estimates through the WITS platform from the Comtrade database maintained by the United Nations Statistics Division”.
7	INF	Inflation, consumer prices (annual %)		“International Monetary Fund, International Financial Statistics and data files”.
8	BM	Broad Money growth (annual %)		“International Monetary Fund, International Financial Statistics and data files”.
9	FDI	“Foreign direct investment, net (BoP, current US\$)”		“International Monetary Fund, Balance of Payments Statistics Yearbook and data files”.
10	GDP	“GDP per capita growth (annual %)”	Dependent Variable	“World Bank national accounts data, and OECD National Accounts data files”.

- 1. General Government Final Consumption Expenditure:** It is a total exchange sum on a nation's national pay accounts speaking to government use on merchandise and ventures that are utilized for the immediate fulfilment of individual needs (singular utilization) or aggregate needs of individuals from the network (aggregate utilization). Higher the expenditure incurred will result in Higher value generation & satisfaction & thereby will bear positive impact on economy and vice versa.
- 2. Gross domestic savings:** Gross Domestic Saving is an accumulated fund corpus of family unit part, private corporate division and open segment. Sparing expands lead to increments in monetary development as more merchandise are created and sold alongside Banks loan stores produced to begin another round of loaning and much increasingly financial development.
- 3. Manufactures exports:** Developing fares of products and ventures have been a focal driver of the monetary recuperation and contributed about portion of the country's financial development in the two years after the retreat. A significant part of the ascent in fares is a consequence of the worldwide bounce back from the profundities of the subsidence, the devaluation of the dollar, and the taking off costs for items, including for wheat, cotton, and oil based commodities.
- 4. Fuel exports:** The offer of fuel sends out in the stock fares of the nation, communicated in percentage. Fuels include SITC area 3 (mineral powers). Segments of stock fares may not aggregate to 100 percent in view of unclassified exchange.
- 5. Ores and metals exports:** Ores, Minerals and metals include the items in SITC segments 27 (unrefined compost, minerals nes); 28 (metalliferous minerals, scrap); and 68 (non-ferrous metals) and as per literature is assumed to have an impact on economic growth.

6. **Agricultural raw materials exports:** Rural crude materials include SITC segment 2 (unrefined materials aside from powers) barring divisions 22, 27 (rough composts and minerals barring coal, oil, and valuable stones), and 28 (metalliferous metals and scrap).
7. **Inflation:** When price rises and the purchasing power money decreases, the scenario is known as inflation in the economy and it is assumed to have an impact on economic growth.
8. **Broad money growth:** In financial aspects, expansive cash is a term signifying a specific proportion of the measure of cash (of the cash supply) in a national economy, and it is utilized relying upon the nearby practice. Broad cash is the most comprehensive technique for computing a given nation's cash supply. The cash supply is the totality of advantages that family units and organizations can use to make instalments or to hold as transient ventures, for example, money, assets in financial balances and anything of significant worth looking like cash. The recipe for ascertaining cash supply changes from nation to nation, yet wide cash is dependably the most distant coming to.
9. **Foreign Direct Investment:** Remote direct endeavour (FDI) is a hypothesis made by a firm or individual in one country into business interests arranged in another country. All around, FDI happens when a money related master develops outside business exercises or verifies remote business assets, including setting up ownership or controlling excitement for a remote association, customarily made in open economies that offer a talented workforce or progressively ordinary improvement prospects for the theorist, instead of immovably coordinated economies and as regularly as conceivable incorporates something past a capital endeavour. It may consolidate courses of action of the board or advancement as well. The key component of outside direct endeavour is that Its focused impact prompts the positive dissemination of assets and along these lines, through expanded efficiency, internal FDI builds the way of life in the host nation.

REVIEW OF LITERATURE

(Al-Jafari Mohamed, 2018) in an empirical study examination investigated the primary driving forces of money related advancement in “BRICS (Brazil, Russia, India, China, and South Africa) countries”. Along these lines, illustrative elements including “foreign direct investment, investment in information and technology, inflation rate, economic monetary size and domestic local credit “provided for private sections are utilized. In addition, unit root application tests and the mistake remedy display exhibits tests connected are used on the accumulated data from 2000 till 2014. Results throw a light that factors are “stationary and joined at the important demand”. On the other hand, “outside Foreign Direct Investment found to have a positive and immense effect on money related advancement as time goes on”. In inverse, interest in data and innovation, rate of expansion , monetary position (size) showed a negative and enormous effect on money related improvement. “The short-run results show that the financial size variable has a negative and immense effect on fiscal improvement, while the straggling leftovers of substitute components saw to be unimportant. The disclosures are dependable with past abstract works recommending that BRICS policymakers must stimulate remote direct theories and get rid of any blocks in order to achieve a high and reasonable budgetary improvement”. (Asongu & Odhiambo,2018) contemplated the improvement of “Rapidly & fast rising economies of the BRICS (Brazil, Russia, India, China and South Africa) and MINT (Mexico, Indonesia, Nigeria and Turkey) countries”, by practising the assessment of advancement variables determinial in nature all through the unforeseen flows of the “improvement rate and certified GDP yield for the period 2001-2011”. An “instrumenal variable (IV) quantile backslide approach is enhanced with Two-Stage-Least Squares and IV Least Absolute Deviations and found that the most bewildering rates of advancement of veritable GDP per head, among the nine countries of this examination, contrasted with China, India, Nigeria, Indonesia and Turkey, anyway the most amazing additions in authentic GDP per capita related, in dropping solicitation, to Turkey China, Brazil, South Africa and India”. This examination separates the impacting powers of a couple of markers on the “extension of the rate of advancement of authentic GDP and on the logarithm of the certified GDP”. It dismembers a couple of limitations of the system, related with the decision of the illuminated and the coherent variables, the effect of missing elements, and the particular issues of specific pointers. Results show that “Net Foreign Direct Investment, Natural Resources, and Political Stability have a positive and immense impact on the rate of improvement of Real GDP or on Real GDP”.

(Sinha & Sen, 2016) utilized the summed up methodology for quite a long time. “GMM is deployed to look at the cause and effect connection between monetary improvement, CO2 transmission, trade volume, and human headway for BRIC countries”. Their disclosures show “bidirectional causality between CO2 surge and budgetary advancement and unidirectional relationship from trade volume to financial improvement”.

(Agrawal, 2015) has “assessed the association among FDI and fiscal improvement in the BRICS to reason that there is a whole deal relationship running from FDI to budgetary advancement”. (Gur, 2015) discovered a basic negative association between monetary development and joblessness. He contemplated that “an improvement in GDP will provoke a lessening in joblessness in BRIC countries”.

(Basu, Barik et.al, 2013) researched the “effect of measurement factors on money related advancement in the BRICS and picked made countries”. They came to know that “advancement of gainfulness of workers will incite improvement rate of GDP per capita. Similarly, instruction was found to have a gigantic constructive outcome on money related advancement”.

(Goel & Korhonen, 2011) in an observational making research working paper course of action investigate analyzed money related advancement in four rising economies - Brazil, Russia, India, and China (BRIC) and kept an eye on certain game plan of request, for instance, (a) “How do medium term improvement determinants differentiate from transient determinants? (b) What are differentiates between advancement effects of absolute versus disaggregated conveys? Moreover, (c) Does cut down institutional quality baffle improvement”? Trial Results exhibit that while BRIC nations have higher improvement, there are tremendous inside social event contrasts. China and Russia generally shown higher improvement, while India all over demonstrated positive advancement, and Brazil did not outmanoeuvre the rest. his examination moreover plots Policy proposals alongside quantifiable examination and results decided.

(Vijayakumar et al., 2010) gained comparable outcomes of “a positive and significant association between financial development and outside direct venture, assuming that BRICS countries must make an engaging theory condition to invigorate remote theories and bolster a respectable money related improvement”. (Hasan & Wachtel et. all, 2009) discovered “a strong association between the improvement of cash related markets, legal condition, cognizance of property right and political plurism on fiscal advancement in China”. (Liang & Teng, 2006) discovered “a unidirectional causality from financial advancement to cash related improvement”. Another examination by “Yao (2006) found that admissions and FDI have a strong and a helpful result on money related advancement”. (Liu Burridge et.al, 2002) discovered “a bi-directional causality between money related advancement, FDI and charges”. On the other hand, “the gathering theory was supported by (Chen & Feng, 2000) who laid the discoveries that private and semi-private endeavour, propelled instruction and worldwide trade emphatically influence monetary improvement.”

GAP IN LITERATURE

Though, many studies were carried out to discover the effect of chosen macroeconomic determinants on BRICS Economic Growth.. The results are concluded in terms of reporting of empirical results, but present study is different in terms of a fresh enquiry into this concept deploying a period of 2003 to 2017 & presence of constructive suggestions makes it worthwhile for researchers to work more upon this territory of financial and along these lines propose compelling recommendations to determine monetary cooperative synergies.

RESEARCH METHODOLOGY

The present examination depends on auxiliary information with a target to ponder and look at “the impact of selected macroeconomic determinants on Economic Growth of Emerging Economies of BRICS (Brazil, Russian Federation, India, China, South Africa) countries”. The study uses annual average data for the period 2003 to 2017. To accomplish the target, necessary Panel-Data has been collected from the “World Bank World Development Indicators (www.worldbank.org)” for respective durations. The collected data is then analysed in deploying various statistical and empirical tests for crystal clear understanding. Multiple Regression Analysis deploying The Static Panel Analysis with Fixed Effect along with Random Effect GLS Regression followed by Dynamic Panel Analysis using Generalised Method of Moments (GMM) , Arellano-Bover/Blundell-Bond estimation, was applied to find out the variables significantly affecting the BRICS Economic Growth.

REGRESSION MODEL

A typical regression equation of dynamic panel is as follows:

$$Y_{it} = \alpha + \beta_1 x_{it1} + \beta_2 x_{it2} + \dots + \beta_k x_{itk} + \epsilon_{it} \dots \dots \dots (1)$$

Where,

Y is the dependent variable

i denotes the number of countries and t denotes the time period

x_1, x_2, \dots, x_k are the independent variables.

α s the constant term

$\beta_1 \beta_2 \dots \beta_k$ are the slope parameters that represent the partial effects of x_i on y keeping all other factors constant

ε represents the unobserved factors that change over time and affect stock price.

OBJECTIVE:

The sole objective of the study is to discover the effect of chosen macroeconomic determinants on BRICS Economic Growth.

ANALYSIS AND INTERPRETATION

1. Fixed Effect (within) regression

Panel Regression Equation

$$GDP = \alpha + \beta_1 GEC + \beta_2 GDS + \beta_3 ME + \beta_4 FE + \beta_5 OE + \beta_6 ARF + \beta_7 INF + \beta_8 BM + \beta_9 FDI + \varepsilon$$

GDP	Coefficient	Std. Error	t	P>t	[95% Conf.	Interval
GCE	-0.586187	0.508089	-1.15	0.253	-1.60217	0.4298
GDS	0.5607938	0.179441	3.13	0.003	0.20198	0.91961
ME	-0.09425	0.136025	-0.69	0.491	-0.36625	0.17775
FE	-0.163779	0.128249	-1.28	0.206	-0.42023	0.09267
OE	-0.024551	0.212554	-0.12	0.908	-0.44958	0.40048
ARE	-0.831793	1.132986	-0.73	0.466	-3.09734	1.43375
INF	-0.227071	0.102496	-2.22	0.03	-0.43203	-0.0221
BM	0.1752726	0.047913	3.66	0.001	0.079465	0.27108
FDI	7.81E-12	7.86E-12	0.99	0.324	-7.90E-12	2.35E-11
_cons	6.070553	17.56466	0.35	0.731	-29.0522	41.1933

R-sq:

within = 0.5873

between = 0.9885

overall = 0.6859

where $F(9,61) = 9.65$

$\text{corr}(u_i, Xb) = -0.9573$

Prob > F = 0.0000

2. Dynamic Panel Analysis

Performing “Arellano-Bover/Blundell-Bond estimation Using Generalised Method of Moments (GMM)”

Wald $\chi^2(9) = 151.34$

Prob > $\chi^2 = 0.0000$

One-Step Results

Variables	Coefficients	Std. Err.	z	P>z	[95% Conf.	Interval
GDP						
L1.	0.1306802	0.089044	1.47	0.142	-0.043843	0.3052034
GCE	-0.0555089	0.360218	-0.15	0.878	-0.7615223	0.6505044
GDS	0.5551919	0.145054	3.83	0	0.2708907	0.839493
ME	-0.0625025	0.10061	-0.62	0.534	-0.2596953	0.1346902
FE	-0.091286	0.095125	-0.96	0.337	-0.2777266	0.0951545
OE	0.2750282	0.155936	1.76	0.078	-0.0306009	0.5806574
ARE	0.3573084	1.003732	0.36	0.722	-1.609971	2.324588
INF	-0.4424502	0.103971	-4.26	0	-0.6462302	-0.2386701
BM	0.1442563	0.045691	3.16	0.002	0.0547045	0.233808
FDI	4.84E-12	7.83E-12	0.62	0.536	-1.05E-11	2.02E-11
_cons	-10.11574	13.57425	-0.75	0.456	-36.72077	16.48929

Instruments for differenced equation are as follows:

GMM-type: L(2/.).GDP

Standard: D.GCE D.GDS D.ME D.FE D.OE D.ARE D.INF D.BM D.FDI

Whereas Instruments for level equation are :

GMM-type: LD.GDP

Table summarises the results of Strata Panel Analysis, Dynamic Panel Analysis, “Arellano-Bover/Blundell-Bond estimation, Generalised Method of Moments (GMM)” & multiple regression and it can be interpreted that 3 variables out of nine are significant at 5% and intercept also significant at the same level of significance. The variables like Gross Domestic Savings, Broad Money & Inflation have significant impact on the BRICS Economic Growth (GDP). Inflation exerts negative impact while Gross Domestic Savings, Broad Money have positive significant impact but “Government Final Consumption Expenditure, Manufactures exports, Fuel Exports, Agricultural Raw Materials Exports, Ores & Metal Exports and Foreign Direct Investment do not have any significant impact on the BRICS Economic Growth (GDP)”. The Adjusted R-squared is 0.6859 which signifies that the model explains 69% of the variance. P-value of F-statistic is 0.000 which signifies that the goodness of model fit.

CONCLUSION

On the basis of objective of the study to to discover the effect of chosen macroeconomic determinants on BRICS Economic Growth(GDP) and the process to analyse these variables with the help of Strata Panel Analysis & multiple regression, it can be concluded that some of the selected variables have positive impact on the BRICS Economic Growth (GDP) while others have negative impact but six variables viz. Government Final Consumption Expenditure, Manufactures exports, Fuel Exports, Agricultural Raw Materials Exports, Ores & Metal Exports and Foreign Direct Investment are found not to found any significant impact on the BRICS Economic Growth (GDP). These results are for the given set of data and for the selected period of time. As every study passes through some limitations, hence the results may vary if the time period and /or selection of variables differ. The study is useful for researchers to carry forward from these results and it can also be useful to policy makers to frame the economic policies in tune with the results to find favourable results.

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**CONVERGENCE OF SOCIAL INNOVATIONS AND DIGITAL TRANSFORMATION IN BUSINESS
WITH REFERENCE TO THE RETAIL SECTOR: WESTSIDE STORES**

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ABSTRACT

In today's scenario businesses and the way they operate is shifting from their traditional mode of operation and management to the modern and technology oriented ways of operation, and this transition is referred to as Digital Transformation. Since change is only the constant thing, digital transformation has become imperative for all business sectors whether it's small, medium and large. Be it automation, logistics, software, retail or medical, digital transformation is omnipresent. Delivering the best digital business experience to customers and employees needs the use of application. This research paper discusses about the convergence of social innovations and digital transformation in business with reference to the retail sector: Westside stores.

Indexterms: Digital Transformation, innovative business application

I. INTRODUCTION

It is believed that 40% to 50% of the traditional enterprises will be non-existent in the near future. Traditional enterprises are already facing difficulties in conducting business based on their existing business models, business processes and business operations. Now- a- days the focus is shifting from being traditional enterprise to becoming a digital enterprise. Digital enterprises are future ready and also future proof organizations that accelerate the benefits of technology to achieve customer loyalty and customer retention through customer satisfaction. So social innovation plays a vital role in the use of digital technologies to benefit the customers.

Social innovation is a new solution to a social problem that is more effective, efficient, sustainable or fairer as compared to the existing solutions. It also generates value primarily for society instead of single individual or an organization. Social innovation can take place within government; the commercialized sector, the nonprofit sector (also known as the third sector), or in the spaces between them.

Digital transformation is the consolidation of digital technology into all areas of a business, fundamentally changing on how you operate and deliver value to the customers. It is also a cultural change that requires organizations to continually challenge the circumstances, experiment, and get comfortable with failure.

It involves a change in leadership, divergent thinking, the encouragement of innovation and new business models, incorporating digitization of assets and an increased use of technology to improve the experience of your organization's employees, customers, suppliers, partners and stakeholders."Organizations are at different stages in the digital transformation journey, But speed of digitalization has become a business imperative for all. Although IT plays an important role in steering digital transformation strategy, the work of implementing and adapting to the massive changes that go along with digital transformation falls to everyone. This is the reason, digital transformation is a people issue.

NEED OF THE STUDY

Digital technologies, and digitalization, in general, are totally changing the face of business. Embracing digital transformation is the only way to adapt to today's digital world and transform your business to stay ahead of the competition. One of the important contributors to digital transformation, along with a few other factors, is innovation management. So innovation and digitalization both are essential parameters for sustenance in business.

SCOPE OF THE STUDY

The scope of the study is limited to the innovation and digitalization in Westside retail stores of the retail sector.

OBJECTIVES OF THE STUDY

1. To study the innovations in Westside retail stores product lines and product mix
2. To understand the digitalization process in Westside retail stores and how it has impacted its business and the customers.

II. LITERATURE REVIEW

Ones and zeros are eating the world slowly. The building, storing, communicating, and consuming of information are all being digitized, turned into the universal language of computers. All types of businesses,

from small businesses to large corporations to non-profits to government agencies, are going through a “digital transformation,” turning digitization into new processes, activities, and transactions.

From the 1950s, with a distinct bounce in the 1990s due to the advent of the internet and Web, digitization has changed the way we work, shop, bank, travel, educate, govern, manage our health, and enjoy our lives. The technology of digitization empowers the conversion of traditional forms of information storage such as paper and photographs into the binary code (ones and zeros) of computer storage. The expression of data as ones and zeros helps in its generation, replication, compression, and dissemination; its analysis; and its organization. It also encourages the replacement or augmentation of the physical with the online or virtual presence.

Technological advancements and the rapid consumerism of technology have impacted the heart of the retail industry also and the current landscape is marked with developments that are as shocking as real. Today, each one of us is constantly under the spotlight and is continuously being challenged as we navigate an overwhelming amount of information, struggle to catch up to the new demands of the retail customer and unfold the new features & benefits that technology is providing. While at one end, we are constantly working towards improvising and enhancing the same, at the other end the competitive lifespan of these enhancements is decreasing significantly.

This technological evolution - emergence of e-Commerce, digital and mobile wallets, mobility, cloud computing, artificial intelligence, proliferation of data, emergence of social media, real-time analytics, automated personalization - has changed the way retail business is conducted in many industries. **A large number of organizations have digital transformation at the top of their agenda for 2018 and beyond.**

Altimeter released its 2014 State of Digital Transformation report, it included what Forbes referred to as this “clear definition” of digital transformation: The realignment of, or new investment in, technology and business models to more effectively engage digital customers at every stage in the customer experience lifecycle. In simple words, digital transformation is about the extension of operational processes and business activities, all the while using technology to become more efficient and strategic. Essentials of a large-scale digital transformation strategy can include devices you use, data you gather and analyze, cloud computing, network usage, and the mobile functionality of your company.

In today’s mobile-first, cloud driven world, technology and the business’s ability to embrace digital transformation will make a big difference in how it fluke against the competition. **It’s crucial to note here that simply spending more on emerging technology does not equate to a successful digital transformation strategy. For that to happen, those investments need to raise business outcomes.**

A report by Harvard Business Review identified four mega-trends of digital transformation: Mobile (for enabling new business scenarios), cloud computing (for driving business agility), big data (for helping with innovation), and social channels (for transforming core business processes). The potential benefits of having all of these mega-trends include optimizing business operations and boasting phenomenal end-to-end customer experiences.

III .METHODOLOGY

3.1 Research design

As the spirit of reinvention sweeps across the retail landscape, stores have emerged as proving grounds for technologies that mix the digital and brick-and-mortar worlds. Inspired by consumer expectations and competitive pressure, stores have emerged into gateways of innovation and digital transformation. Many retailers are instigating the use of mobile devices for associates, omni-store services in the cloud, endless-aisle ordering of products unavailable on shelves, pick up and return of web purchases, magic mirrors, RFID, location-sensors and mobile POS. All of these technologies, and many more, are part of a retail revolution that has put brick-and-mortar stores on the front lines of an industry-wide shift to a digitally transformed future.

3.2 Population and sampling

To confirm that the sample selected is representative of the population, simple random sampling was used in this research where **each individual in the population of interest has an equal likelihood of selection**, and a random sample was taken. For this data from the retail outlets of Westside was taken and analyzed.

3.3 Data collection

Secondary data was collected from the retail outlets of Westside. Also some data was collected from magazines, research papers, articles, journals and internet.

3.4 Data analysis and interpretation

EXISTING PRODUCT STRATEGY

PRODUCTS CHARACTERISTICS: Westside stores have owned brands and other brands in the ratio 3:7. There are two main divisions in the product category; namely, Apparel (Men's wear, women's wear, lingerie and kid's wear) and Various Utility Items (Home decors, Jewelry, Deodorants, Cosmetics etc.). Along with this they also have a range of Footwear for men and women.

PRODUCT DIFFERENTIATION: Most of the products are in-house products and differentiated on the basis of their superior quality along with the promise of Tata's brand name. All products offer a high conformance quality.

PRODUCT LIFE CYCLE

PLC for product range of Westside					
Apparel			Footwear	Bath and Body	Fragrances cosmetics Cosmetics
Men's Wear	Kids wear	Women's wear		Studio West	
		BOMBAY PAISLEY	BOOTS		
		GIA	WEDGES		
ASCOT		LOV	STILETTOS		
ETA		MIX N MATCH	KITTEN HEELS		
WESTSP ORT	HOP	NUON	BALLET SHOES		
WESTST REET	YOUNG & FREE	SASSY SODA	PUMPS		
OAK & KEEL		WUNDER LOVE	SANDALS		
NUON		WARDROBE	FLIPFLOP		
		KURTA SETS			
		ZUBA			
Decline	Growth	Growth	Growth	Introductory	

PRICING STRATEGY

Westside keeps the price of the store products in a range matching or below its competitor's price range.

- The pricing method used by Westside is 'Value Pricing' whereby the products are offered to customers at a constant low price throughout the year with help of various sales and discounts.
- Seasonal pricing is used to increase the movement of products out of the store where a discount is offered on purchase of seasonal products.
- Bundled pricing is also used to motivate shoppers to buy in bulk.

PLACE STRATEGY

Westside has most of its stores in malls and few exclusive showrooms in big cities. Westside stores are located very near to its main competitor Pantaloons in all major cities.

Westside has its head office situated in Mumbai.

From our interactions with store managers we came to know about the following facts:

- All stores get their stocks every week on Friday from Mumbai.
- Because of higher purchasing power of the general population of Mumbai and the head office being situated in the same spot, stores in Mumbai have the highest assortment of items.
- In metro cities like Mumbai and Kolkata, more products are available and slightly on the more costly side contrasted with a city like Nagpur.
- In some prime areas in Delhi, Westside built an exclusive showroom to cater to the needs and demands of women.

PROMOTION STRATEGY**In-house Promotions**

In-house promotion is done through display media using signs and posters to attract customer to new and discounted products. Various sales promotion incentives are provided to customer like coupons and next purchase discounts. No-question exchanges, redeemable points and free home delivery for card holders also helps in improving the shopping experience.

External Promotions

For the year 2014, Westside used Rs 33.68 Crores for advertisements. Often, there are various offers mentioned by Westside in their ads. Currently, Westside has no celebrity endorsement as compared to 2002, when they signed Yuvraj Singh as their brand ambassador.

Customer Behavior Analysis

Introduction: The overall satisfaction level of the customers was relatively lower when compared to its competitors. One main reason for this is lack of good branding strategy and promotional offers (According to new customers).

Customer Opinion Survey: One-on-one interactions with the customers revealed that the ambiances in Westside stores are highly attractive. The spacing and the music which made it lively to shop were also greatly appreciated.

Young customers are not loyal to the Westside brand because of limited availability of upbeat and latest fashion. Many of the respondents feel that Westside is unable to provide variety in apparels and therefore should be a little innovative regarding inventory rotation at the stores.

MARKETING PLAN

Westside should focus more on attaining a leadership role in the market and improving its sales.

Launch an Ad campaign

The tagline will read “Walk on to the other side, come to Westside”, portraying the transformation of Westside to a brand that is more elegant, lifestyle oriented.

Focus on service, creating in store experience

- The staff will be trained to handle customers and engage them.
- Understanding customer behavior and to handle their queries by having a better information about the products.
- To instill elegance in the ambience by little modifications
- Partnering with other high end brands
- A product mix complimentary and non-conflicting to that of Westside could include:
 - Clothes from Mr. Button (Jackets)
 - Accessories from Chumbak (Phone Cases, Laptop and Tablet Sleeves), Quirkstore (Bags, Bow ties)
 - Books and Music from Landmark

Brand Ambassador: Getting a designer who can complement the core values of Westside to endorse it like - Gauri and Nainika or AM: PM

Online Presence

- High intensity marketing through social Media like Facebook and twitter.
- Launching an ad with a renowned comedy channels like TVF, AIB etc.
- Mailers and mobile messages would be sent out to customers of Westside on their birthdays. Also all new product line information will be mailed to customers.
- Westside has its own online application for mobile users by which customers can place order online directly and get home delivery.

VI. FINDINGS

- 1) From this study it was found that though Westside is trying hard to cope up with the current trends in market through implementing innovative ideas and digitalizing their stores and processes, still they are

unable to capture the market and be the leader in retail sector. So, Westside should focus more on becoming leader in the market by improving its sales following more vigorous and competitive marketing strategies.

To increase their credibility and competence level, Westside is launching an Ad campaign. The tagline of this Ad will be “Walk on to the other side, come to Westside”, portraying the transformation of Westside to a brand that is more elegant, lifestyle oriented. The ad will be released in five phases. These are:

Phase I: Target Segment: Men (30-40 years of age)

Phase II: Target Segment: Women (30-40 years of age)

Phase III: Target Segment: Youth

Phase IV: Target audience: Kids

Phase V: Target audience: Family

2) Also the staff will be trained by Focus on service, creating in store experience

For this the following strategies will be followed:

- a. The staff will be trained to handle customers and engage them.
- b. Understanding customer behavior and to handle their queries by having a better information about the products.
- c. To instill elegance in the ambience by little modifications

V. CONCLUSION

As stores have become laboratories for advanced technologies, attempting to blend the digital and conventional retail worlds, they also become testing grounds for what store networks can and cannot do. But there seems to be a disconnect between the long list of applications retailers plan to roll out and ability of the store networks to support them.

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5. Digital to the Core: Remastering Leadership for Your Industry, Your Enterprise, and Yourself- Mark Raskino and Graham Waller

INTERNAL FINANCING IN UNIVERSITY: A SINE QUA NON

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ABSTRACT

This paper intends to investigate the quantum and value of internal fundings in the financing mix of a traditional state public University. Also, seeks to suggest for improving the magnitude of internal funds based on the major findings of the study.

Using the statistics of University Budget, this paper with the help of statistical tools and techniques, analyzes and explores the financial information related to the internal funds. Finally, this academic endeavour comes to the conclusion that the generation of funds from internal sources currently in the University may not be said to as satisfactory and needs to be improved formulating time-honoured fiscal strategies taking cognizance of the emerging conditions of higher education.

Importantly the underlying theme of this paper has been obtained from the UGC Minor Research Project on the issue of internal funds generation in state public universities, the outcome of which has also been similar to this study.

Keywords: Academic horizons, Demographic dividend, Financing mix, Financial planning and control, knowledge economy, SWOT worksheet

I. THE CORE VALUE

The theme and title of this paper have been obtained from the pursuit of a Minor Research Project (UGC) undertaken and completed on the issue of internal funds generation in State Public University of Bihar. State Universities enroll a large number of students for higher education and hence are important in the higher education system of the country. India is a country of young population of which more than 50% population is below the age of 25 and over 65% below the age of 35.¹ Access, equity and quality are key challenges for Indian higher education sector which is one of the most vibrant sectors of Indian economy in post – globalization period. Universities and Higher Education Institutions have to yield results in terms of the aforementioned challenges and other goals and objectives defined and redefined for the system. State Universities find a place for themselves in achieving these objectives and goals. The core value of the present paper lies in the fact that the constant and stable stream of governmental funds for education beginning to dry up at international level and Universities of India especially Universities of State jurisdiction are not untouched with this tendency of University finance. In fact, Governments, both at the Centre and in the States are showing an increasing reluctance to support higher education. Consequently, internal funds generation for Universities is gradually becoming a sine qua non. Therefore, a study of the financing mix of University and the particular state of the internal funds generation is significant and has a relevance in contemporary environment.

II. THE OBJECTIVES

The genesis of this paper lies in a research study and hence, the review of literature for phrasing and rephrasing the topic in exact term and defining the objectives and sub-objectives of the referred study have been used for. Accordingly, the central objective of this paper is to evaluate the state of internal funds generation, sources of internal funds, exploration of the new sources and also to examine its uses in the finance – functions of the University under study. All the sources of funds constitute the financing mix or financing portfolio. A diversified financing portfolio consists of a variety of funds sources which may be categorized as internal and external sources. In Universities particularly Public Universities of state origin and financial control, the main sources of funds are the grants-in-aid and other development grants provided by the State and Central Governments. A few small sources are from the internal activities and resources of the University. This paper aims to identify these internal sources, search the potentials for new and innovative sources and suggest on how to enhance the quantum of internal funds to meet the pressing needs of enhanced finance. So, the ultimate objective of this study is to critically examine the role and value of the internal funds in the financing mix of the University.

III. RESEARCH METHODOLOGY

In Bihar, 10 traditional public Universities are presently imparting higher education. Three new Universities are being created and with the creation of three new Universities of the similar nature, the number of state public Universities will go up.² They are yet to be operational. A large number of students are enrolled in these ten Universities for higher education and research. And hence, the State Public Universities are playing a

commanding role in the higher education system of the state. In the present study, the case of one i.e. L N Mithila University, Darbhanga has been randomly selected. The practical reach of the research has also been one of the reasons to select the University under study. The University may be said to as an old University established in 1972 by the Government of Bihar and is under the jurisdiction of the State. The jurisdiction of the University is over the whole of the Darbhanga division. The catchment area of the University covers mostly rural areas. The HQs of the University is at Darbhanga, the headquarters of Darbhanga district and division both. The University is recognized by the UGC Under Section 12(A) of the UGC Act 1956.³ The National Assessment and Accreditation Council of India (NAAC) has assessed and accredited the University twice so far. The 2nd Cycle of NAAC evaluation was completed in 2015. All India Council for Technical Education (AICTE) has also given its approval to the many academic programs of the University.

The Budget is the principal tool of the financial planning and control of the University finance and is also the main source of financial information. The present study gathers financial information from Budgets of the analysis period which is of seven Financial Years i.e. 2011-2012 to 2017 – 2018. Annual Report of the University has also been a source of information to the present study. The study thus, based on secondary sources of information, has also visited the websites of the funding agencies and regulating authorities in search of facts and figures helpful in analyzing the context of the study. For the purpose of data processing and analysis, simple statistical tools and techniques such as average, percentage, graphs etc have been used in this study.

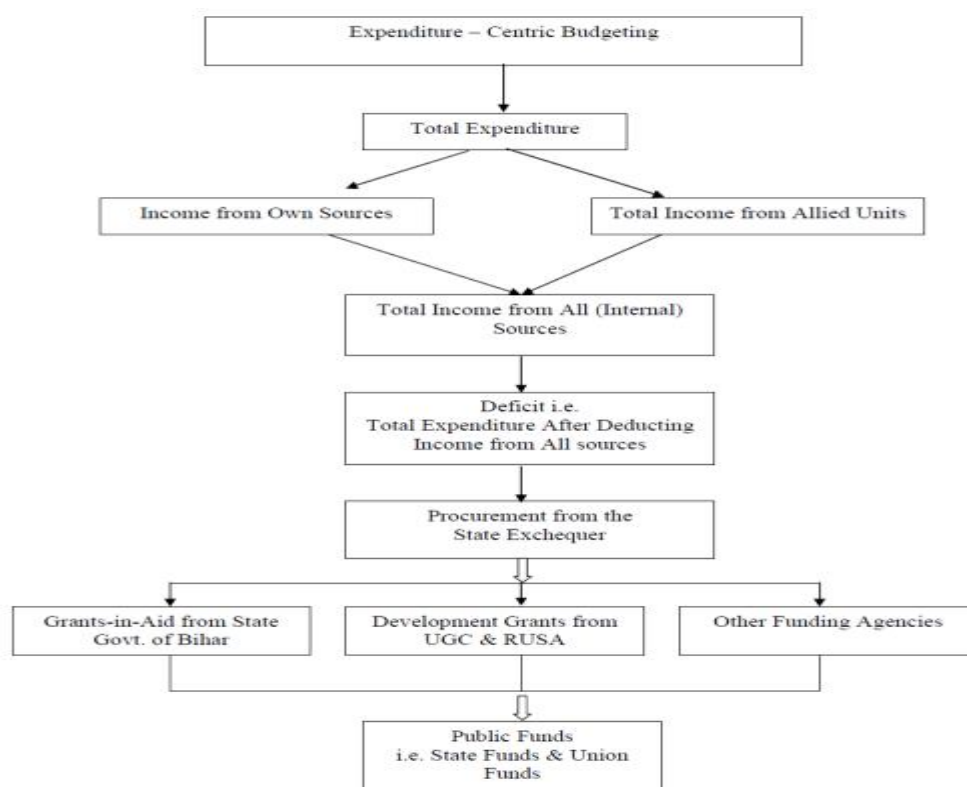
IV. THE DATA ANALYSIS

In the modern context, financial planning and management needs to be re-interpreted. The University under study is one of its type in the State and governed by the Bihar State Universities Act, 1976. Section 46(1) of the Act maintains “the State Government shall contribute annually to the University Fund a recurring grant of the Consolidated Fund of the state which shall include all expenses of recurring nature”.⁴ Further sub-section (3) of the same Section provides “the State Government may, from time to time, contribute the such additional grants to the University fund, as it may deem fit having regard to the need of expansion and development of the University or the college.”⁵ In view of these provisions, a schematic diagram drawn and shown hereunder (Diagram – 1) gives a vivid description of the basic components of the target University finance functions.

Diagram – 1

A SNAPSHOT OF THE UNIVERSITY FINANCE-FUNCTIONS

Bihar State Traditional Public University



The University thus, gets the grants-in-aid from the Government of Bihar in the light of aforementioned provisions of the governing Act. Besides, Central Government of India also provides the development grants to the University through UGC and RUSA. All these funds obtained from the Governments are the main sources of funds of the University and constitute the financing mix in the literature of finance. Of Course, certain funds are also generated by the University through its internal sources and become the source of its financing mix or portfolio. Table – 1 mentioned hereunder is the abstract of the University Budgets of the analysis period and incorporates data of the major heads of the items of budget.

Table-1: Financial Figure Appearing in the University Budget during Analysis Period.⁶

Financial Year (FY)	Total Expenditure (TE)	Income from Own source (IFOS)	Income from allied Units (IFAU)	Income from all source (IFAS)	*Deficit
2011-12 (2012)	5021351954	31978023	10145000	42123023	4979228931
2012-13 (2013)	8594194091	47413180	242725400	290138580	8304055511
2013-14 (2014)	8372128373	78599314	369544678	448143992	7923984381
2014-15 (2015)	8624427483	74595104	742326854	817121958	7807305525
2015-16 (2016)	9481609732	103504512	557442132	660946654	8820663078
2016-17 (2017)	12271144643	85867059	726187401	812054460	11459090183
2017-18 (2018) Ongoing	36517772894	79341744	760554155	839895899	35677876995

Source: L N Mithila University, Darbhanga Budget of the Financial Years.

*Total expenditure after deducting income from all sources.

It can be seen from the above table that the University prepares budget to present it before the Government of Bihar for approval and grants-in-aid. Expenditure of the year is the basis of budgeting. An estimate of the expenses including capital expenditure is estimated and incorporated in the budget to get its approval of the Govt. Income from own sources and income from allied units are deducted from the total expenditure to find out the amount of deficit. The amount of deficit is demanded by the University from Govt as grants-in-aids. Table-2 presents the percentage (calculated from the figure of Table – 1) of the internal income and deficit to throw light on the financing mix of the University.

Table-2: Financial Figures of Internal Funds in Percent during Analysis Period

FY	IFOS (% of TE)	IFAU (% of TE)	IFAS (% of TE)	IT-IFAS=D(% of TE)
2011-12	0.64	0.20	0.84	99.16
2012-13	0.55	2.82	3.38	96.62
2013-14	0.94	4.41	5.35	94.65
2014-15	0.86	8.61	9.47	90.53
2015-16	1.09	5.88	6.97	93.03
2016-17	0.70	5.92	6.62	93.38
2017-18 (Ongoing)	0.22	2.08	2.30	97.70
Average of 7 Years	0.71	4.27	4.99	95.01

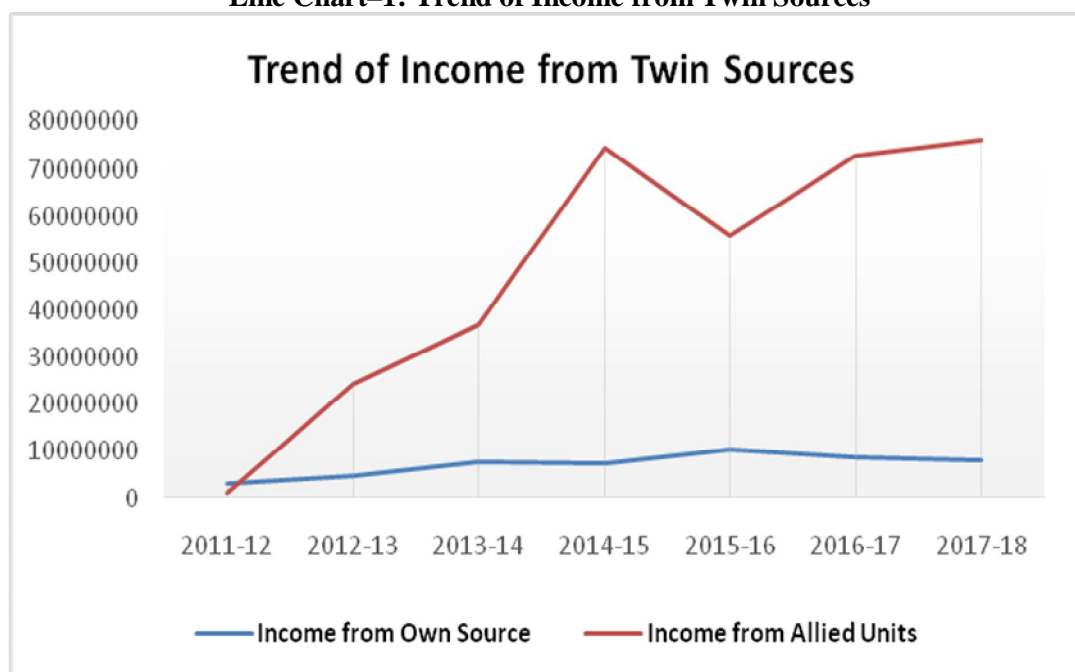
It is evident that the total income (internal) as percentage of total expenditure varies between 0.84 to 9.47. This means that the deficit (total expenditure after deducting income from all sources) as percentage of total expenditure vary between 90.53 to 99.16 during analysis period. In fact, deficit is equal to the total income from internal sources deducted from the total expenditure and, therefore, these two variables (total internal income and total expenditure) have direct bearing on the deficit grants. The major portion of the expenditure consists of management expenses which includes salary, pension etc and increase in effect of yearly increment, hike of

Dearness allowance, pay-revision and other related reasons. This is the recurring feature. The growth trend of internal income also affect the deficit of the University and its finance functions. Table-3 calculates and incorporates the annual growth rate of internal incomes. The trend has also been shown on graph (Line chart – 1)

Table-3: Trend of Income from Twin sources

Year	Income from Own Source	Annual Growth Rate of Own Resource	Income from Allied Units	Annual Growth Rate of Allied Units
2011-12	31978023	---	10145000	---
2012-13	47413180	48.27	242725400	2292.56
2013-14	78599314	65.78	369544678	52.25
2014-15	74595104	-5.09	742326854	100.88
2015-16	103504512	38.76	557442132	-24.91
2016-17	85867059	-17.04	726187401	30.27
2017-18	79341744	-7.60	760554155	4.73

Line Chart-1: Trend of Income from Twin Sources



The above analysis throws light on the state and direction of the internal funds generation in the University under study and reveals certain facts. Inferences, therefore, can be drawn from the key facts of the analysis in view of the objectives of the study. This further paves way for emphasizing the future needs of the University and suggest on the major drawbacks in the changing time and context of higher education at national and local level. Needless to say, uniqueness of the location is important and this must be visualized to accomplish the goals and objectives of the University.

V. THE EXPLORATION

The foregoing data analysis reveals certain important facts about the budgeting and budget figures with regard to internal funds generation in the University and its different facts which may be summarised as under :

- Budget is the principal tool of financial planning and control. The budget for all practical purposes, is an expenditure-centric budget prepared as per the guidelines of the Government to submit for grants-in-aid.
- The major items of University's expenditure includes salary, pension, arrear salary and pension which collectively may be termed as management expenses and are the part of recurring expenditure varies year to year owing largely because of increase in pay scale, DA and pay revision etc.
- The tabulated data of calculated figures and percentage find that the funds generated from all (internal) sources during the period 2011 – 2012 to 2017 – 2018 are 0.84%, 3.38%, 5.35%, 9.47%, 6.97%, 6.62% and 2.3% of the total expenditure of the concerned year, an average of all comes to 4.99% which can't be narrated as satisfactory.

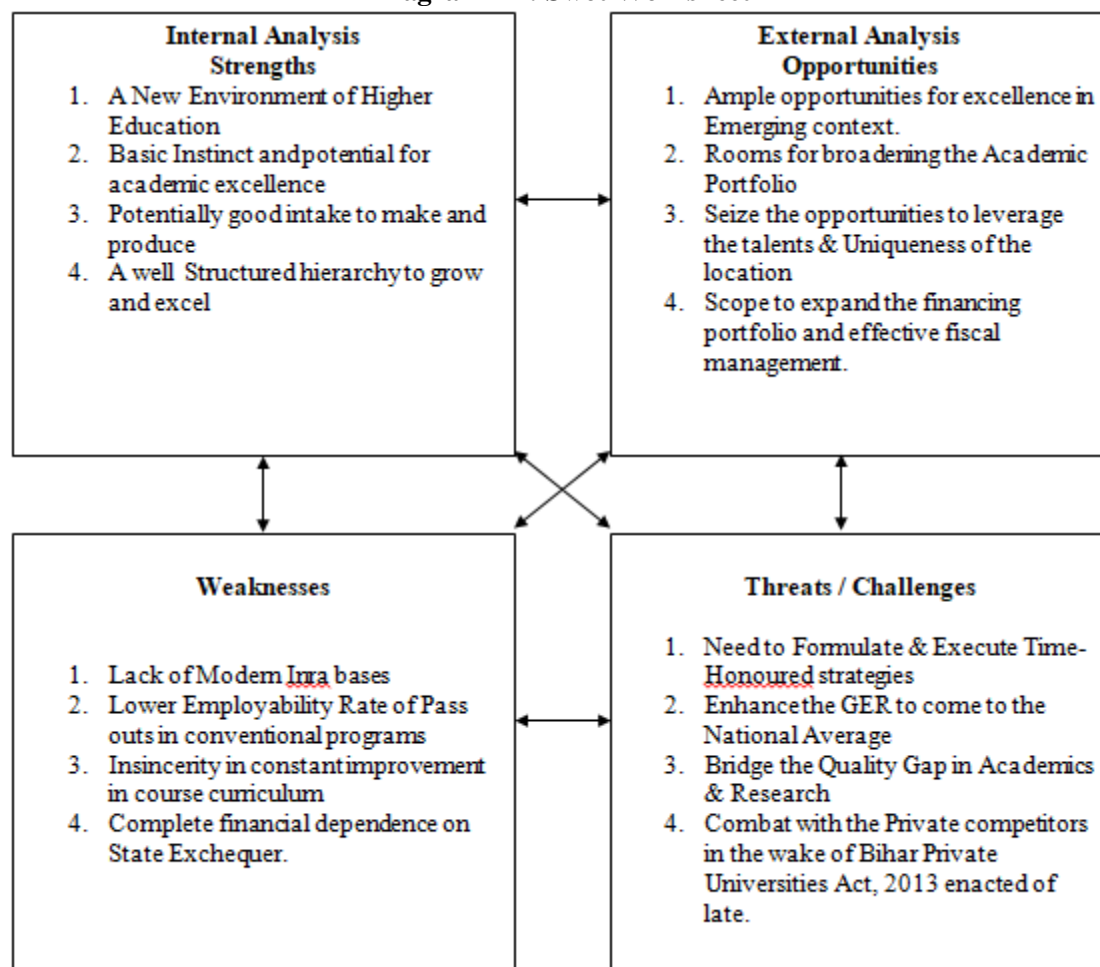
- iv. At micro level an analysis of the figures find that the funds generated from own sources, one of the two major heads of internal sources, have been 0.64%, 0.55%, 0.94%, 0.86%, 1.09%, 0.70% and 0.22% of the total expenditure while the funds from the allied units, the second major head of internal sources, have been 0.20%, 2.82%, 4.41%, 8.61%, 5.88%, 5.92% and 2.08% of the total expenditure during analysis period. The average of the both come to 0.71% and 4.27% respectively.
- v. Obviously the deficit, which is the outcome of the total expenditure minus total income from internal sources, as percentage of total expenditure during analysis period are 99.16%, 96.62%, 94.65%, 90.53%, 93.03%, 93.38% and 97.70%. The average of all the years is 95.01% apparently large.

In view of above, inference may be drawn that the University under study is generating internal funds from its activities and resources around 5% p.a. of its total expenditure which may not be said to as satisfactory especially in the times when University has to expand its academic horizons and develop the modern infrastructure to perform and excel in the emerging conditions of higher education and compete with the private players in the wake of newly enacted Bihar Private Universities Act, 2013.

VI THE SUGGESTIVE MEASURES

In contemporary world, knowledge is important. Universities create knowledge, impart knowledge and disseminate knowledge and hence, are the centre of knowledge. As knowledge hub, University plays critical role in the economy and society at large. To make India competitive in a knowledge economy Universities have been developed at all parameters. Therefore, financial strengthening of University from Government side and also from its internal side is unavoidable. Finance and effective financial management is a must for all organizations. Be it a profit –seeking organization or a not for profit organization like University “created with an objective to serve societal interest and enhance public welfare.”⁷ This paper is intended to suggest on the deficiencies and drawbacks of its core issue which now, after analysis of the facts and figures and their interpretation, calls for a futuristic analysis and scanning of the strengths, weaknesses, opportunities and challenges known as SWOC analysis in management literature. The under – exhibited worksheet tries to sketch the prevailing and emerging conditions of the University under reference and all the Universities of the State of the category to focus and suggest on to formulate a time – honoured strategy for tomorrow.

Diagram – 2: Swot Worksheet



Theme sources: Brainstorming Exercise of the Principal Investigator

Based on the findings of the study and the SWOT variables, the following measures are suggested for the improvement of the existing quantum of the internal funds of the target University :

- I. Within the ambit of governing laws and directions and guidelines of the funding agencies, University should prepare a more extensive and informative budget giving due focus on income from internal sources.
- II. Teaching and research is the main business of the University and therefore, potentials should be searched for generating funds from the academic activities of the University.
- III. University has potentials for expanding its academic horizons especially by including new academic programs in its academic portfolio and efforts should be made to use this as an important source of internal fundings.
- IV. The uniqueness of the location also gives opportunity to the University to seize and convert into funds mobilization as the location has rich reservoir of talents which should be leveraged by the University chalking out an action plan for their capability building.
- V. The yet another front for raising funds for the University is its huge estate. Efforts should be made for lucrative use of its grossly under utilized estate – land, buildings, properties etc.
- VI. Some other ways like University publication, hike in tuition fees, examination, library and laboratory fees and more importantly an approach to the laundry list of alumni may be useful in enhancing the quantum of internal funds of the University in the changing time.

The study, hence believes that the aforesaid measures will help University in improving the internal funds generation process to meet the pressing needs of funds for its holistic development and improvement in the performance.

VII THE RECAPITULATION

The study, aimed to evaluate the state of internal funds and identify the lucrative sources of internal fundings to enrich the financing mix of the University, finally comes to a conclusion that the volume and value of the internal funds are currently not satisfactory but at the same time, in view of the potentials for the same, University can improve it to the satisfactory level to use in the process of effective financial management. According to a Unesco Report, by 2020, India will have the World's largest working population.⁸

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PRODUCTIVITY ENHANCEMENT OF SHOPPING MALL SALES WITH REFERENCE TO SPATIAL VS NON-SPATIAL DETERMINANTS: A REVIEW ANALYSIS

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ABSTRACT

This research reviews the existing literature on retail. Retailing is undergoing unprecedented change in developing economies. It is an integral part of the value chain in an organization, undergoing sea change in developing economies. Many organized retail formats such as convenience stores, departmental stores, specialty stores, super market, super stores, hyper markets and shopping malls are on a consistent rise. Shopping malls as a business entity have started penetrating down the line up to smaller towns. It is evident that the development of a shopping mall entails several strategic decisions from conception, localization, construction and finally to the operation stages. Location has long been known to play a major role in the retailing process. The concept of shopping malls has evolved around various theories of urban spatial structures. The research done in last two decades on spatial & non-spatial determinants of retail sales reveal inter dependence on these factors. Certain empirical studies highlight spatial dependencies among both consumers and retailers'. Extensive review of literature provides insights of recent studies which impress upon the argument that non-spatial factors are as important to shopping mall patronage as spatial factors. Thus, the strategies relating to mall space configuration and retail store location within the mall has gained prominence. Proper strategic planning relates to a higher consumer traffic levels that has become a prerequisite for the success of a retail store in a shopping mall.

Keywords: Spatial Factors, Non-Spatial Factors, Retail Mix, Anchor-Stores, Non-Anchor Stores, Market, Footfalls, Site, Location.

1. INTRODUCTION

Shopping malls have become an integral part of the economic and social fabric of India especially in metro's and big cities. A mall offers a more spatially convenient shopping environment. It segregates overall retail and non-retail functions. It stimulates conspicuous consumption similar to multi-story stores. This has been experienced by the customers of all types of classes. A mall include anchor department stores and anchor hyper-markets, along with non- anchor specialty retailers. Thus shopping mall has been rapidly increasing with various international brands. The leisure patterns being exhibited to fulfill the higher standard shopping space needs of the emerging classes.

Shopping mall operates under centralized ownership and management. Defining market area and trade area are an integral part of site selection process for a shopping mall. The retail manager most of the time has been using the spatial distribution of customers and competitors to promote sales. Normally before selecting a retail location (& site selection), managers use retail gravitation notions to examine empirically the spatial distribution of retail sales. Mall planners in this fierceful competitive world consider layout of a mall as its central nervous system. Strategic placement of anchor and non-anchor retailers has to meet the consumers' multipurpose shopping needs. The planning of a shopping mall include at least one full-line anchor retailer. Most of the time a mall has more than 300,000 square feet of non- anchor retail leasable area. Normally shopping malls are anchored by large department stores and include different non-anchor retailers arranged along covered pedestrian space.

In the modern era of innovations customers are highly influenced by global values. To meet & beat competition a retailer requires accurate spatial distribution information of customers and competitors. The literature available on the effect of spatial factors on retail sales in a shopping mall has extensively analyzed various spatial and non-spatial factors. The location or size of anchor stores affect non-anchor store sales by creating a shopping spillover effect. The non-spatial inter-stores externalities such as retail image and mix, significantly affect non-anchor retail patronage. It's important to recognize the effect of non-spatial factors on retail sales. E-retailing of established retail firms are more providing non-store based brand exposure. This research article provides references on the determinants of retail sales through review of literature.

This research analysis through extensive review of literature try to understand the role of retail crowding with special reference to retail sales and consumers' behavior context. For this study, development of the proposed conceptual framework is based on literatures, such as density study by Stokols (1972). The store layout research by Hasty & Reardon (1996) and Levy & Weitz (2001) has contributed to this study. Retail crowding

models investigated by Eroglu & Harrell (1986) , Harrell et al. (1980) , and Gilbert & Hutt (1976) have given enough insights about spatial and non-spatial parameters. The emotional responses typology by Mehrabian & Russell (1974) has added to the review. The review has overall enhanced the extended version of shopping behavior. The review of literature also touched upon the nature of intra-centre spatial convenience and its attributes .

The research develops an accurate outcome clarifying material conditions (like walls, doorways and fixtures) magnifying the configuration of the subject space. A focus on graphic representation of the floor plan is required . The interior and exterior plans of buildings, site and neighborhoods along with the shape recognition process has to be applied in a shopping mall that decomposes the spatial configurations . Thus it defines function as units of analysis. Convex spaces provide details of deformed circles representing the largest unobstructed space . The study describes axial lines with unbroken straight visual / walking lines to identify the extent of spatial continuity from the entrance .

2. LITERATURE REVIEW:

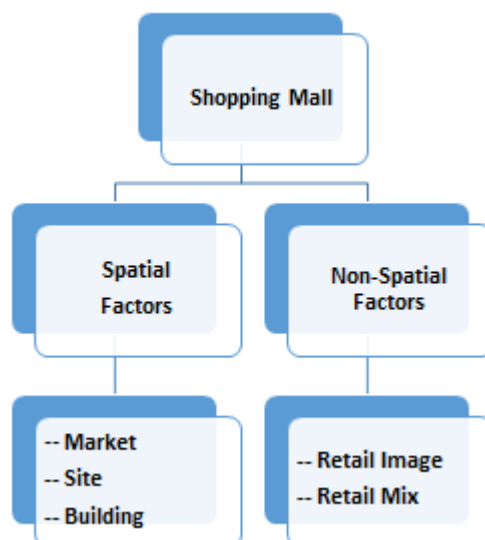
The literature review in this study provides details of density models. The physical environment, consumers' characteristics, retail crowding, emotional responses, and consumer shopping behaviors are simultaneously studied. The literature could highlight details sharing difference on the importance of distance among retailer and consumers (Mejia and Benjamin, 2002) . In certain researches Gautchi (1981) as well as Eppli and Shilling (1996) suggested that the distance parameter may be significantly overstated in previous retail gravity research. The academic literature on shopping malls has evolved around various theories of urban spatial structure (Hotelling, 1929; Christaller, 1933; Losh, 1940; and Alonso , 1964) . The strategies relating to space configuration and store location within shopping mall are studied (Vandell and Lane, 1987 ; Pearson, 1991; Brueckner 1993; Roulac, 1990 and brown, 1999).Eroglu & Harell (1986) , Harell et al. (1980) , and Gilbert & Hutt (1976) focused on the store layout patterns and promotional fixtures eg, aisle tables 'display. They are important elements in store interior design (Hasty & Reardon, 1996) . This may affect consumers' perception of crowding and emotions while shopping in the store. Spatial density in the study refers to the number of fixtures and configurations in retail settings. Levy and Weitz (2001) and Pegler (1998) suggested that grid layout, free flow layout, aisle tables, and cash registers as important physical environment factors that are related to consumers' shopping attitude. For retail crowding, two dimensions of crowding like, spatial crowding and human crowding were identified by Machleit et al. (1994) . Spatial crowding may be defined as the shopper's perception of restrictiveness of physical body movement within limited customer space while shopping at a store. It appears to rise from high density with number of shoppers simultaneously participating in browsing, transaction, and interaction activities on the selling floor (Machleit et al., 1994) . In a retail store, high human density can affect shoppers' perceived crowding and their satisfaction (Machleit et al., 2000).The image of a shopping mall may also impact upon sales level (Brown, 1992; Kirkup and Rafiq, 1994; and Anikeeff, 1996) . It stems from consumers' perception of major occupants (Nevin and Houston, 1980) , shopping mall size and configuration. In this respect, image of a retail store is increasingly dependent on fashion (James, Durand and Dreves, 1976; Jain and Etgar, 1976; Mazursky and Jacoby, 1986; and Grewal, Krishnan, Baker and Borin, 1998). Similarly, the research review provides insights on the affects tenants in their negotiation for an optimal location (Mejia, Eppli and Benjamin, 2001) . Finally, the spatial auto correction issue was addressed by Carter and Haloupek (2000) on the grounds of previous work performed mainly on the residential market (Griffith, 1987 ; Pace and Guilley, 1998 ; Dubin, Pace and Thibodeau, 1999) . Mejia and Benjamin (2002) throw light on non-spatial factors for example, retail image and mix. While a similar conclusion has been extracted from Hardin, Wolverson and Carr's (2002) study on community centers. The researcher insisted on the need to include spatial information in rental market models. A shopping mall can offer spatial convenience in two ways (Thompson, 1967) . The research review explains four attributes of a mall that determine its intra-centre spatial convenience; its retail concentration, its size, its layout and its store compatibility (Reimers and Clulow, 2009) .

The review of the central place models proposed by Christaller (1935, 1966) and Losch (1954) provides an insight to the basic framework for normative theories of the spatial organization of retailing. It explains simple postulates regarding consumer buying behavior. These models attempt to logically deduce the expected spatial organization of retail firms. Both Christaller and Losch presented a number of conclusions regarding the location and spacing of different types of retail firms. These research works further provides insights on retail organization in metropolitan as well as rural areas (Berry 1967; Berry and Barnum 1962) . Another research paradigm on spatial & Non-spatial determinant is space syntax methods. It's being used to understand shape recognition to generate a topological or theoretic formal model of spatial configuration. The concept of space syntax is used increasingly in anthropology and archeology (Ferguson, 1996) . It has been used rigorously to analyze shopping malls (Brown, 1994; and Teklenburg, Aloys, Borgers and Timmermans, 1994) .

Another significant research contribution is referring to “spatial distribution of shopping malls and analysis of their trade Areas in Istanbul” by Zhan Entekin, Vedia Dokmeci, Tuba Unlukar & Evren Ozus (2003) . The study investigates the spatial distribution of shopping malls with respect to population. The results of the study fell within the concept of central place theory. Tripathi, P. Aditya, studied the “emerging trends in modern retail formats and customer shopping behavior in Indian scenario: a meta analysis and review”. The researchers also analyzed the participant’s positive and negative perceptions and their expectations. Kuruvilla, Jose. Shelja. andGanguli, J. (2008) , “ mall development and operations: an Indian perspective”. The researchers studied the Indian perspective of shopping malls. Liu and Yuping (2007) found out the long term impact of loyalty programs on consumer purchase behaviour and loyalty. Hendrik, Meyer- Ohle (2006) , “Two Asian Malls: Urban Shopping Centre Development in Singapore and Japan”. This study explored the factors underlying the development of urban shopping malls in Singapore and Tokyo. Brubaker (2004) in his thesis, site selection criteria in community shopping centers: Implications for real estate developers defined market area as a “conglomeration of retail stores” and have explained various factors influencing the market, such as visibility, access, traffic, and parking. Shim, Soyeon and Eastick, Ann. Mary (2003) , studied the hierarchical influence of personal values on mall shopping attitude and behavior”. Ford, Ken (2002) , “shopping as it should be: welcome to the mall”, the researcher had studied various facets of shoppers buying behavior with respect to retail formats. As the decisions on a shopping trip are recursive processes of shopping experiences, perception of crowding can influence shopper’s satisfaction and future shopping choices. Huff (1966) review can provide insights about store loyalty as well. However, it has been observed that a very few retail centers as they currently stand are regarded as being well placed to serve the needs of an aging population (Myers and Lumbers, 2008) . There is also a dearth of research into how malls and strips compare in the actual provision of intra-centre spatial convenience which is henceforth referred to as a supply-side analysis. Yet in spite of its potential benefits, the need to incorporate a combined demand-side / supply-side analysis has been ignored in academic research.

EXHIBIT: 1

FACTORS THAT AFFECT SHOPPING MALL SALES PERFORMANCE



Ref exhibit: 1: Buyers and sellers available within a given geographic area form a retail market. Retail sales are to define further are the resultant of the dispersion of these buyers and sellers. The researchers Betancourt and Gautschi’s (1988) with their theoretical analysis suggests, buyers first assess consumption benefits and costs and then make demand, making supply decisions that maximise utility. In another study Feber (1958) empirically analyzes aggregate and individual income as the variable of shopping mall sales. The researcher finds that wealthier areas have higher retail sales. Lillis and Hawkins (1974) and Anderson and Kaminsky (1985) share their agreement with the study of Russell out-shopping argument. Certain exclusive research work done by Adamchak, Bloomquist, Bausman and Qureshi (1999) shared their argument that retail sales and aggregate income may not be necessarily be correlated. On the contrary a research done by Liu (1970) further added that population density may not necessarily explain retail sales. Lachman and Brett (1996) has a typical argument that younger consumers pay more attention to advertising and brands while older consumers shops differently. On the similar kind of research, Evans, Christiansen and Gill (1996) survey the shopping behaviour

of various types of consumers. The researchers who studied market supply factors affecting retail sales have shared variety of findings. Certain exclusive researches by Benjamin, Jud and Okoruwa (1993) , Benjamin, Jud and Winkler (1995, 1998a, 1998b) studied the retail competition and shared the findings that retail space which is usually recognised as a proxy for competition, is a function of retail sales. Another research by Bresnahan and Reiss (1991) shared their outcome of the research that retail profits vary with the number of competitors. Gabszewicz and Garella (1987) , Wilde (1982) in their research put forth their findings that retailers which are located in proximity to one another reduce consumer search costs. They explained that the relationship between retail competition and sales are bi-directional. Another exclusive work by Bresnahan and Reiss (1991) could study the affect of competition on retail profits. The research review touched upon the benefit of scale economies which exclusively depend on the market's retail capacity. Ryan, Von Hohenbalken and West (1990) in their research findings explained that retailers make decisions to enter a market in response to the changes in market capacity. Researchers Gabszewicz and Garella (1987) studied on this phenomenon of agglomeration. It reveals that store proximity is beneficial when the combined set of retailers meet consumer needs that a store could not meet singly. The study on retail externalities shares the fact that positive inter-store externalities, sometimes termed as demand externalities (Eppli and Benjamin 1994), are the positive effects generated from one or more tenant(s) to other tenant(s). This effect is realized without consent and compensation between the generator and receiver. Many researches on retail location theory bring in thrilling observations. Nelson (1958) was the first to illustrate the agglomeration of retail activities.

3. OBJECTIVES AND CONTEXT OF RESEARCH:

This study through a review of literature analysis develops the economic trade-off between spatial and non-spatial determinants of shopping mall sales. Location has long been known to play a major role in retail sales. Shopping mall site selection and retail store strategic placement has long been driven by primary market data linking income, wealth and location. Due to rising obesity levels, declining fitness levels and shopper lethargy, retail planners must give serious consideration to the physical demands malls are place on their patrons. The research encircles the following objectives:

- i. To identify the different spatial & non-spatial determinants with special reference to the shopping mall sales.
- ii. To investigate the role of retail crowding and its relationship with shopping mall sales.

4. RESEARCH ANALYSIS & FINDINGS THROUGH REVIEW OF RESEARCH

In analysis through review of literature six components of crowding emerged

- i. Spatial crowding
- ii. Human crowding
- iii. Area spatial crowding
- iv. Consumer factors
- v. Perceived store crowding
- vi. Emotional responses
- vii. Consumer satisfaction
- viii. Behavioral outcomes

Retail density commonly explained as spatial density and human density are the antecedent of retail crowding. Spatial density refers to the number of fixtures and configurations in retail settings.

- i. Grid layout
- ii. Free-flow layout
- iii. Aisle tables
- iv. Cash registers

In a retail store, high human density can affect shoppers' perceived crowding and their satisfaction. For retail crowding, two dimensions of retail crowding are very important:

- i. Spatial crowding
- ii. Human crowding

Perceptions of human crowding appear to arise from high density. This has led to the number of shoppers simultaneously participating in browsing, transaction, and interaction activities on the selling floor.

The second component of the conceptual framework focuses on a shopper's characteristics like:

- i. Shopping motives
- ii. Time pressure
- iii. Expectations of crowding
- iv. Prior experiences of crowding
- v. Tolerance for crowding
- vi. Gender and age

These parameters on non-spatial determinants may influence one's perception of retail crowding. The effect of spatial density and human density on retail crowding varied depends on individual's perception and actual experience such as, tolerance of crowding. The third component is overall perceived store crowding. Various studies further laid down explanation of non-spatial attributes which describe the retailers' character. These characters are usually measured in terms of retail image and mix.

Retail image is the store's character in the shopper's mind. Retail mix is the combination of retailers resulting from a threshold decision process that indicates:

- i. Recruitment of new retailers
- ii. The eviction of existing ones
- iii. The exchange of one retailer for another

Shopping mall inter-store externalities result from the concurrent presence of anchor and non-anchor retailers. In the review analysis of researches, the limited empirical evidence could be evaluated with reference to the effect of attributes related to the anchor retail image and non-anchor retail mix. Research review highlights that shopping malls with more or larger anchor retailers perform better than shopping malls with less or smaller anchor retailers. Anchor stores strategic placement within a shopping mall is not uniform across the industry. But it's found that shopping mall owners usually attract department stores by offering direct or indirect benefits. In exchange for these benefits department stores stay in the shopping mall for relatively long terms. At the same time, shopping mall owners lease space to non-anchor retailers. Owners lease space to satisfy the non-anchor retailers' desire. The research findings show that the desire is to locate close to other retailers to attract more consumers. Non-anchor retail rents vary depending on the retailer merchandise category and the individual retailer. Sales performance of a shopping mall is typically measured in terms of non-anchor retail floor space productivity. It's namely in terms of non-anchor retail sales per square foot. The literature analysis also highlighted the fact that the income is the only factor affecting the location of shopping malls. The size of the catchment area of the shopping mall from inner zone is larger than the peripheral ones. It's due to higher accessibility with alternative transportation systems and supporting functions in its surrounding areas. The review of literature highlights that the concept of central place theory was reinforced. The roles of market and infrastructure factors in shaping spatial patterns have been examined in variety of researches. Certain research papers investigated the spatial distribution of shopping malls according to the concentric zones of the city. The literature analysis highlights existing strategies for spatial convenience. This includes limiting the size of a shopping mall by controlling the entry of non-retail firms, creating a compact physical design, and creating compatible clusters of shops.

5. CONCLUSION

The research review analysis highlights that intra-centre spatial convenience was one of the three convenience factors rated as important by consumers. The mall further enhances intra-centre spatial convenience by organizing its stores into compatible clusters. Malls also minimize intra-centre spatial costs by segregating shopping and non-shopping functions. Thus, it becomes quite clear that the mall offers shoppers greater intra-centre spatial convenience. The review also explains the benefit in combining a demand-side and supply-side approach. Convenience has always influenced the varying fortunes of malls. Hence the mall owners should always be open to the land consolidation, re-zoning and /or creating compatible clusters of stores to bridge the competitive gap. Attributes like a compact size and layout, and compatible clusters of stores are more in trend. Retail planners thus, must give full weightage to creating retail environments compatible with such human

factors and conditions of strategic convenience. Offering intra-centre spatial convenience provides one such strategy for a mall to outshine the competitors.

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ADAPTABILITY OF PUBLIC TRANSPORT MODELS TO INDIAN SCENARIO-A SPECIAL REFERENCE TO U. P.

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ABSTRACT

Public transports, especially buses not only form a medium of public mobility, but also acquire a significant place in building the economic infrastructure of cities. Urban transport segment in India has identified the criticality of participation of private operators in working city bus operations. Since 2005 the urban city bus benefits in India are shared by both public driven State Transport Undertakings and Private Bus Operators. This paper discusses about the patterns of vehicular development and accessibility of transport foundation in Indian urban regions. As opposed to covering each part of urban transportation, the paper principally stresses on the vital elements, and the two contractual models for example, Gross Cost Contract (GCC) and Net Cost Contract (NCC) that are being executed in different urban communities in India. Furthermore, this paper features a few deficiencies of NCC and GCC and suggests criteria that could make them increasingly beneficial in the upcoming period.

Keywords: Urban transport, Public-Private Partnership, Gross Cost Contract, Net Cost Contract, Private bus operator.

1. INTRODUCTION

The urban communities and towns establish a magisterial attribute in advancing monetary development and economic success. Albeit, not more than 33% of India's population lives in towns and urban areas. Consistently, these regions create more than 2/3rd of the nation's financial profits and record for 90 percent of government income. Considering this, the urban population has arisen from 17 percent in 1991 (112 million) to 31.8 percent in 2011 (377 million) and is believed to be increased up to 35 percent (500 million) round in next 10 years (i.e. year 2021). However, since the rural to urban relocation is continual, the Indian urban administration are facing various difficulties. Moreover, there is a current shortage in urban managements - concerning lodging and urban transportations regarding both amount and quality; and then again there is inward pressure of expansion and disposal of services to defy developing engagement from transmigrating public.

These unstable circumstances grew due to the fact that general public transportation, which should have assumed an exceptionally instrumental job in moving individuals in urban communities, was not existent in numerous urban areas or was unfit (both functionally and fiscally)[1]. Therefore, considering these circumstances, the National Urban Transport Policy was confined in 2006 with an accentuation on making urban areas most thriving and empowering them to wind up as "engines of economic growth". As a consequence of financial progression, the Indian government has urged an approach to advance private involvement in the arrangement of transport foundations.

As an outcome of this arrangement, private area involvement has additionally been advanced in improving the nature of urban foundation too. The advantages of a proficient urban transportation are self-evident (Figure 1). It eases spacious motion of individuals at less expenses and helps in decreasing the urban traffic burden as well as lessening pollution and crowd. Thus, it has a great deal of prospering benefits for the urban inhabitants[2].

Therefore, considering the requirement for effective methods to impart an urban transport policy to every part, the Indian government has decided to include private virtues and endeavour in arrangement of an assortment of public transport system to consistently expanding urban populace. Consequently, Public-Private Partnerships (PPPs) are progressively used to give urban transport administrations. In light of the facts that Urban Local Body (ULB) faces recurrent issues, for example, to regulate gainful inefficiencies, limit deficiencies, monetary constraints, etc. and consequently pursued the PPPs as a remedy for prospering issues of urban transport. Most of last two decades has observed numerous PPPs in Indian urban transport systems. Preferably, such public administration and arrangements are the result of government duty. Nonetheless, because of limitation of resources and requirement for productivity, PPPs have risen as favoured method of giving such open administrations in developing countries like India. Privatisation results in perpetual exchange of responsibility to the private contractors prompting its imposing business model subsequently[3]. PPP is viewed as a superior instrument as the proprietorship rights remain mutually with government and private players and task are controlled generously so the general public everywhere isn't presented to the issues that emerge out of damaging

syndication in framework. PPPs in city transport are either in the Gross Cost Contract (GCC) or Net Cost Contract (NCC) shapes.



Figure-1: PPP advantages

In India, greater part of the Urban Local Bodies (ULBs) favour NCC as it alleviates ULBs from any remuneration to the transport or bus authorities. Despite what might be expected, the administrators paid ULBs the yearly premium for the rights earned to run the transport tasks. Nonetheless, the supportability of NCCs began to be addressed when the benefits of the transport administrations was not attainable and took course changes and administration quality was at risk. This introduced GCC, wherein the ULBs paid the transport administrator on per kilometre premise and consequently the urban authorities bearing the income risks[4].

Over 50 years (1950-2000) of the 20th century, one has experienced the voyage of private players in city bus services (CBS) in a recurring manner (Laghu and Gaurav kumar, 2011). Furthermore, from the earliest start of the 21st century, Public Private Partnerships (PPPs) came into picture in Indian CBS[5]. PPPs in city transport administrations come to fruition either in Gross Cost Contract (GCC) or Net Cost Contract (NCC) and India has the nearness of both the PPP models. The endeavours to rope in private players were being done since decades however have not procured any considerable outcomes. In the second 50% of the twentieth century, it has been noticeable that post "nationalization" arrangement, the legislature permitted private interest out of impulse as the administration was coming up short on assets to take into account expanding traveler request through armada procurement. Consequently, the private support discovered its way in giving transport benefits through diversifying models (particularly the Net Cost Contract) wherein the income hazard and cost dangers were to be borne by the private players. Every one of the endeavours made in the enlistment of private segments, be it the NCC or GCC variations, couldn't continue[6].

- Why Contracting?
- Prerequisites for Contracting
- Single vs. Multiple Operators
- Alternative Contracting Schemes
- Choosing the Best Option
- Choosing the Best Option

1.1 Problem Statement

City proficiency to a great extent relies on the adequacy of its vehicle frameworks, that is, viability with which individuals and merchandise are moved all through the city. Poor transport frameworks smother monetary development and advancement, and the net impact might be lost intensity in both residential just as universal markets. Albeit, Indian urban communities have lower vehicle possession rate than their partners in created nations, they experience the ill effects of more terrible clog, postponement, contamination, and mishaps than the urban communities in the established nations[7].

The Indian metropolitan urban communities are confronting genuine ecological issues because of developing air contamination brought about by propellants utilized in vehicles. Barometrical contaminations usually connected with engine vehicles are suspended particulate matters (SPM), carbon monoxide, sulphur oxides, nitrogen oxides, and hydrocarbons. Contaminations from vehicular emanation have different unfriendly impacts on our health [8]. One of the fundamental contaminations, SPM especially fine PM, has genuine impacts on the human health. The encompassing air contamination as far as SPM in numerous metropolitan urban areas in India

surpasses the farthest point set by World Health Organization [9]. In this manner, pervasive traffic blockage in Indian urban areas especially amid pinnacle hour expands the postponement as well as builds the contamination level. It is sufficiently certain that among different methods of street-based transport mobility, the bus involves less street space and causes less contamination per km than customized modes. This additionally demonstrates the significance of bus in enhancing the air quality in urban territories[10].

All classes of passengers' face issues in commuting. Basic issues confronted are long waits, time and travel uncertainties, troublesome journeying, absence of safe and deterrent routes. Additionally, moderate moving traffic causing jams at traffic signs and street intersections, makes anxiety prompting street rage, rash driving and mishaps. The nothing new (BAU) situation gives some disturbing insights for the urban transport area. The BAU situation anticipated from 2007 to 2030 would prompt (a) offer of public travels will move southward from 5-46% to 2-26%, (b) increment in per capita excursion rate for all modes from 0.8-1.5 to 1-2, and (c) expected normal travel velocities on significant passages in future will commence down from 26-17 km/h to 8-6 km/h. Such unstable circumstance has been on the grounds that the general transport, which in a perfect world ought to have assumed exceptionally instrumental job in moving individuals in urban communities, was not existing in numerous urban areas or was in a bad way (both functionally and economically). In light of these circumstances, the National Urban Transport Policy was established in 2006 with an accentuation on making urban communities most liveable on the planet and empowers them to end up as "engines of economic growth".

2. TRANSPORTATION INITIATIVE IN INDIA

The transport innovation started in India formerly a few years ago. Because the demand of travel is high, since, we have a huge migrant population which belongs to rural areas, now residing in cities. Unless these two fields-Transport and land development-are seen in tandem, we cannot have a synchronous development like what has been happening till now.

Few of the Indian Government's undertaking under MoUD are:

- i. JnNURM- Jawaharlal Nehru National Urban Renewal Mission- Sector Reforms Linked Investments – Bus, Rail and Related Infrastructures
- ii. Human Resources and Capacity Enhancements
- iii. National Urban Transport Policies
- iv. World bank – UNDP – GEF Sustainable Urban transport Project (SUTP)

The Govt. of India has started schemes such as FAME (Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles in India (2015-2018) - which has been extended till March 2019. The GoI is encouraging use and production of Electric Vehicles to reduce pollution in metropolitan cities which is reaching staggering limits[11]. It is thought provoking that 14 out of world's 15 most polluted cities are in India in the WHO's list, whilst 4 other cities are from Uttar Pradesh, Kanpur tops the list. So, India really need to look into this issue of pollution in its cities, which are brimming with population as well. The Electric buses are a good initiative in this direction[12].

JnNURM (Jawaharlal Nehru National Urban Renewal Mission) is a substantial scaled, urban-improvement plan propelled by the Indian Government, under the Ministry of Urban Development (MoUD). JnNURM gave financing to urban restoration policies, including subsidizing for transport. Before JnNURM, most STUs possessed and worked as a maturing armada without considering the PPP models. Post JnNURM, in various city-extents, Special Purpose Vehicles (SPVs) were framed and since then an expanding number of urban areas have received PPP modes.

In all types of vehicles in the country, there is a growth of 22% every year and for that we need one National Highway every year. The point is that public transport system in India has not been given a serious thought while it is most needed due to high migrant population in Indian cities travelling to and from home to workplace. Since 22% population in India is below poverty line and 50% of that is in urban areas, it need a low-cost public transport for Indian cities[13].

Table-1: Pollution rate of private and public vehicles.

Type of vehicle	Average passenger per vehicle	Pollution load in gm/pass.-km	Congestion effect in PCU/Pass.
Two-stroke two-wheeler petrol engine	2	7.13	0.375
Four-stroke two-wheeler petrol engine	2	4.76	0.375
Car with catalytic converter petrol engine	4	0.93	0.25
Bus with diesel engine	40	1.00	0.075

Source: Singh (2008).

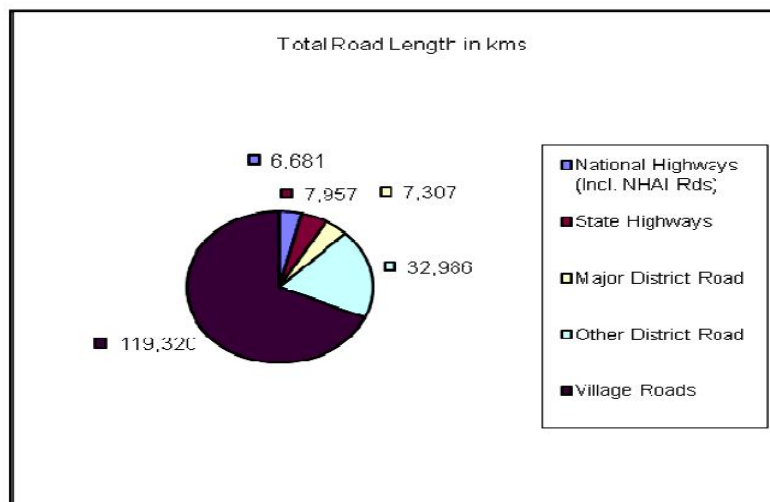
Note: PCU = Passenger Car Unit where 1 car = 1 PCU, 1 bus = 2.5 PCU, 1 scooter = 0.75 PCU, etc.

In total privatization of public transport, the ownership of assets is permanently transferred to private sector while in GCC or NCC mode of Public Private Partnership (PPP) Models, it is jointly owned by the Govt. and private partner (Chaudhary, 2015). The PPP models prevent abuse of monopoly by private players and the public is not exposed to perils of that monopoly while better efficiency of private sector is utilised in providing better services. Within a GCC framework, the governmental experts expect the income perils and gives a settled premium to the private authority at times for their services, while in the NCC mode, the government contributes for the foundation and the private administrator holds activities, upkeeps and income accumulation efforts, holds enactment box income, and bears the income threats in catering the transportation assistance[14].

Though, a couple of years back, transport administrations were accessible for the most part in the urban communities situated in southern and western areas of India, however they are currently accessible in the greater part of the metropolitan urban communities, on account of the Indian Government's JnNURM mission. Administrations are generally operated by the publicly acclaimed Municipal Transport Undertakings (MTUs) or State Transport Undertakings (STUs). The vast majority of the traveler transports utilize the standard truck motor and skeleton and thus are not efficient for city use. There are not many transports in India explicitly intended for urban conditions. Subjectively, the accessible urban mass transport administrations are stuffed, questionable, and include long holding up periods. Congestion in people in general transport framework is increasingly articulated in extensive urban areas where transports that are intended to convey 40-50 travelers, convey two-fold the limit amid pinnacle time periods. Therefore, there is a huge move towards customized transport, specifically bikes and expansion of different sorts of transport modes, for example, taxi-cabs, rickshaws and autos[15].

UP State Road Transport Corporation

UP State Road Transport Corporation (UPSRTC) is a public division of roadways transport organization, giving active services in the Uttar Pradesh territory and other neighbouring states of North India. Recruited size of more than 11833 fleets, the transportation system that work over 655.8 Million kilometers taking into account the mobility needs of 500 Million plus individuals and gaining over Rs. 79.2 Million regularly. Arranging satisfactory, effective, well-coordinated, agreeable and affordable administrations to the travelers, while procuring enough for self-support and developments. Where, Uttar Pradesh has the 2nd largest road network in the country after Maharashtra (figure 2).


Figure-2: State road length

3. CRITERION TO ENHANCE THE URBAN TRANSPORT IN INDIA

3.1 Encouraging local economies and consolidated town-ships

It hailed for a demand to encourage not just local economies so that it decreases the requirement for distant travels, yet, in addition capable independent smaller townships that would lessen the requirement for short travels inside the city limits. The advancement of local economies ought to be supplemented by making smaller settlement structures with the arrangement of shopping complex, administrations and recreational offices and work openings closer to the individual residencies, so the outing travel distances can be kept short. As such, wherever conceivable, "towns of short distances" ought to be advanced (Singh, 2006). There are numerous advantages of the minimized township over urban spreads, which incorporate less vehicle and bike reliance in this way lower emanations, diminished power utilization, better open transport administrations, better openness, less car crashes, and better personal satisfaction.

3.2 Focusing on public transport particularly bus transport

The traveler journeys in India urban areas depends vigorously on the streets and roads. The Government's discretion and control have exacerbated the poor operational and monetary execution of public possessed urban transport agencies, which are the primary supplier of transport benefits in urban areas of India. As expense of activity rises, transport framework goes under budgetary strain to raise admissions, yet lawmakers are feeling the squeeze to keep charges at existing dimensions. Except if the framework is financed, it needs to take out a portion of its less productive or misfortune making administrations. In majority rule government, legislators will undoubtedly respect weight from those whose administrations are undermined and to demand keeping up cash losing activities. Because of this, vehicle traders think that it's hard to raise their income sufficiently adequate to meet the expense of activity. With couple of exemptions, freely claimed urban transport agencies in India work at higher unit costs than practically identical transport tasks constrained by the private divisions.

3.3 Need of The Hour, Public-Private Collaborations

With the economical advances, the Indian Government has conceived a strategy to advance involvement of private authorities in arrangement of transport framework. As a result of this approach, private segment cooperation has been promoted likewise in enhancing nature of urban foundations. The advantages of a productive private indulgence in urban transport are self-evident. Additionally, it encourages helpful development of individuals at low expenses and renders urban areas with reduced pollution and traffic congestions. Henceforth, it offers a great deal of welfare benefits for the denizen. Figure 3 shows the growth of private participation in the public transport sector.

In spite of fare similarities, private administrators have possessed the capacity to succeed monetarily with no endowments. Their prosperity is credited to abnormal state of efficiency, which is reflected in low-staff proportions to accessibility of higher fleets. Private transport administrators, capturing around 2/3rd of the total transport industry, presume a noteworthy job in satisfying the needs and consequently generously decreasing the money related thresholds on the governments. Moreover, the government possessed urban transport regularities do not have the adaptability of association, the capacity to contract and fire staff, or the money related prudence expected to adjust to evolving conditions. In such conditions, an approach which involves private co-operation in the arrangement of transport administrations ought to be invited. One should take note of that there is a critical requirement for rebuilding of open transport framework in Indian urban communities to upgrade both amounts just as nature of administrations.

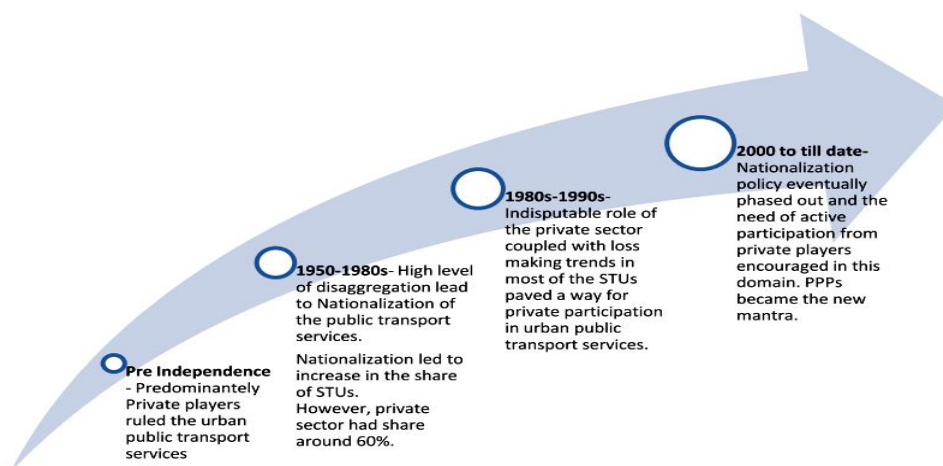


Figure-3: Growth of Private Sector in Passenger Transport Services

However, from the beginning of the 21st century Public-Private Partnerships (PPPs) came into picture in Indian city bus services. PPPs in city bus services take shape either in Net Cost Contract (NCC) or Gross Cost Contract (GCC) and India has the presence of both the PPP models.

4 PUBLIC PRIVATE PARTNERSHIPS (PPP)

In the aftermath of economic liberalization, the government in India has encouraged a policy to promote private participation in provision of infrastructure. As a consequence of this policy private sector participation has also been promoted in ameliorating quality of urban infrastructure as well. The benefits of an efficient urban transport system are obvious. It alleviates commodious movement of people at cheaper cost and makes cities less congested and less polluted. Hence it has a lot of welfare benefits for its dwellers.

Hence, the private participation found its way in providing bus services through franchising models (especially the Net Cost Contract) wherein the revenue risk and cost risks were to be borne by the private players[16]. All the attempts made in the induction of private sectors, be it the NCC or GCC variants, could not sustain. This work is presented in an attempt to study how GCC and NCC have found their way in the city bus services and how they address various challenges faced by city bus services.

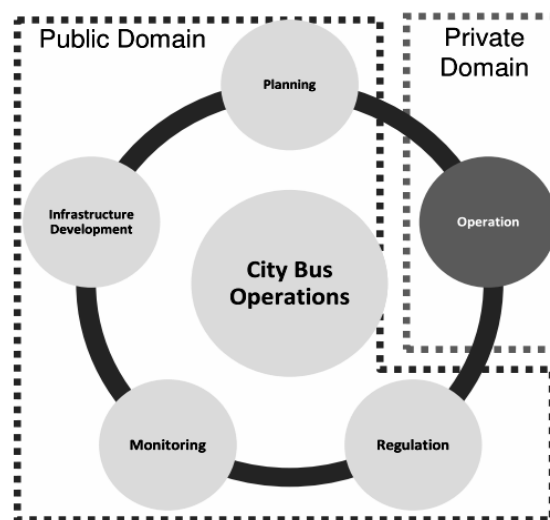


Figure-4: PPP model

PPPs have no single internationally accepted definitions. However, we shall bring in some of the important definitions of PPP by institutes of repute. PPP is “a long-term contract between a private party and a government agency for providing a public asset or service, in which the private party bears significant risk and management responsibility”[17]. Therefore, the service or asset that needs to be provided has to be for public use with or without user fees and there has to be sharing of risks and rewards between the public and the private parties for substantially a longer time horizon. Hence the returns should commensurate the risks taken by each party involved in the PPP. However, the objectives of both the parties (i.e. Government or Public and Private Players) have contradicting objectives. Figure 4 represents a simplified PPP model. In other words; on one hand the government is concerned with maximization of public welfare and on the other hand private party is concerned with maximization of returns (figure 5). The success of PPPs relies on its fulfilment of both the ‘welfare’ and ‘profit maximization’ objectives of both the parties and if any one of them suffers the PPPs could not be sustainable [18].

In total privatization of public transport, the ownership of assets is permanently transferred to private sector while in GCC or NCC mode of Public Private Partnership Models, it is jointly owned by the govt and private partner[19].

4.1 Gross Cost Contract in City Bus Services

The PPP’s contract based binding structure wherein the city transport tasks and upkeep are completed by the private segment (private bus administrator) and the defrayals are made as per transport kilometres, per bus, per operational hour or blend of each or any two. In such a model, the income perils (for example money accumulation and maintenance) lies with the ULB/SPV (for example government or the organization set up to run city transport administrations). Contrary, the dispatch and booking are additionally the obligation of the ULB/SPV and the administrator is obliged to run the transports according to the rules given by the SPVs. By and large received by huge urban communities (metropolitan urban areas or city enterprises) who either has sound monetary wellbeing or has the ability to raise funds from the market.

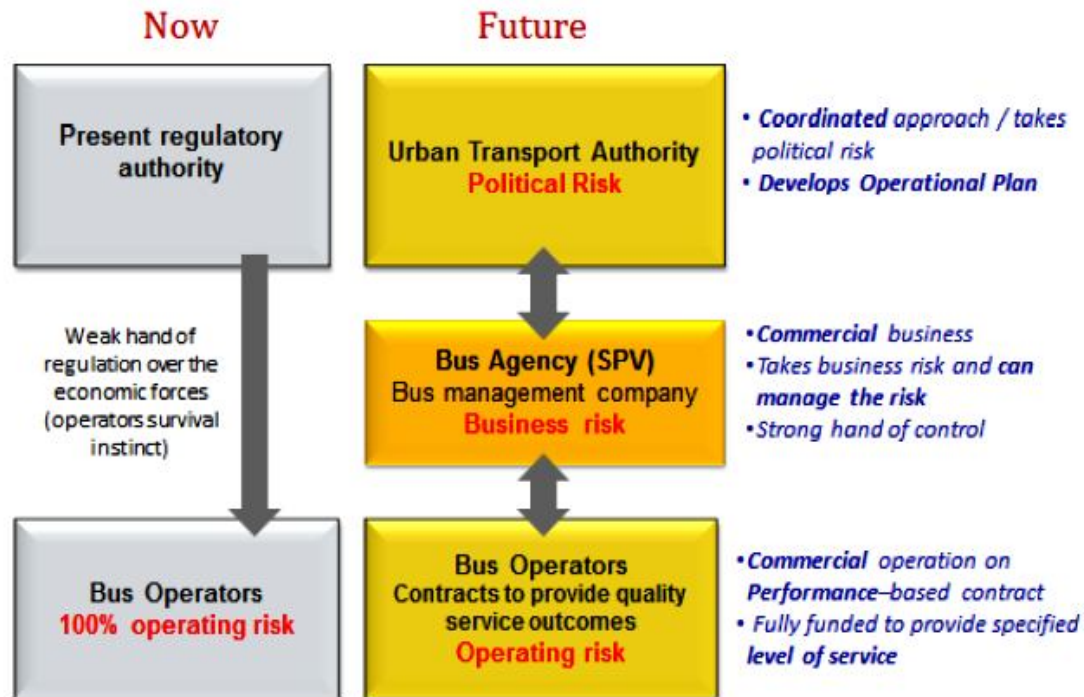


Figure-5: Risk assignment in shared model

Urban communities like Ahmedabad (BRTS and AMTS transport administrations), Delhi (DIMTS transport administrations), Surat (BRTS transport administrations), and so forth keep running on GCC premise. In Surat and Ahmedabad, the defrayments to bus administrator is based on kilometers covered by the bus. While, in the event of DIMTS transport benefits in Delhi, the defrayments made to the private bus administrator is on the bases of blend of kilometers covered by the bus, quantity of buses and count of operational hours. Although, in every one of the cases the income danger is vested on the office outsourcing the contract venture and not on the private bus operators[20].

To the extent Surat and Delhi are concerned, these urban communities prior had NCC frameworks. Nonetheless, NCC establishment ended up being a disappointment because of the issue of money related concerns and thus, deterioration of operation and quality. This constrained the city specialists to take the GCC courses. To the extent GCC is concerned, in spite of the fact that the SPVs make money related losses, the framework still runs proficiently, reliably and with unwavering qualities. For example, despite the fact that the Ahmedabad Janmarg Limited (Ahmedabad BRTS) enlisted a working loss of Rs. 1.34 crore as on 31st March 2012 it very well may be seen that the framework is developing significantly as far as its ability in sub-urbanites conveyed by the BRTS[21]. The payments to bus administrator aren't bound with the benefits of the business, below the table and administrative catch by administrator isn't noticeable and the framework keeps running according to the desire of the public authorities. Subsequently, the welfare-benefit goals are met and the framework by all means has sustainably accounted over a period of time.

This type of contract is in practice in Ahmedabad, Indore, NCR and some foreign countries like Bogota (Colombia) and Australia.

4.2 Net Cost Contract in City Bus Services

In the NCC model (figure 6), the bus administrator has the danger of gathering and withstanding income perils. Consequently, the administrator pays an yearly or month to month premium per bus or per route to the SPVs or may request reasonability gap subsidizing (in case of lossy operations) for the rights benefited to run the city transport benefits on indicated routes. In any case, directing, planning and admission setting and toll modification powers are vested with the SPVs.

NCC at first occurrence is by all accounts worthwhile for the administration as they spare a great deal on forthright capital speculations, labor costs and furthermore the income chance is on the shoulders of the private transport administrator (concessioner). In any case, close perception provides some insight that legislature/SPV isn't shielded from hazard and just the dangers or misfortunes that must be borne by SPV are conceded in time. For the most part received by urban areas which are, littler in size, fiscally stressed, and have limited limitations to raise funds from the business industry.

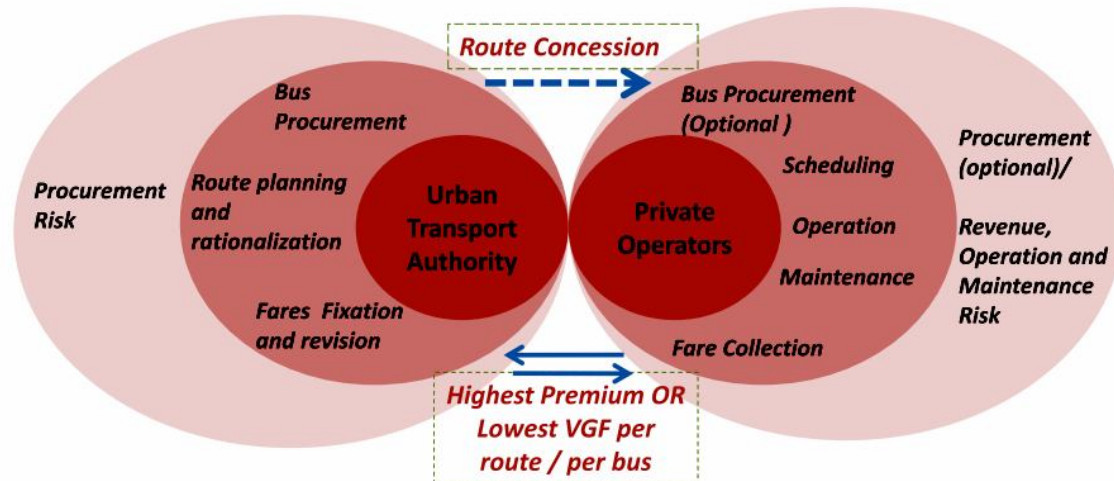


Figure-6: Transaction mode of an NCC model

- The major query is which mode of transport is beneficial, private or public, and in what terms one can be adopted?

Consequently, an inclination towards GCC has risen throughout the world, basically because of high dangers on the private administrators involving the NCC scheme without anticipated rate of returns which are generally low. Universally, a blend of GCC and NCC model has been enforced, and varieties of these models have additionally been tried with different other plans. The city of Quito works its city transport benefits through the NCC model. While Adelaide and London have executed GCC (with monthly fixed defrayments) vice-versa. Santiago has a managed to sign the road contract among NCC and GCC, were the specialists and the administrator share the additional promotional income (70/30) and fare box income (50/50). It is contracted for 10 years and the agreement can be protracted if the administrator meets prerequisites with respect to improvements sought after (km/passenger), and improvement in records and quality. Every city has experienced a time of change, and has embraced the model most appropriate according to the needs.

4.3 ADVANTAGES AND DISADVANTAGES

4.3.1 Net Cost Contract Model

In this type of contractual model, the operators provide particular services for a limited period of time and keeps all the generated revenue. If the service is profitable then the authority pays the operator a royalty while if it is unprofitable then the authority pays the operator a subsidy. However, the private administrator has to make a forecasting of his profits and charges.

An NCC model will be suitable if

- ✓ The govt /authority wishes to increase revenue and ridership through incentives
- ✓ A small proportion of revenue is generated from non-ticket-sale revenue like advertising, which can be shared conveniently between the two parties.
- ✓ The govt/authority wants to give a fixed amount of subsidy

Some of the major disadvantages of Net Cost Contract model can be listed as below:

- ◆ Financial burden may actually be higher on the authority in NCC model than in the GCC model
- ◆ Operator may not willingly change schedules as per wishes of the authority if that affects his revenues
- ◆ More operators opt for GCC model as compared to NCC model
- ◆ This contract is prevalent in some Indian cities such as Bhopal and Indore and also in Singapore.
- ◆ Indore has in fact four models working inside the city bus service-GCC, NCC, Hybrid GCC and Hybrid NCC modes in different sectors.

4.3.2 Gross Cost Contract Model

This type of contract is done when the govt./ authority hands over business activity of a single route or different routes to a private entity. In this contract the operator is paid a fixed fee for providing particular services, with maintained quality for a aforementioned period. The fee is decided by a competitive bidding process.

A GCC contract is suitable if

- ✓ It is for a specified time period
- ✓ The authority wishes to keep full control over quality of services
- ✓ The authority wishes to control fare fixation
- ✓ The authority wants to give small operators a chance
- ✓ Wishes to maintain route frequency on different routes as per demand of public
- ✓ Wants to collect high non-ticket sale revenue

The major drawbacks of a GCC model are

- ◆ As this option places the greatest demands on the authority, it requires the highest numbers of staff
- ◆ Penalties must be in place both for passengers who do not have tickets and staff who fail to issue tickets
- ◆ Operator is not concerned with the efficient operations on the route
- ◆ The operator is not directly entitled to incentives to ensure revenue collections
- ◆ The authorities ensure that all revenues are being collected and handed over, requiring continual attention and inspections
- ◆ All the services, enhancements and maintenance are initiated by the authority which might result in a very conservative approach.

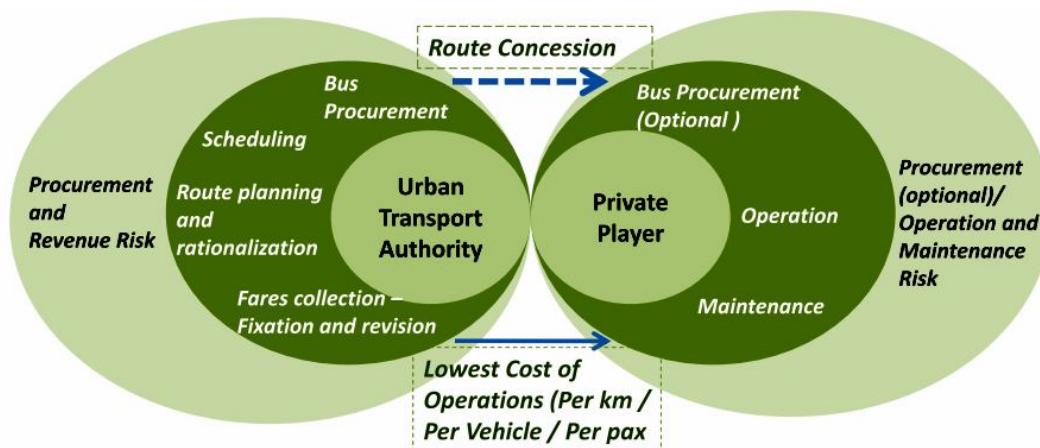


Figure-7: Mode of a GCC model

In hybrid form of GCC model (figure 7), an incentive to increase rider-ship is included and this model is in practice in Germany and Sweden. GCC model is also in practice in some Indian cities such as Delhi, Ahmedabad and Ludhiana.

Few Cities	Status	Possible Reasons
Cities of Madhya Pradesh 1. Ujjain 2. Indore 3. Bhopal Cities of Rajasthan 1. Kota 2. Jodhpur 3. Jaipur Cities of Gujarat 1. Rajkot 2. Vadodara 3. Surat Cities of Punjab 1. Jalandhar 2. Ludhiana 3. Amritsar	<ul style="list-style-type: none"> • Most of the cities had Single bidder hence competitive selection was not possible • Cities like Ludhiana and Amritsar didn't receive any proposal in the first attempt. Ludhiana moved to GCC while Amritsar got only two proposals in second attempt after many relaxations in RFP. • Many of the NCC projects are either closed or early terminated OR • The systems are not expanded since start of commercial operation 	<ul style="list-style-type: none"> • Non viability of the operation due to low fares and in adequate fare revision • Lack of effective monitoring therefore schedules and routes were not followed properly • The unviable routes were surrendered hence urban transportation was not available in developing and peripheral areas • Owing to low operational viability systems were not expanded nor buses were maintained led to poor passenger demand

Figure-8: Status of the PPP models in few locations

It is worth mentioning that in Indian cities, we started with Net Cost Contract models but over the period of time we are shifting to Gross Cost Contract model due to a variety of reasons. The foremost feature is that in NCC model, the authority loses control over the fare charged by the operator because over a certain period of time the latter starts making excuses for profitability issues and insists on increasing the fare. The service quality also declines because the private operator curtails services on less profitable routes and operates more on high profitability routes. Also the operator starts demanding subsidy or grant for losses that he supposedly is suffering on some routes (figure 8). The main concern of the authority is to maintain service quality keeping in mind the welfare of the public irrespective of the fact that it is incurring losses or profits because after-all we are a welfare state. At the same time the authority is bound to retain control on operations as well as the fare structure in the interest of the masses. Hence after all these experiences, the GCC model is being preferred in Indian cities and wherever NCC is being used there also slow transfer to GCC mode is occurring.

Built practice of Private-Public Participation expertise that successfully serve certain Indian cities:

- Ahmedabad
- Indore
- Mumbai
- Bangalore

CONCLUSIONS

From GCC and NCC models contemplated and talked about here above it is seen that the difficulties examined above are neither location completely by execution of GCC or NCC. Be that as it may, GCC system is in a superior position to deal with the difficulties contrasted with its partner NCC. Bangalore, Delhi, Ahmedabad and Indore are examples that successfully implemented the GCC models. The welfare-benefit objective is better achieved in GCC since the income hazard isn't on the shoulders of the concessionaire. There can't be panacea for all ills and consequently the significance of both the models should be valued. For example, in little urban communities and towns, which are fiscally compelled, it is fitting to run transport tasks on NCC premise.

However, one needs to bear in mind that GCC too faces a couple of problems. To start with, most of the cities face financial constraints to fund the urban transport projects and its operations and maintenance. ULBs do not have a very healthy tax base to fund such projects on a continuous basis. As a result of this, the payments for rolling stocks are delayed or the purchases are deferred.

Since India has urban communities which are very much experienced in city transport administrations with or without budgetary limitations and urban areas which are new to city transport administrations and with budgetary imperatives, we need both GCC and NCC models. So as to make GCC and NCC additionally engaging after estimated could be taken.

- ✧ Bus admissions ought to mirror the genuine expense of running the administrations and toll modification system ought to be on spot. The administration/ULB/SPV which needs to have concession goes for travelers may settle on it, however should pay the transport administrator (in the event of NCC) for equalization sum so the installment gotten by the administrator mirrors the genuine expense of administrations.
- ✧ Operators will approach the notice incomes on transports and transport stations in fractional or deficient when NCC is received. In spite of the fact that the ad income is small despite everything it enhances budgetary suitability insignificantly. Additionally, the alternative of practicality hole financing in NCC should be given a genuine idea. This might be an aid for a private player where the traveler requests are on the lower side.
- ✧ There ought to be a component set up to adjust the social courses and business courses. In the event that the administration feels that the social courses are huge because of some political or social weight, they may in any case select to run it. Be that as it may, if there should arise an occurrence of NCC structure, to some limits public traffic should be worked out and if the normal passenger traffic lies beneath the edge public traffic level, the administration/ULB/SPV will remunerate the administrator for the administrations rendered.
- ✧ This will maintain a strategic distance from the issue of administrative catch and regular course changes which is unwanted for the framework over the long run. If there should be an occurrence of GCC as well, there ought to be the benchmark which naturally ends the course in the event that it doesn't work as per anticipated benchmarks. This will keep impedance from political masses under control.

- ✧ Although, rivalry is proficient and successful in the majority of the business sectors, it could have disastrous outcomes whenever polished out in the open transport.
- ✧ The historical backdrop of 'penny-war' in Bogota city transport and the issues related with open transport in Melbourne or train and cable car trick in Australia, due to multi administrators are where the challenge has boomeranged very gravely. Consequently, multi administrator NCC model ought to be embraced with extraordinary consideration. In any case, in GCC the multi administrators will have no negative effect as observed in NCC as the defrayals are not founded on traveler trips.

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ROLE OF MEDIA IN SUSTAINABLE DEVELOPMENT

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ABSTRACT

Today's world is engrossed in and engulfed by dissonance, dissatisfaction, panic, chaos and above all climate change which encompasses not only geographical but political, ecological and commercial climate as well. In the wake of such a dilapidated environment, it becomes not only an imperative but a straight and immediate prerogative of the entire media of the world whether electronic, print or digital to cover the news and issues in a non – preachy and non-abdicating way, creating a judicious hype and triggering a positive and healthy debate so as to ensure the achievement of the ensuing goal of sustainable development and building of a harmonious global climate. TRPs are important as they are the bread and butter of the channels but more than bread and butter, water is important for life and the water for the audiences is accurate and true account of the incidents without any window dressing. Today there are 798 channels , 126 news channels , more than 10,000 newspapers , magazines, periodicals and journals , a media staff of 1,15,774 people , more than 1,00,000 people engaged in the work of ad-film making and jingle making plus 5,00,000 people in Bollywood , which is hailed as the ultimate media , thus creating a galaxy of 20,00,000 people in this industry. But, the big question is that how many of them are actually devoted to attaining sustainable development which entails global goals like an Equitable World , Just Environment , Freedom Of Expression , Eradication of all Epidemics , Eradication of Poverty , Ecological Balance , Wildlife Protection , Women's Liberation, Child Abuse , Minimum Wages , Right to Information. These Sustainable Development Goals (SDGs) or Millennium Development Goals (MDGs) can be met only with proper education, training and awareness about the surrounding environment, to facilitate which ample institutes are present across the country, to teach the reduction of glass ceiling, gender inequalities etc. For all the above tasks to be achieved, the governments which control the respective channels need to adopt a holistic approach , foster media literacy and devise and chalk out a Common Action Plan (CAP) , decade wise keeping in view the pace of development and the changing face of audiences so as to reach out to a wider section . Let's come and have a “dekho” on how media can bring sustainable development and effective governance in the full exploration of this thematic discussion.

Keywords: Sustainable Development, Millennium Development, Media Goals, SDGs, MDGs

INTRODUCTION

In today's modern adaptive business environment characterized by globalization and rapid expansion, companies and their internal and external stakeholders are becoming increasingly aware of the role of media in their growth. The audiences and news sellers are becoming one with reducing margins. Corporate Communications is an integral part of business today and that does not happen without the intervention of various channels of media to whom the businesses explain their existence. Sustainable Development has a triple edge in terms of creating goodwill, economic intervention and societal upliftment.

The concept 'Sustainable Development by Media' refers to soft and voluntary self regulation adopted by the media to improve aspects of the business that in their case is news coverage and publicity. But, as the trade expanded, this definition extended to human, ecological, environmental and global issues.

This concept was first introduced in the *Brundtland Report*, October 1987, named after Gro Harlem Brundtland from Norway, formerly known as the *World Commission on Environment and Development (WCED)* which laid emphasis on the pursuance of sustainable development together by all the countries for the common good of all and coined a new term named 'Citizen', meaning Global Citizen who cares for all and is aware of all.

OBJECTIVES

The major objectives set for the present study are:

- ❖ To calculate the growth of media in modern society
- ❖ To find the impact of media on our life
- ❖ To innumerate sustainable development/millennium development goals
- ❖ To ascertain the role of media in sustainable development

DEFINITIONS

(1987- 1997)

Sustainable Development in this decade meant proposal of long-term environmental strategies to recommend ways in which concern for the environment may be translated into greater co-operation among developing countries and between countries at different stages of economic and social development and lead to the achievement of common and mutually supportive objectives which take account of the interrelationships between people, resources, environment and development.

(1997- 2007)

This decade witnessed some regional turmoil and conflicts and so the concept included ways and means by which the international community can deal more effectively with environmental and geo-political concerns, in the light of the international peace and diplomatic relations with each other. Definition shared perceptions of long-term environmental issues and of the appropriate efforts needed to deal successfully with the problems of protecting and enhancing the environment, a long-term agenda for action during the coming decades, and aspirational goals for the world community, taking into account the relevant resolutions of member countries.

(2007 -2017)

The modern definition entails development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

The two key concepts of sustainable development are:

- (a) The concept of "needs" in particular the essential needs of the world's poorest people, to which they should be given overriding priority; and the idea of limitations which is imposed by the state of technology and social organization on the environment's ability to meet both present and future needs.
- (b) The concept of 'inter-generational equity' in which economic growth will facilitate fulfillment and equity is encouraged by citizen participation. Therefore, another characteristic that really sets this definition apart from others is the element of humanity that the Brundtland Commission integrates.

Models

Active – Reactive or Statist Ma-Arof Model (1987-1997): Developed by Ma-Arof of China, this model was the basis of almost all media entities in the late eighties and focused on multi area environment constraints like ecology, balance, poise etc. It considers that environmental effects are a highly non-linear problem, and the multi-area consideration of such problems via tie line planning makes it an even more complicated and exceedingly non-linear problem.

Proactive – Relationship or Liberal Mibos Model (1997-2007): It was developed by a French man named Mibos Gracia which constituted a liberal approach towards coverage of news and other societal activities. Being proactive is about making things happen, anticipating and preventing problems, and seizing opportunities. It involves self-initiated efforts to bring about change in the work environment and/or oneself to achieve a different future. These vary on two dimensions: the future aim to bring about change with an element of retention and second: achieving organization's strategic fit with its environment and energized motivational efforts to sustain goal striving.

Accountable – Partnership or Stakeholder Model (2007-2017): This concept is currently in practice and is a hybrid of the above two models. It sets a pragmatic level of grassroots through coalition and partnerships with sustainable approaches and progress. Untapped markets and emerging economies have a huge potential and are mostly found in niche areas like far flung and un-connected villages. Unless the audiences and media work in tandem, sustainable development cannot be achieved. This is the crux of this model. As a group, the 78 million-strong boomer generation has unrivaled amounts of money to spend.

Eg:

Representing 32% of the U.S. population, Americans aged 50+ currently earn almost \$2 trillion collectively in annual income, and control 77% of the total net worth of U.S. households — almost \$46 trillion. Even though boomers are largely ignored by advertisers, they represent 50% of all discretionary spending power. In fact, their per capita discretionary spending is 2.5 times the average of younger households as emphasized by the US media without any exaggeration.

Because of their demographics' huge size, when they reach any stage of life, boomers create huge opportunities for companies that can meet their needs — whether financial, interpersonal, or even hormonal. For example, boomers didn't just eat food — they transformed the snack, restaurant, and supermarket industries; they didn't

just wear clothes — they changed the fashion industry; they didn't just go to work — they disrupted the workplace; they didn't just go to the doctor — they altered health care.

Goals

An Equitable World

According to UN estimates, the global population will reach 9.3 billion by 2050 – some 2.3 billion more inhabitants on our planet than we have today. This demographic trend is expected to be associated with rapid urbanization and ageing. Both are important considerations for development planning.

Urban areas are expected to absorb all this population growth. Currently more than half of the world's population live in urban areas, but that ratio is not consistent across all regions. It is expected to be reached in Asia by 2020 and in Africa in 2035.

By 2050, therefore, the urban population is due almost to double, from 3.6 billion in 2011 to 6.3 billion, and to make up around 68 per cent of the total world population. Most of this urban growth will be concentrated in developing countries and media has to play the role of not only a disseminator but a facilitator.

Just Environment

The most pressing threat to the rule of law in media is political violence. Today it is law enforcement-or the lack thereof-in countries plagued by violent crime. The need for more effective policing is a top public concern in much of the region. And with good reason. People have a right, well-established in international human rights law, to be protected from violent crime, as well as a right to justice when they are its victims. Yet in many countries, law enforcement agencies find themselves outgunned, literally and figuratively, by criminal organizations that are powerful, well-funded and extremely violent. Politicians routinely respond to the legitimate demand for better policing by promising to "get tough" on crime. But its one thing to be tough, and quite another to be effective.

Right to Information

Media should empower the citizens, promote transparency and accountability in the working of the Government, contain corruption, and make our democracy work for the people in real sense. It goes without saying that an informed citizen is better equipped to keep necessary vigil on the instruments of governance and make the government more accountable to the governed.

Freedom of Expression

According to the Universal Declaration of Human Rights, freedom of expression is the right of every individual to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers. In practice, however, this fundamental human right is frequently restricted through tactics that include censorship, restrictive press legislation, and harassment of journalists, bloggers and others who voice their opinions, as well as crackdowns on religious minorities and other suppression of religious freedom. In response to the growing problem, Freedom House is engaging in a multi-faceted Freedom of Expression Campaign to defend this critical right.

Eradication of Epidemics

Poliomyelitis and Smallpox have afflicted humankind since antiquity, and for nearly a century now, we have known the causative agent, poliovirus. In the last 20 years the Global Polio Eradication and Smallpox Eradication program has been run all over the world and has been quite successful in greatly diminishing the number of cases worldwide but has encountered obstacles in its path which have made halting the transmission of wild polioviruses a practical impossibility.

Eradication of Poverty

The 2030 Agenda for Sustainable Development resolves to free the human race from the tyranny of poverty and to heal and secure our planet. The first Sustainable Development Goal aims to "End poverty in all its forms everywhere". Its seven associated targets aims, among others, to eradicate extreme poverty for all people everywhere, reduce at least by half the proportion of men, women and children of all ages living in poverty, and implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable. This commitment was translated into an inspiring framework of eight goals and, then, into wide-ranging practical steps that have enabled people across the world to improve their lives and their future prospects. The MDGs helped to lift more than one billion people out of extreme poverty, to make inroads against hunger, to enable more girls to attend school than ever before and to protect our planet.

Ecological Balance

Ecological balance is a theory stipulating that natural conditions, including numbers of various animal and plant species, remain stable on their own through variations over time. The theory, also known as balance of nature, also holds that natural equilibrium can be changed significantly by new species entering an ecosystem, the disappearance of some species, man-made changes to the environment or natural disasters. Media of today strives to achieve natural protection against catastrophes.

Wildlife Protection

Saving nature is at the very heart of what we do as WWF. For more than 50 years, we have made it our mission to find solutions that save the marvelous array of life on our planet by applying the best science available and working closely with local communities. But our work is far from done. Humans are behind the current rate of species extinction, which is at least 100–1,000 times higher than nature intended. WWF's 2014 Living Planet Report found wildlife populations of vertebrate species—mammals, birds, reptiles, amphibians, and fish—have declined by 52 percent over the last 40 years. And the impacts will reach far beyond the potential cultural loss of iconic species like tigers, rhinos and whales. The good news is we've also seen what's working. WWF has been part of successful wildlife recovery stories ranging from southern Africa's black rhino to black bucks in the Himalayas. And this in turn is helping protect rich and varied ecosystems while ensuring people continue to benefit from nature. This much is clear: we cannot afford to fail in our mission to save a living planet.

Child Abuse

Children constitute 36.7% of world population and when it comes to psychological and behavioral health, both physical and emotional abuse can be equally damaging to children, a new study suggests. Media has to play a pivotal role in child protection by spreading awareness through its various ad campaigns.

Media Literacy

("The Media") – means channels of communication between a person or persons and their intended audience. Any form of communication that carries a message is a medium. This can include things students might be aware of, like magazines, television, radio and the Internet; and also less obvious things, like text messages and branded logos on clothes.

One way of introducing this idea is to use the expression "I don't know who discovered water, but I'm pretty sure it wasn't a fish." Unlike fish, though, people can learn to pay attention and engage with the "sea" or media around us. The following are various forms of media which have a direct /indirect impact on us.

- ❖ Outdoor advertising (billboards, bus shelter ads, etc.)
- ❖ Product packaging in stores or in products they use at home (cereal boxes, for example)
- ❖ Logos or messages on clothing (theirs and others')
- ❖ Posters, signs, pop and snack machines in school
- ❖ Text messages

LITERATURE REVIEW AND CONTROVERSY

Media, whether electronic, print or digital occupies a considerable portion of the pie-chart of our life. Work life balance also gets affected due to this.

This is best defined by Jonathan Lockwood "*Balance means time to relax and having time in spite of being busy.*"

Similarly, Greehaus explains self-engagement "*Judiciously integrating work and home life to enjoy both*"

Research studies have established that over exposure to any form of media leads to the following consequences –individualism, reduced socialization; some contents prohibited for children, increases consumerism, internet as a form of media opens up possibilities of imposters, fraudsters and hackers, can be addictive, e.g. some television programs and internet. This can lead to decrease in people's productivity, creates health problems, prolonged watching of television can lead to eyesight problems and radio listening using earphones exposes one to possible hearing defects, breeds a culture of sedentary lifestyle, glamorizes drugs and alcohol, can ruin reputation is over exposure is there.(Friedman : 2015)

This is a controversy kick started by the launch of numerous channels which keep the viewers in a jiffy that what to watch and what not to. Diversification is yet another feature of media these days both on the rosy and the flip side of it.

The most striking self-affiant result of over exposure to media is imbalance of work-life and personal life illustrated in a tabular format below:

Factors Fostering Work-life Balance	Factors Hindering Work-life Balance
1. Vacation/paid holiday	Long working hours
2. Support from spouse hours	Office meeting after working
3. Any special /exigent leaves	Discrimination at work place
4. Support from colleagues /supervisors	Travel
5. Support from servants/maids	Technology

The survey was conducted during February – April 2018. And a sample of 300 working households was chosen.

Amidst, all the frenzy, still media enjoys a vast coverage and liking amongst the masses. As of 31 October 2018, out of 130 crores, 97 crore people in India have an access to television exhibited as:

Table-1

Family Type	Average Age	Figure (in cr.)	Total (in cr.)
Nuclear	31.7	54	
Joint	48.2	47	97

Source: Sample Survey and Analysis

Media despite playing havoc on our life and taking a deep toll of us is still ruling the roost and in drivers' seat because of certain inherent and secular advantages discussed as below:

ADVANTAGES

1. **Education:** Through television and radio programs, people get to learn about health matters, environmental conservation, and much more.
2. **Latest news in short time:** Distance is not a barrier. People get news daily through the media and this keeps them updated on the happenings around the world.
3. **Exhibition of hidden talents:** Through media showcase their talents such as comedy, acting and singing.
4. **Increase in knowledge of children:** Children can learn from quiz programs, animal programs and so on.
5. **Analog Media:** Radio is convenient as people do get short news and with a mobile phone one can access it.
6. **Promotion of mass consumer products:** This can in turn increase sales of the product.
7. **Good source of entertainment:** People get entertained through music and television programs.
8. **Electronic duplication of information:** This reduces the production cost making mass education possible.
9. **Diffusion of different cultures:** Media showcases different cultural practices.
10. **Dissolution of differences:** It helps people around the world to understand each other and embrace their differences.

RESEARCH METHODOLOGY & DATA ANALYSIS

The following research methodologies have been used in the formulation of this paper plus collation of information, analysis of data, interpretation of results and criticism of findings. *(Including 2 tables and 6 figures in this research section)*

- ❖ Qualitative Research
- ❖ Survey Analysis
- ❖ Content Analysis
- ❖ Basic Statistical Procedures
- ❖ Research Applications

Viewer Satisfaction

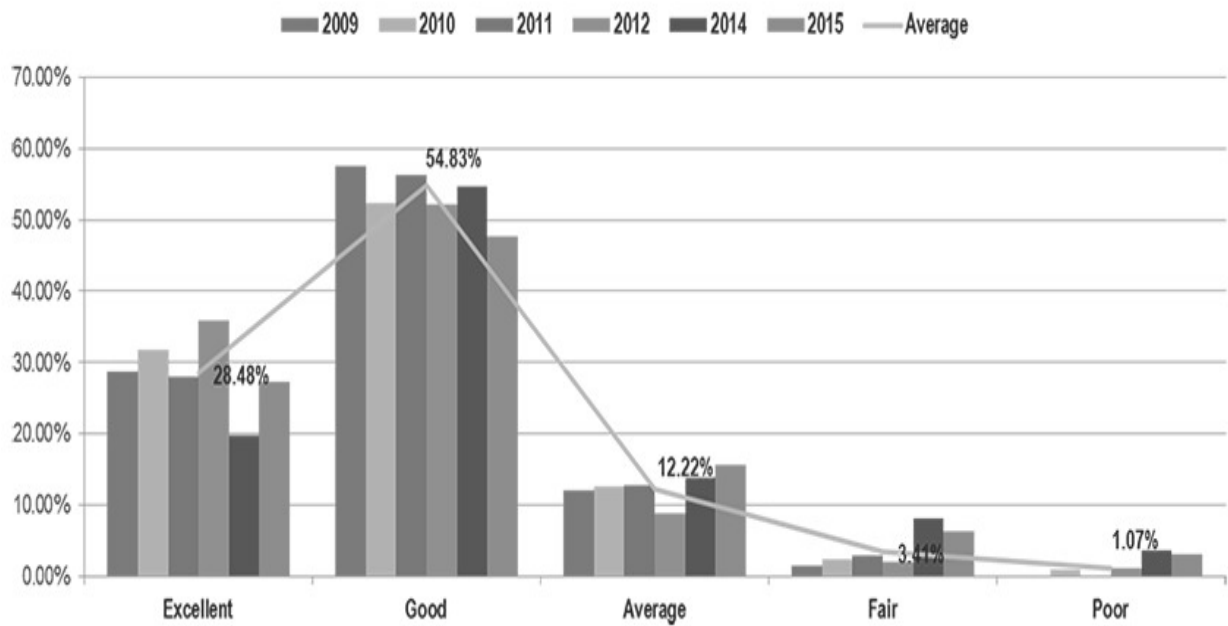


Figure1

With the increase in the no. of channels, the viewer satisfaction graph has gone down considerably as is clear from the figure above. The obvious reason seems to be exaggeration of frictional and fictional stuff with reducing logic.

Factors Affecting Viewer Satisfaction

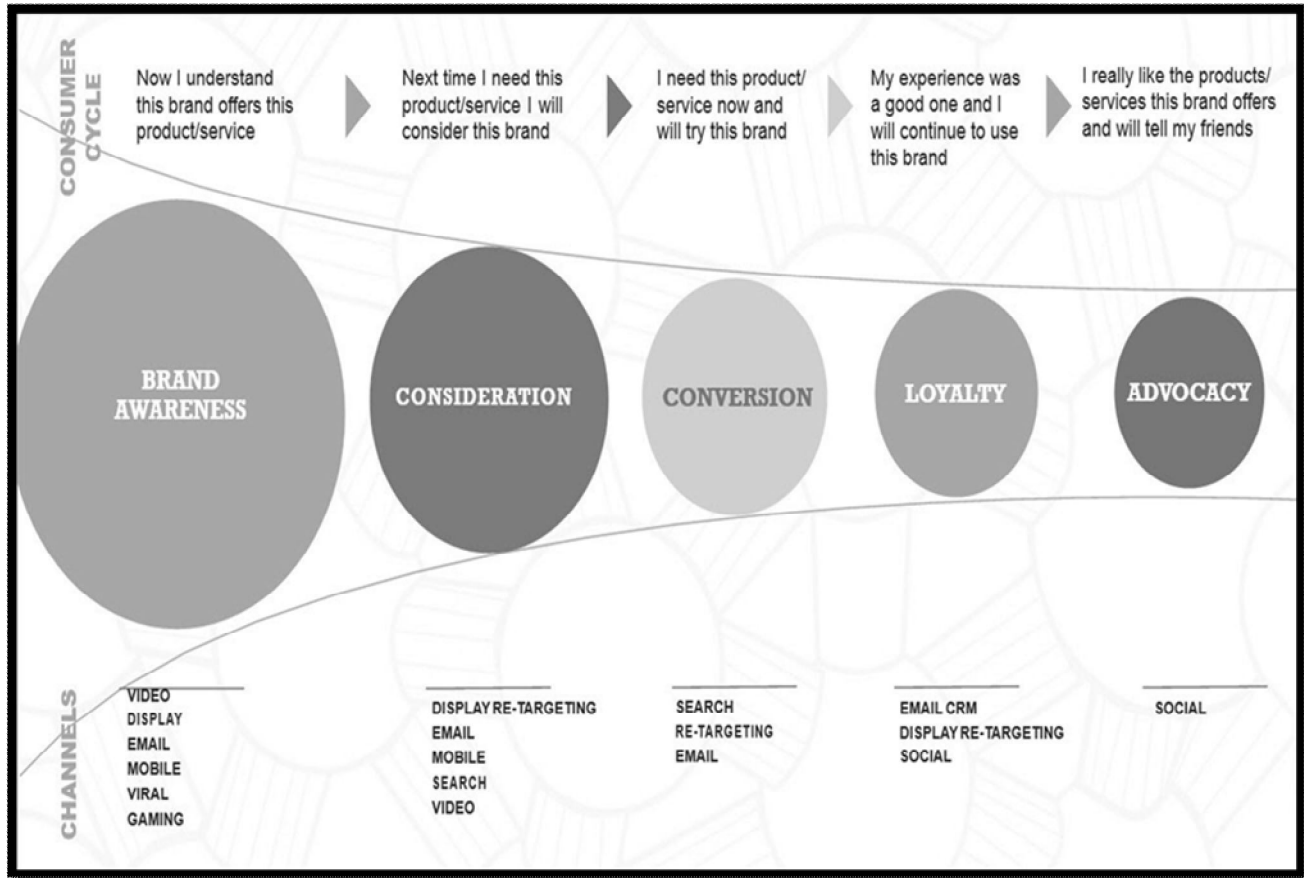


Figure-2:

These factors are derived from psychographic factors like lifestyle, personality, education, awareness and loyalty which are salient features of particularly Indian psyche.

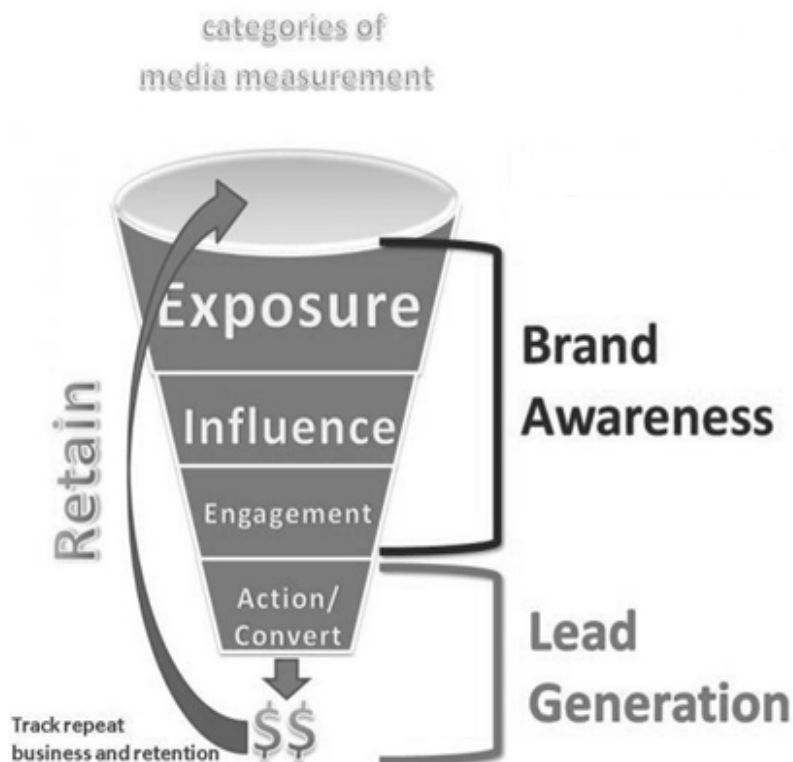


Figure-3

The above diagram specifies that how these steps help a channel of media acquire new business and sustain the viewers.

Table-2: Channels' Familiarity With Sustainable Development With Respect to No. Of Viewership

No. of Viewers (in millions)	N	Mean	SD	F	P-Value
2.5m- 5m	82	1.67	0.94	4.28	0.006
5m- 10m	86	1.86	1.03		
10m-50m	63	2.05	1.24		
50m-100m	29	2.48	1.38		
Total	260	1.92	1.12		

The above table shows that as the standard deviation of above data decreases, the group starts to move towards moderate adoption of the Sustainable Development concept

Table-3: Responses of Viewers to Various Sources of Media

Sources	N (%)
Not Heard	125 (48.1%)
Entertainment Channels	47 (18.1%)
Regional Channels	32 (12.3%)
Company Ads	25 (9.6%)
NGOs	19 (7.3%)
Conferences	12 (4.6%)
Total	260 (100%)

Calculation of TRP

Television Rating Point (TRP) is a tool provided to judge which programmes are viewed the most. This gives us an index of the choice of the people and also the popularity of a particular channel. For calculation purpose, a device is attached to the TV set in a few thousand viewers' houses for judging purpose. These numbers are treated as sample from the overall TV owners in different geographical and demographic sectors. The device is called as People's Meter. It records the time and the program that a viewer watches on a particular day. Then, the average is taken for a 30-day period which gives the viewership status for a particular channel.

TRPs of Top 10 News Channels

No.	Channel	Genre	Absolute share %
1	Aaj Tak	Hindi	0.51
2	India TV	Hindi	0.45
3	Star News	Hindi	0.44
4	DD News	Hindi	0.38
5	TV9 Karnataka	Kannada	0.36
6	TV9 Telugu News	Telugu	0.29
7	Zee News	Hindi	0.29
8	IBN 7	Hindi	0.26
9	NDTV India	Hindi	0.22
10	News 24	Hindi	0.17

Figure-4

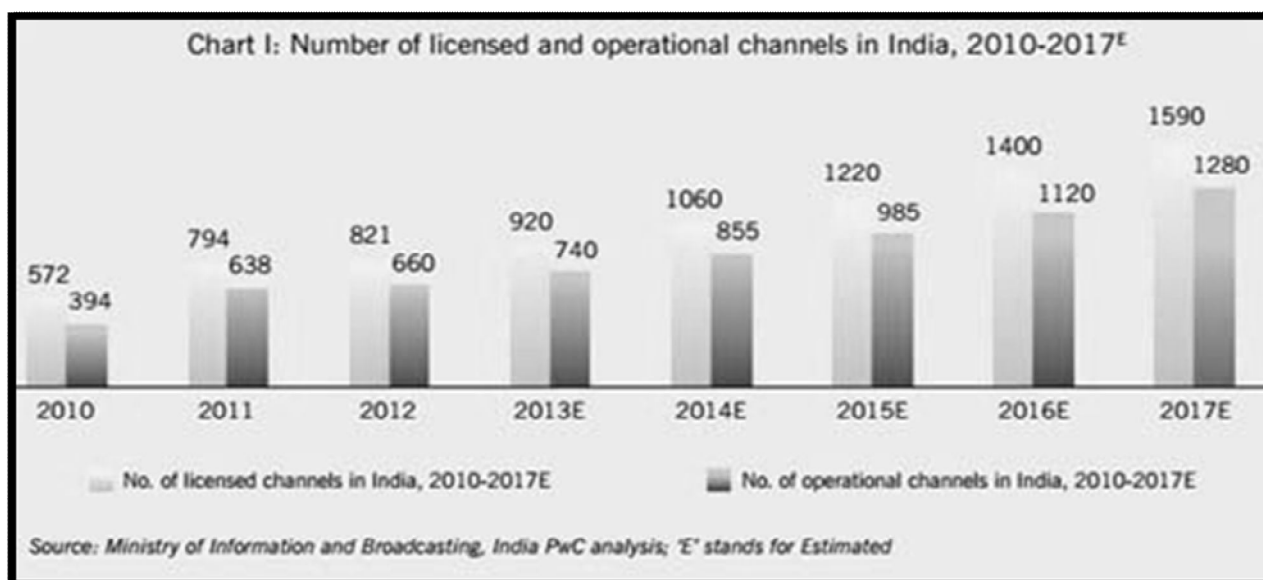


Figure-5

WHAT INDIA IS WATCHING

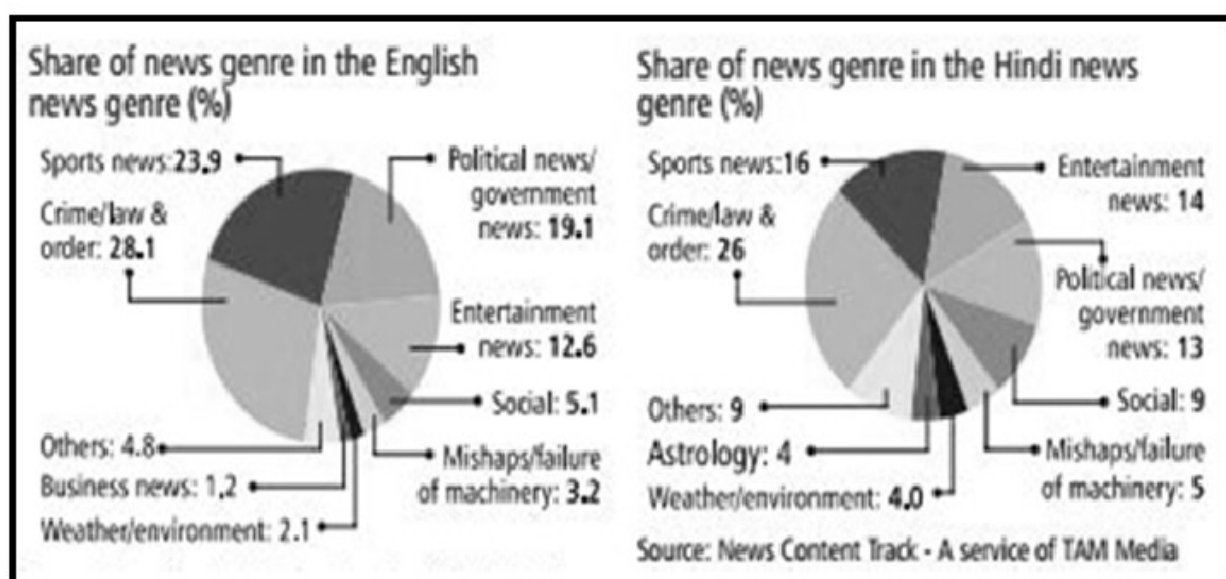


Figure-6

EMERGING TRENDS IN MEDIA

1. All brands are media companies. Every single one of us is a media company. Red Bull is a great example of this.

Eg:-Red Bull is giving the media a run for their money with the content they produce. Another example is Beyonce using social media to release her new album.

Growing your brand with great content is the number one most valuable thing you can do for your customers.

2. The Internet of Everything. From wear-ables like Google Glass to internet enabled home automation devices like Nest (Recently purchased by Google for \$3 billion), internet connected devices are increasingly becoming a part of our daily lives. Cars are another growing internet enabled “device” that will get a lot more development in the coming years. Wearable internet devices are also becoming more fashionable.

3. The Currency of Connections. Your network and the influence you have is one are very valuable things. Brands are beginning to recognize this. American Airlines lets those with high Klout scores in their Airport clubs for free.

Eg:-Caesar’s Palace revamped their loyalty program to include gaining points from tweeting that you can cash in at one of their restaurants.

4. Social Selling. Stella & Dot have thousands of “stylists” that are not paid, but can go out and sell products on their own through their personal networks. You would like to know it enables your Instagram followers to shop your products and many other apps and plug-ins exist to enable commerce within social platforms.

5. JOMO (Joy of Missing Out) over FOMO (Fear of Missing Out). JOMO means checking out of social networks and actually living life. Tools to help you do that: Run Pee is an app that will tell you the best time to leave during a move to go to the bathroom.

Eg:-Rescue Time gives you a breakdown of your day to see where you’re wasting time and being productive. Anti-Social is an app that will shut down access to social networks (and there’s no way to turn it off).

6. Think Like a Maker. With the rise of 3D printers and the growing number of teens that aspire to being an inventor, this is a growth area. Interesting examples include: 3D printed ear, acoustic guitar, guns, and memento of a fetus??? Custom Made is communities that can connect your idea with people that can make it happen. Creating an app is like being a maker. App Builder is a tool to make it easy to create an app.

7. Visual Takes Center Stage. Images are proven to be more effective and inspire significantly greater engagement on social content. Getty has released 35 million images for free. Dunkin Donuts uses images to celebrate their fans.

Eg: - Ben & Jerry’s uses imagery extensively in all their social content. Pinterest enables people to become experts or at least attract a huge following through curation of visual content.

8. Mobile for Time-Saving. Mobile apps are increasingly focused on saving us time. An upcoming Starbucks app will let you pre-order your coffee. Companies are making it easy to pre-order or pay on your mobile device instead of through a teller at the store.

Eg: - Apple Store Quick Scan is an example. Think of ways you can create tools to make it easier for them to do what they want to do.

9. Gamification for Motivation. People are relying on technology for feedback and motivation. Examples: Alarm clock app that donates money to charity every time you hit the snooze button.

Eg:-Nike Plus app notifies your social networks that you’re going for a run and when anyone likes your update, the app plays applause.

10. Find Tech / Life Balance. There’s a big trend in digital detox.

Eg:-Take an example of a hotel that will take your phone and computer and lock it away during your stay. Also, there’s an increase in retreats without electronics.

RECENT EXAMPLES**Example 1****De-Monetization (8 Nov. 2016)**

World's biggest impromptu financial experiment got conducted by the Prime Minister, Sri Narendra Damodardas Modi, in which all of sudden running currency notes of 500 and 1000 denomination got cancelled as a legal tender to bearers resulting in the conversion of 4 lac crores of black money into white within a week. This was indeed an historic step but our media showed it as an unrest movement resulting in panic and chaos in the public in the initial days and people burning and swaying currency notes in water. This would have been made short and, terse and telling.

Example 2**Surgical Strike (15 Nov. 2016)**

Pakistan army, already known for its notorious nature showed barbaric attitude towards the corpses of Indian soldiers who deserved to be martyrs otherwise, and as a consequence Indian Army retaliated in full swing and killed sufficient no. of Pakistani soldiers in revenge. This news also our news channels could not edit properly and hence some opposition ministers even demanded video proof of these surgical strikes even being conducted or not. The editing of such eventful news should have been apt.

Example 3**Kanpur Train Tragedy (20 Nov. 2016)**

This was again one of the biggest train accidents in the History of Indian Railways, that 14 bogies of a passenger express got de-railed resulting in the death of more than 150 people exposing the loopholes of safety in rail travel. This news was covered by the media with utmost dramatization just creating sympathy in the hearts of the people merely for the purpose experiencing increased TRPs.

CONCLUSION

One critic has argued that the Brundtland Report promoted nothing but a business as usual strategy for world development, with the ambiguous and insubstantial concept of 'sustainable development' attached as a public relations slogan: The report was largely the result of a political bargaining process involving many special interest groups, all put together to create a common appeal of political acceptability across borders. After World War II, the notion of 'development' had been established in the West to imply the projection of the American model of society onto the rest of the world. In the 1970s and 1980s, this notion was broadened somewhat to also imply human rights, basic human needs and finally, ecological issues. The emphasis of the report was on helping poor nations out of poverty and meeting the basic needs of their growing populations. This issue demanded more economic growth, also in the rich countries, who would then import more goods from the poor countries to help them out. When the discussion switched to global ecological limits to growth, the obvious dilemma was left aside by calling for economic growth with improved resource efficiency, or what was termed 'a change in the *quality* of growth'. However, most countries in the West had experienced such improved resource efficiency since the early 20th century already and as usual; only, this improvement had been more than offset by continuing industrial expansion, to the effect that world resource consumption was now higher than ever before and these two historical trends were completely ignored in the report. Taken together, the policy of perpetual economic growth for the entire planet remained virtually intact. Since the publication of the Brundtland Report, the ambiguous and insubstantial slogan of 'sustainable development' has been criticized worldwide.

LIMITATIONS

The present study is unable to plug all the possible gross errors due to extraneous and intervening factors of behavioral nature such as size, experience, policy and philosophy of a channel of media. Although, maximum efforts have been made to eradicate such mistakes but it can be completely removed only by taking a larger sample size of channels and associated viewers and conducting detailed probes on them.

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VALUE BASED EDUCATION: AN ESSENTIAL DEMAND TO SUSTAIN QUALITY IN INDIAN EDUCATION SYSTEM

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ABSTRACT

Education is a tool for total development of humane, if any one aspect of human personality is ignored, it can result very adversely. Without imparting values and morals in education, human development will be incomplete. Values and morals are inbuilt in human beings and Education should help in the improvement of human character and recognition of their inner purity, so the essential part of education system should emphasise the values and morals with other development. "Education is not simply imparting knowledge in a particular faculty or subject or making one fit for securing jobs or fair well in exams, but at the same time is also a training in logical thinking, which helps the coming generations adjust to the ever changing environment. It also means opening the doors of the mind, cleansing the soul and realization of the self" (Pabla, 2011) With a huge expansion of the education system, there is a marked decline in the characters, regards for elders, appreciation for cultural heritage, ethical, moral values, and responsibilities towards family, community and nation. In most of the educational institutions, there is lack of emphasis on the concept of human development and nation building process. Their emphasis instead is on money making and materialism without consideration of human values and national spirit in their life. This system definitely increase literacy rate but not helps in creating educated persons in the society and as a result it does not produce ideal citizen in the country. This report focuses on Review of different Philosophic view about true education and Values given by the different scholars. To know the possible causes of value deterioration, assess the need & importance of Value-based education. It is essential to increase ethical moral values, philosophical thinking, research and moral development through unique tools of spirituality & Meditation in present Indian education system.

Keywords: Education System, Present, Spirituality, Value Based Education, Society, Culture

RESEARCH METHODOLOGY

The study is carried out based on existing research and secondary data from various resources.

OBJECTIVES

1. What is the true meaning of Education?
2. Need of Value-Based-Education
3. To review different Philosophic view about Value Based Education
4. To assess the teaching & learning Method of value based education
5. Conclusion

INTRODUCTION

Education is the backbone of the development of any country, because it promotes the knowledge, skills, habits, values, or attitudes and understanding of the people in the country. Therefore, education system in India should give greater emphasis to protect the fullest possible growth of body, mind and Heart; and a fruitful channelization of the life-energy in pursuits that contribute to the growth of both internal and external personality. It ultimately provides the requisite help, through a powerful spiritual atmosphere, for the soul to come forward and gradually begin to govern a balanced, peaceful and spiritually awakened life. Therefore, value based-education is instrumental to unfold and nurture the ideals of life. Education that does not help promote human virtues will not do any good to the society; it will rather mislead the entirety of humanity. "The real difficulty is that people have no idea of what education truly is.

What is the True Meaning of Education?-Education should aim at making human life better not only through economic upliftment of individual but also through social, moral and spiritual strengthening. This will not only improve human life but also realize the "higher truth" i.e. "Tamaso Ma Jyotirgamaya" from darkness to light. Thus education is not only a way of earning but it also helps to develop human personality with skills, values, morals and enhancement of different attributes of man. So education is a vital means for the potentialities of a human being to emerge in a positive direction so that a man can live in society with full of dignity (Bordoloi, 2011). "[Education's] central aim is the building of the powers of the human mind and spirit, it is the formation, or, as I would prefer to view it, the evoking of knowledge and will and of the power to use

knowledge, character, culture,—that at least if no more” (Sri Aurobindo, 1956/2004, pp. 9-10). True and living education helps to “bring out to full advantage, makes ready for the full purpose and scope of human life that is in the individual man, and which at the same time helps him to enter into his right relation with the life, mind and soul of the people to which he belongs and with that great total life, mind and soul of humanity of which he himself is a unit and his people or nation a living, a separate and yet inseparable member” (pp. 13 14). A truly Integral Education should have three central aims:

1) For an individual, it is growth of the soul and its powers and possibilities, 2) For the nation, the preservation, strengthening and enrichment of the nation-soul and its *Dharma*, 3) To raise both the individual and nation into powers of the life and ascending mind and soul of humanity. The emphasis on body, heart, mind and spirit in the educational process is most visible one. Gandhi also emphasises the cultivation of the heart and refinement of human emotions and impulses. “True education is that which cultivates the soul or the spirit, and leads ultimately to the full and complete development of man’s body, mind and spirit...Literacy then is not the primary goal of education: it is the cultivation of character, and the development of the spirit; it is the education of the heart not the head” (Richards, 2001, p. 12).

Value-Based-Education is essential demand to Sustain Quality in Indian Education System: Education is a tool for total development of humane, if any one aspect of human personality is ignored, it can result very adversely. Without imparting values and morals in education, human development will be incomplete. Values and morals are inbuilt in human beings and Education should help in the improvement of human character and recognition of their inner purity, so the essential part of education system should emphasise the values and morals with other development. The quality of education greatly influences the quality of manpower for the societal benefits.

Present Indian education system has completely failed to create a well-mannered society.

Indian society today is in the throes of a moral and cultural crisis.

With a huge expansion of the education system, there is a marked decline in the characters, regards for elders, appreciation for cultural heritage, ethical, moral values, and responsibilities towards family, community and nation.

In most of the educational institutions, there is lack of emphasis on the concept of human development and nation building process. Their emphasis instead is on money making and materialism without consideration of human values and national spirit in their life.

This system definitely increase literacy rate but not helps in creating educated persons in the society and as a result it does not produce ideal citizen in the country.

Value based Education is highly needed in our modern society because our lives have become more miserable.

Today’s education system has lost it’s graciousness & significance due to western influence. It has succeeded in developing within us hatred towards our own traditional and cultural roots. They are trying to making themselves look at the western way of life with respect & appreciation.

The main objective of Indian students has remained how to take degree, to earn money and to be careerist without consideration of ethical values and national spirit in their life. Fast achievement of position by whatever means, fair or foul; good / bad has been the soul motive of the products of such a imperfect system of education.

We see uncontrolled corruption and decrease in ethical values, unlawful activities, inhuman behavior and immoral consumption, which is slowly breaking the structure of society, nation and the world.

Moral value and Ethics has been consistently ignored in academic set up, Indiscipline is increasing among students and horrible symptoms are seen everywhere.

Present education system gives importance to the total marks, merit positions, awards & such thing. The education system has changed into the examination system & now it is becoming an information system; pushing back the value system that the earlier system used to emphasize.

The Vedas say - "Etat Desh Prasutasya Sakasat Agrajanman, Swam Swam Charitram Shiksheran Prithivyam Sarva Manava..." It means that people who are born in this part of the earth should enlighten the entire world by presenting the example of their own character. Therefore, It is high time to identify the true meaning of Value based Education to sustain the Quality in Indian Education System

MERE EDUCATION OR VALUE-BASED EDUCATION:

In simple term value based Education means part of the Education, which imparts certain essential moral, ethical, cultural, social, spiritual, values in child necessary for their all round development and prepares, them as a complete man. It built the character and is necessary for development of personality of a individual. It includes physical health, mental health, etiquettes and social behaviour, civic rights and duties etc. Every one of us is well aware about importance of these values in life of an individual yet we are unable to develop it in our children resulting in a number of behavioural and developmental problem. How these values can be developed in children? Moral development includes both thinking morally and behaving morally. Moral person is not only the person who does the right things but also one who does the right thing for right reasons.

The value education is not a new concept. It is recommended by Sri. Prakash, Dr.Mudolia Azad, Dr. Kothari, Mahatma Gandhi, Dr. Radha Krishnan, etc.

Education not only develops morality but also makes an individual capable for leadership and intelligent fellowship.

Dr. C. M. Yogi, Founder -Society for Value Education (SVE) had nicely compared Education with the Value-Based-Education in the Workshop organized by Save The Children and Curriculum Development Centre on 29th, December, 2009 as follows:

What is Value- Based Education?

Education opens up our mind, but Value-Based Education Value Based Education gives us purity of heart too; education provides us with skills, but Value Based Education provides us sincerity too; education extends our relationship with the world, but Value Based Education links us with our own family members too.

Education makes our living better, but Value Based Education makes our life better too; Education teaches us to compete with others, but Value Based Education encourages us to be complete too; education makes us a good professional, but Value Based Education makes us a whole human too; Education takes us to the top, but Value Based Education takes the whole society to the top.

Education gives us capacity of better learning, but Value Based Education gives us the tool for a deeper understanding too; education gives us *Anna* but Value Based Education provides us *Ananda too*; education may bring limitations but Value Based Education is for liberation. After all right education means- "*Sa Vidya Ya Vimuktaye*". It means that *knowledge* is what helps us to attain liberation. The education which we are imparting nowadays doesn't fit at all in this definition of Vidya. As the vidya in this saying, connotes very high meaning, spiritual meaning.

Teaching and Learning Methods of Value Based Education

General education can be transferred, but Value Based Education should be transformed. Value-Based Education is more teacher-based than text books; it is more awakening, not only informing. It is life-oriented, not exam-oriented. Therefore, we need to create a special environment in institutions to transform Value-Based Education in students.

First of all, we need trained, committed and spiritually motivated teachers for Value-Based Education.

Concentration - The very essence of education is concentration of mind. From the common man to the highest yogi, all have to use the same method to attain knowledge. According to Indian Tradition, the key to true knowledge can be obtained only through concentration. While for some persons concentration is spontaneous and easy, for many it is difficult and requires long training. So the teacher must organize teaching in such a way that it may be helpful to each student separately and try to solve the problems of the student to achieve concentration. Results of Concentration Vivekananda says "All success in any time of work is the result of concentration. High achievements in arts, music etc., are the result of concentration.(173 Volume VI, P 37) The Greeks applied their concentration to the external world and the result was perfection in art, literature etc. The Hindu concentrated on the internal world, upon the unseen realms in the self and developed the science of yoga.174 Volume VI, P 124) The world is ready to give up its secret if we only know how to knock, how to give the necessary blow. The strength and force of the blow comes through concentration. Volume I, P 130175 According to Swami Vivekananda the very essence of education is concentration of mind and not mere collection of facts. He says "If I had to do my education once again, I would not study facts at all. I would develop the power of concentration and detachment, and then with a perfect instrument, collect facts at will.(176 Volume VI, P 3)

The best practices of ancient education system can be implemented in modern education system. The study of Sanskrit language, spiritual and religious aspects needs to be given due care to preserve it because it is enriched by the sense of peace, humanity, brotherhood. Education is regarded as an attempt to transmit the cultural norms of the group to its younger members.

Physical Education- Vivekananda laid particular stress on the value of physical education in curriculum. He said “you will be nearer to Heaven through football than the study of Gita.... You will understand the Upanishads better and the glory of the Atman, when your body stands firm on your feet and you feel yourself as man” Vivekananda. S C.W. Vol III. P242, . One must know the secret of making the body strong through physical education. For a complete education it is necessary to develop both mind and body. Vivekananda himself took physical exercise every day. He glorified strength and opposed weakness in any form. Power is life and weakness is death. Because of the need of strength and power, he emphasized the importance of physical education particularly for young men and women Indian Philosophy of education. P47).

Revaluate the objective of Education: Quality and standard of education depends on the continuous review and updating of the curriculum of the students in the school, college and universities levels periodically. Board of studies should delete the lessons not useful to life and society and periodically introduce new syllabi to suit the society needs. A best education system is not only improving the I.Q. (Intelligence quotient) of students but also equally the E.Q. (Emotional quotient) Foremost important step towards value based education is to know about their culture, their own heroes, Kalidasa was greatest poet ever in the world but our new generation is not aware about him. They should study about contemporary Indian philosophy. Greatest books like - foundation of Indian culture, the life devine, syntheses of yoga should be the part of our curriculum. So children could aware about their roots about their history, literature, & Indian heroes. Indian spirituality & Meditation are very valuable tools of knowledge should be incorporated in Indian education system. These are unique in the world so should be taught in school from kindergarten onwards. Abundant opportunities should be provided to the pupil for the development of his personality.

Extreme materialistic affection has made our life very narrow; therefore one should be able to open up the mind and heart freely and infinitely. Actually Value Based Education does not require any set text books; rather than that, the whole institution should be based on Value Based Education.

In his keynote opening address, Dr. KatrienBeeckman, (Head, Principles & Values Department, International Federation of Red Cross and Red Crescent Societies) rightly put his views as follows, “We could of course presume that globalization, TV and modern communication technology or social media are enabling factors to break this ignorance. We need to nurture a mindset that:

1. Is critical, including self-critical,
2. Is open and curious or welcoming and celebrating diversity as a source of learning, adventure and joy,
3. Can engage in a constructive dialogue and look for creative solutions to problems with others rather than camp on its position, focus on differences and blow things into dangerous and unhealthy proportion.

We cannot escape the beautiful thoughts, rather consideration given in his famous book, “Seven Spiritual Laws of Success” by Deepak Chopra. The spiritual laws which he has explained there, are the must read or must have laws which are to be taught in schools or colleges as a curriculum for Value-Based-Education. According to him following are the seven spiritual laws for any success.

1. Law of Pure Potentiality
2. Law of Giving
3. Law of Karma
4. Law of Least Effort
5. Law of Intention & Desire
6. Law of Detachment
7. Law of Dharma or Purpose in Life

If we want our students and society to learn the highest spiritual laws or truths, we must incorporate such topics in their academic curriculum, in Each and every stream and means of study.

CONCLUSIONS

As Swami Chinmayananda in his "We Must" booklet states "All our success entirely depends upon ourselves. Let us never look outside ourselves for help. Let us not fall into the delusion that the influence of others would enable us to do better or accomplish more."

He firmly says : "Spiritual education and religious practices make us realize that we are a part of a whole scheme, and the essential creativeness behind the whole universe is the essential Essence ruling in the heart of each one of us: ShivohamShivoham ". Incorporating Value-Based-Education in society will result in growth of character, growth in virtues like self-control, tolerance, selfless service, practice of prayer, harmony, to love all people, to help them in need & respect them, purity of soul etc... And for that value-based education must be imparted in today's institutions. So that, the students may emerge as good leaders in their chosen fields.

In the words of Swami Vivekananda, 'Religion is nothing but a manifestation of the divinity already in man. Man is not just the body or even the combination of the body & the mind. He is essentially the spirit. The aim of our teaching should be to help manifest this spirit in every thought, word and action.

The current educational system try to achieve a pronounced success in connection with character formation, development of personality, and contribution to knowledge in all branches of learning as well as social well being and material prosperity. The present Indian curriculum must evolve a special form of education whereby harmony will be established between materialism and Spiritualism; and human life so that headed towards greater perfection.

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A LITERATURE BASED CONCEPTUAL FRAMEWORK OF FACTORS IN ADOPTING IOT FOR LOGISTIC PERFORMANCE

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ABSTRACT

The purpose of this paper is to propose a framework of adopting IoT innovation for logistics performance. The article is based on previous studies in the logistics literature and recommend opportunities for further empirical validation of research. When Logistics and IoT are merged together the result itself is enabler of a large number of disruptive applications which may impact the logistic control and performance. Such a situation pertaining technology and logistics stakeholders throughout the supply chain is very complex. In this paper, attention has been on the integration of IoT and Logistics, which is called IoLT paradigm. Literature have been surveyed for adoption factors of IoT in Logistics. A framework to suggest such factors mapped on established relationship would be helpful in developing adoption strategy and decision on KPIs. To the best of our knowledge, such a framework is not proposed thus far. To bridge this gap, in this paper we provide a literature survey on the integration of IoT for logistics performance. The objective of this article is to provide academics and practitioners a qualitative analysis of the enablers, drivers, inhibitors and barriers for successful implementation of IoT based innovation to impact logistics performance positively.

Keywords: Internet of Things, Logistics Performance, RFID, KPI, WSN, SCM

1. INTRODUCTION

Logistics and Transportation services are vital for any economy and is viewed as a value-adding process in a supply chain. There is positive impact of logistics salience on logistics capabilities like logistic innovativeness and logistics service differentiation on one hand and at the same time on logistics performance like efficiency and effectiveness in (Ralston, Grawe, & Daugherty, 2013). A primary goal of SCM is to create or enhance value provided to the end-customer. Therefore a firm should attempt to fulfill a customer's orders and meet their expectations by delivering 100% exact items and quantities ordered on time, damage free, and with errorless invoicing. Keeping cost of operation in control, the focus should be on creating value for the end-customer in profitable manner throughout the supply chain (Stank, Keller, & Daugherty, 2001).

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). Companies selling products may gain competitive advantage by focusing on logistics service innovation. Leveraging logistics service can help to build strong relationships with customers, generate barriers to competition, increase customer loyalty and switching costs, and make market activities more efficient (Daugherty, Chen, & Ferrin, 2011).

Organizations that persistently ignore new technologies risk a slide into challenged competitiveness, yet being on the leading edge brings its own perils (Fichman, 2000). Technology like ICT has always been innovation enabler in logistics and transportation processes. There has been radio-frequency identification (RFID) tags with embedded microchips which could store more data and infrastructure with cloud computing services to provide storage of logistics applications and database (Harris, Wang, & Wang, 2015). RFID is a low-cost and low-power technology characterized by passive devices, i.e., tags, which are able to send information when powered by electromagnetic fields generated by an RFID reader (Petracca et al., 2013). Currently, 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). ICT integrated logistics management and process monitoring can not only improve the efficiency of logistics functions and help reduce logistics cost, but also improve enterprise information quality. Implementation of intelligent logistics achieves inventory management, goods delivery, automated billing and other business functions (Jing, Vasilakos, Wan, Lu, & Qiu, 2014).

The Internet of things (IoT) is a next generation of Internet connected embedded ICT systems in a digital environment to integrate supply chain and logistics processes. Integrating emerging IoT into the current ICT systems can be unique because of its intelligence, autonomous and pervasive applications (de Vass, Shee, & Miah, 2018). IoT is a seamless integration of both RFID and Wireless Sensor Networks (WSNs) solutions in the Internet scenario. WSNs are composed by low-power embedded devices characterized by reduced

computational capabilities that actively communicate among them to fulfill complex tasks(Petracca et al., 2013).

Considered as a wireless AIDC (automatic identification and data capture) technology, RFID not only refers to the tag containing a chip, but also to an antenna for sending and receiving data, an interrogator, also called reader, and its antennas to communicate through radio frequency with the tag, and finally, a middleware that manages, filters, aggregates and routes the data captured (Bendavid, Lefebvre, Lefebvre, & Fosso-Wamba, 2009).RFID tagging is often used with EPC encoding 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 not be easily contaminated or damaged. Since RFID can be tagged on items, cases, and pallets, the IoT tagging level must be considered in IoT adoption for supply chain operation (Tu, 2018).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).

Other enabling technology for IoT is cloud computing. Cloud computing provide a platform to store the data and application remotely having access to the infrastructure through internet(Yeboah-Boateng, Ezer Osei Essandoh, 2014). In the future of ‘‘ubiquitous’’ technologies and computing, the variety of wirelessly connected devices as well as the importance of machine-to-machine communications is expected to grow significantly, adding to this complexity (Smura, Kivi, & Töyli, 2009).

2. METHODOLOGY

This article explores the key factors that influence the adoption of IoT in logistics and impact factors of logistics performance. This studyhas two major areas: Logistics & Transportation, IoT including ICT and RFID adoption factors. This study is mainly qualitative and explorative in nature utilizing a variety of secondary resources.Technology in Logistics & Transportation performance factors has impact in the area of vertical functional integration in a logistics company and also the impact on collaboration among logistics stakeholders in supply chain. A literature review to explore the factors gives: Enablers, Inhibitors, Drivers and Barrier types for factors for achieving the logistic performance factors. Building on research in the areas of innovation in Logistics & Transportation, this study explores the use of IoT for Logistics performance measures.

In a mixed approach the factors include enablers for the IoT innovations as well as IoT application innovations. This include IoT implementation enablers and barriers. The application area of IoT is logistics & transportation and impact is measured on logistics performance factors and finally on firm performance. Enablers and Drivers factors are mostly overlapping but can be exclusive. Also many times absence of an enabler itself is inhibitor. Example may be the availability of a development resource is an enabler which when not available becomes inhibitor.



Figure-1: Research approach visualization

Therefore a simplest study approach should have IoT adoption and logistics & transportation functions. The various factors for adopting IoT in Logistics would be a combined impact of various mixed factors of both the areas i.e. IoT and Logistics Performance factors. A basic conceptual model for IoT based Logistics is adapted from (Ralston et al., 2013)and is given below-

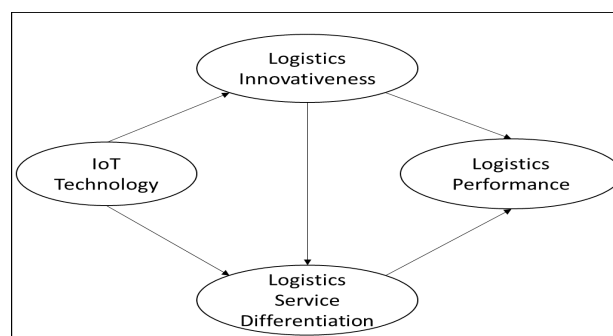


Figure-2: The conceptual model.

Source: Adapted from (Ralston et al., 2013)

An elaborate grid of factors around the relationships in above model is the objective of the study which would be helpful in envisaging the strategic decisions when implementing IoT for the purpose of Logistics performance improvements.

3. THEORETICAL FRAMEWORK

Application of Internet of Things in Logistics and other functional areas is still evolving. Technology assist in creating capabilities with differentiated methods firms employ to affect performance. Creating superior capabilities can result in superior performance for a firm (Bhardwaj, 2000). Other than technology a firms which successfully utilize resources to develop capabilities have the potential to create a competitive advantage 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).

3.1 Areas in Logistics Processes

A research by (Matopoulos, Vlachopoulou, & Manthou, 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 way companies do business.

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). A typical example in a multimodal transport environment is a cloud-based Electronic Logistics Marketplace ELM. The figure below depicts various logistics functions and components of ELM.

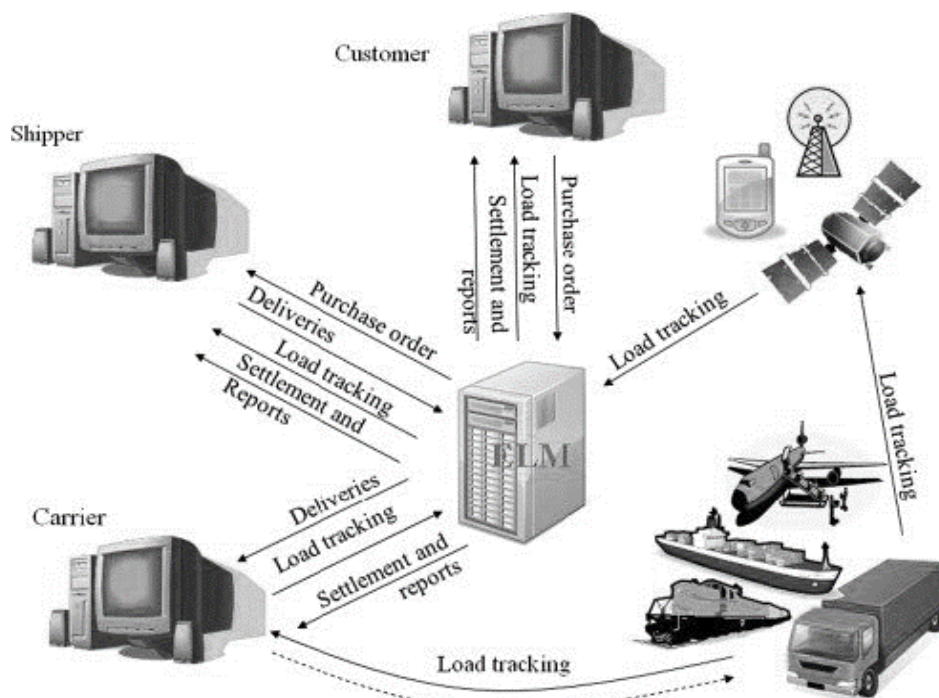


Figure-3: An overview of a closed ELM operational model.

Source: (Wang et al. 2010), (Harris et al., 2015)

3.2 Internet of Things

The term 'Internet of Things' is closely connected to the technologies of ubiquitous computing and especially to Radio Identification (RFID). 'Internet of Things' stands for the connection of (computer) networks with physical objects and the improvement of logistics operations and increasing transparency in supply chains (Macaulay, 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). RFID is often seen as a prerequisite for the IOT (Jia, Feng, Fan, & Lei, 2012).

Key Technologies in IoT include the radio frequency identification (RFID), infrared sensors, global positioning systems, laser scanners and other information sensing device, according to the agreed protocol to information exchange and communication, in order to achieve intelligent 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)

IoT capability in combination with ICT capability is perceived to have 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, Hou, Liu, & Liu, 2012).

3.3 Integration for logistic innovation

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 at building a model of 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).Building on research in the areas of management information science, supply chains, and organizational innovation, this study explores the factors for logistic organization and supply chain partners.

3.4 Collaboration and Logistics Service Differentiation:\

IoT development provides unprecedented opportunities which allows firms to acquire information more timely and accurately. In the context of IoT, the efficiency of information sharing is largely improved by the advanced IoT technologies, and information sharing is used to exchange information with partner firms so as to support their IoT strategic decisions through improving the IoT-supporting capabilities (Li et al., 2012).

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 take a different shape 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, and points out that many of these factors are both enablers and barriers or Drivers and Barriers.

Technology and IoT add to collaboration within the supply chain partners however Supply chain collaboration does not need to be based on technology always; in fact a major criticism is that an obsession with it is one of the largest barriers to collaboration(Barratt, 2004).

4. LITERATURE REVIEW FOR FACTORS

(Enablers, Inhibitors, Drivers, Barriers and Benefits from Logistics performance)

4.1 Logistic performance

Impact on logistics performance from successful technology adoption would be reflected in terms of benefits 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 dynamics in 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.

4.2 Enablers and Drivers to attain the Logistic performance

While taking difficult decisions in dynamic environments, valuable information must be available at the right place, at the right time, to right people who approach the problem from different perspectives for an out of box solution (Barratt, 2004). Managers must be able to "think outside of the box" using different combinations of approaches with different people to remedy logistics and supply chain problems. To summarize, external forces drive organizations to align and form strategic supply chains so as to align SC action with external environmental demands. By aligning behaviors with the environment, numerous benefits motivate firms to achieve SC collaboration. However, to attain these benefits, strategic supply chains must navigate barriers to successful collaboration using various approaches (Fawcett, Magnan, & McCarter, 2008).

4.3 Inhibitors and Barriers in attaining logistics performance

While RFID systems have been around for several decades, the technology for supply chain management is still emerging. Several barriers related to cost, global standards, system integration, information technology (IT) infrastructure, privacy and security are seriously hindering the widespread deployment of RFID in supply chains (Srivastava, 2010).

Because many firms are unwilling to share information for fear of exposing their weakness and secrets to others. This thinking will have inconsistent information and barrier to technology implementation. If SCM is to be implemented across company borders, a revamp in attitude and thinking is necessary. Cooper et al. commented: 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). To attain benefits, strategic supply chains must navigate barriers to successful collaboration using various approaches (Fawcett et al., 2008).

4.4 Strategic alignment

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. High integration and relationships between are the enablers 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).

To win customer allegiance, firms must have what customers want when and where they want it. Close relationships with suppliers lead to high demand and helping satisfy the customer expectations (Stank et al., 2001).

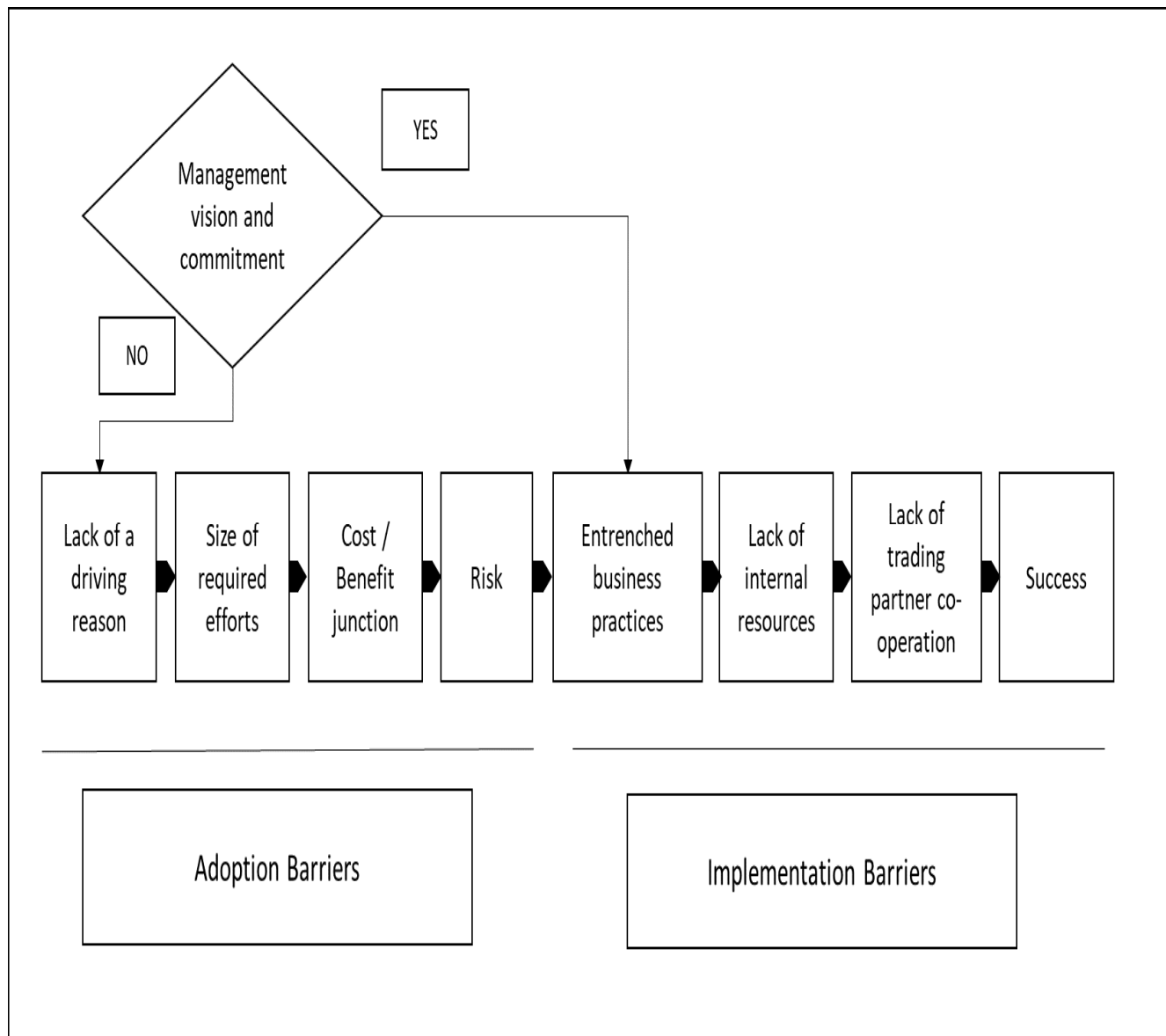


Figure-4: Barriers to technology adoption
Source: Fernie, J. (1994), (Prater, Frazier, & Reyes, 2005)

4.5 Factors of Technology Acceptance Model (TAM):

Certain important factors are given by Davis (1989) through his Technology Acceptance Model. The end user who actually work with technology must agree and find the application useful and interesting. TAM assumes that beliefs about usefulness (UFN) and ease of use (EOU) are primary determinants of information technologies adoption in organizations. Perceived usefulness is defined as the extent to which a person believes that using a system would enhance his or her job performance. Whereas, perceived ease of use refers to the extent to which a person believes that using a system would be free of mental efforts (Davis, 1989). Perceived usefulness is defined as the degree to which one believes that using the technology will enhance his/her performance (Davis et al., 1989). Perceived ease of use refers to the degree to which one believes that using the technology will be free of effort (Gao & Bai, 2014).

4.6 Technology-Organization-Environment (TOE) Framework:

This framework was developed by Tornatzky & Fleischer (1990) for general technology innovation adoption. In TOE framework there are three main dimensions to explore the factors affecting diffusion and assimilation of technology innovations. They are - (1) Technological context (Tech.) include usefulness of innovative technology like IoT in this case and technologies associated around IoT, (2) Organizational context (Org.) like firms size and scope, centralization, managerial structure and its complexity, human resource quality in organization, products and services (3) Environment context (ENV.) of competitors, government dealings, resources available. This framework is consistent with Roger's framework of theory of innovation diffusion in organizations (Chiu, Chen, & Chen, 2017).

A detailed table below is made on the basis of above approaches to have better insight.

<p>Table 1: Literature review for adopting technology and IoT in logistics and supply chain</p> <p>Factor type: E - Enablers, I – Inhibitors, D – Drivers, B – Barriers</p> <p>Factors context area: Tech – Technological context, Org. – Organizational context, Env. – Environmental context</p> <p>Perceived benefits: UFN – Usefulness for end user, EOU – Ease of use for the end user</p>											
Authors / Model's objective	Focus area	Determinants	Factors Type				Factors Context area			Perceived Benefits	
			E	I	D	B	Tech	Org.	Env.	UFN	EOU
(Rogers, 1995) Diffusion of Innovations in a social system of innovators and adopters (Fichman, 2000)	Innovation decision process & Innovation Characteristics	Rate of adoption						√		√	
		Knowledge of innovation	√					√			
		Persuasion merits of innovation	√					√			
		Decision to adopt	√					√			
		Implement innovation	√					√			
		Confirmation to adopt	√					√			
		Risk taking ability	√					√			
		Trialability of innovation	√				√				
		Observability of results	√				√				
		Relative advantage of innovation	√				√				
		Complexity of innovation		√			√				
		Compatibility with existing values	√				√				
		System norms				√			√		
(Henderson, Thomas, & Venkatraman, 1992) Enablers and Inhibitors of Business-IT Alignment (Luftman et al., 1999)	Business-IT Alignment	Senior executive support for IT	√					√			
		IT involved in strategy development	√					√			
		IT understands the business	√					√			
		Business - IT partnership	√					√			
		Well-prioritized IT projects	√					√			
		IT demonstrates leadership	√					√			
(Fichman, 2000) Diffusion and assimilation of Information Technology Innovation (Downs and Mohr, 1976; Leonard- Barton, 1988; Moore and Benbasat, 1991; Tornatzky and Klein, 1982)	Innovation Characteristics	Innovation Cost		√			√				
		Communicability	√				√			√	
		Divisibility	√				√			√	
		Profitability			√		√			√	
		Social approval				√	√			√	
		Voluntariness			√		√				
		Image			√		√			√	
		Usefulness			√		√				√
		Ease of Use			√		√			√	
		Result demonstrability			√		√			√	
	Propagating Innovation in diffusion environment	Visibility	√				√				
		Promotion			√				√	√	
		Advertising			√				√		
		Pricing		√					√		
		Technology standardization			√		√				
		Technology simplification			√		√				
		Technology sponsorship			√		√				
		Subsidies			√				√		
		Reputation			√				√	√	
		Industry competitiveness			√				√		
	Organizational characteristics to IS characteristics	Organization size	√					√			
		IS Unit Size	√					√			
		Scale	√					√			
		Slack resources	√					√			
		Centralization		√				√			
		Formalization		√				√			
		Specialization	√					√			
	Workforce and change leader characteristics	Vertical differentiation		√				√			
		Professionalism	√					√			
		Education	√					√			
		Technical expertise			√			√			

		Technical specialists			√			√			
		Managerial tenure			√			√			
		Receptivity towards change			√			√			
	Adopting environment factors	Concentration / Competitiveness			√				√		
		Competitive pressure			√				√		
		Profitability / Wealth			√				√		
		R&D Intensity	√						√		
		IT Intensity			√				√		
		Rate of technical change			√				√		
	Organization -Innovation Fit	Absorptive capacity	√						√		
		Related knowledge	√						√		
		Diversity of knowledge	√						√		
		Task – Technology capability	√				√				
		Wealth			√				√		
	Innovation delivery system factors and process fit	Top management support	√						√		
		Technology champion			√				√		
		Training			√				√		
		Links to propagating organizations			√					√	
		Process Fit to Tech. & Orgs.			√		√		√		
	Knowledge barrier and organizational learning	Knowledge of certain extreme technologies before adoption				√			√		
		Intensive training				√			√		
		Technology transfer				√			√		
		Indirect use of innovation (Outsource)				√			√		
		Technology standardization				√				√	
		Bandwagon effect factors			√		√				
(Kevin, Kenneth, & Sean, 2003)	Assessment of facilitators and	Technology competence	√				√				
		Firm scope and size			√				√		
		Consumer readiness			√					√	√
Adoption of e-Business (Barratt, 2004) Understanding the meaning of collaboration in the supply chain	inhibitors in e-Business	Competitive pressure			√				√		
		Lack of trading partner readiness	√						√		
	Collaborative culture elements	External and internal trust			√				√	√	√
		Mutuality			√				√		
		Information Exchange			√				√		
		Openness communication			√				√		
	Collaboration realized elements	Cross functional activities			√		√				
		Process alignment			√				√		
		Joint decision making			√				√		
		Supply Chain Metrics			√					√	√
	Elements for sustainable collaboration	Corporate focus			√				√		
		Resources and commitment			√				√		
		Intra-organizational support			√					√	
		Dependence on technology				√	√				
(Pagell, 2004) Understanding the factors that enable and inhibit the integration of operations, purchasing and logistics	Integration between three internal supply chain functions; manufacturing, purchasing, logistics	Structure			√		√				√
		Measurements and rewards			√		√				√
		Cross functional teams			√		√				√
		Job Rotation			√		√				√
		Top management support			√		√				√
		Information Technology			√		√				√
		Communication			√		√				√
		Performance			√		√				√
(Ranganathan et al., 2004) Assimilation and diffusion of Web technologies in supply-chain management: An examination of key drivers and	Supply Chain Management	Managerial IT Knowledge			√				√		
		Centralization			√				√		
		Formalization			√				√		
		Supplier independence			√					√	
		Competitive intensity			√					√	
		IT Activity intensity			√					√	
		Cost reduction			√				√		√

performance impacts		Service improvement			√			√		√	
		Improved communication			√			√			
		Flexibility in delivery and response			√			√			
		Timely order fulfillment			√			√			
		Reduced cycle time			√			√			
		Electronic payments			√		√				√
		e-Procurement			√		√				√
(Levy, Powell, & Worrall, 2005) Strategic Intent and E-Business in SMEs : Enablers and Inhibitors	Internet adoption and e-Business adoption	Reduced operating costs			√			√		√	
		Sales and purchasing cost reduction			√			√		√	
		Improved range and quality of service to customer			√			√		√	
		Increased speed in goods dispatch			√			√		√	
		Finding suppliers			√				√		√
		Avoiding loss of market share			√			√		√	
		Increase market share			√			√		√	
		Market intelligence			√				√	√	
		Improved trading relationships			√				√	√	
		Implementation costs	√					√		√	
		Limited financial resources	√					√			
		Need for immediate return on investment	√					√			
	Security	Concerns about confidentiality	√				√				
		Fear of fraud	√				√				
		Insufficient time spent on planning	√					√			
		Insufficient knowledge or experience of IS	√					√			
		Inexperienced owner	√					√			
		Complexity requiring new skills	√				√				
		Existing IS limiting future development	√					√			
		Lack of trust in external IS suppliers	√					√			
		Limited in-house IS skills	√					√			
(Wu & Shu-Ching, 2005) What drives mobile commerce? An empirical evaluation of the revised technology acceptance model	Mobile Commerce acceptance (TAM)	Perceived Risk				√	√				
		Cost				√	√				
		Compatibility			√		√			√	
		Perceived usefulness			√		√				
		Perceived Ease of use			√		√			√	
(Rai et al., 2006) Firm Performance Impacts of Digitally Enabled Supply Chain Integration Capabilities	IT Infrastructure Integration for SCM	Data consistency			√		√				√
		Cross-Functional SCM Application systems Integration			√		√				√
	Supply Chain Process Integration Capability	Physical flow integration	√						√	√	
		Information flow Integration	√						√		√
		Financial Flow Integration	√						√	√	
	Firm performance	Operational excellence			√			√		√	
		Customer relationship			√			√		√	
		Revenue growth			√			√		√	
	Control variables for firm performance	Consumer demand			√			√			
		Firm size			√			√			
(Schmitt, Michahelles, & Fleisch, 2008) Why RFID Adoption and Diffusion takes Time: The Role of Standards in the Automotive Industry	Factors influencing the adoption and diffusion of RFID technology by organizations	Perceived benefits			√			√		√	
		Costs				√	√				
		Complexity				√	√				
		Organizational Size	√								
		External Pressure							√		
		Performance			√			√		√	
		Compatibility			√		√				
		Top Management Support			√						
		Standards				√	√				
(Fawcett et al., 2008) Benefits, barriers, and bridges to effective supply chain	Customer focus benefits	Increased customer responsiveness			√			√		√	
		Customer satisfaction			√			√		√	
		More consistent on-time delivery			√			√		√	
		Shorter order fulfillment lead times			√			√		√	

management	Company focus benefits	Reduced purchasing costs		√			√		√	
		Better asset utilization		√			√		√	
		Reduced overall product cost		√			√		√	
		Ability to handle unexpected events		√			√		√	
		Reduced inventory costs		√			√		√	
		Firm productivity		√			√		√	
	Interfirm rivalry	Inadequate information sharing			√		√			
		Inconsistent operating goals			√		√			
		Lack of willingness shared risks and rewards			√		√			
		Lack of willingness to share information			√		√			
	Managerial complexity	Lack of alliance guidelines			√		√			
		Processes poorly appraised in terms of costs			√		√			
		Non-aligned measures			√		√			
		Organizational boundaries			√		√			
		Measuring supply chain contribution			√		√			
		Measuring customer demand			√		√			
	Operations, process, and supply management	Accurate comprehensive measures	√				√			
		Supplier alignment and rationalization	√				√			
		Effective use of pilot projects	√				√			
		Process documentation and ownership	√				√			
	People management	Managerial and employee support	√				√			
		Open information sharing	√				√			
		Trust-based alliances	√				√			
		Cross-trained experienced managers	√				√			
		Supply chain education and training	√				√			
		Using chain advisory councils	√				√			
(Koh et al., 2008)	Improved inventory management	Accuracy in managing inventory		√			√		√	
		Visibility of orders and inventory		√				√	√	
	Velocity of logistics &	Reduced costs		√			√		√	

RFID impact in retail industry	retail cycle	Reduced shrinkage		√			√		√	
		Simplified business processes		√			√			
	Efficiency of store operation	Increased sales		√			√		√	
		Improve operation	√				√			
		Gain competitiveness in the market	√					√		
	Integrated business model	Shorter retail cycle of designing, manufacturing and stocking		√			√			
Improved customer service			√		√					
Improved security			√		√					
(Matopoulos et al., 2009) Understanding the factors affecting e-business adoption and impact on logistics processes	Affecting factors related to e-Business Applications	Operational compatibility		√		√				
		Relative advantage		√			√		√	
		Complexity	√			√				
		Cost			√		√			
		Availability of financial resources		√				√		
	Intra-firm related affecting factor	Management emphasis		√				√		
		Availability of human resources		√				√		
		Competitive attitude		√				√		
		Complexity of the supply chain			√		√			
	Factors related to the supply chain	Critical mass of the users		√			√			
		Level of collaboration			√		√			
		Nature of relationships			√		√			
		Application complexity			√	√				
	E-Business adoption factors	Intensity of use		√				√		√
		Cost		√			√		√	
	Impact metrics of order processing	Time		√			√		√	
		Quality		√			√		√	
		Cost		√			√		√	
	Impact metrics of customer service	Time		√			√		√	
		Quality		√			√		√	

	Impact metrics of procurement	Cost		√		√		√	
		Time		√		√		√	
		Quality		√		√		√	
(Grawe, 2009) Logistics innovation: A literature-based conceptual framework	Environmental factors	Organization of labors		√			√		
		Competition		√			√		
		Capital scarcity		√			√		
	Organizational factors	Knowledge		√		√			
		Technology		√		√			
		Relationship network factors		√		√			
		Financial resources		√		√			
		Management resources		√		√			
(Bendavid et al., 2009) Key performance indicators for the evaluation of RFID-enabled B-to-B e-commerce applications: The case of a five-layer supply chain	Horizontal KPIs – Collective performance	Reliability- Quality of deliveries		√			√	√	
		Responsiveness – Order fulfillment lead time		√			√	√	
		Flexibility – SC Response time		√			√	√	
		Asset management efficiency – Cash-to-Cash cycle time		√			√		
	Vertical KPIs – Supplier level	Days of inventory		√		√			
		Inventory carrying cost of raw material		√		√			
		Work-in-progress inventory		√		√			
		Finished goods inventory		√		√			
		Security stock		√		√			
		Capacity utilization		√		√		√	
		Forecast accuracy		√		√		√	
		Frequency and quality of delivery		√		√		√	
	Vertical KPIs – DC level	Purchase order cycle		√			√	√	
		Deliver order cycle		√		√		√	
	Vertical KPIs – Operator level	Min. downtime		√		√			
		Replacement time		√		√			
		Cost per operation hour		√		√			
	Vertical KPIs – Recycler level / Reverse logistics	Amount of metal recovered		√		√		√	
		No. of components reworked		√		√		√	
		No. of products recycled		√		√		√	
		Return transportation costs		√		√		√	
(Srivastava, 2010) Critical management issues for implementing RFID in supply chain management	Barriers in widespread deployment of RFID in supply chains.	Cost of technology gadgets		√	√				
		Standards like EPCglobal		√	√				
		System integration		√	√				
		IT infrastructure		√	√				
		Privacy & Security		√	√				
(Daugherty et al., 2011) Organizational structure and logistics service innovation	Organizational structure resources	Centralization		√		√			
		Formalization		√		√			
		Specialization		√		√			
	Market performance	Efficiency		√		√			
		Effectiveness		√		√			
		Productivity		√		√			
(Li et al., 2012) Towards a theoretical framework of strategic decision, supporting capability and information sharing under the context of Internet of Things (IoT)	Information sharing	Internal industry information sharing		√	√			√	
		External industry information sharing		√	√			√	
	Firms capability	Exploratory capability	√			√			
		Exploitative capability	√			√			
	Strategic decision	Go-ahead in market or technology		√				√	
		Catch-up in market or technology		√				√	
	Industrial driving forces in IoT business	Technology push		√	√				
		Market pull		√	√				
(Ralston et al., 2013) Logistics salience impact on logistics capabilities and performance	Logistics performance	Cost of logistics		√		√		√	
		Order received to delivery time		√		√		√	
		Meeting delivery date and quantities		√		√		√	
		Meeting customer expectations		√		√		√	
(Gao & Bai, 2014)	User beliefs and	Perceived usefulness		√				√	

A unified perspective on the factors influencing consumer acceptance of internet of things technology	behavioral intention for acceptance of IoT	Perceived ease of use		√					√
		Trust		√				√	
		Social influence		√				√	
		Perceived enjoyment		√					√
		Perceived behavioral control		√					
(Macaulay et al., 2015) Internet of Things in Logistics	The intelligent Box to adapt to logistics process application requirements and challenges	Decentralized self-control containers		√		√			
		Sensor monitor for shipment status		√	√				
		Reliability upon application		√	√				
		Robustness upon application		√	√				
		Components energy source		√	√				
		High-performance Sensors		√	√				
		Synchronized information flow through process in real-time		√	√			√	
		Synchronized material flow through process in real-time		√	√			√	
(Schroeder, Zarco, Baines, & Bigdeli, 2016) Barriers to capturing the value of advanced services and digitization in the road transport industry	Value capture barriers are perceived as network-based.	Interdependence of stakeholders		√			√		
		Coevolution		√			√		
		Trust		√		√			
	Inhibiting culture	Resistance to change		√		√			
		Short-term management focus		√		√			
		Entrenched legacy view		√			√		
		Challenging communication		√			√		
	Limited Resource availability	Competing financial resource demand		√		√			
		Limited analytical resource availability		√		√			
		Limited analytical support		√			√		
	Lack of standards	Limited integration of data		√		√			
		Parameter incongruence		√			√		
		Divergent access levels for stakeholders		√			√		
	Value uncertainty	Diversity of business practice in network		√			√		
		Uncertainty in value recognition		√			√		

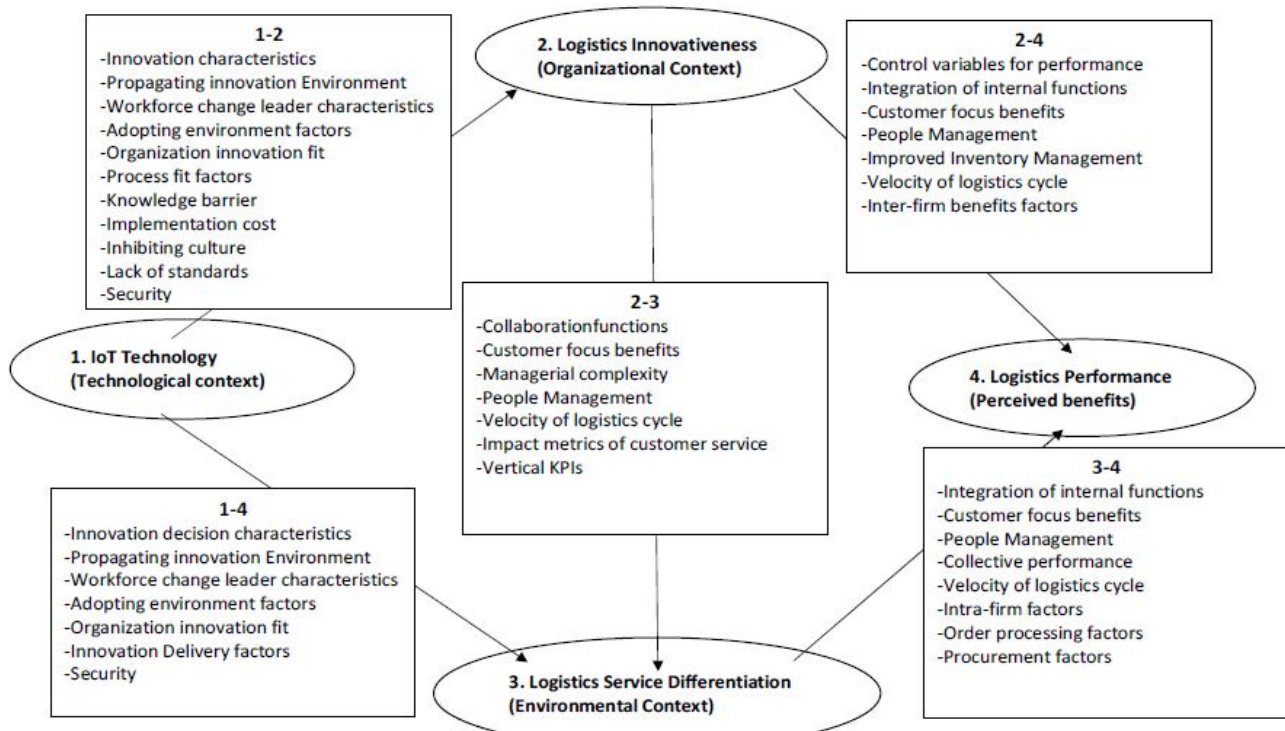


Figure-5: Proposed conceptual framework

5.1 Proposed conceptual framework

The present paper is focused on factors in adopting IoT for logistic performance organizational activities as well as inter-organizational processes that stretch beyond firm boundaries. Framework is useful when identifying the KPIs for strategizing the implementation of IoT to impact positively on logistics performance. The list of factors is large and grouped as below-

1. Focus Area: This would help in identifying the focus area of the factors at the time of taking a decision regarding adoption of IoT for logistics performance.
2. Enablers and Drivers though serves different purpose but the factors overlap many a times. And same is true for Inhibitors and Barriers.
3. The sub-constructs and factors there on can be Enablers, Drivers, Inhibitors or Barriers in a situation. A presence or absence and high or low measures change the type. For example if availability of skilled resources is enabler than non-availability of resource can be an inhibitors.
4. These factors are also grouped in context of three dimensions as suggested by TOE model explained above. So that the priority and accountability can be resolved.
5. The end user experience play a big role in diffusion and assimilation of an innovation in an organization. So the last two columns further categorize the factors as Usefulness for end user and Ease of use types of perceived benefits. A benefit may be either of them and important to be identified as the impact of these factors is high in adoption.

5. CONCLUSIONS

Implementation of an innovation successfully would contribute in achieving logistics performance. That would impact the firm performance and meet customer's expectations. This helps in reducing cost of logistics, faster revenue generation and ROI. However, what it means to innovate successfully and how to build organizations and processes that facilitate more effective innovation are complex issues. Identifying KPIs for this purpose is first thing to do where the proposed framework may help. Since these factors come from the rich literature study where most of these are empirically tested and based on proven models for an innovation adoption, this tool would always be helpful. However an empirical research for validation of the framework is to be taken for research in future.

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A STUDY IMPACT OF 'DIGITAL INDIA' IN 'MAKE IN INDIA' PROGRAM IN IT & BPM SECTOR**Manmeet Singh**

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ABSTRACT

The paper explores role of 'Digital India' in Make in India program in IT & BPM Sector. As Economy is converging to digital economy, cities are becoming smart cities and governance is moving towards e governance. It will boost demand of IT hardware. Last union budget had put emphasis on digital literacy is an initiative for digital transformation. Government of India has announced its vision of zero import of IT hardware by 2020 of IT hardware. With the increase in cashless transactions, we might see a surge in buying of IT hardware by consumers. This paper will evaluate different trend and challenges for digital transformation.

Keywords: Digital India, Make in India and Employment

INTRODUCTION

Digital India Program was launched by Prime Minister Narendra Modi on July1, 2015. In the inaugural speech of this program he has mentioned his dream from digital India i.e. for driving innovation, knowledge is strength and empowers the people, access of information knows no barrier, government is open & governance is transparent, technology ensures the citizen government interface is incorruptible, governmental services are easy and efficiently available to citizens on mobile devices, government productivity engaged with people through social media, quality education reaches the most inaccessible corners driven by digital learning, quality health care percolates right up to remotest region powered by e health care, farmers are empowered with real-time information to the connected with global market, mobile enable emergency services ensures personal security, cyber security is integral part of national security, mobile & e-banking ensures financial inclusion, ecommerce drive entrepreneurship, world looks to India for next big idea, etc. Digital India attracted more than 4lakh crore investments and generated more than eighteen lakh job opportunists at its launch.

Second highest import category in India is electronics goods in country. This fact is indigestible because India has largest number of IT professional and very large MSME (Micro, small and Medium) sector still it has not developed its capabilities to manufacture in this sector. Government has made the policy with a vision to make net zero import of this category. This aim will be achieved by Make in India and Digital India programme to boost manufacturing and increases domestic demand. Digital India (Ministry of Electronics & Information Technology, Government of India, 2016)

“The digital India programme is a flagship programme of the government of India with a vision to transform India into a digitally empowered society and knowledge economy”

Building blocks of Digital India: Vision areas (Deloitte, ASSOCHAM, 2015)

S. No.	Vision	Summary
1	Infrastructure	High Speed Internet
		Digital Identity
		Mobile & Bank Linking
		Cloud Storage
		Safe Access
2	Demand Based	Credentials cloud Based
		Real Time Access
		Integration
		Business Ease
		Secure Payments
3	Empowerment	Digital Literacy
		Digital Recourse
		Indian Languages
		Digital Platform
		Cloud Based

Nine Pillars of Digital India

S. No	Pillar	Summary
1	Broadband Highways	<ul style="list-style-type: none"> To provide high-speed broadband coverage highways connecting about 250,000 villages, various government departments, universities, etc. To provide an integrated information infrastructure with integration of State Wide Area Network (SWAN), National Knowledge Network (NKN) and National Optical Fibre Network (NOFN)
2	Universal Access to Phones	<ul style="list-style-type: none"> To provide mobile connectivity to about 42,300 villages
3	Public Internet Access Programme	<ul style="list-style-type: none"> To make 250,000 CSCs operational at Gram Panchayat level for delivery of government services To convert 150,000 post offices into multi-service centres
4	E-Governance Reforming Governance through technology	<ul style="list-style-type: none"> To use business process re-engineering to transform government processes and make them simple, automated and efficient
5	E- Kranti Electronic Delivery of Services	To use technology for service delivery such as e-education, e-healthcare, technology for planning, farmers, security, financial inclusion, justice, etc.
6	Information for everyone	<ul style="list-style-type: none"> To provide open access to government information and documents online To provide two-way communication between citizens and the government through online platforms and social media
7	Electronic Manufacturing Target NET ZERO Import	<ul style="list-style-type: none"> To target net zero imports by 2020, through various actions in areas such as taxation/incentives, economies of scale, skill development, government procurement, etc
8	IT for Jobs Electronic Delivery of Services	<ul style="list-style-type: none"> To provide necessary skills and training that enable the youth to avail jobs in IT/ITes sector
9	Early Harvest Programmes	To focus on execution of project within short timelines, such as IT platform for messages, e- greetings from the government, biometric attendance, Wi-Fi in all universities, etc

(Deloitte, ASSOCHAM, 2015)

Initiatives

E-Sign	Skill India	PMJD Y	JA M	E-Hospital	Wi-Fi Hotspots	DB T	NOF N	Smart Cities	Digital Locker
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(Deloitte, ASSOCHAM, 2015)

LITERATURE REVIEW

Digital India: A Study of New-Age e-Entrepreneurship in India (Arjuna Kumar Sahu¹, 2015) Arjuna Kumar explore Digital India and other initiative like National Digital Literacy Mission (NDLM) penetration of mobile phone and broadband has raised in significant number and pattern of users has changed.

New Urban Utopias of Postcolonial India: ‘Entrepreneurial urbanization’ in Dholera smart city, Gujarat (Datta, 2015) Datta has explored in depth critical analysis on Dholera smart city to suggested how state attempt to attract global capital and enhance economic growth through construction of new town ships.

Developing Smart Cities using Internet of Things: An Empirical Study (Sarin, 2016) Sarin explained Digital India program, which aims at setting up e- infrastructure in the nation will enable faster establishment of the IoT industry.

Technological Innovations in Indian Banking Sector: A Trend Analysis (Sarkar, 2016) Sarkar analysis IT & Innovation in banking sector has made it more competitive and delivering better customer services. It has transform banking from cash & paper based to cashless & paperless.

Information Centric Services in Smart Cities: (G.Piro, 2014) G. Piro focus on advance ICT technology support services (i.e. e-government and public administration, intelligent transportation system, public

safety social, health care, education, building and urban planning, environment and energy and water management application in Smart cities by upcoming wireless technologies.

Development of Smart Cities in India: Dream to reality (Suresh, 2016) Suresh explores strategies for planned urbanisation, guideline for smart city development and explain thoughts to transform urban India.

Indian Banking Sector-Challenges and Opportunities: (Singh, 2016) Singh reviewed Indian banking sector and analysed the challenges and opportunities in it. Author put his views that Indian Government needs bigger banks to finance, its social projects, infrastructure funds like Digital India, Bullet Train etc.

Uniting Mobile Wallet in the Customer Journey: A stride towards digital India (Joshi, 2016) Joshi analyse the parameters (i.e. understanding and knowledge, legal aspect of mobile wallet) for the use of mobile wallet, Banks providing this service

OBJECTIVES OF THE STUDY

This paper is offers following objectives.

1. Over view of Digital India in the country.
2. Aims to identify trends in Digital India services in make in India.
3. Review of digital India and the challenges in transforming India in to digital.

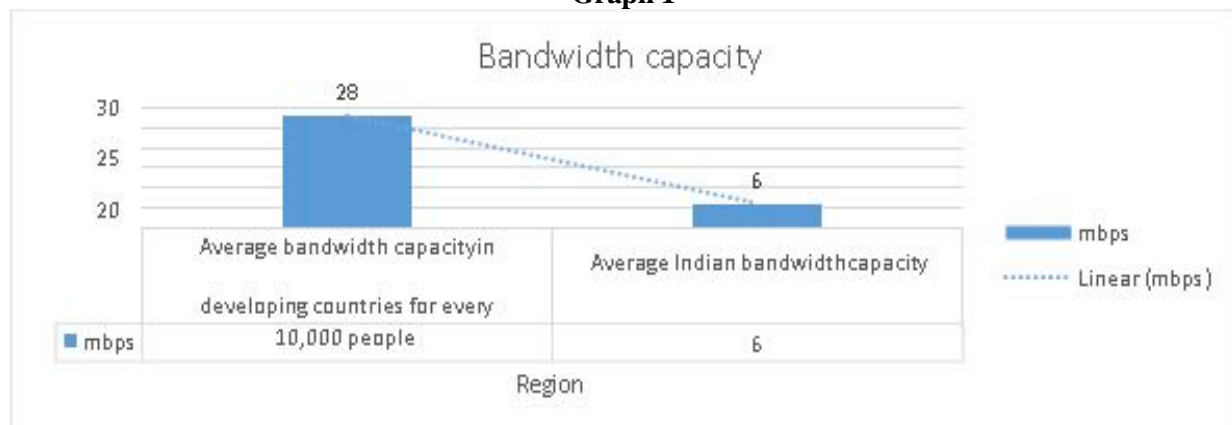
RESEARCH METHODOLOGY

As the research paper is of conceptual and review nature, the researcher has applied exploratory research design by using varied secondary data availed from the secondary data sources. Based on the secondary data and review, the researcher has reported on various emerging trends and issues and challenges in digital India. Research report, journal and newspaper articles from eminent writers has been reviewed.

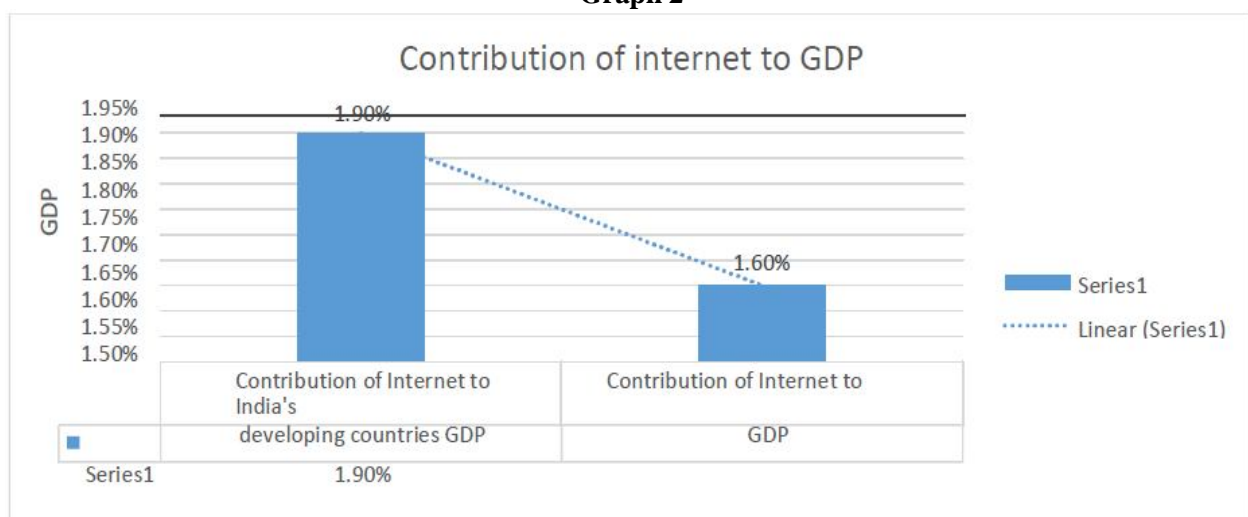
ANALYSIS AND INTREPRETATION

Graph 1 exhibit bandwidth capacity of internet in more than four times to India on an average.

Graph 1



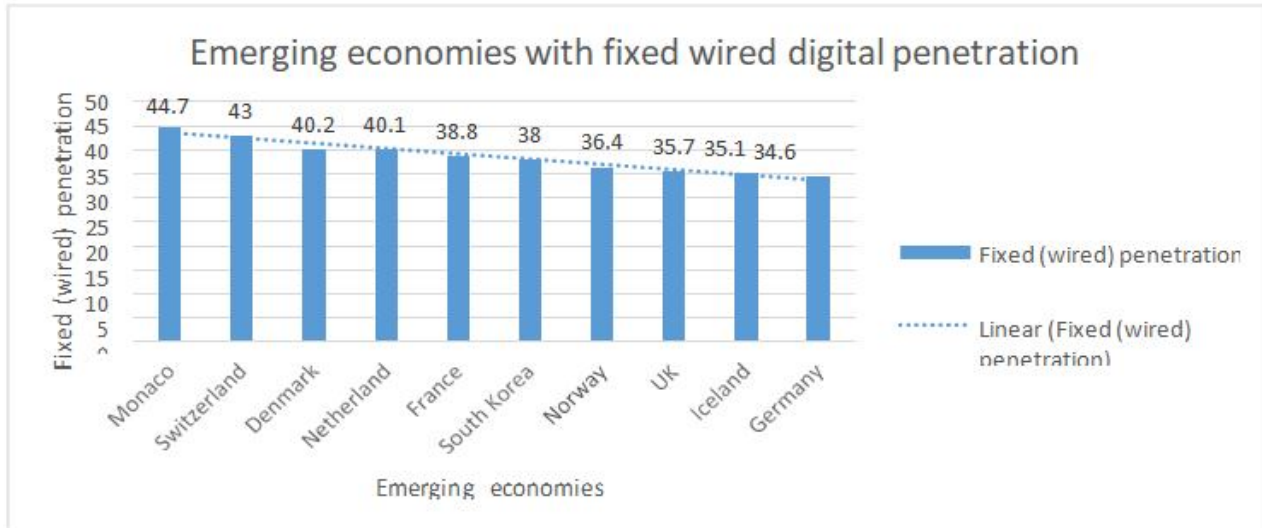
Graph 2



Above Graph shows contribution of internet to India GDP, which is significant according to data available.

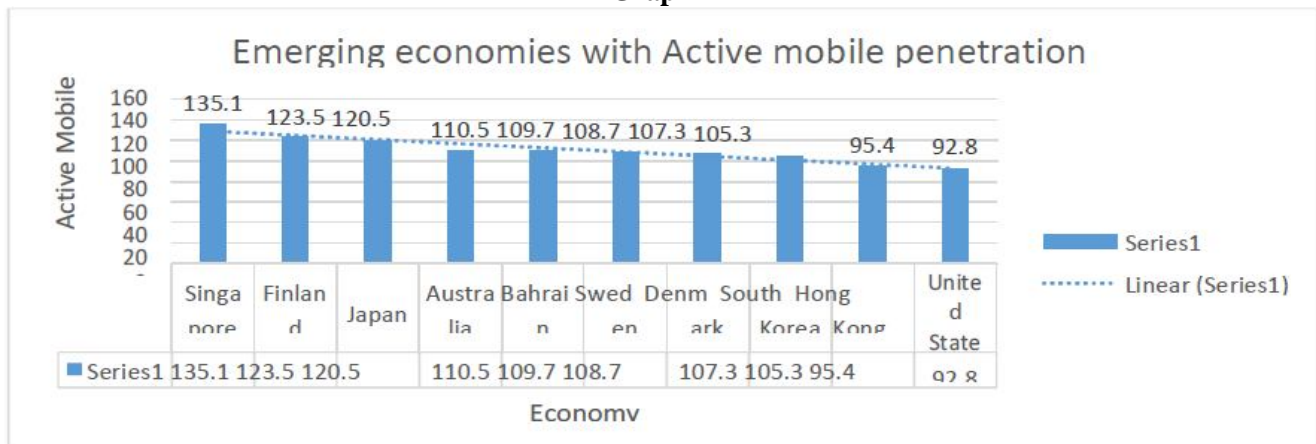
Graph 3 proves that country with high fixed wired digital penetration is not much active on digital connectivity

Graph-3



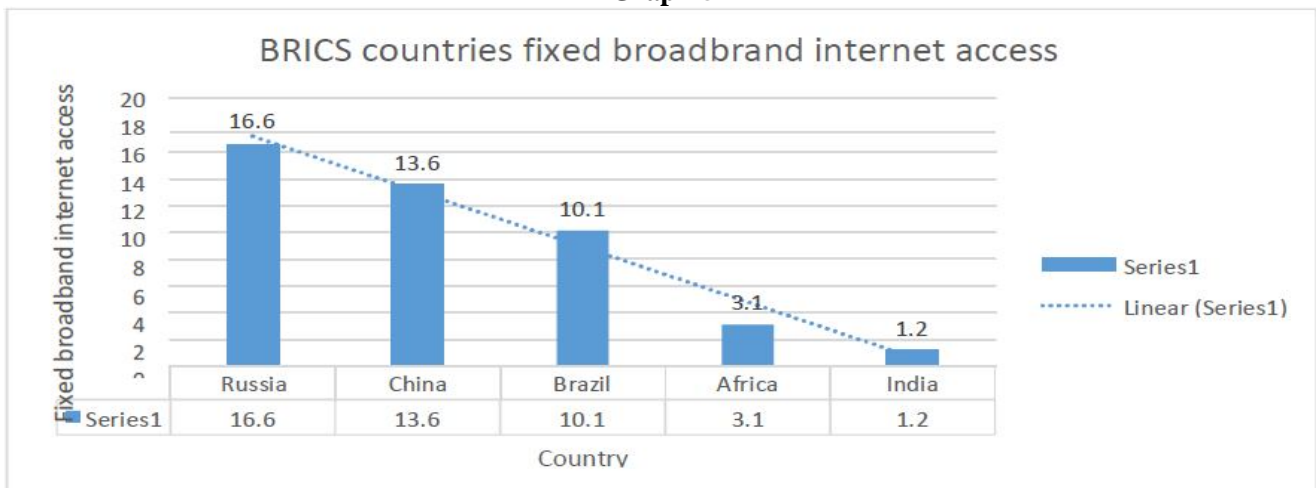
Graph 4 shows connectivity of active mobile penetration

Graph-4

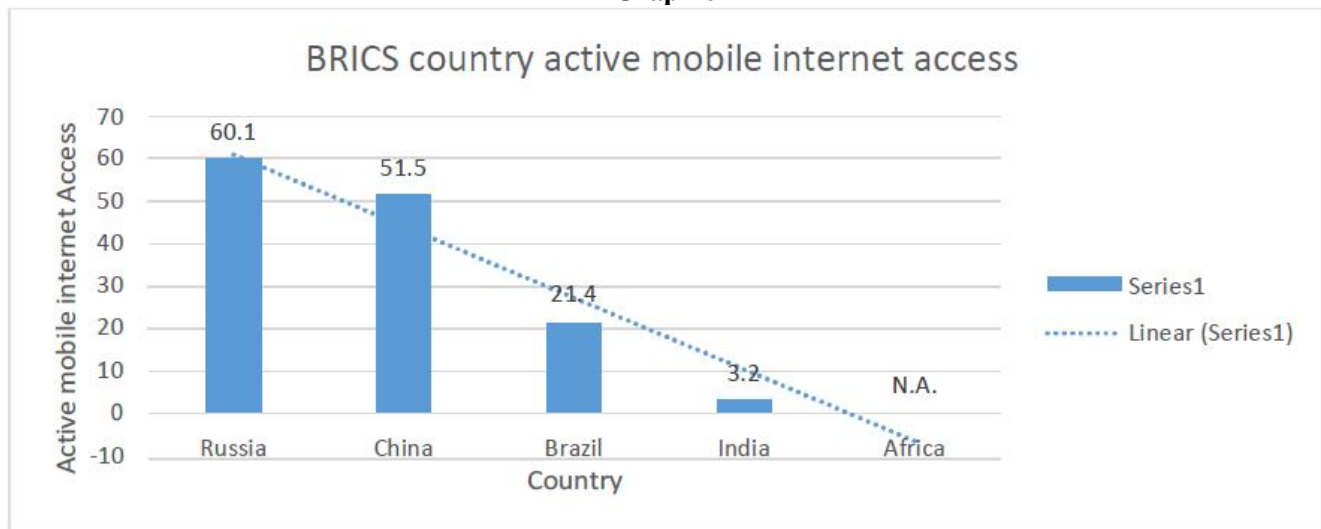


Graph 5&6: shows the about fixed wired broadband and the active mobile penetration in BRICS countries.

Graph-5



Graph 6

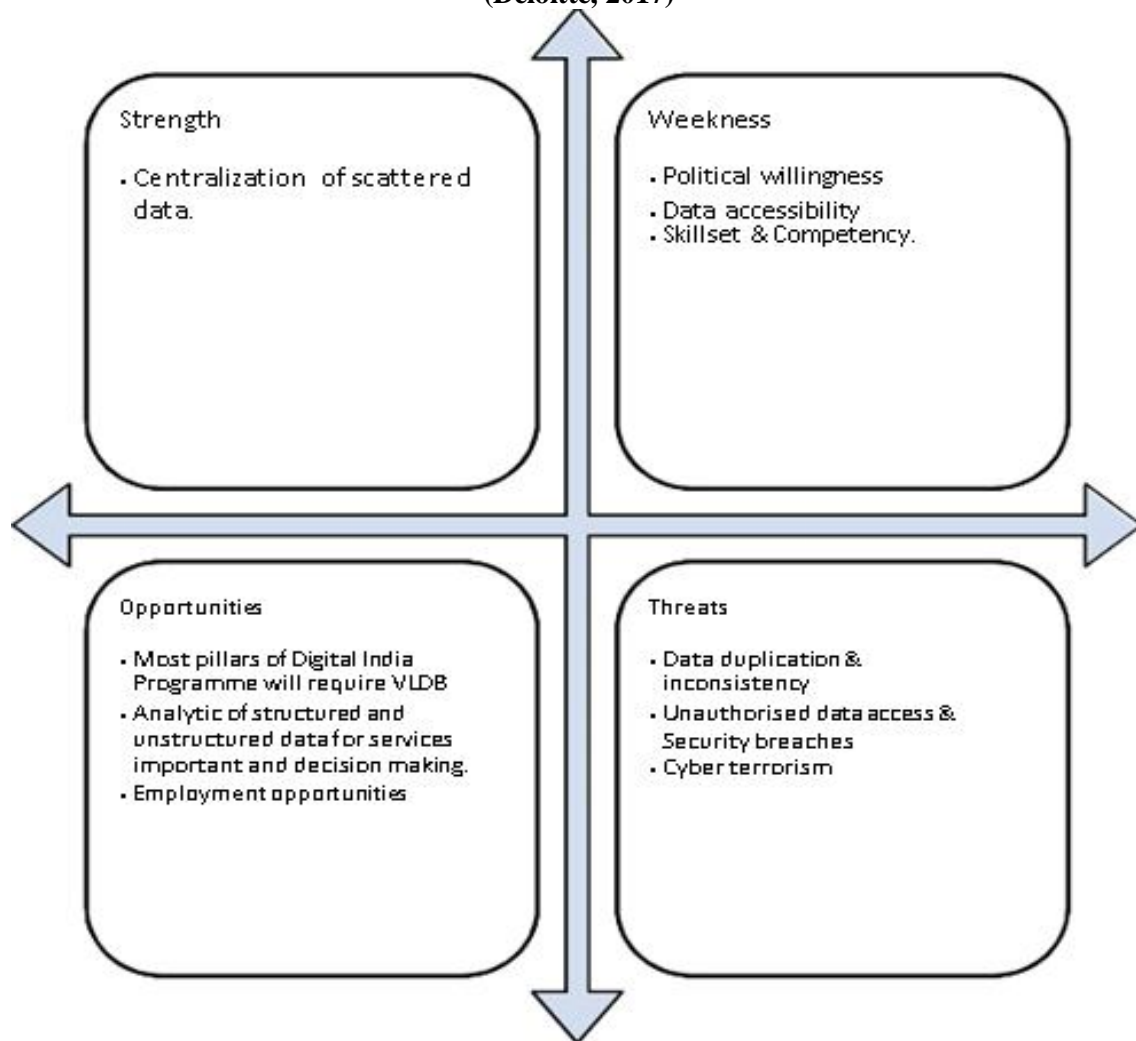


It has been observed the internet opportunist, potential and challenges a comprehensive strategy need to develop which act on multifront to lead this transformative change

strategy need

A Swot Analysis View for Use of VLDBs in Digital India Programme

(Deloitte, 2017)



Digital India is a program which will improve the quality of life of the citizen of nation it is very vital for the national economy. World is transforming towards digital and India must move with them, Population of internet user on mobile phone in India is very large many big companies are invested in manufacturing of the mobile phone in India. A lot must have been in different sectors

CONCLUSION

In Make in India large land clusters have been allocated for the manufacturing of electronic and IT hardware well in state like Andhra Pradesh, Tamil Nadu etc. If Indian company's cater the domestic market demand, then also the India economy will reach on top position

Last but not the least Digital India will have a massive impact on the Make in India programmer for it hardware and electronics goods because it will create right ecosystem for its demand.

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**BALANCED SCORECARD AS A TOOL TO PERFORMANCE EVALUATION: A STUDY OF
SELECTED INDIAN TELECOM COMPANIES**

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ABSTRACT

This study aimed to evaluate the relationship between the Balanced Scorecard (BSC) perspectives with the organisational performance of selected Indian telecom companies. BSC was initially developed by Robert Kaplan and David Norton in the year 1992 as a multi-dimensional performance measurement system inclusive of both financial & non-financial measures and was later transformed into a strategic performance measurement system. Purposive sampling technique was used to collect the data through self-administered questionnaire from four selected telecom companies i.e. BhartiAirtel Ltd., Vodafone India Ltd., Idea Cellular Ltd. & Reliance JioInfocomm Ltd. Under the current study, relativeness of all the four BSC perspectives i.e. Financial perspective, Customer perspective, Internal Business Process perspectives and Learning & Growth perspectives, with organisational performance of individual telecom companies as main hypothesis were investigated. The correlation analysis revealed significant positive relationship with all the perspectives of BSC, major being the customer perspective (mean-3.885) in Indian telecom sector.

Keywords: Balanced Scorecard (BSC), performance measurement, Indian telecom companies.

INTRODUCTION

Performance assessment is viewed as normal estimation of results, which produces trustworthy actualities on the viability and effectiveness of organization performance. It is the way toward evaluating the usefulness with which a business entity succeeds, through the economic acquisition of resources and their productive and successful deployment. Performance measures may be based on non-financial measures or financial information (CIMA Official Terminology, 2005). Performance evaluation contributes to strategy formulation and implementation by revealing the links between goals, strategy, lag and lead indicators (Kaplan and Norton 1992, 1996) and thereby communicates and operationalize strategic priorities (Nanni et al. 1992).

The Balanced scorecard (BSC) in generic terms is defined as: "The Balanced Scorecard translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system."

In order to overcome the shortcomings of regular performance dimension system, Kaplan and Norton (1992, 1996, 2000) delivered the Balanced scorecard strategy as a most reliable aggregate of non-financial and financial performance measures alongside four perspectives- financial, customers, internal business processes and learning and growth- to measure organisation's performance.

As indicated by Kaplan and Norton (1996) 'the balanced scorecard interprets an organisation's main goal and strategy into a complete arrangement of generally speaking execution measures and offers the structure for strategic dimension and management'.

The four perspectives of Balanced Scorecard (BSC) are discussed as follows based on Kaplan and Norton (1992 & 1996):

Financial Perspective: Financial measures bring the economic consequences for the moves already taken with the aid of the organization, and targets at maximizing shareholders wealth as final objective. Under this perspective the most common performance measures are: profitability, return on investment (ROI), cash flow, net income, revenue growth, etc.

Customer Perspective: It must be regarded the central factor of any business approach that furnish the unique mix of products, price, relationship, and image that the corporation aspires to provides its customers. Typical measures used under this perspective are: customer satisfaction, customer complaints, customer retention, customer acquisition, market share etc.

Internal Business Process Perspective: This perspective furnishes the enterprise with the capability through which performance expectations may additionally be accomplished. The central theme of this perspective is value creation leading to economic success and blissful customers. Commonly used measures for this perspective are: cost of quality, cost of non-conformance, process innovation, cost reduction, technology development etc.

Learning and Growth Perspective: This perspective is related to the employees of the organization, and it measures the extent to which the organization exerts efforts to provide its employees with opportunities to grow and learn in their domain, within the organisation. Common measures used under this perspective are: employee retention, employee motivation, employee capabilities, information systems capabilities, training & development, growth opportunities etc.

Indian telecom industry being the world secondlargest telecom market, with over 1.418 billion subscribers as of April 2018, is worst hit during last few years with the entry of Reliance JIO bringing down data tariffs, free voice calls etc. forcing other service providers either to restructure, consolidate or shut down. In consideration to on-going industry challenges and transformational adoption of Digital technology by all sections of the society, has empowered telecom service providers to grow with the economy. The exceptional fall in data tariff has not just brought the internet inside the reach of larger Indian populace however has likewise permitted more up to date sections of society to utilize and encounter it out of the blue.

Balanced scorecard hence as a strategic management tool will help in evaluating the performance of Indian telecom companies in a coherent manner, presenting the current challenges and future growth opportunities within the sector. Implementation of BSC by telecom companies will help in creation, alignment and development in consideration to performance prospective, employee productivity, customer growth & retention, organisational productivity, government and shareholders support.

LITERATURE REVIEW

As per Kaplan and Norton (1992), the Balanced scorecard is a key administration system for conveying and assessing the accomplishment of the mission and performance objectives of any organisation. The Balanced scorecard conveys a comprehensive model that connections singular endeavours and achievements to specialty unit goals while at the same time Drury (2008) is of the view that the adjust scorecard rationality makes a key concentration by deciphering an organization's dreams and techniques into operational destinations and for the discernible points of view. BSC has a tendency to mirror the need of a harmony between the financial and other non-financial components, for example, customers, internal business procedures and Learning & growth.

Kaplan and Norton (2010) completed a multi-organisational research for performance estimation in organizations whose impalpable resources assumed a focal part in value creation. They trusted that if organizations somehow happened to enhance the performance of their intangible resources, they needed to incorporate the estimation of intangible resources into their administration frameworks.

Birchard (1996) suggested that the Balanced Scorecard is believed to be successful because of its ability to define the critical success factors and measures that focus on growth and long term success. Birchard additionally recommends that the Balanced Scorecard might be wrong for associations with here and now budgetary issues or experiencing restructuring.

Bhandary R. Pradeep and Bhat S. Suhas (2013) conducted a study on the financial performance evaluation of top four telecom companies operating in India, began by Indian business visionaries. The researchers picked Bharti Airtel, Idea Cellular, Reliance Communication and Tata Communication for the investigation and aimed to assess the financial performance of the of best 4 Indian Telecom organizations by taking different parameters, for example, total assets, net profits, cash from operating activities, net sales etc.

The Balanced Scorecard (BSC) joins non-budgetary execution measures to conventional money related execution measures enabling associations to adjust individuals to their objectives, vision, and procedure, and to make them cooperate to remain in front of their opposition (Lawson, Hatch, and Desroches 2008).

Gaafar Mohamed Abdalkrim (2014) provided that the development of organisation and employee performance is an on-going process. Past investigations and authority archive of managerial practices have affirmed that the Balanced scorecard (BSC) is one of the most recent advancements in management assist organisations to justify vision and system with business exercises and measure areal hierarchical execution versus predetermined objectives.

OBJECTIVE OF THE STUDY

Balanced scorecard approach has time and again turned out to be essential management equipment for assessing the effectiveness of any organization as a whole. The genuine intensity of a legitimately created Balanced Scorecard is that it connects the performance measures to the corporate's strategy.

This study aims to recognize the influence of applying the balanced scorecard methodologies on organizational performance of telecom companies in India, with following core objectives:-

- a) To study the concept of Balanced Scorecard (BSC) approach as organisations performance evaluation technique.
- b) To assess the relationship between Balanced Scorecard perspectives with the organisational performance of selected Indian telecom companies.
- c) To increase our understanding about use of Balanced Scorecard measures within the context of Indian telecom sector.

RESEARCH METHODOLOGY

The study: The study is descriptive in nature with survey being the mode of data collection (Almawali, Zainuddin and Ali, 2010; Jusoh, Ibrahim and Zainuddin, 2008).

Sample design: Population for the purpose of this study includes all telecom service provider companies in India, with total sample size of 100 respondents including managers and employees of specific telecom companies i.e. BhartiAirtel Ltd., Vodafone India, Idea cellular and Reliance JioInfocomm Ltd. for the financial year 2017-2018.

Sampling Technique: Purposive sampling technique was used.

Data Collection tools: Self-administered questionnaire based on Likert scale were used to gather responses from the respondents on a range of 1 to 5, where 1 indicated minimum agreement and 5 indicated maximum agreement.

Research Hypothesis: In relation to the objectives of the study, following hypothesis had been developed based on the review of literature relating to Balanced Scorecard and Organisational performance.

H₁ –There is significant positive relationship between Learning and Growth perspective of BSC model and organisational performance of selected Indian telecom companies.

H₂ - There is significant positive relationship between Internal Business process perspective of BSC model and organisational performance of selected Indian telecom companies.

H₃ - There is significant positive relationship between Customer perspective of BSC model and organisational performance of selected Indian telecom companies.

H₄ - There is significant positive relationship between Financial perspective of BSC model and organisational performance of selected Indian telecom companies.

Tools for Data Analysis: To obtain a better understanding of the relationship among research variables, Spearman's correlation analysis was carried out to weigh up the relationship between balanced scorecard and organisational performance of telecom companies. The mean was calculated to measure the average answer of respondents and the standard deviation was adapted to measure variation. Cronbach Alpha coefficient was also calculated to measure the reliability and internal consistency of the questionnaire.

RESULTS AND DISCUSSION

Respondents Profile

The total number of 100 questionnaires that was circulated 94 completed responses was obtained from the employees, comprising 97% male and 3% female. Majority of respondents (72%) held engineering degree, (15%) were either post graduates or PhD, (5%) were diploma holders and remaining (8%) possessed other educational qualification. 34% of respondents had 11-15 years of experience, 53% had 6-10 years' experience & 13% had 0-5 years of experience. As per job positions 56% were assistant managers, 29% senior manager and 15% were Circle heads/regional managers.

Reliability

Cronbach alpha methods is applied to all Variables for the reliability and found to be more than 0.7 as recommended by Cronbach, (1951) and Hair et al. (2006). Therefore all the items in the questionnaire are highly reliable as mentioned below:

Table-1: Reliability Analysis

Performance Measures	Value of Cronbach Alpha
Financial Perspective	0.85
Customer perspective	0.82
Internal Business process perspective	0.77
Learning & Growth perspective	0.81
Standardized overall value	0.91

Hypotheses tests

To measure the relationship between BSC & organisational performance of telecom companies Spearman's correlation was used. The results of correlation analysis showed strong significant positive relationship between all four BSC perspectives and organisational performance of telecom companies in India as reflected in Table. 2, it is thus confirmed that all four hypothesis were accepted. Correlation results strongly supported the research indicating the relevance of Balanced scorecard approach to organisational performance.

Table-2: Correlation Matrix between BSC and organisational performance

Perspectives	Financial Perspective	Customer Perspective	Internal Business & Growth Perspective	Learning & Growth Perspective	Overall BSC	Organisational Performance
Financial Perspective	1.000	.458(**)	.520(**)	.640(**)	.837(**)	.474
Customer Perspective	.458(**)	1.000	.509(**)	.643(**)	.826(**)	.489
Internal Business & Growth Perspective	.520(**)	.509(**)	1.000	.430(**)	.742(**)	.372(**)
Learning & Growth Perspective	.640(**)	.643(**)	.430(**)	1.000	.787(**)	.343(**)
Overall BSC	.837(**)	.826(**)	.742(**)	.787(**)	1.000	.326(**)
Organisational Performance	.474(**)	.489(**)	.372(**)	.343(**)	.326(**)	1.000

** Correlation is significant at 0.01 level (2-tailed)

Table-3: Mean and Standard Deviation of Balanced Scorecard

Factors	Mean	Standard Deviation
Financial perspective	3.823	.720
Customer Perspective	3.885	.930
Internal Business Process perspective	3.624	.870
Learning & Growth perspective	3.608	.845

Source: Survey Data, 2017-2018

As all the performance measurement perspectives have values of Mean greater than 3.5 (Table-3), with highest Mean value (3.885) of customer perspective, followed by financial perspective (mean-3.823), Internal business process perspective (mean- 3.624) and Learning & growth perspective (mean-3.608), it indicates high score on the use of performance measures under all the four BSC perspectives.

CONCLUSION

Balanced Scorecard (BSC) as a performance evaluation tool has been accepted by world-wide companies as it is more comprehensive, structured and systematic. From the analysis of the literature, interpretation of data and results of the hypothesis test under the current study it is revealed that all the four perspectives have significant relationship with performance of telecom sector companies. Therefore, the Indian telecom companies can further customize the BSC model to their respective needs, goals and competencies in order to ensure effective performance management within the organisation.

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ANALYSIS OF BANKERS' PERSPECTIVE ABOUT CAUSES OF NPAs IN BANKS

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Managing NPAs to minimum possible level is the key success factor in banking industry. Identifying dominant factors contributing to higher level of NPAs helps bank managers to keep bad loans at bay. Using responses of 52 bank officers, collected through questionnaire, this study attempts to analyses as what is relative importance of various factors shaping the level of NPAs in banks. The study used Friedman Test for testing the hypothesis on relative importance of various reasons for NPAs. It was found that the dominating reasons included payment default by customers and lack of operational supervision. Thus, by institutionalizing vigilant supervision on recovery process, banks can mitigate the level of assets turning into NPAs and hence improve their financial performance.

1. INTRODUCTION

The healthy banking system is the key constituent of an economic system. It is the strength and contribution of the banking system can have far-reaching implications on the development of the whole economy. The link between the financial sector and economic growth has well been explored by both the academicians and professionals at large. It has been established that a robust financial market positively support economic growth. This is particularly relevant now also when there is a lot of stress in the financial markets globally and consequently a slowdown in the momentum of economic growth. Health of a financial market is strongly linked with the health of banking sector which in turn is indicated by the level of bad loans or non-performing assets (NPAs).

Researchers have attempted to classify the factors responsible for NPAs in banks under two categories to explain the relationship of these factors with that of NPAs (Berger and DeYoung 1997; Ghosh, 2006; Podpiera and Weill, 2008). NPAs appear to be a significant threat to the survival and existence of commercial banks in India. Indian banks are facing a huge challenge of accumulated NPAs and hence better skilled bankers are required to manage the challenge operationally (Rathore, 2016). So, this study attempts explore the banker's perception about relative importance of various reasons of NPAs and their suggestions to further strengthen the NPA management in the Indian banking sector. To understand in detail the intensity and propensity of NPA in commercial banks, a primary data analysis is carried out by using a survey tool - questionnaire. Since the bankers are the best judge to evaluate the various facets of NPA as they are closely involved in lending/advances and its follow-up on a day to day basis, therefore, for this purpose, a primary data has been collected from the staff of the banks, with special reference to officers working with State Bank of India (SBI).

The remainder of the paper is structured into five sections. The second section provides for the review of literature related to issues related to NPAs and hypotheses developed. The third section briefs the data and research methodology. The data analysis and discussion are covered in fourth section followed by the conclusions of the study in the last section.

2. REVIEW OF LITERATURE AND HYPOTHESES

NPAs have been well researched across the world with respect to many dimensions such as determinants and impact on banks performance. Dhar and Bakshi (2015) observed that certain financial ratios and negative and significant impact on gross NPAs of Indian PSBs. The investigation by Rajaraman (1999) uncovered that the remote banks of Asian and West-Asian origin performed no superior to what residential private division banks did as far as NPAs were concerned. The discoveries demonstrated that the banks particular qualities, for example, proprietorship or adherence to prudential standards, don't suffice to clarify between bank varieties in NPAs. It was presumed that the reasonable changes in the money related part and change in the performing productivity of the local banks are extremely qualified. Karunakar et al. (2008), in a study, pointed out the need of credit appraisal method. The study explained the requirement of risk assessment techniques in dealing with the issues of NPAs.

Many studies have focused on the relationship between level of NPA and performance of banks and revealed that continuous provision for NPA on each quarterly results of bank led to erosion of bank's profitability (Prasad and Veena, 2011). Chaudhary and Sharma (2011), in their study, asserted the essence the effective role of professionals in sanctioning and approval of loan application to prevent NPAs in Banks. The study highlighted the need of efficient and active participation of management in dealing with the problem of NPAs in public sector banks so as to compete with private sector banks.

The banks need to have some mechanism of conducting credit rating of borrowers besides having separate task force to monitor the NPA of banks on routine basis and taking corrective actions if required (Gupta, 2012). Once the NPAs are piled up in any bank, it affects its profitability because the banks do not extend fresh loans whereas most of administrative team is used for recovering and managing NPAs (Khanna (2012). Chatterjee, Mukherjee and Das (2012) concluded that lack of proper documentation and supervision might have led to the NPA problems and hence Proper process of identification of the guarantor was required to be in place.

A study conducted on NPAs of old private banks and foreign banks in India, found that Banks realized the importance of keeping their financial health secure in the late nineties (Kumar (2013). Selvarajan and Vadivalagan (2013) arrived at the conclusion that focus of a lending in one sector might be checked by the management. The bank was found to be overweight on priority sector in comparison to other public sector banks and therefore due to downtrend in economy, the bank has faced more NPA problem than other banks. The active role of management is called for to ensure proper functioning of bank. The study also recommended that banks should be given adequate powers for recovering the loan. Further many issues including mechanism about recognition of NPAs have been researched (Ibrahim and Thangavelu, 2014).

There could be various reasons responsible for assets to become NPAs in the banks. Moreover, the knowledge of reasons attributable to NPAs is essential to take various steps to manage and reduce NPAs. All reasons may not be equally responsible to create NPAs. Das and Dutta (2014), in a study on internal and external causes of NPAs, found a significant difference between means of NPAs. Improper credit management, poor recovery of receivables, unfavourable forex and economic recession have been identified among others as factors influencing the level of NPAs (Gopi and Paulraj, 2015). Moreover, Rai (2012) found primary reason of higher level of NPAs as target-oriented approach. This approach undermined the non-financial factors for credit management such as ineffective supervision of loan accounts.

Research Gap, Objectives and Hypotheses

The dominant reasons for NPAs as observed by researchers include default by customers, lack of procedural supervision, improper credit appraisal, political influence on sanctioning loans, change in regulatory policies, and diversification of funds among others. However, bankers' perspective has hardly been captured by earlier researchers as they are intricately involved across the full chain of loan accounts. So, this study attempts to fill this gap in literature with following objectives:

- To identify various reasons for increasing NPAs in public sector banks in India.
- To get acquainted with bankers' perspectives about NPAs
- To see if various reasons have equal importance to shape the level of NPAs

The review of literature done above leads us to form following null and alternate hypothesis:

H₀: The importance of various reasons for NPA in the bank is not different from each other.

H₁: The importance of various reasons for NPA in the bank is different from each other.

3. DATA AND RESEARCH METHODOLOGY

A questionnaire was administered to the bank officers in management cadre. The respondents were selected from various branches of State Bank of India in Alwar district of Rajasthan state of India. Initially, the respondents were supposed to be from four levels viz. junior level management, middle management, senior management and top management. However, in view of very poor response from top management level respondents, only three levels were considered for further processing.

The study used convenient and snowball sampling method. In total, questionnaire was given to 158 respondents out of which 58 filled up questionnaires were received making a response rate of 36.7%. Six responses were found non-usable for statistical purposes. Thus, finally, 52 responses comprised the sample for study. The respondents were asked to mark the level of importance that is level of causation of each factor to NPAs.

The table 1 provides a summary of profile of respondents who are categorized on the basis of three categories viz. top level management, middle level management and junior level management. Of the respondents, highest percentage (51.92%) belongs to top level management and lowest response (21.15%) came from junior level management.

Table-1: Profile of Respondents

S. No.	Levels of Management	Number	Percentage
1	Top level management	27	51.92%

2	Middle level management	14	26.93%
3	Junior level management	11	21.15%
	Total	52	100

Source: prepared by author(s)

The table 2 represents the categorization of respondents on the basis of experience of respondents in their current position. It can be observed that the highest percentage of responses (42.32%) have an experience between 5 to 10 years in the same position. The lowest percentages of responses (3.82%) have the experience of above 20 years in the same position.

Table-2: Experience of Respondents

S.No.	Experience	Number	Percentage
1	Less than 5 years	13	25%
2	5 - 10 years	22	42.32%
3	10 - 15 years	9	17.31%
4	15 - 20 years	6	11.55%
5	Above 20 years	2	3.82%
	Total	52	100

Source: prepared by author(s)

Validity test of survey instruments aims at mapping the degree with which the survey (or a subset of a survey) is measuring what it intends to be measured. Validity can be measured using different types of validity checks such as face validity, content validity or construct validity. Content validity of the current survey was also checked by administering the questionnaire to a set of experts and seeking their advice regarding measurement intensity of the questions. Based on experts' feedback, the questionnaire was reframed and re-structured.

The reliability concerns the extent to which an experiment, test or any measuring procedure yields the same results on repeated trials. Cronbach's alpha has been used to check the reliability of the survey instrument. In the current study also, the reliability is tested through Cronbach's alpha which has been calculated as 0.712, well acceptable as scores of 0.60 and above is considered an acceptable reliability coefficient (Straub et al., 2004). The data collected using a structured questionnaire has been analyzed using various statistical tools and techniques and packages. The hypothesis has been tested using Friedman test and results are given in the next section.

4. DATA ANALYSIS AND DISCUSSION

There are many reasons of advances to become NPAs in banks. For this purpose, respondents were asked to rate various reasons of NPA on a four point scale of importance i.e. most important, important, least important and not important. Following options for reasons for NPA were given in the questionnaire. The results received in response to question on relative causes of NPAs are reported in table 3.

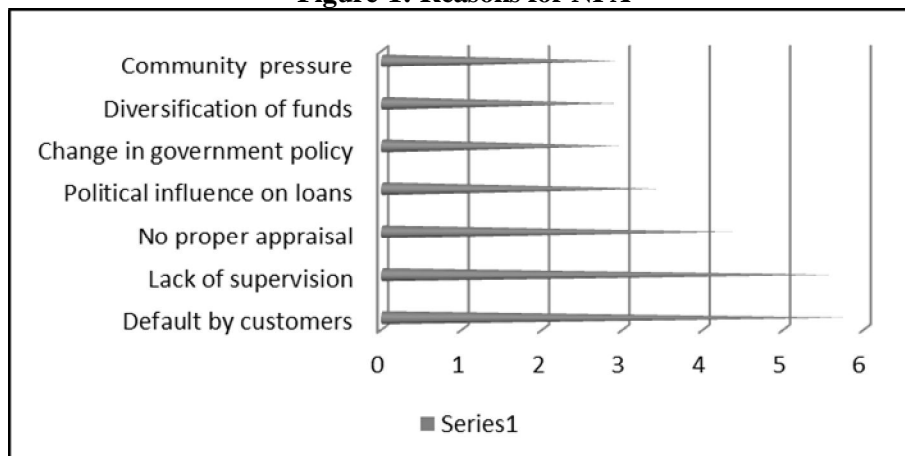
Table-3: Friedman Test for Reasons of NPA in a Bank

Reasons for NPA	Mean Rank
Default by customers	5.79
Lack of supervision	5.61
No proper appraisal	4.34
Political influence on loans	3.43
Change in government policy	2.96
Diversification of funds	2.94
Community pressure	2.93
N	52
Chi-Square	89.410
df	6
p - value	0.000*

* indicates significant at 5% level of significance

Source: Prepared by the authors

The p-value in above table is 0.0; therefore null hypothesis is rejected at 5% level of significance. Hence, it can be concluded that there is a statistical significant difference in the various reasons attributed for having NPA in a bank. It is observed that defaults by customers followed by lack of supervision were considered to be the most important reasons for having NPA in a bank. Further, the results of Friedman test are also plotted on a graph as given in figure 1.

Figure-1: Reasons for NPA

Source: prepared by authors

From the graph it can be observed that maximum respondents believe that lack of supervision and default by customers are the most important reasons for mounting NPAs in a bank.

5. CONCLUSION

The study attempted to investigate the banker's perception as to what causes relatively more to the increasing level of NPAs in Indian banks. Findings of the study indicate that the payment default by borrowers, seemingly willful, dominates the reason for NPA according to the bank officers. It is followed by poor mechanism of supervision of loan accounts. The analysis points towards the need to incorporate more and more proactive measures for managing and controlling NPA. No doubt, the regulatory authorities have introduced significant measures in the post-millennium period but still lot more has to be done to achieve favorable results. In most of the cases, the bank has to keep into consideration the objective of social welfare and uniform economic growth. Lack of managerial skills to assess the credit worthiness of the borrower is another strong reason for higher NPAs. To some extent, political reasons can also be held accountable for the same. Among the various parameters being used for assessing the efficiency of banks and financial institutions, the level of NPA of the respective institution/bank is considered very important. Proper documentation and active role of management of banks can help in reducing the problem of NPA. Emergent need of stringent legal provisions is being felt by all banks so as to recover funds blocked in NPA. The recent initiatives and measures taken by regulatory bodies appear to have some success in the direction.

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MEASURING THE IMPACT OF ENJOYMENT & EXCITEMENT ON ONLINE SHOPPING (WITH REFERENCE TO TAM MODEL)

Dr. Preeti Singh and Sonali Rai

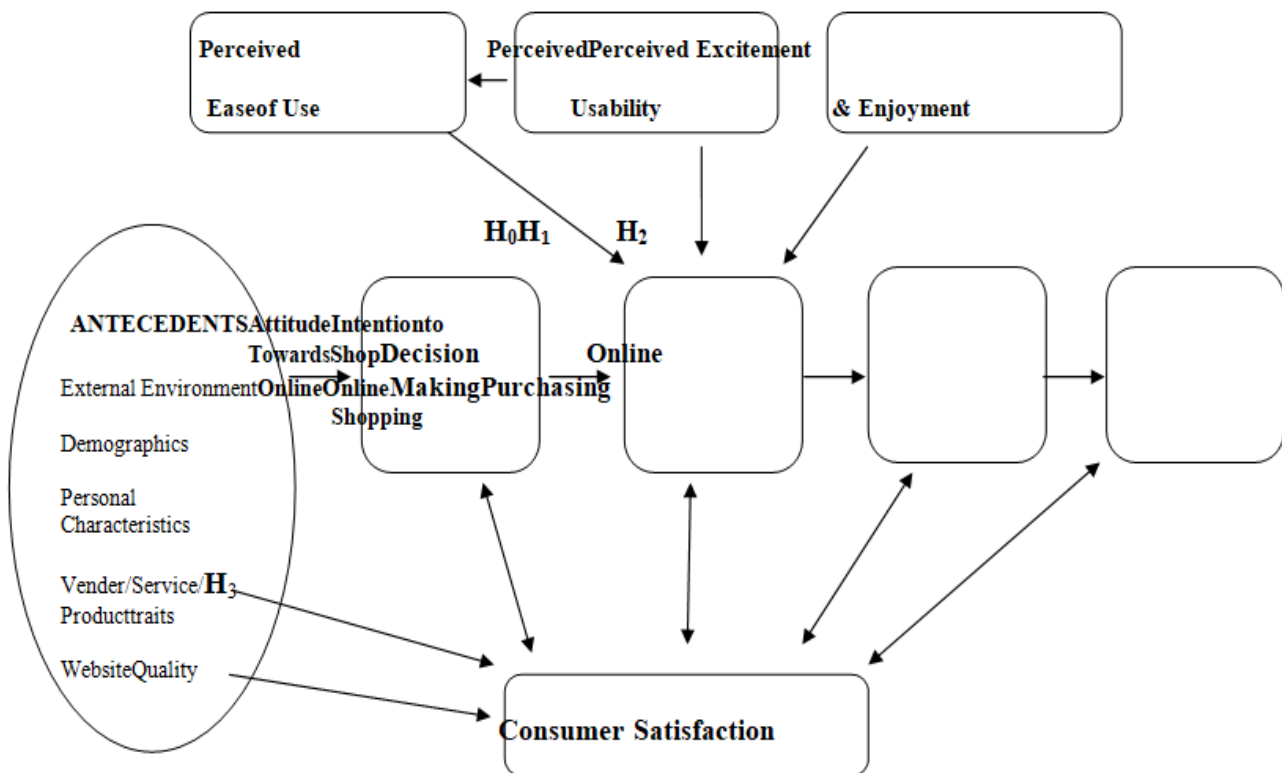
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ABSTRACT

With increasing incomes, people become more technocrats, from black and white to smart televisions, from cassette players to ipad. Although the technology has advanced over the years but people have taken more time to accept adopt it in their life. Lack of technology acceptance is a big challenge for the marketers. The paper summarizes online shopping behavior research in a systematic way. A number of research have dealt with online shopping behavior but purpose of this study is to analyze factors affecting on online shopping behavior of consumers. One of the objectives of this study is to cover some factors using TAM model along with Perceived excitement and enjoyment that influence on online shopping behavior which were not covered in previous studies.

Keywords: Perceived ease of use, Perceived usability, Perceived Excitement & Enjoyment, Online shopping behavior.

RESEARCH MODEL



INTRODUCTION

Many Companies have understood the potential of electronic commerce, not only as a way of reducing costs by automation and increased efficiency, but, also as a medium to expand revenues through enhanced customer service. Corporate websites are an interface through which customers and firms interact with each other.

E- Commerce (Internet) is now continually used for online shopping, whether it is about booking railway tickets, comparing policy's or buying fashion accessories for upcoming parties, online shopping is solution. Online shopping means, 'the shopping behavior of consumer in an online store or a website used for online purchasing purpose' (Monuwe et al. 2004). Indian market, showing traits of a new market economy has huge potential for online shopping. Online shopping has luxuriantly grown during the recent years because of its unique advantages for both consumers and retailers, such as shopping at round the clock facilities, reduced to store visits, less travel costs, increased market area, decreasing overhead expenses and a broad range of products. More than 75% of world's online population has ordered goods over the internet in the recent years. The findings of this paper will definitely help both customers(in realizing the benefits of online shopping) and companies(by understanding their customers better)

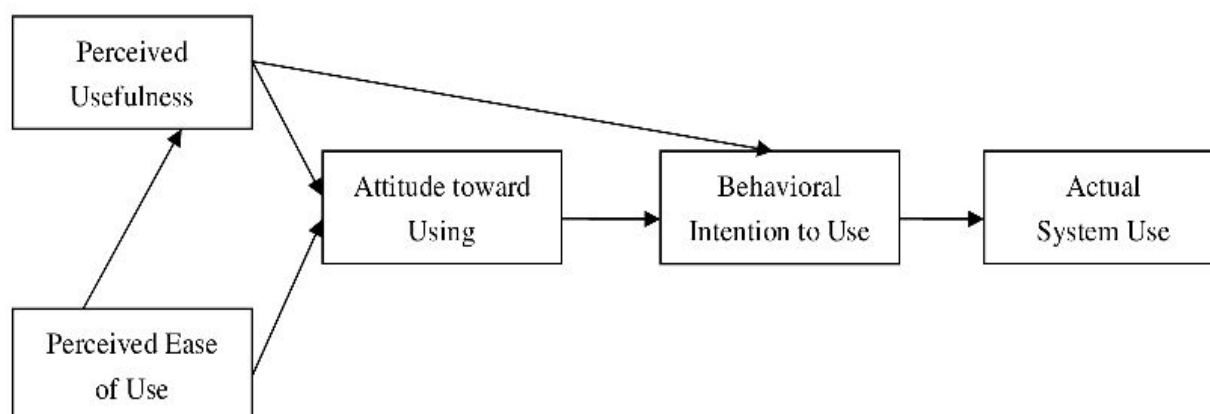
LITERATURE REVIEW

Technology Acceptance Model (TAM)

In this paper, we have extended technology acceptance model (TAM) (Davis, 1989) to understand the variables which affect online shopping. 'Technology acceptance model is a foundation for examination of customer's approval of online shopping (Stoel and Ha, 2009). Perceived ease of use (PEOU) and perceived usefulness (PU) are the two external variables of TAM (Davis, 1989)'.

TAM, (Davis et al., 1989) has been used as a tool of measuring online shopping by many, (Ahn et al. (2004) and O'Cass and Fenech (2003)). While most studies extended TAM to an adapted (simplified and/or expanded) conceptual framework.

Technology Acceptance Model (TAM)



Source: Davis et al. (1989)

We have extended technology acceptance model by using perceived enjoyment and excitement (PEAE) as a 3rd external variable which affects online shopping intention.

Perceived usefulness

Perceived usefulness is the perception of an individual that usage of new system will help her/him to achieve gains in their work performance. Although the online shopping is typically a SST, (Self Service Technology), it is an efficient search tool for products and services. Davis (1989) pointed out the importance of perceived usefulness: users are driven to adopt an application primarily because of functions it performs for them and secondarily for how easy or hard it is to get the system to perform those functions. If a person perceives that usefulness facilities are greater than the effort required to use the internet then he/she will use the internet for online shopping. Using scales of Davis (1989) and Gefen et al. (2003), we measured how much online shopping proved useful to it current as well as potential users.

H₀:- Perceived usability has no significant impact on intention to shop online.

H_{0A}:- Perceived usability has significant impact on intention to shop online. (Alternative Hypothesis)

Perceived ease of use

Perceived ease of use is the perception of an individual that it requires no cost or effort in the adoption of new system or technology. In 1989 in a theory of reasoned action (Davis)– TAM –explained the acceptance or renunciation of a new technology. Davis' model used two key factors, Ease of use and usability. Further research on this model has also shown a significant correlation between ease of use and usability (Zhou L. and Zhang, D. (2007), Shim, and Warrington (2001)). The perceived ease of use is defined as "the extent to which a person believes that using the system will be free of effort" (Doll et al., 1988). It suggests that existing tools, methods and routines can be applied to current situation. In such a case, there will be no perception of uncertainty (Eriksson and Sharma, 2003). Davis, in his original model (1989) found that ease of learning has been an important component of ease of using. This has been validated also in research by Adams et al. (1992), Segars and Grover (1993), Subramanian (1994) and Doll et al. (1998). Using scales of Davis (1989) and Gefen et al. (2003), we measured how much online shopping was easy to use for its actual as well as potential users.

H₁:- Perceived ease of use has no significant impact on intention to shop online.

H_{1A}:- Perceived ease of use has significant impact on intention to shop online. (Alternative Hypothesis)

Perceived enjoyment and excitement

Perceived enjoyment and excitement is the individual perception that by adopting new system or technology he/she will have pleasure. Using a new technology and interface will excite a person, motivating him/her to use that technology. Being an essential element of online shopping, it imparts fun in online shopping leading to more active participation in online shopping. Hsu and Lu, (2004) in their research showed that enjoyment effects online shopping. Thong et al. (2006) suggested a significant impact of enjoyment on shopping. Triandis, (1980) also discussed that the feelings of delight, pleasure and joy have encouraging affect on online shopping. As compared with the offline shopping, online shopping can be equally enjoyable and enjoys certain merits over offline shopping. Measuring the same using scales of Moon and Kim, (2001) we have the following hypothesis.

H₂ :- Perceived Enjoyment has no significant impact on intention to shop online.

H_{2A}:- Perceived Enjoyment has significant impact on intention to shop online.(Alternative Hypothesis)

Intention to Shop Online

Online shopping is the consumers shopping behavior to shop online. The people who find it easy to use, useful and enjoyable can accept online shopping. Technology acceptance model is used to understand the variables that affect online shopping. These variables are perceived usefulness, perceived ease of use and perceived enjoyment and excitement. A person may have a miniature amount of intention because of presence of constraints(behavioral control factors) leading to a negative intention towards online shopping but the stronger an individual's behavioral intention is, the more likely he is to perform the behavior. Previous studies have adopted various scales to measure respondents' e-shopping intention: atwo-point scale and multi-point qualitative scales. Among the latter, five-point scales and seven-point scales have been most commonly used. Early studies used integrated short and long term intentions(E.g., Choi and Geistfeld, 2004; Jarvenpaa et al., 2000; van der Heijden et al). Previous studies have adopted various scales to measure respondents' e-shopping intention: atwo-point scale and multi-point qualitative scales. Using a seven point scale (Moon and Kim, (2001)), following hypothesis are made.

H₃ :- Intention to Shop Online has no significant impact on customer satisfaction.

H_{3A}:- Intention to Shop Online has significant impact on customer satisfaction.(Alternative Hypothesis)

HYPOTHESES REGARDING DEMOGRAPHICS

H_{D1} :- The age of the customer has no differentiation on online customer satisfaction.

H_{D1A} :- The age of the customer has significant differentiation on online customer satisfaction.

H_{D2}:- The gender of the customer has no differentiation on online customer satisfaction.

H_{D2A}:- The gender of the customer has significant differentiation on online customer satisfaction

H_{D3}:- The occupation of the customer has no differentiation on online customer satisfaction.

H_{D3A}:- The occupation of the customer has significant differentiation on online customer satisfaction

H_{D4}:- The state of domicile of the customer has no differentiation on online customer satisfaction.

H_{D4A}:- The state of domicile of the customer has significant differentiation on online customer satisfaction.

METHODOLOGY

In this busy life, we want everything at a convenience whether its about mobile recharges, or bank transactions, the same is the case of online shopping. The paper tries to examine the impact which enjoyment and excitement bear on online shopping intentions.

DATA COLLECTION

A self-administered, structured questionnaire was made to collect the data. The designed questionnaire was uploaded on google drive, and the link had been sent to around 200 respondents i.e. our target sample size. Out of which 150 were filled and in these 150 the blank forms were dropped out.

MEASURES

A questionnaire comprising of 4 sections with 24 questions was used for the purpose of measurement. For the study, a seven point and a five point Likert scale was used ranging from "Strongly Disagree to Strongly Agree", as it is more reliable and provides a greater volume of data.

DATA ANALYSIS TECHNIQUE

For the purpose of this study, extensive use of the Statistical software known as the Statistical Package for Social Sciences (SPSS) is used to calculate various factors to know relations between variables in order to prove the hypotheses. The following tools used for the analysis and interpretation are: T-test, Anova, Regression analysis.

FINDINGS & INTERPRETATIONS

Regarding Demographics

H_{D1}:- The age of the customer has no differentiation on online customer satisfaction.

H_{D1A}:- The age of the customer has significant differentiation on online customer satisfaction.

ANOVA					
MEAN_CS					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.873	7	.268	2.415	.023
Within Groups	15.508	140	.111		
Total	17.381	147			

An ANOVA analysis was conducted to compare consumer satisfaction as a condition of age. There was a significant difference in scores for age ($M=3.000000$, $S.d=1.90595$) and customer satisfaction ($M=2.8836$, $S.d=.34386$) conditions, $t(=.748, p=0.023)$. These results suggest that age really does have an effect on consumer satisfaction. Specifically there is a significant role of age in online customer satisfaction.

H_{D2}:- The gender of the customer has no differentiation on online customer satisfaction.

H_{D2A}:- The gender of the customer has significant differentiation on online customer satisfaction

An independent sample t test was conducted to compare consumer satisfaction as a condition of gender. There was a significant difference in scores for gender ($M=2.8813161$, $S.d=.343682$) and customer satisfaction ($M=2.8836$, $S.d=.34386$) conditions, $t(=.434, p=0.665)$. These results suggest that gender really does not have an effect on consumer satisfaction. Specifically there is no significant role of age in online customer satisfaction.

Independent Samples Test								
		t-test for Equality of Means						
		t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
MEAN_CS	Equal variances assumed	.434	146	.665	.02502	.05758	-.08878	.13882
	Equal variances not assumed	.437	132.081	.663	.02502	.05722	-.08818	.13821

H_{D3}:- The occupation of the customer has no differentiation on online customer satisfaction.

H_{D3A}:- The occupation of the customer has significant differentiation on online customer satisfaction

ANOVA					
MEAN_CS					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.639	4	.410	3.723	.006
Within Groups	15.742	143	.110		
Total	17.381	147			

An ANOVA analysis was conducted to compare consumer satisfaction as a condition of occupation. There was a significant difference in scores for occupation ($M=2.5608$, $S.d=1.179$) and customer satisfaction ($M=2.8836$, $S.d=.34386$) conditions, $t(=-3.47, p=0.006)$. These results suggest that occupation really does have an effect on consumer satisfaction. Specifically there is a significant role of occupation in online customer satisfaction

H_{D4} :- The state of domicile of the customer has no differentiation on online customer satisfaction.

H_{D4A} :- The state of domicile of the customer has significant differentiation on online customer satisfaction.

ANOVA					
MEAN_CS					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.272	2	.136	1.153	.319
Within Groups	17.109	145	.118		
Total	17.381	147			

An ANOVA analysis was conducted to compare consumer satisfaction as a condition of state of domicile. There was a significant difference in scores for state of domicile ($M=1.54$, $S.d=0.59$) and customer satisfaction ($M=2.8836$, $S.d=.34386$) conditions, $t(=-24.57$, $p=0.319$). These results suggest that state of domicile really does not have an effect on consumer satisfaction. Specifically there is no significant role of state of domicile on in online customer satisfaction

Descriptive Related to Websites Used

website mostly used					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	myntra	84	56.0	56.0	56.0
	snapdeal	9	6.0	6.0	62.0
	Flipkart	9	6.0	6.0	68.0
	jabong	23	15.3	15.3	83.3
	ebay	6	4.0	4.0	87.3
	yebhi	9	6.0	6.0	93.3
	star cj	4	2.7	2.7	96.0
	Others	6	4.0	4.0	100.0
	Total	150	100.0	100.0	

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
website mostly used	150	1.00	8.00	2.5400	2.09707
Valid N (listwise)	150				

HYPOTHESIS ANALYSIS

H_0 :- Perceived usability has no significant impact on intention to shop online.

H_{0A} :- Perceived usability has significant impact on intention to shop online. (Alternative Hypothesis)

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.776	1	28.776	102.108	.000 ^b
	Residual	41.145	146	.282		
	Total	69.921	147			
a. Dependent Variable: MEAN_OSI						
b. Predictors: (Constant), MEAN_PU						

Coefficients ^a						
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.546	.316		8.048	.000
	MEAN_PU	.564	.056	.642	10.105	.000
a. Dependent Variable: MEAN_OSI						

A linear regression was conducted to compare online shopping intention as a condition of perceived usefulness. There was a significant difference in scores for perceived usefulness ($M=5.61$, $S.d=0.78$) and online shopping intention ($M=5.71$, $S.d=0.68$) conditions, $t(=10.10, p=0.000)$. These results suggest that perceived usefulness really does have an effect on online shopping intention. Specifically there is a significant role of perceived usefulness on in online shopping intention

H_1 :- Perceived ease of use has no significant impact on intention to shop online.

H_{1A} :- Perceived ease of use has significant impact on intention to shop online.(Alternative Hypothesis)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.949	1	26.949	91.561	.000 ^b
	Residual	42.972	146	.294		
	Total	69.921	147			
a. Dependent Variable: MEAN_OSI						
b. Predictors: (Constant), MEAN_PEU						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.892	.402		4.708	.000
	MEAN_PEU	.662	.069	.621	9.569	.000
a. Dependent Variable: MEAN_OSI						

A linear regression was conducted to compare online shopping intention as a condition of perceived ease of use. There was a significant difference in scores for perceived ease of use ($M=5.61$, $S.d=0.78$) and online shopping intention ($M=5.71$, $S.d=0.68$) conditions, $t(=9.56, p=0.000)$. These results suggest that perceived ease of use really does have an effect on online shopping intention. Specifically there is a significant role of perceived ease of use in online shopping intention

H_2 :- Perceived Enjoyment has no significant impact on intention to shop online.

H_{2A} :- Perceived Enjoyment has significant impact on intention to shop online.(Alternative Hypothesis)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.642	1	35.642	151.805	.000 ^b
	Residual	34.279	146	.235		
	Total	69.921	147			
a. Dependent Variable: MEAN_OSI						
b. Predictors: (Constant), MEAN_PE						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.786	.241		11.567	.000
	MEAN_PE	.506	.041	.714	12.321	.000
a. Dependent Variable: MEAN_OSI						

A linear regression was conducted to compare online shopping intention as a condition of perceived enjoyment. There was a significant difference in scores for perceived enjoyment ($M=6.77$, $S.d=0.99$) and online shopping intention ($M=5.71$, $S.d=0.68$) conditions, $t(=12.32, p=0.000)$. These results suggest that perceived enjoyment really does have an effect on online shopping intention. Specifically there is a significant role of perceived enjoyment on in online shopping intention

H₃:- Intention to Shop Onlinehas no significant impact on customer satisfaction.

H_{3A}:- Intention to Shop Onlinehas significant impact on customer satisfaction.(Alternative Hypothesis)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.002	1	.002	.018	.893 ^b
	Residual	17.379	146	.119		
	Total	17.381	147			
a. Dependent Variable: MEAN_CS						
b. Predictors: (Constant), MEAN_OSI						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.852	.237		12.013	.000
	MEAN_OSI	.006	.041	.011	.135	.893
a. Dependent Variable: MEAN_CS						

A linear regression analysis was conducted to compare customer satisfaction as a condition of online shopping intention. There was a significant difference in scores for online shopping intention (M=5.71, S.d=0.68)and customer satisfaction (M=2.8836, S.d=.34386) conditions, $t(=0.135, p=0.893)$. These results suggest that online shopping intention really does not have an effect on online shopping intention. Specifically there is no significant role ofonline shopping intention on customer satisfaction.

SUMMARY OF FINDINGS

S.NO	HYPOTHESIS	Accepted/Not Accepted	Sig.	Mean	St. Dev.	T-test
1.	H_{D1} :- The age of the customerhas no differentiation on online customer satisfaction.	Not Accepted	.023	2.8836	.34386	19.275
2	H_{D1A} :-The age of the customerhas significant differentiation on onlinecustomer satisfaction.	Accepted				
3	H_{D2} :- The gender of the customerhas Nodifferentiation on online customer satisfaction.	Accepted	.665	5.7628	0.68736	34.956
4	H_{D2A} :- The gender of the customerhas significant differentiation on online customer satisfaction	Not Accepted				
5	H_{D3} :- The occupation of the customer has no differentiation on online customer satisfaction.	Not Accepted	.006	2.8836	.34386	26.250
6	H_{D3A} :-The occupation of the customer has significant differentiation on online customer satisfaction.	Accepted				
7	H_{D4} :- The state of domicile of the customerhas no differentiation on online customer satisfaction.	Accepted	.319	2.8836	.34386	31.547
8	H_{D4A} :- The state of domicile of the customerhas significant differentiation on online customer satisfaction.	Not Accepted				

9	H₀ :- Perceived usability has no significant impact on intention to shop online.	Not Accepted	.000	5.6179	0.78504	8.048
10	H_{0A} :- Perceived usability has significant impact on intention to shop online. (Alternative Hypothesis)	Accepted				
11	H₁ :- Perceived ease of use has no significant impact on intention to shop online.	Not Accepted	.000	5.7703	0.64665	4.708
12	H_{1A} :- Perceived ease of use has significant impact on intention to shop online. (Alternative Hypothesis)	Accepted				
13	H₂ :- Perceived Enjoyment has no significant impact on intention to shop online.	Not Accepted	.000	5.7866	0.9736	11.567
14	H_{2A} :- Perceived Enjoyment has significant impact on intention to shop online. (Alternative Hypothesis)	Accepted				
15	H₃ :- Intention to Shop Onlinehas no significant impact on customer satisfaction.	Accepted	.893	5.7123	0.6896	12.013
16	H_{3A} :-Intention to Shop Onlinehas significant impact on customer satisfaction. (Alternative Hypothesis)	Not Accepted				

LIMITATIONS

The main limitation of this paper is time constraint. In a short span of time, we had to manage with a small sample size along with limited resources. As the questionnaire was online, there was less familiarity among the respondents. But as the online shopping has huge potential, the paper maintains the same status quo and can be used in future for a research at a bigger level.

CONCLUSION

From the study a conclusion can be drawn, which led us to the overall impact that respondents were positively influenced by their intention to shop online which was evaluated by regression analysis, although intention to shop online did not show a significant impact on online customer satisfaction, The study showed positive as well as significant impact of enjoyment and excitement on intention to shop online.

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ANNEXURES

General Demographics

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10-15	51	34.0	34.0	34.0
	15-20	19	12.7	12.7	46.7
	20-25	19	12.7	12.7	59.3
	25-30	29	19.3	19.3	78.7
	30-35	15	10.0	10.0	88.7
	35-40	9	6.0	6.0	94.7
	40-45	6	4.0	4.0	98.7
	8.00	2	1.3	1.3	100.0
Total		150	100.0	100.0	

Stateofdomicile					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Madhya Pradesh	77	51.3	51.3	51.3
	Mumbai	65	43.3	43.3	94.7
	Others	8	5.3	5.3	100.0
	Total	150	100.0	100.0	

Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	business	44	29.3	29.3	29.3
	housewife	16	10.7	10.7	40.0
	student	62	41.3	41.3	81.3
	service	21	14.0	14.0	95.3
	Others	7	4.7	4.7	100.0
	Total	150	100.0	100.0	

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	89	59.3	59.3	59.3
	female	61	40.7	40.7	100.0
	Total	150	100.0	100.0	

Regarding Demographics

H_{D1} :- The age of the customerhas no differentiation on online customer satisfaction.

H_{D1A} :- The age of the customerhas significant differentiation on online customer satisfaction.

Descriptives								
MEAN_CS								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
10-15	50	2.7567	.23621	.03340	2.6895	2.8238	2.17	3.33
15-20	19	3.0404	.42464	.09742	2.8357	3.2450	2.33	4.17
20-25	19	2.9298	.43502	.09980	2.7201	3.1395	2.00	3.67
25-30	28	2.9583	.35026	.06619	2.8225	3.0942	2.50	4.00
30-35	15	2.8778	.29859	.07709	2.7124	3.0431	2.17	3.50
35-40	9	2.9815	.26932	.08977	2.7745	3.1885	2.50	3.33
40-45	6	2.9444	.44305	.18088	2.4795	3.4094	2.50	3.50
8.00	2	2.5000	.00000	.00000	2.5000	2.5000	2.50	2.50
Total	148	2.8836	.34386	.02827	2.8277	2.9394	2.00	4.17

H_{D2}:- The gender of the customerhas no differentiation on online customer satisfaction.

H_{D2A}:- The gender of the customerhas significant differentiation on online customer satisfaction

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
MEAN_CS	Male	87	2.8939	.34973	.03750
	female	61	2.8689	.33763	.04323

H_{D3}:- The occupation of the customerhas no differentiation on online customer satisfaction.

H_{D3A}:- The occupation of the customerhas significant differentiation on online customer satisfaction

Descriptives								
MEAN_CS								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
business	42	2.7857	.27861	.04299	2.6989	2.8725	2.17	3.50
housewife	16	2.7813	.24884	.06221	2.6487	2.9138	2.50	3.50
student	62	2.8887	.37712	.04789	2.7929	2.9845	2.00	4.17
service	21	3.0635	.34350	.07496	2.9071	3.2198	2.50	3.67
Others	7	3.1190	.31497	.11905	2.8277	3.4103	2.83	3.50
Total	148	2.8836	.34386	.02827	2.8277	2.9394	2.00	4.17

H_{D4}:- The state of domicile of the customerhas no differentiation on online customer satisfaction.

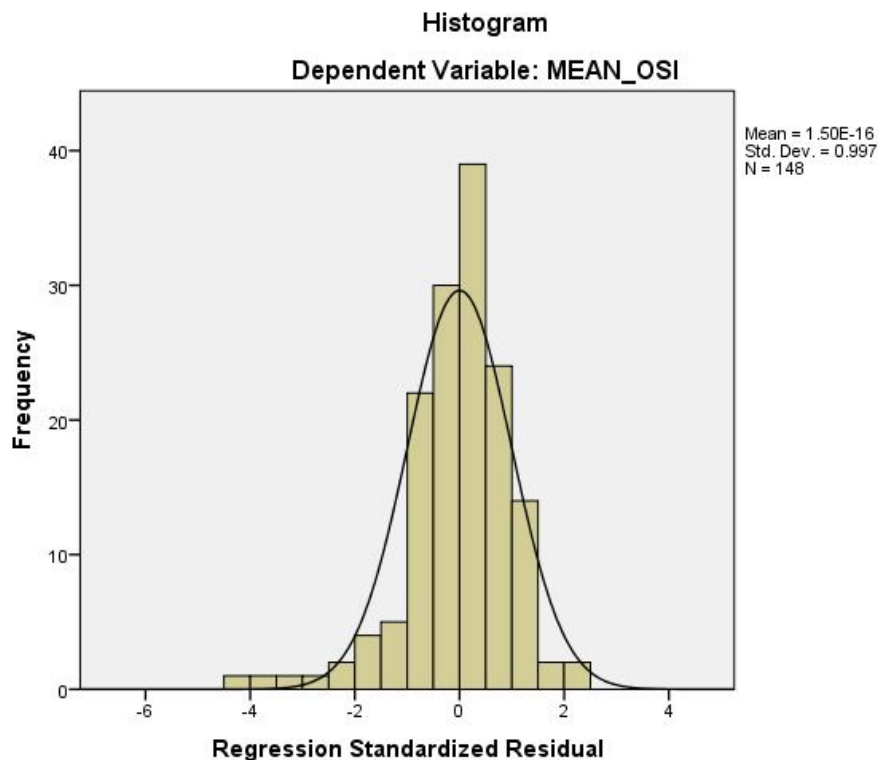
H_{D4A}:- The state of domicile of the customerhas significant differentiation on online customer satisfaction.

Descriptives								
MEAN_CS								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Madhya Pradesh	76	2.8706	.35024	.04017	2.7906	2.9506	2.00	4.17
Mumbai	64	2.8766	.32179	.04022	2.7962	2.9569	2.17	3.60
Others	8	3.0625	.44488	.15729	2.6906	3.4344	2.33	3.67
Total	148	2.8836	.34386	.02827	2.8277	2.9394	2.00	4.17

Regarding Hypothesis

H_0 :- Perceived usability has no significant impact on intention to shop online.

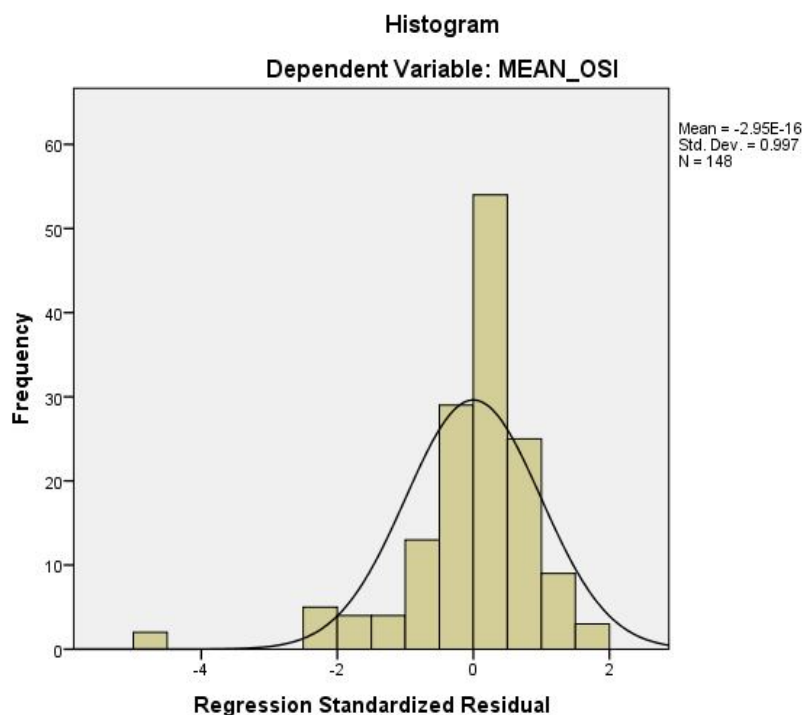
H_{0A} :- Perceived usability has significant impact on intention to shop online.(Alternative Hypothesis)



H_1 :- Perceived ease of use has no significant impact on intention to shop online.

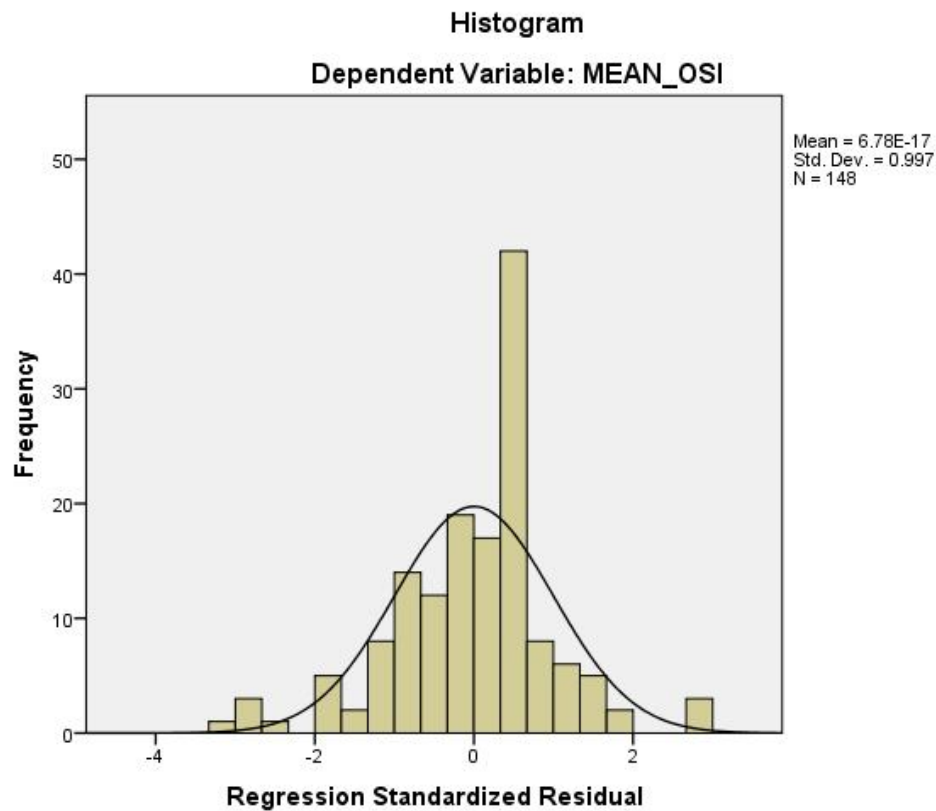
H_{1A} :- Perceived ease of use has significant impact on intention to shop online.(Alternative Hypothesis)

a. Dependent Variable: MEAN_OSI



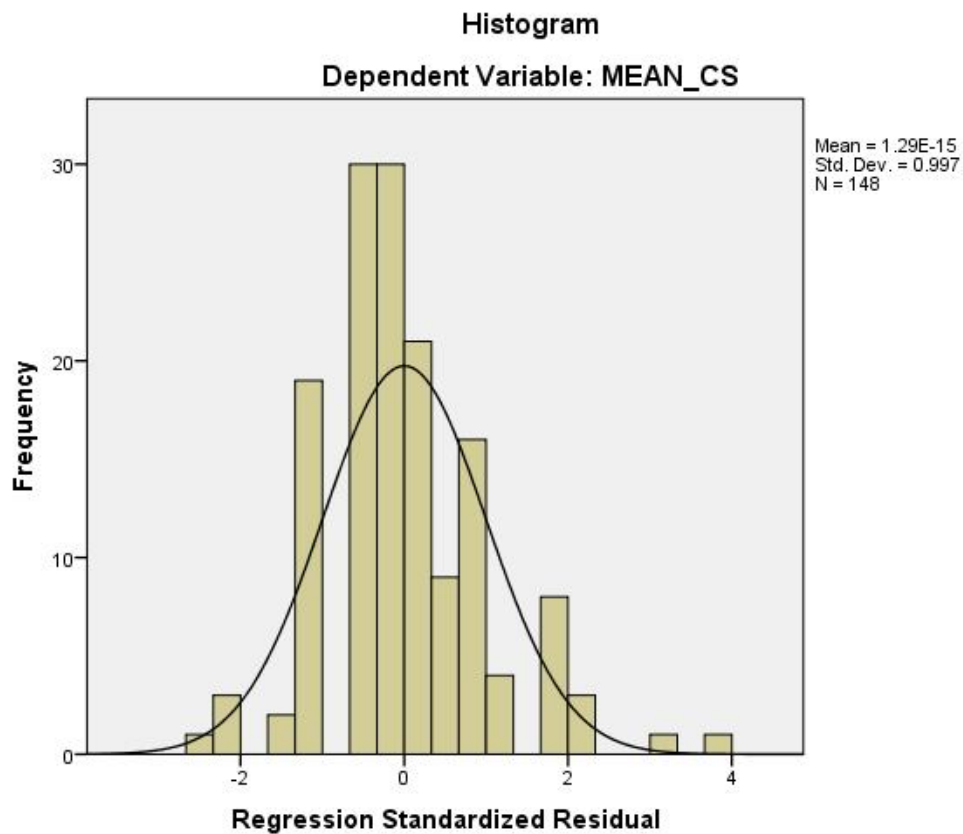
H_2 :- Perceived Enjoyment has no significant impact on intention to shop online.

H_{2A} :- Perceived Enjoyment has significant impact on intention to shop online.(Alternative Hypothesis)



H_3 :- Intention to Shop Onlinehas no significant impact on customer satisfaction.

H_{3A} :- Intention to Shop Onlinehas significant impact on customer satisfaction.(Alternative Hypothesis)



RISK MANAGEMENT AND INVESTORS PREFERENCE IN INDIAN STOCK MARKET

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ABSTARCT

Financial literacy nowadays has become important for every person. The development of economic form of organization marks turning point for rapid industrialization and economic growth. As we all know that India's economy is highly developing and the key to this development is the growth in the Indian stock markets. NIFTY has crossed 10000 points for the first time in history and is expected to grow more. This financial system provides investors various options to invest thus development of the economy depends on how these investors invest for the wellbeing in long run. Getting financial knowledge has become important for investors. Investors want to get the most out of their investments thus they are very hesitant to choose among the various options to invest in the market. Investors have a lot of options to invest in the market but they opt for those investments which guarantees return with minimal risk.

The purpose of this paper was to find out the awareness among Karvy customers about financial literacy. After performing the detailed research by doing calls to Karvy dormant account holders, doing market surveys, and targeting new customers for Karvy. It is observed that approx. 70% people are unaware about financial literacy but most of them are interested to make investments which could guarantee them returns.

Keywords: Karvy, financial literacy, financial knowledge, investments, risk & return

KARVY STORY

One fateful evening in the summer of 1982, 5 young men who worked for a renowned chartered accountancy firm decided that it was time they struck out on their own to create an enterprise that would someday become an iconic name in the financial services space.

They came from ordinary middle class backgrounds. They had two assets; one was their education and the other an unquenchable desire to succeed. They had a lot stacked against them: the environment was not conducive to entrepreneurship; technology was not fully supportive, financial markets were largely unregulated; they were based out of Hyderabad while most key players in the financial world were in Mumbai or other metros and the wolf was at the door. The odds seemed insurmountable.

These remarkable young men's "Never say die" approach held them in good stead over the years. They stuck to their dreams, burnt the midnight oil, embraced technology and made it work for them and through sheer dint of determination, eventually overcame all obstacles.

First came the registry business, followed by broking, and the rest became a lesson for every young individual to emulate.

ABOUT KARVY

KARVY, Group was formed in 1983 at Hyderabad, India. India's largest Registrar and Transfer Agent service over 500+ corporate and managing over 70,000,000 accounts making it the market leader. Ranked among the top five stock brokers in India, Karvy Stock Broking is known for its high standards and excellent service delivery. Karvy Stock Broking Limited is a member of the National Stock Exchange of India and the Bombay Stock Exchange With over 6,00,000 active accounts, it ranks among the top five Depository Participant in India, registered with NSDL and CDSL. Karvy Comtrade, a member of NCDEX and MCX ranks among the top three commodity brokers in the country. Registered with AMFI as a corporate Agent, Karvy is also among the top Mutual Fund mobilizer with over Rs. 5000 Crore under management. Karvy Realty Services, which started in 2006, has quickly established itself as a broker who adds value, in the realty sector. Karvy Global offers niche off shoring services to its US clients. Karvy has 575 offices over 375 locations across India and overseas at Dubai and New York. Over 10,000 highly qualified people work for Karvy.

FINANCIAL SERVICES BY KARVY

- Equity Broking Services
- Depository Participant Services
- Distribution of Financial Products
- Currency Derivatives

- Wealth Management Services
- Portfolio Management Services
- Karvy Fortune
- Investment Banking
- Commodities Broking
- Non - Banking Financial Service
- Realty Services
- Registry Services
- Forex & Currencies
- Insurance Repository

STOCK BROKING SERVICES

It offer trading on a vast platform; National Stock Exchange, Bombay Stock Exchange and Hyderabad Stock Exchange. More importantly, we make trading safe to the maximum possible extent, by accounting for several risk factors and planning accordingly. We are assisted in this task by our in-depth research, constant feedback and sound advisory facilities. Our highly skilled research team, comprising of technical analysts as well as fundamental specialists, secure result-oriented information on market trends, market analysis and market predictions. This crucial information is given as a constant feedback to our customers, through daily reports delivered thrice daily; The Pre-session Report, where market scenario for the day is predicted, The Mid-session Report, timed to arrive during lunch break, where the market forecast for the rest of the day is given and The Post-session Report, the final report for the day, where the market and the report itself is reviewed. To add to this repository of information, we publish a monthly magazine "Karvy-The Finpolis" which analyses the latest stock market trends and takes a close look at the various investment options, and products available in the market, while a weekly report, called "Karvy - Bazaar Baatein" keeps you more informed on the immediate trends in the stock market. Our Stock Broking services are widely networked across India, with the number of our trading terminals providing retail stock broking facilities. Our services have increasingly offered customer oriented convenience, which we provide to a spectrum of investors, high-net worth or otherwise, with equal dedication and competence.

2. DEPOSITORY PARTICIPANTS

The onset of the technology revolution in financial services Industry saw the emergence of Karvy as an electronic custodian registered with National Securities Depository Ltd (NSDL) and Central Depository Services Ltd (CDSL) in 1998. Karvy set standards enabling further comfort to the investor by promoting paperless trading across the country and emerged as the top 3 Depository Participants in the country in terms of customer serviced.

3. DISTRIBUTION OF FINANCIAL PRODUCTS

The paradigm shift from pure selling to knowledge based selling drives the business today. With our wide portfolio offerings, it occupies all segments in the retail financial services industry.

4. ADVISORY SERVICES

Under our retail brand 'Karvy – the Finapolis', we deliver advisory services to a cross-section of customers. The service is backed by a team of dedicated and expert professionals with varied experience and background in handling investment portfolios.

RISK MANAGEMENT AND RETURNS IN FINANCIAL MARKETS

RISK : Risk is a concept that denotes a potential negative impact to an asset or some characteristic of value that may arise from some present process or future event. Risk is uncertainty of the income / capital appreciation or loss of the both.

The term Market risk applies to (i) that part of IRR which affects the price of interest rate instruments, (ii) Pricing risk for all other assets/ portfolio that are held in the trading books and (iii) Foreign Currency Risk.

RISK MANAGEMENT -NEED, STRATEGIES & PROCESS

Purpose of Risk Management is :

- To minimize potential risk and loss to business.

- To enhance responsiveness of business in case of a risk manifestation.
- To create capability within the business to absorb the impact of risk and continue ahead.
- To increase the performance of the business.

Risk Management process steps are -

- Identify the Risk and Risk events
- Analyze the probability of Risk and Risk events
- Accept the Risk and probability
- Analyze the Impact of Risk
- Identify the Risk Mitigation activities
- Take Risk Mitigation activities
- Create awareness of Risk within the business
- Create Capability to implement the mitigation actions within the business
- Create capability to absorb shock within the business
- Build alternate business models bereft of the risk
- Create Trigger points for mitigation, alternate model implementation.
- Put in place an organization wide information network to share all the risk related information
- Create processes for regular monitoring, measuring and rearguard actions for risk events.
- Create Change Management techniques and processes for adoption of alternate models
- Create back up plans and build the redundancy to ensure the business continuity.
- Business continuity planning to be part of the risk management conundrum.

The Risk Management Strategies are-

- Risk avoidance - Eliminate the possibility of Risk by avoiding the risk event or creating a counter event.
- Risk transfer - Transfer the risk impact or consequences of loss to another willing party aka Insurer.
- Risk reduction - Reduce the risk impact by taking safety measures and building alternate avenues to lower the losses of the risk.
- Risk assumption - Accept a risk and build internal capability to absorb the risk consequence as eliminating the risk and other strategies are too expensive

Risk Management being of utmost importance, specifically for Banking Industry, the Basel norms have been implemented which will create a complete risk management matrix for the banks to measure, monitor, manage and publish the risk of their business on Credit risk, Market risk and Operational risk.

RETURNS: The return is the motivating force and the principal reward in the investment process. It is the gain or loss from a security in a particular period. The return may be defined in terms of (a) realized return i.e., the return which was earned or could have been earned, and the (b) expected return i.e., the return which the investor anticipate to earn over some future period.

For an investor, the return from an investment is the expected cash inflows in terms of dividends, interests, bonus, capital gains etc., available to the holder for an investment. With reference to investment in equity shares, return is consisting of the dividends and the capital gain/loss at the time of sale of these shares and may be defined in terms of equation.

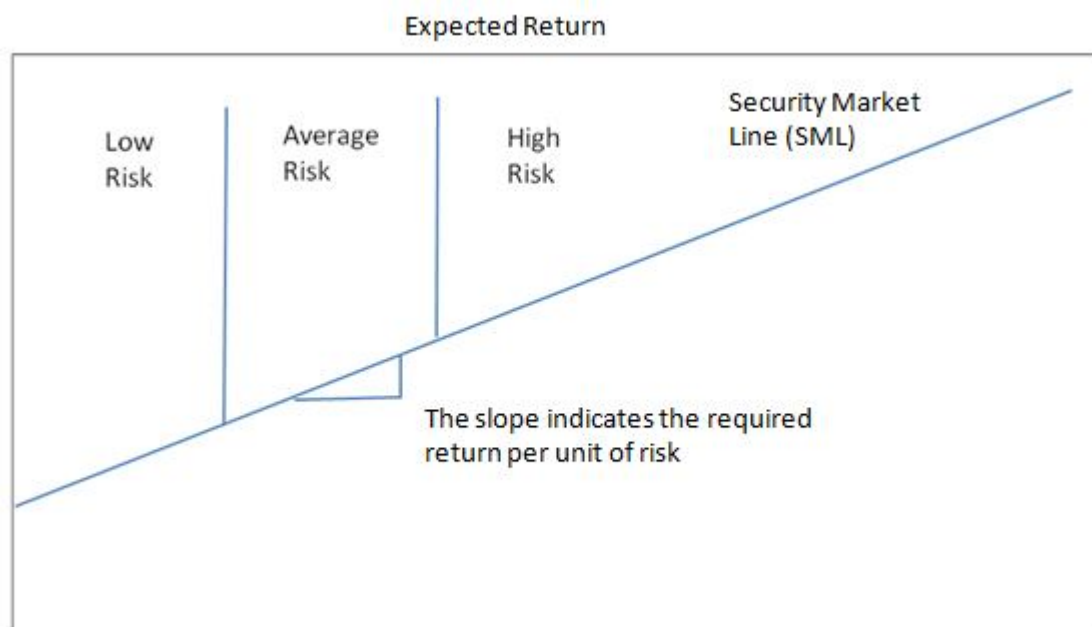
RELATIONSHIP BETWEEN RISK AND RETURN

The graph below shows the expected relationship between risk and return. It shows the investors increase their required rates of return as perceived risk (uncertainty) increases. The line that reflects the combination of risk and return available on alternative investments is referred to as security market line (SML), which reflects the

risk – return combinations available for all risky assets in the capital market at a given time. Investors would select investments that are consistent with their risk preferences; some would consider only low risk investments, whereas others welcome high risk investments. Beginning with an initial SML, three changes occur;

1. Individual investments can change position on the SML because of changes in the perceived risk of the investments.
2. The slope of the SML can change because of a change in the attitudes of the investors toward risk; that is, investors can change the returns they require per unit of risk.
3. The SML can experience a parallel shift due to expected rate of inflation. These three possibilities can happen.

So, if an investment's risk changes due to a change in one of its risk sources (business risk, and such), it will move along the SML. For example, if a firm increases its financial risk by selling a large bond issue that increases its financial leverage, investors will perceive its common stock as riskier and the stock will move up the SML to a higher risk position. Investor will then require a higher rate of return. As the common stock becomes riskier, it changes its position on the SML.



LITERATURE REVIEW

Rao (2011).¹ directed examination on "Investigation of individual speculator conduct Towards Mutual Fund Scheme". In this examination creator presents common reserve speculator mindfulness and reception of various plans with instructive dimension. The exploration discoveries demonstrated that with expanded dimension of instruction is connected with more serious hazard resistance. This will in general help the speculation created in past examines for example positive relationship exists between instructive fulfilment and money related hazard resilience.

Hossein Panahian et al (2011)² Demonstrated that financial specialists' mentality towards Straight forwardness and exposure of monetary data, Board structure and execution, corporate issues and reconnaissance measures in financial exchange and, at long last, the proprietorship structure had the best impact in clarifying financial specialists' conduct in Tehran Stock Exchange. Subsequently, focusing on various parts of such cases as giving data on schedule, availability and dependability of data accommodated speculators thinking about the inclination of substance over structure just as giving suitable data about Board structure and execution, corporate issues and possession structure can be a decent system to draw in financial specialists and urge them to go to all the more effectively in securities exchange.

Saini et., al. (2011)³. dissected investor's conduct, investors' sentiment and observation identifying with different issues like kind of common reserve conspire, its target, job of budgetary consultants/merchants, wellsprings of data, lacks in the arrangement of administrations, investors' feeling identifying with elements that draw in them to contribute in common and difficulties before the Indian shared reserve industry and so on.

The examination found that financial specialists look for liquidity, straightforwardness in offer reports, web based exchanging, ordinary refreshes through SMS and stringent follow up of arrangements laid by AMFI.

Kousalya P R and Gurusamy P (2012)4. saw in their investigation on „Women Investors“ Perception towards Investments“ that there is no noteworthy relationship between age of the ladies’ speculators and dimension of mindfulness on venture. They have additionally presumed that the instructive dimension of ladies’ speculators does not impact the dimension of mindfulness.

Binod Kumar Singh (2012)5. in his investigation saw that a large portion of respondents are still befuddled about the common assets and have not shaped any frame of mind towards the shared store for venture reason. It has been seen that the vast majority of the respondents Having absence of mindfulness about the different capacity of common assets. Also, as far as the statistic factors are concerned, sexual orientation, salary and dimension of training have fundamentally impact the investors“ frame of mind towards shared assets. Then again the other two statistic factors like age and occupation have not been found affecting the mentality of investors“ towards common assets.

Meenakshi Chaturvedi, Shruti Khare (2012)6. broadcasted that the period of financial specialist can't be taken to impact their dimension of mindfulness and it is obvious from the outcomes that the sexual orientation of the financial specialist has no impact or effect on his or dimension of mindfulness about any venture channel.

Singh (2012)7. Directed an experimental investigation of Indian financial specialists and watched that the vast majority of the respondents don't have much mindfulness about the different capacity of shared assets and they are bit confounded with respect to interest in common assets. They consider found that some statistic factors like sexual orientation, salary and dimension of training have their huge effect over the frame of mind towards shared assets. In actuality age and occupation have not been found affecting the investor’s frame of mind. The examination seen that arrival potential and liquidity have been seen to be generally worthwhile advantages of interest in shared assets and the equivalent are trailed by adaptability, straightforwardness and reasonableness.

Jothi Baskara Mohan, Ramji P.R. (2013)8. led an investigation on „Women Financial Specialists Recital at Rajapalayam City - A Study“. The after-effects of the examination demonstrate that 92 percent of respondents know about Investment and remaining 8 percent are uninformed of Investment roads

RESEARCH METHADODOLOGY

The research methodology adopted is fully based on primary data via which the most recent and accurate piece of first-hand information could be collected.

The main tools used were Questionnaire method.

Types of Research Methodology used:

EXPLORATORY

Type of research carried out was exploratory in nature; the objective of such research is to determine the areas where the drawback of the company lies and also to identify the course of action to solve it. The data provided was dormant account holders of Karvy. Looking in their portfolios and asking them to trade again through calling and conducting client meetings.

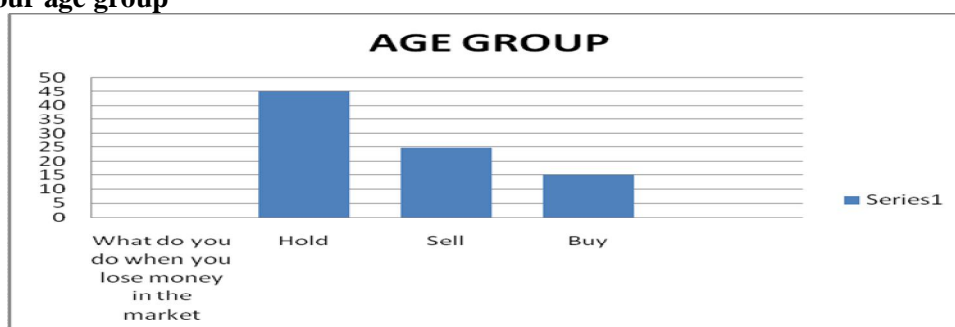
DESCRIPTIVE

In this type of the research methodology the tool used was a questionnaire and asking people to fill up their feedback about the understanding the knowledge of the financial markets.

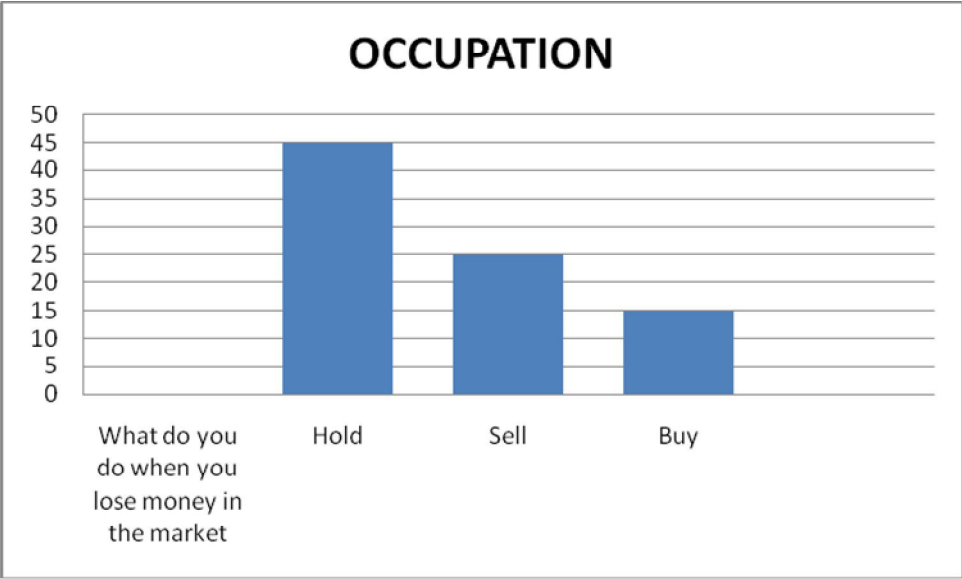
The questionnaire was designed keeping in mind that the investors understand the complete questions and it was also aimed to know their knowledge about the financial markets and the various options to invest in the trading market.

DATA ANALYSIS AND INTERPRETATION

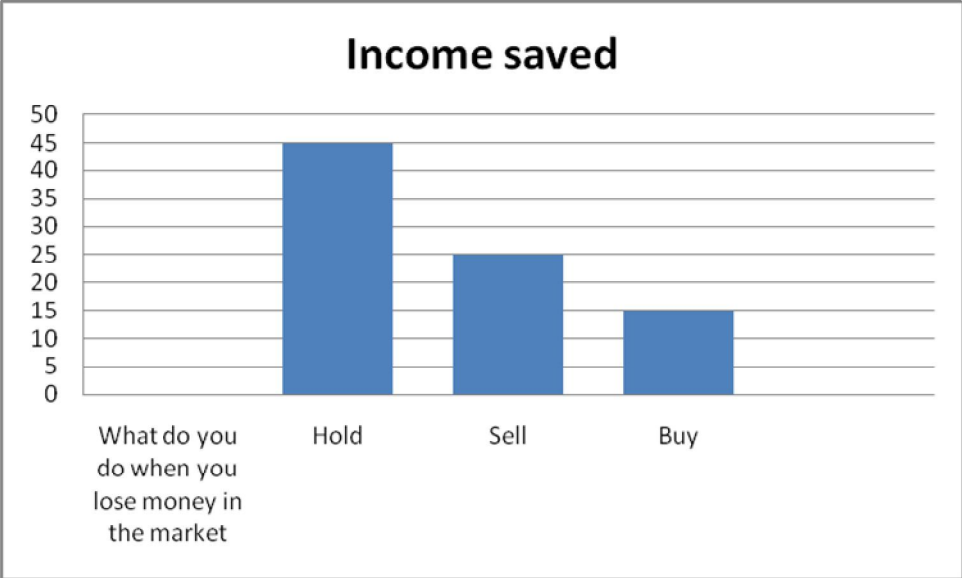
Q. 1) Select your age group



Q.2) What is your occupation?



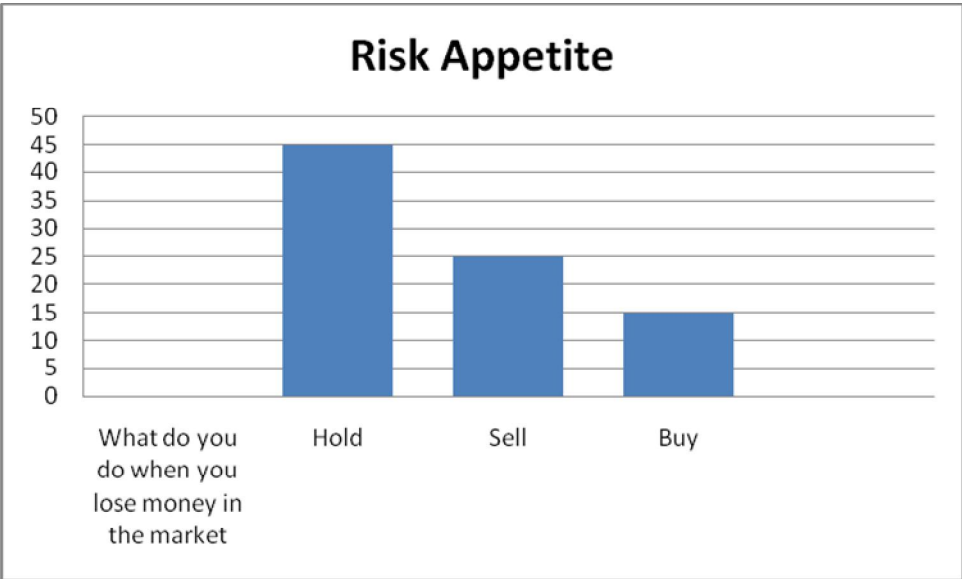
Q.3) What % of income do you save?



Q.4) Awareness about financial markets?



Q.5) Define your risk appetite?



Q.6) Have you ever traded in the past?



Q.7) In what instrument do you trade?



Q. 8) What do you do when you lose money in the market?**FINDINGS**

- We have targeted the young lot of the country who have just started earning and look for options and are willing to take chances to make their money grow.
- Our preference was to target people who are willing to invest and invest in the market from some time.
- Majority of respondents were people who were working in other firms and look for other ventures to make money.

OBSERVATIONS AND RESULTS

- People who have just started earning and are still young at age and are willing to go the extra mile for extra income are more keen to invest in the market as compared to people who are earning from some time.
- People sometimes have a perception that share markets investments is only beneficial for service people.
- People consider FD's, RD's and other investment benefits more safe and return oriented and consider share markets to be very risky.
- People are willing to invest in the market but again the lack of awareness about the financial markets makes them to hold themselves back and not do investments in the market.
- 80% of the people are willing to invest their money for some time but they want to see results within a year. I met investors who have invested in the market but they say when they don't get any returns for one year they stop investing.

SUGGESTIONS

- The company should try to educate their investors about the products and services KARVY offers before they start investing. As soon as they open an account with KARVY they should be provided with a starter's kit which educates the investors about the scenario of the market at that time.
- KARVY should target young investors who are looking for ways to increase their income. This would also benefit KARVY as that investor will be associated with them for a longer period of time.
- KARVY should plan and adopt some ways that can guarantee the retired a fixed some of income with returns so that they invest regularly.
- KARVY should do a detailed research given the risk appetite and awareness and investment capabilities of an investor. KARVY should maintain a mixed portfolio of everything which would benefit the customer.
- Investors should not blindly rely on their instincts and knowledge, all the aspects should be considered carefully before taking any decision.
- The investor should know some basic fundamental and technical analysis for taking the right decisions and not completely anyone. Careful consideration is very important in stock markets.

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GREEN HRM

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ABSTRACT

The research is an exposure to the existing literature on Green HRM. In today's scenario study of Green HRM has become the need of hour of every organization. Companies engaged in sustainable development have emerged with the trend of Green HRM. There is increasing need of strategic Green HRM. It is the vital role of an organization to protect resources and assure their judicial use. Green HRM refers to the use of Human Resource with an approach of sustainability. The GHRM is a novel area in the HRM field and hence not much research has been done on the area and due this environment is suffering. HRM is one of the most important departments that help in increasing organizations environment performance. The contribution of this paper lies within the roles, importance and requirements of Green HRM. It also consists of process model along with recent trends in Corporates and its initiatives.

1. INTRODUCTION

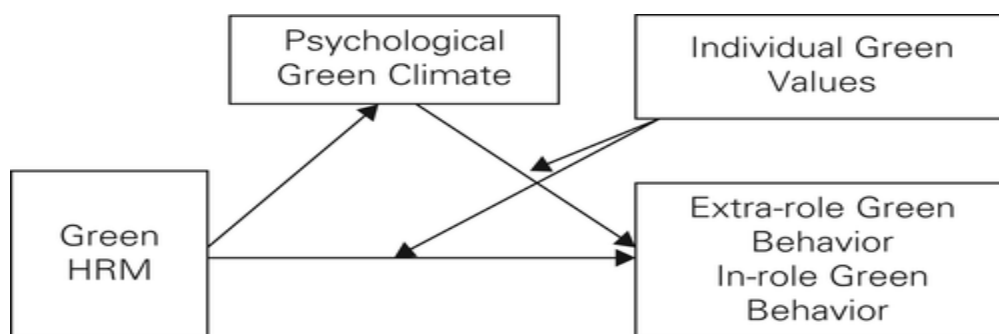
According to Flippo, Human Resource Management is “planning, organizing, directing and controlling of the procurement, development, compensation, integration, maintenance and reproduction of human resources to the end that individual, organizational and societal objectives are accomplished”. Green HRM is the use of HRM policies to support the sustainable use of resources within organizations and, more usually helps the reasons of environment sustainability (Sushma Rani & Dr. K. Mishra, 2014). Green HRM refers to the concern of management towards corporate environmental schedule. It refers to using every employee touch point/interface to promote sustainable practices and increase employee awareness and commitments on the issues of sustainability (Gill Mandip, 2011). Sustainable Development is concern about ability of future generation in meeting their needs. Companies now realize the need to develop a green sense of responsibility. Green rewards can embrace the use of workplace and lifestyle benefits, ranging from carbon credit compensates to free bicycles, to keep people in the green program, as continuing to identify their involvement (Dr. Parul Deshwal, 2015).

What is Green HRM?

The human side of organizations is equally important when managing organizations towards achieving eventual organizational and external societal environmental sustainability, an emerging body of knowledge called “green human resource management” (Charbel Jose Chiapetta Jabbour and Douglas William Scott Renwick,).

The contribution of this article is threefold: 1) to examine and draw together the HR aspects of environmental management and map the terrain in this field, 2) detail a model of HR processes involved in Green HRM, and 3) to propose a research agenda to guide future research in the field of Green HRM (Dr. Douglas Renwick, 2008). Green Human Resource management provides support to sustainable use of resources by the usage of HRM policies within the organization. Prevention and conservation of natural resources is the major objective of Green HRM. It is the side of HRM that is concerned with transforming normal employees into green i.e. environment-friendly employees so as to achieve environmental goals of the organization and finally to make a significant contribution to environmental sustainability (Kathak Mehta , Pawan Kumar Chugan, 2015). Green HR is nothing but the use of HRM policies in such a way that it leads in promoting the use of resources in a sustainable manner (Tripti Chopra , Amrita Nayak, 2015).

Green HRM promotes employee workplace green behavior, and this can be well explained with the help of following diagram:



The Conceptual Model (Jenny Dumont, JieShen, Xin Deng, 2016)

2. OBJECTIVES

The paper mainly has two objectives:

- To find out practices and strategic implementation of Green HRM in Organizations, and
- To examine the importance and roles of Green HRM in today's scenario.

The paper begins with Literature Review of Green HRM and then importance of HRM, its roles involving Green HRM, requirements of Green HRM and a process model and research agenda in Green HRM. Lastly, trends of Green HRM in Corporate with the help of initiatives taken by organizations at present.

3. LITERATURE REVIEW

The Green Human Resources Management (Green HRM) has emerged from companies engaging in practices related to protection of environment and maintaining ecological balance. The source of such initiatives, referred to as green management, is the green movement with its agenda of Protection of Environment and saving the planet Earth from future manmade disasters. Green HRM encompasses all activities aimed at helping an organization carry out its agenda for environment management to reduce its carbon footprint in areas concerns on boarding and acquisition of human resources, their induction, performance management, learning and development and compensation and reward management. Green HRM can play a useful role in business in promoting environment related issues by adopting and following Green HR policies and practices. Green HRM can enhance corporate image and brand. Green HR will play an important role in making the employees aware of and concerned for preservation of natural resources and contribute in pollution control, waste management and manufacture of eco-friendly products. (Prof. Ravi Sharan Prasad, 2013)

Green management initiatives become an important factor in forward-thinking (businesses around the world. Researchers argued that employees must be inspired, empowered and environmentally aware of greening in order to carry out green management initiatives. Corporate green management requires a high level of technical and management skills in employees, since the company will develop innovation-focused environmental initiatives and programmes that have significant managerial implications. However, gaps still exist in the human resource management (HRM) literature on human resource (HR) aspects of environmental management - Green HRM. (SuhaimiSudin, 2011)

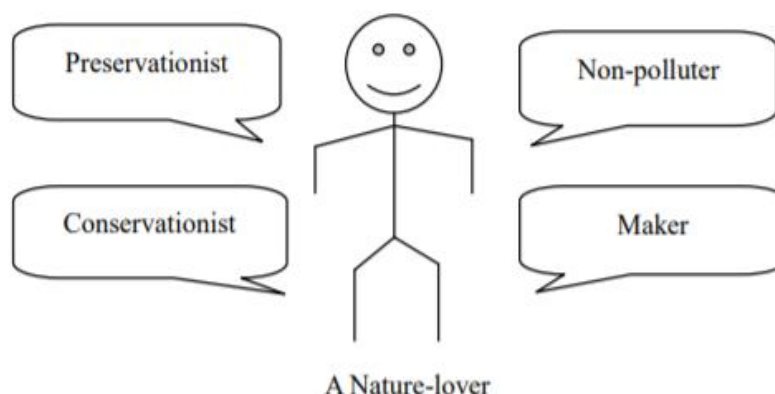
Green human resources refer to using every employee touch point/interface to promote sustainable practices and increase employee awareness and commitments on the issues of sustainability. It involves undertaking environment-friendly HR initiatives resulting in greater efficiencies, lower costs and better employee engagement and retention which in turn, help organizations to reduce employee carbon footprints by the likes of electronic filing, car-sharing, job-sharing, teleconferencing and virtual interviews, recycling, telecommuting, online training, energy-efficient office spaces etc. (Gill Mandip, 2011)

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 modeling. 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. The contribution of this article lies in drawing together the extant literature in this area, mapping the terrain in this field, and in proposing a new process model and research agenda in Green HRM. (Dr. Douglas Renwick, Professor Tom Redman, Dr. Stuart Maguire, 2013)

4. IMPORTANCE OF GREEN HRM

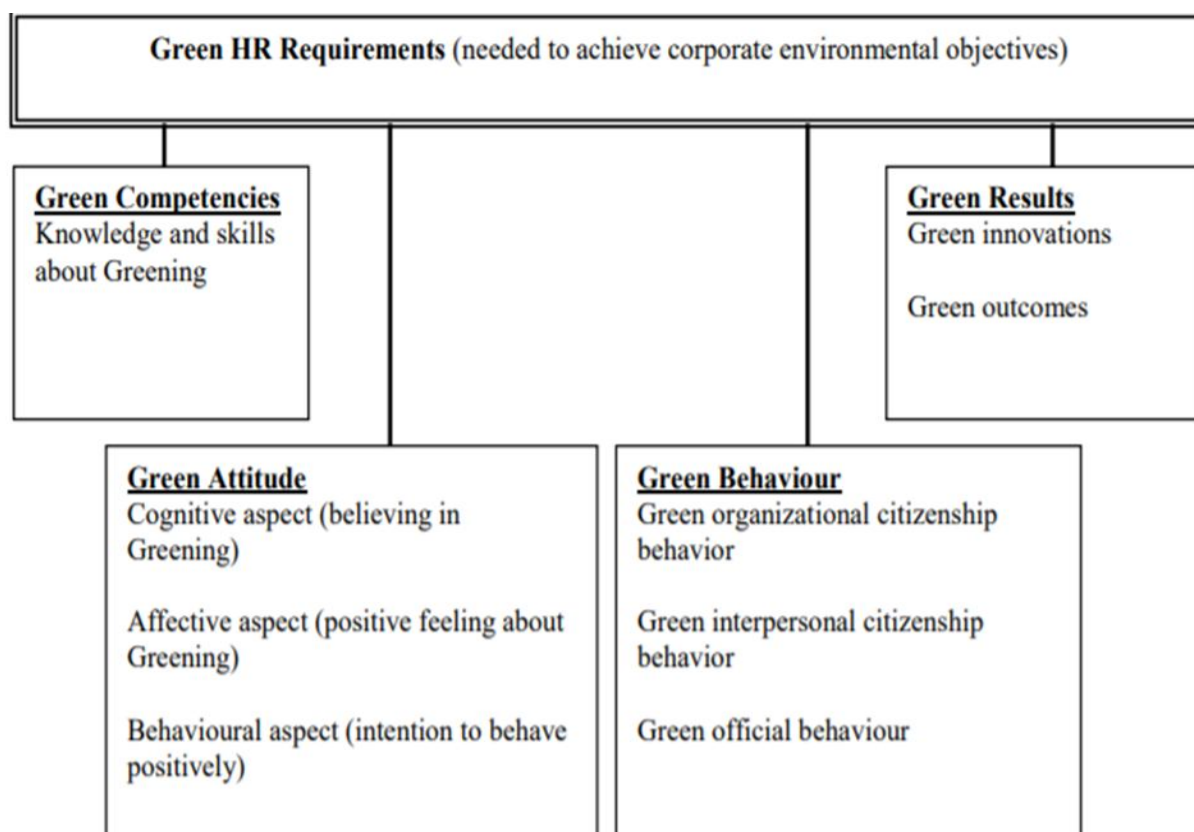
- To be contribute towards welfare of environment and alarming rate of global warming
- To minimize health diseases through pollution
- To minimize cruelty towards animals
- To create balance relationship between environmental factors
- To ensure survival of individuals and organizations

5. ROLES OF GREEN HRM (H. H. D. N. P. Opatha& A. Anton Arulrajah, 2014)

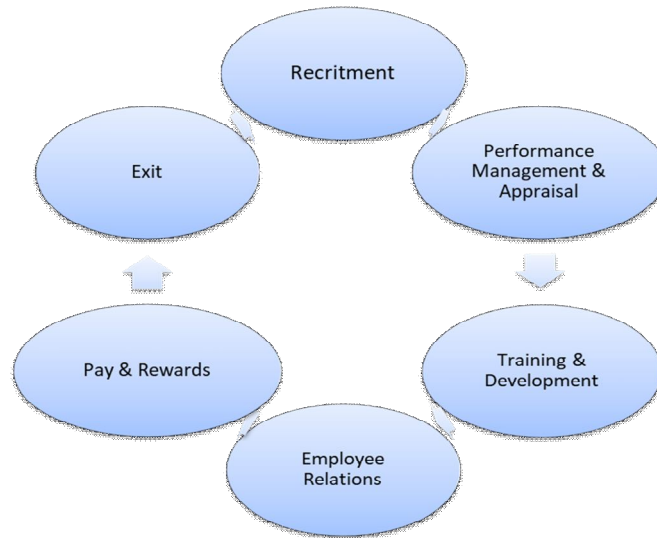


- Preservationist does keeping the natural environment in its original form and protecting it from harm, loss, or negative change.
- Conservationist becomes very careful in the way of using the natural environment in order to let it last as long as possible. In other words, he or she does using the natural environment at the minimum level so that future generations will be able to utilize it.
- Non-polluter does preventing from (or minimizing) contaminating the water, air, atmosphere, etc. through unpleasant and poisonous substances and wastes. In other words he or she becomes a guardian against behaviors and outcomes that will ultimately endanger the planet/earth where humans and non-humans are living.
- Maker does creating gardens and looking-like natural places. In other words he or she intentionally builds parks and places which have plants, trees, and grass.
- In order to cover the four roles which need to be performed by an employee to become green, a composite term, i.e., nature-lover or eco-activist can be used. Hence, a Green employee is a nature-lover or an eco-activist.

6. REQUIREMENTS OF GREEN HRM (Prof. HHDNP Opatha,2013)



7. A PROCESS MODEL AND RESEARCH AGENDA IN GREEN HRM(Dr. Douglas Renwick, Professor Tom Redman & Dr. Stuart Maguire, 2008)



RECRUITMENT	PERFORMANCE MANAGEMENT & APPRAISAL	TRAINING & DEVELOPMENT	EMPLOYEE RELATIONS	PAY & REWARD	EXIT
Green job descriptions for employees (and Green included into managerial job descriptions)	Green performance indicators into performance management systems , & appraisals	Introduce training on EM, & processes/ material use	Green involvement & participation in green suggestion schemes, & problem solving circles	Use of monetary based, non-monetary based and recognition awards in EM	Staff de briefings in EM in case of dismissal
Graduate perceptions of green practices (applicants use green criteria)	Communication of green to all level of staff through PMA scheme, establishing firm wide dialogues on green matter	EM training needs analysis	Staff independence to form & experiment with green ideas	Develop negative reinforcements and positive rewards in EM	Managers to ask if Green issues are reasons for resignations
Green job candidates	Managers are set green targets, roles and responsibilities	Integrating training on instruction and generation of eco-values	Employee help line for guidance in green matters	Link suggestion scheme to rewards system	Role of exit interviews to gauge perceptions of firm Green-ness
Recruitment of employees who are 'Green aware' becomes important part of interview schedule.	Roles of managers in achieving green outcomes included in appraisals	Development of employee skills, and competence in EM	Unions negotiating Green workplace agreements	Link participation in Green initiatives to promotion / career gains	Whistle blower accounts on state of firm Green-ness
Green employer branding (green employer choice)	Writing & integrating green criteria in appraisals	Train staff to produce green analysis of workplace	Green elements into safety & healthy process	Line have rewards to motivate employees in EM	Legal protection for Green whistle blowers
Green aspects introduced to the induction process (familiarisation)	Appraisals assess no of green incidents, use of environment responsibility & successful communication of environment policy	Training in EM aspects of energy efficiency, safety, waste management and recycling	Introduce green whistle blowing help-lines	Tailor packages to reward green skills acquisition	

Becoming a green employer may produce other HR benefits like increased staff motivation and/or engagement, reductions in labour turnover, and increasing workforce health	Penalties for non-compliance on targets in environmental management	Establishment development green personal skills	Encouraging employees to use green form of transports	Green pay/reward system	
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7. TRENDS OF GREEN HRM IN CORPORATE

With increasing awareness among the people concepts like CSR and sustainability are growing in developing countries, and many stakeholders including businesses, governments, and universities are taking a step forward toward achieving sustainability. In addition, it is well documented that multinational enterprises (MNEs) operating in developing economies contribute significantly to job creation, growth and development, and poverty alleviation. However, when compared to developed countries there is a general perception that companies, in particular MNEs, do not pay much attention to CSR and sustainability issues. (Gabriel Eweje, 2014)

Environmental management is a process in which organizations apply mechanisms to develop and implement a set of cost-effective priority actions on the basis of well-articulated societal preferences and goals for: the maintenance or improvement of ambient environmental quality; the provision of environmentally derived or related services; and/or the conservation, maintenance and enhancement of natural resources and ecosystems. (Kathak Mehta, Pawan Kumar Chugan, 2015)

8. GREEN INITIATIVES FOR HR

Following are some of the initiatives taken by various organizations towards Green Human Resource Management:

- **Green Building:** The phenomenon of green building is quite trendy wherein organizations have starting reducing exploitation of natural resources. Furthermore, it includes some enhanced features related like energy efficiency, renewable energy, storm water management etc.
- **Paperless Offices:** With increase in digitalization and introduction of e-business, use of paper has minimized to a larger extend. Most of the job is easily performed using digital machines and systems. Jamie Garratt started Idea Rebel, a Vancouver-based digital agency in 2008, which is a complete paperless office. (Shoeb Ahmad, 2014)
- **Conservation of Energy:** This initiative has an environmental impact and is concerned with eco-friendly services like introduction of solar power plants. It is a revolutionary initiative to conserve power and provide all possible facilities to workforce.
- **Recycling and waste disposal:** Recycling is a process of converting used up materials (waste) into new and useful products. As a part of Green HRM, corporates have starting using products judiciously and are equally concerned with the dumping of waste. At present, the whole corporate world is not only reciting the old mantra of three Rs—Reduce, Reuse, and Recycle to save the environment but have added fourth R too it, i.e. Recover.

9. GREEN HRM IN CORPORATE BODY(Adimuthu Ramasamy , Ishmael Inore& Richard Sauna, 2017)

10.1 Energy Issues

- Firstly, there has been a lack of corporate leadership monitoring of the proper utilization of energy sources and usage within different organizations
- Secondly, there are many organizations that have not fully tapped into the natural energy such as solar energy and other forms of renewable energy. A large number of these companies and organizations rely on electricity and in which case turn to the usage of Generators
- Thirdly, some of these organizations have not been accountable and responsible towards the energy use reporting to the relevant agencies.

10.2 Environmental Issues

- Firstly, there is lack of commitment from different organizations with regard to the implementation of the corporate green policies in their particular business organizations. Some of the HRM departments have failed to come up with such employees' governing policies and guiding principles eventually making it difficult to create a well-established direction for the employees
- Secondly, some of the organizations have not embraced the concept of green packaging for their products whereby they still rely on the non-biodegradable packaging materials such as the plastic bags
- Thirdly, there has been the failure by different organizations to adopt some of the emerging and cutting edge technologies. In this regard, some of these companies have continued to use the conventional methods of data collection, analysis, as well as information storage

10. CONCLUSION

The GHRM is a novel area in the HRM field and hence not much research has been done on the area. This implies that there is limited information with regard to the GHRM. With this in mind, it is apparent that there are not many organizations that embraced the concept with major gaps existing between the developed nations and developing countries.

The GHRM may be defined as concern of management towards corporate environmental schedule and to promote sustainability and to create employee awareness regarding issues of sustainability. Prevention and conservation of resources is the major objective of Green HRM.

This paper contains two major objectives that to find out the importance of Green HRM and to know about strategic implementation of Green HRM in organization. The importance of Green HRM is to contribute towards welfare of environment to minimize health disease and cruelty towards animals. It even creates relation between environmental factors and maintains survival of people and organizations. The major roles of GHRM are preservationist, conservationist, non-polluter and maker. This paper tells us about various green initiatives taken by the HR in the organizations. But then also there were hurdles in the corporate bodies.

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GREEN MARKETING INITIATIVE: A STEP TOWARDS GREEN ECOLOGY

Shailesh Dhyani¹ and Dr. Manoj Kr. Jha²¹Research Scholar, Mewar University, Chittorgarh²Department of Business Administration, ITS College, Ghaziabad**ABSTRACT**

"Green" word whenever comes, first thing in our imagination comes the surrounding environment of earth where we have born, grown and where our society is developed, Green marketing Phenomena has emerged due to mass production, mass consumption and mass marketing of environment irresponsible products. Any society becomes more concerned about the environment when they experience the problem. This may occur due to climate changes, pollution, health issue or any other activity which may directly or indirectly related to the environment.

Today consumer is more knowledgeable and smart in terms of their buying behavior because of Technological advancement and easy access of information. He wants to know every single information before purchase, who is making, what is making, where is making, what components are used, how much environment friendly, how much cost effective etc. Companies are under pressure to develop the product which meets consumer's expectation along with organization's expectation (profit).

Question arises here, "is the market growing for sustainable and socially responsible products and services?" "Is it the opportunity to maximize the profit by diversifying the new product which are environment friendly?" "Are people/ marketer serious on climatic effects which cause serious impact on our planet?" "Why green marketing is important, where campiness a exploring the possibility on green marketing, what are the government and corporate initiative for green marketing?"

The objective of this paper is to study the Grey to Green marketing acceptance around the world, Study the Green marketing concept, Study the corporate initiative on green marketing, Study importance of Green marketing.

Keywords: Green Marketing, Eco Friendly, Marketing Management, Green Products, Grey to Green

INTRODUCTION

Green marketing has emerged in the pinnacle in the last 1980s and early 1990s. The American Marketing Association (AMA) conducted the first workshop to scrutinize the marketing impact on natural environment. Over the years, many businesses realize the long term effects of pollution and taking responsibility for their actions in ways that improve their environmental footprint.

The evolution of green marketing has three phases according to Peattie (2001):-

First phase was termed as *"Ecological"* green marketing, and during this period all marketing activities were concerned to help environment problems and provide remedies for environmental problems.

Second phase was *"Environmental"* green marketing and the focus shifted on clean technology that involved designing of innovative new products, which take care of pollution and waste issues.

Third phase was *"Sustainable"* green marketing. It came into prominence in the late 1990s and early 2000.

Green marketing refers to the process of selling products and/or services based on their environmental benefits. The corporate philosophy of Green marketing is *"maximization of profit without exploiting the environment."*

Grey becoming matter of concern

As we all know that the limited natural resources and rapid population growth bring up the rear on the list of top scares. ***Save a watt! Save a tree! Save a drop!*** From the rise of infectious diseases, loss of water sources, temperatures rising by 10 degrees Fahrenheit, sea levels rising by two feet, worsening storms, and people have been talking about climate change for over 15 years. Meanwhile, the situation has got worse, but the language used hasn't changed at all.

United Nations Intergovernmental Panel on Climate Change (IPCC) assessment report theorize:

- Earth's surface temperature has increased 1.33 degrees Fahrenheit since 1900 (0.74 degrees Celsius)
- Recent temperature and carbon dioxide (CO₂) emission trends are at the high end
- Global average temperature is now rising about one-half degree Fahrenheit per decade

- Areas affected by drought have spread globally since the 1970s.
- The incidence of coastal flooding has increased since 1975. Arctic sea ice cover has shrunk 20 percent since 1978,
- The rate of sea level rise has jumped 70 percent since 1993,
- Rapid melting of the Greenland ice sheet is now raising new concerns

Most Important information from the report is the connection between these changes and that of human and financial losses increasing every day and yet to come.

Green Development Initiatives—A Hope

Pernick of Clean Edge reflected that “We're no longer at the stage where people need to be introduced to these issues; we're at a stage where people are asking below the surface questions, think up innovative remedies, and creating new business plans to address some of the greatest challenges of our time.”

According to Andres Edwards in The Sustainability Revolution, sustainability can be summated from the 1987 Brundtland Report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Green development has gone predominant because more people are worried about sustainability-related issues than ever before **Reduce, Recycle, Reuse** getting popular all across the world. Targets are set – “atmospheric temperatures not to be exceeded, CO2 levels to be brought down, public private and governmental initiative are reflection of this hope , government and public private partnership making serious efforts for green development, some key government initiative “Clean Ganga initiative , Clean India Initiative (Swatch Bharath Abhiyaan) ,Green and Smart City Development” . If we see Indian context, these initiative are clearly visible and people are participating and appreciating all such efforts .

Firms must take hold of Green Marketing

As we can see Business house, government and other public private sectors are changing their behaviour toward the environment . Big organisation all around the world are quick to accept the new concept like Green Management System. There are several suggested reasons for a company to adopt the green marketing which involves—

- An opportunity to achieve the Organisational objective
- Moral obligation to be more social responsible enforcement
- Strict government policy enforcement
- Competitor environment activity enforcement

Marketing: Conventional Vs Green

The products of the company following green marketing are presumed to be environmentally safe. Conventional marketing involves the selling of product and services that satisfy the consumer needs at affordable price, while Green Marketing has more challenges defining green and how this can satisfy a consumer need. Defining the green marketing is complex exercise which includes Product Modification, Process Modification, Packaging Modification and Advertising Modification .The introduction of environment friendly products into the marketplace is a win for consumers who want to purchase green products and producers who want to sell them, “But this win-win can only occur if marketers’ claims are truthful and substantiated.

	Conventional marketing	Green marketing
Consumers	Consumers with lifestyles	People with lives
Products	"Cradle to grave" Products Globally sourced One size fits all	"Cradle to cradle" Services Locally sourced Regionally tailored
Marketing and communications	Product end-benefits Selling One-way communication Paid advertising	Values Educating and empowering Creating community Word of mouth
Corporate	Secretive Reactive Independent and autonomous Competitive Departmentalized Short term-oriented/ profit-maximizing	Transparent Proactive Interdependent/ allied with stakeholders Cooperative Holistic Long term-oriented/ triple bottom line

Source: J. Ottman Consulting, Inc.

Green Consumer

"Green" consumer is one, who avoids environmentally harmful products, minimises waste, tries to save energy, and chooses environmentally friendly products as often as possible." Green consumers have the education and intellectual orientation to appreciate value.

A study suggests (National Geographic Society (NGS) and market research firm GlobeScan) that the Latin American countries of Mexico and Argentina and BRIC countries of Brazil, India and China take top honors for their high level of concern about environmental problems..

Hyderabad, 25 September 2014: The DuPont Green Living Survey: India, conducted by TNS Global, found that a majority of Indian consumers are familiar with green products, have confidence that green products are better for the environment; the survey was the third such study by the company with the first in North America (U.S. and Canada) and the second in China

*Sources (<http://www.dupont.co.in/corporate-functions/media/press-releases/Green-living-india-press-release.html>)

Green Product

Simon (1995) defined "Green Products" as products made with reduced amounts of material, highly recyclable material, non-toxic material, do not involve animal testing, do not adversely affect protected species, require less energy during production or use, or have minimal or no packaging.

Nimse (2007) defined green products as those that use recyclable materials, minimal wastage, and reduce the use of water, save energy, have minimal packaging, and emit less toxic substances. Compared with other products, green products bring less harm to humankind and offer more long-term practical development opportunities from a social and economic perspective. Green products are environmentally friendly products.

The Figure below denotes the progression of three "S" curves of sustainable product innovation, existing products can only be tweaked (eco-designed) so much before it becomes necessary to leap to an entirely new product concept in order to meet the same consumer need with significantly reduced environmental impact. At the end of even the most thoroughly executed process, greening a product by making adjustments in raw materials, packaging, and so forth, leaves you, by definition, with pretty much the same concept as when you started.

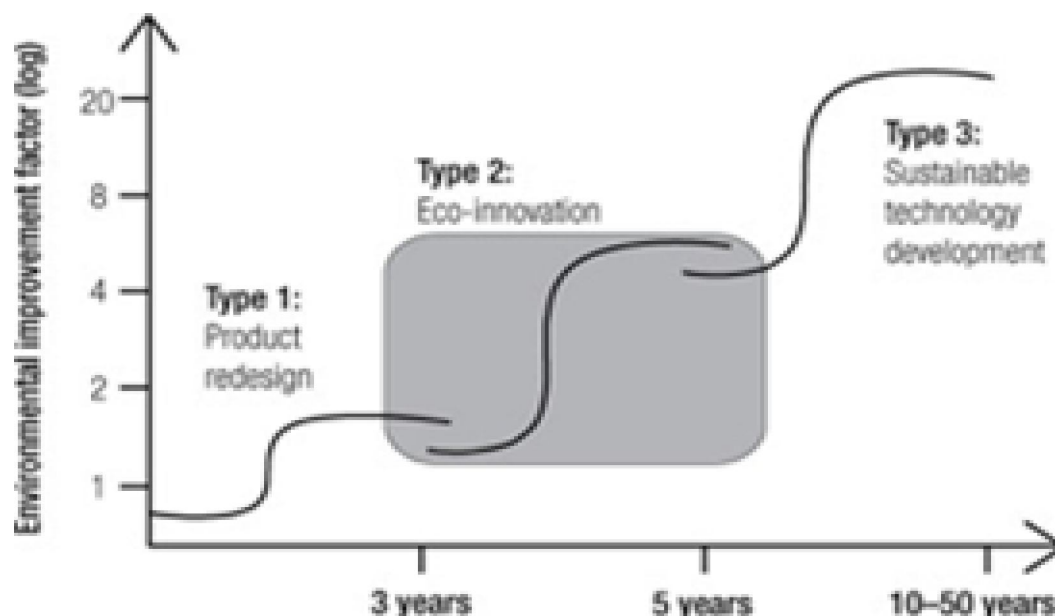


Figure-5.1: Sustainable product innovation

Source: TNO Science and Industry, The Netherlands

For example: Our toothbrush is still a toothbrush, but now uses recycled materials. Your water bottle is still a water bottle, only the shoulders are a little shaved off, or it is made from aluminium instead of plastic. Even at the end of a series of multiple iterations aimed at greening, at some point you will find yourself at the end of the first "S" curve labeled "Type 1: Product redesign", unable to achieve greater environmental improvement; you are limited by your product concept.

Develop New Technologies

➤ Light-emitting diodes (LEDs)

Just as consumers are getting used to CFLs as a replacement for incandescent lamps, an even more exciting alternative is here to take its place: light-emitting diodes (LEDs). LEDs are more efficient and last twice as long — typically 50,000 hours — as CFLs.[19] Also, in contrast to CFLs, LEDs do not need a ballast and do not contain toxic mercury, so they are safer to dispose of.

Historically, prices for these wonder bulbs were an impediment to market acceptance, but thanks to recent innovations affordable LEDs are fast making their way to retail shelves. One standout is EcoSmart LED light bulbs sold exclusively in Home Depot. Retailing for \$19.97, compared to over \$50 for other 40 watt incandescent, the bulb uses about 80% less energy and is expected to last more than 22 years. Also, it is dimmable, completely recyclable, and offers outstanding quality of light — and will pay back its initial investment in less than two years, accounting for energy and replacement savings.[20]

➤ E-Book and E-Readers

Amazon's Kindle, Google book Sony's Reader, Suddenly they are everywhere. People are fast abandoning newspapers and books and turning to these and other exciting new e-readers — handheld devices that electronically deliver the content of printed books but with many additional features. it allows users to read their favourite newspapers, magazines, and blogs within moments of publication, Environmental benefits of using e-readers to read electronic books (ebooks) are compelling: the Clean tech Group projects that in 2012, 5.27 billion kilograms of carbon dioxide emissions will be prevented due by ebooks

Green Marketing Communication

- 1 Know your customer
- 2 Appeal to consumers' self-interest
- 3 Educate and empower
- 4 Reassure on performance
- 5 Engage the community
- 6 Be credible

*Source: J. Ottman Consulting, Inc

Corporate and Government—Go Green

The Global Reporting Initiative (GRI) is a spin-off of the Boston-based Ceres, founders of the Ceres Principles of good corporate environmental conduct, in partnership with the United Nations Environment Programme (UNEP). It is a voluntary global standard and framework for organizations to measure, benchmark, and report on economic, environmental, and social performance. More than 1,500 companies including BP, Coca-Cola, GM, IBM, Novartis, Philips, and Unilever have adopted this de facto standard for reporting.

In order to achieve green, one has to be accessible and accountable and Report the good — and the bad — about the company. Government have a direct stake in eliminating and preventing the pollution created by consumer products and services. Environmental policy, laws, and regulations are developed by State and local government that can impact directly or indirectly on the products and services of suppliers and end-product manufacturers. Government has the power to subsidize, tax, regulate, or otherwise heavily influence industry processes and product design based on their sustainability or their external cost to the environment.

But not all government officials have a background in business; much less the technical aspects of product design and service delivery, and this can result in misguided policies that can unnecessarily hurt industry. Governments discovered that working with industry can yield better results by crafting a number of voluntary programs that benefit both industry and the environment. Government also has the ability to allocate financial support to projects and businesses that can stimulate the economy; of late, financial stimulus money has been earmarked in large measure to green businesses and technologies.

Initiative Leading with Examples

➤ ITC's WoW Initiative & Highlights of the Green Initiatives

ITC's Wealth Out of Waste is a recycling initiative that works towards spreading awareness about recycling, and encouraging people to segregate and dispose waste responsibly. WOW is an internationally recognized initiative by Bureau of International of Recycling. WOW initiative started in a small way in April 2007 with an average monthly collection of 100 tons per month is now spread across South India with an average monthly collection of 5000 tons per month with a potential of collecting 10,000 tons per month by the end of 2012 within South India.

Waste Footprint = Waste Recycled/Waste generated

	Unit	06-07	07-08	08-09
Total Waste	Tonnes	303,913	352,970	490,180
Recycled	Tonnes	282,924	349,256	484,287
Recycled	%	93.1	98.9	98.8
Unrecycled	Tonnes	20,995	3,706	5,893
Outside waste used as raw material	Tonnes	167,913	163,245	125,337
Waste recycling footprint	%	148%	145%	124%

Sources: <http://www.itcportal.com/sustainability/sustainability-report-2009/triple-page-21.aspx>

- Carbon Positive 6 years in a row – Sequestering twice as much carbon as it emits.
- Water Positive for 9 consecutive years – Creating more rainwater harvesting potential than its net consumption.
- Solid Waste Recycling Positive – Reusing/Recycling more solid waste than generated.
- The extensive plantations programme – now covering more than a 1,25,000 hectares of land, helps ITC to sequester carbon, while providing millions of person days of employment to marginal farmers
- Nearly 31% of total energy consumed is from renewable sources
- ITC Royal Gardenia, ITC Green Centre and ITC Grand Chola are three of the world's largest LEED Platinum rated green buildings.

➤ Delhi Metro's Phase 3 Stations To Be Designed And Constructed As Green Buildings

Phase 3 which will be completed by the end of 2016; a total of 90 new Metro stations will be constructed. These station buildings are being designed and constructed with the following provisions in mind:

- **Reduced Heat Island Effect:** the roofs of the stations will be either finished with high reflective materials or/and landscaped with vegetation.
- **Landscape Plant Species:** The plant species used for the landscaping of the stations (wherever possible)
- **Insulated Building Envelope:** To reduce heat gains in the stations and improve energy efficiency, the walls, roof and windows in the building will be insulated.
- **Adequate Fresh Air:** The Metro stations are being designed to provide adequate fresh air as per ASHRAE 62.1-2004 through ventilation system. •
- **Low VOC Paints:** VOC To reduce the adverse health effect and improve quality of indoor air, only Low VOC paints, adhesives and sealants are being used in the buildings.
- **Water Efficient Fixtures:** Low water consuming fixtures like Dual-flush WC, low flow taps etc will be installed at the stations.

The proposed savings of energy from each of these new Metro stations will be as under:

Elevated Metro station

- Savings in energy consumptions – 3,66,272 kWh/Annum
- Savings in energy in cost -23,99,819 `./Annum
- CO2 emission reduction- 345 tCO2/Annum

Underground Metro station

- Savings in energy consumptions – 10,11,482 kWh/Annum
- Savings in energy in cost – 69,29,203 `./Annum
- CO2 emission reduction- 953 tCO2/Annum

*Sources: DMRC website

➤ Ambassador Of The Future- Solar Impulse 2

In July 2010, HB-SIA became the first solar-powered airplane in history capable of flying through a complete day/night cycle without fuel, thereby establishing 3 World Records.

The first aircraft, bearing Swiss aircraft registration HB-SIA and often referred to as Solar Impulse 1, is a single-seat monoplane, capable of taking off under its own power.

Now 2015: World tour of Solar Impulse 2, in 12 stages over five months; it commenced in March currently in India under world tour program showing great commitment for the further.

➤ Apple's Product Recycling Efforts

Apple started recycling in 1994 and today they operate recycling programs in countries where most of their products are sold. Apple fares very well when assessed using Dell's method of measuring recycling, (given a seven year product lifetime, the percentage of the total weight recycled each year compared to the total weight of what was sold seven years earlier). Apple recycled 13 million pounds of e-waste in 2006, which is equal to 9.5% of the weight of all products Apple sold seven years earlier. This percentage grew to 13% in 2007 and to 20% in 2008. By 2010, they had forecast recycling 19 million pounds of e-waste per year — nearly 30% of the product weight we sold seven years earlier.



This placard greeted visitors to the Apple stores on Earth Day: “Every day is Earth Day at Apple.”

*Sources: <http://www.forbes.com/sites/garydallen/2014/04/23/apple-broadens-retail-store-recycling-efforts/>

Sustainability: A Challenge

Since today's consumer is not educated on green, which results in increasing demand and sale of non green products. Moreover, consumers are often attracted towards technically sophisticated materials, technologies, designs and new brand names.

In the past, organic produce was preferred because of its perceived health benefits, but today, a wider audience picks it up because they consider it a better taste. Some homeowners install rooftop solar panels to keep up with the technologically acute neighbors, while others simply want to save money on their energy bill.

CONCLUSION

Past century has seen the unsustainable growth in terms of environment, We witnessed unlimited utilization of limited natural resources, Acceleration of fuel and fossil, water are the visible example for all this and going further Drastic climatic changes threatens the existence of planet, living hood and economy, now this is time to execution of plan in to the action before it is too late ,Green marketing has emerged which speaks for growing market for sustainable and socially responsible products and services. As like in our ecosystem every things has its importance same way our business every component has it important whether we talk about the Green Consumer, Green marketer, Green Product or Green Promotion.

It is equally important and need serious attention to develop the strategy for every component keeping in mind long term growth.

This is also opportunity to bring out some new innovation and technology which can help to achieve desired result.

Green Initiative is not only limited to protect environmental effect or develop the new product, but this is also an opportunity to create new.

Form a consumer prospective this is the opportunity to get good and healthy life for government prospect this may be the opportunity to give their citizen a green development.

And green, further from a marker prospects, is the opportunity to create millions of jobs as we develop and install new technologies, new processes and modes of production.

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**PROBABILITY PREDICTION INFLUENCING CONSUMER BUYING BEHAVIOR W. R.T
CONVENTIONAL MARKETING**

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ABSTRACT

This paper focuses on importance digital marketing along with traditional marketing in order to assure an individual making decision to buy any product or to subscribe to any service. Many times we make quick decisions while on the other hand we follow the crowd or co-operate rather than compete. In this paper, relevance of regression line is calculated and considered in order to predict the future aspect of sales. This in turn will calculate the probability of change in sale for the next year, which in one way or the other is the result of a customer buying behavior. These calculations enable to calculate the future aspects as well as help in risk analysis of any business.

Keywords: Digital Marketing, Buying Behavior, Standard Deviation, Regression Line, Probability.

INTRODUCTION

Today, Marketing has become a conventional tool to convince a customer to buy any product or service. With the progression of technology, the fever for purchase of products has gained importance. Be it a traditional marketing strategy like newspaper or digital marketing strategy such as social media, email etc. Since a customer prefers digital marketing for review of a product, comparison, rates etc., but he prefers to go to an outlet to look, feel and test the product, following the online payment mode.

This puts an impression that traditional and digital marketing strategies go hand in hand to affect the buying behavior of a customer. In order to judge the buying behavior of an individual, it is important to find out the probability of the sale of that particular product for the upcoming period of time.

LITERATURE REVIEW

Youth have always been a major target for marketers. This group of individuals has influenced the sales data to a greater extent as compared to the people of age group more than 35. (Priyanka Mehra (2009)). It has also been studied that how customer buying behavior differs with the difference in their living area. The state that a customer living in urban area have technology as a positive factor to do research for buying decision rather than a customer living in a rural zone (Khan and Mahapatra (2009)). Explanation are also given from the point of view of a customer that there is no huge difference in the car brands taken into account any particular segment and performance simultaneously. Also different expectations and expectations from customers like socioeconomic, psychological, political, geographical, demographic and Product & Technology has also been concluded. Factors like the interception of local and global brands of automobiles in the market, their marketing strategies and difference in their data sales are also taken into consideration Vikram Shende (2014).

OBJECTIVES OF THE STUDY

- To study the customer buying behavior
- To analyze the influence of customer behavior in car sale
- To calculate the probability of next purchase
- To predict the increase in Sales Revenue

RESEARCH METHODOLOGY**• Research Design**

The research is carried out to analyze and model exponential distribution. Secondary Data from a reliable article is taken into consideration.

• Area of Study

Data from different automobile Companies are taken into account from all over India.

• Sample Size

A sample size of 7 is taken into consideration for the sake of convenience and sales data availability.

• Research Technique

Identical exponential distributions are mixed by the probability distribution of the correct points. This can be taken into account while calculating and analyzing different statistical values.

ANALYSIS AND INTERPRETATION

The given table shows the sales data of different Automobile Companies of two consecutive years 2017 and 2018 for the month of february.

Automobile Companies	Feb 2017 (X)	Feb 2018 (Y)
Maruti Suzuki	120,599	136,648
Hyundai Motor India	42327	44505
M&M	20717	22389
Tata Motors	12272	17771
TKM	11543	11864
Honda Cars India	14249	11650
Ford India	8338	9041

Source: economictimes.indiatimes.com/news/industry/complete-auto-sales-analysis-feb-2018

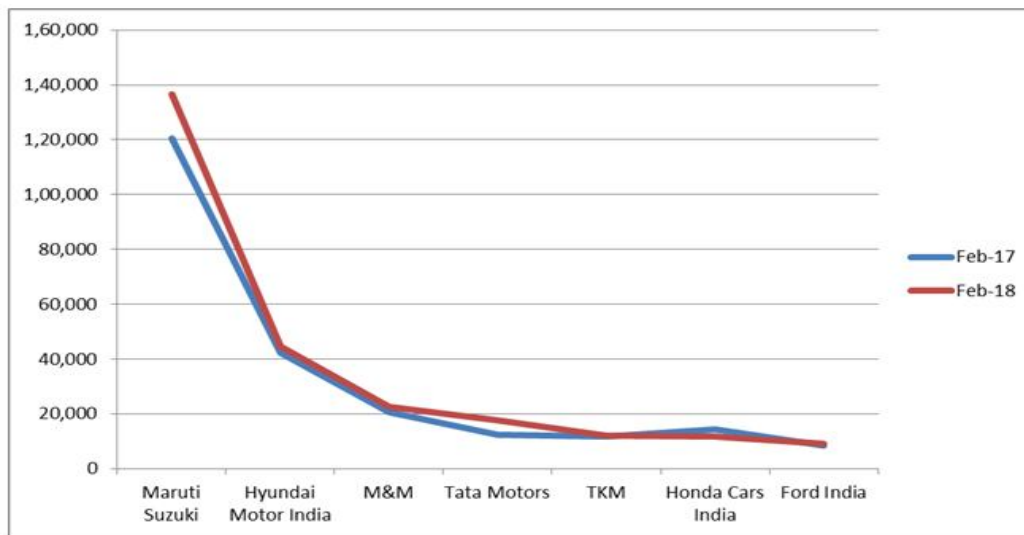


Figure-1: car sales (in units)for two consecutive years

The aboveGraph shows change in buying behavior from 2017-2018 due to conventional and digital Marketing Strategies.

Now, we will calculate the Probability of Car Sale for the next year Using the two Statistical data.

Let us assume the data for Feb 2018 as X and that of Feb 2017 as Y.

Now,

Standard Deviation= σ

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2}$$

where,

μ =Mean

N= No. of events

x_i = individual events

$\mu(Y) = (Y_1 + Y_2 + \dots + Y_7) / 7$

$= (136,648 + 44,505 + 22,389 + 17,771 + 11,864 + 11,650 + 9,041) / 7$

$= (2,53,868) / 7$

$= 36266.85714$

$\sigma(Y)=43478.01$ (Standard Deviation for Y values i.e. Feb 2018)

$$\mu(X) = (X_1 + X_2 + \dots + X_7) / 7$$

$$= (120,599 + 42327 + 20717 + 12272 + 11543 + 14249 + 8338) / 7$$

$$= (2,30,045) / 7$$

$$= 32863.57143$$

$\sigma(X)=38683.10$ (Standard Deviation for X values i.e. Feb 2017)

$$\text{Variance (var)} = \frac{\sum (x_i - \mu)^2}{n-1}$$

$$\text{Var}(X) = (10474673522.61) / 6$$

$$= 1745778920$$

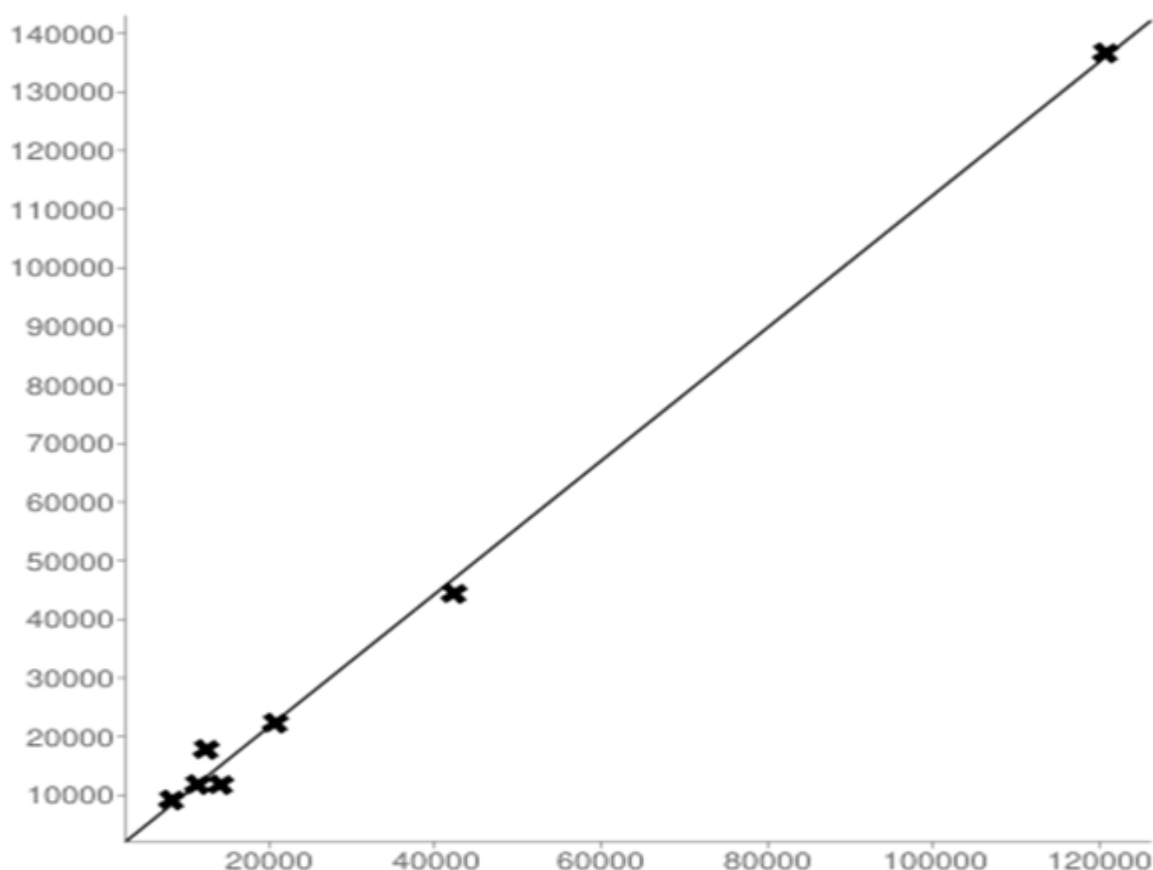
$$\text{Var}(Y) = (13232361305.31) / 6$$

$$= 2205393551$$

But, if we consider both X and Y values, i.e., both 2017 and 2018 values simultaneously, an equation could be obtained from the regression line.

The equation of the regression line is:

$$y = 1.1351709649536x - 1038.9149475367$$



The correlation coefficient $r = \frac{\sum ((X - \mu(X))(Y - \mu(Y)))}{\sqrt{(\sum (X - \mu(X))^2)(\sum (Y - \mu(Y))^2)}}$

Where $SS_x = \sum (X - \mu(X))^2 = 12621668878.857$

$SS_y = \sum (Y - \mu(Y))^2 = 9761186607.714$

$r = 11080615620.571 / \sqrt{((12621668878.857)(9761186607.714))} = 0.9983$

Therefore, **Probability calculated would be: 0.00000023**

CONCLUSION

Thus it indicates that there would be a change in buying behavior of a customer for the upcoming sales and that would be of 0.00000023.

Moreover, Regression lines are widely used in the financial sector and in business in general. It is used by business analysts to forecast future behaviors of the dependent variable (in this case Values of Feb 2018) by inputting different values for the independent ones (Values of Feb 2017).

Therefore, we can conclude that buying behavior is a continuous process which keeps on changing with respect to the change of factors like marketing strategies also. But, Looking ahead, post-purchase activities are expected to be the next digital frontier. It also concludes that this value will increase tremendously years ahead due to the improvement in technology as marketers tend to spend more in digital marketing.

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START-UP INDIA: A SMOOTH DRIVE OR A BUMPY RIDE?

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ABSTRACT

Indian economy is growing and is expected to grow at an unprecedented rate and at a time when no other nation is experiencing the same rate of growth. Businesses around the world are looking towards India as a land of opportunities and are working to take an advantage of the development wave. On the domestic front also India is aiming to generate business opportunities for its entrepreneurs who are looking to set up their own business and contribute to the nation's growth.

Recent trends have shown emergence of many enthusiastic start-ups in the last few years on one hand and a large number of businesses facing an untimely demise on the other. The irony being that the same economy to which global businesses are vying to enter and ride the wave, is not able to nurture its own entrepreneurial ventures.

This paper attempts to look into the current Indian Start-up landscape and identify probable reasons of large number of start-up businesses being shut down. It also tries to come up with viable solutions for turning the wheel around and creating a favourable ecosystem for businesses to develop a strong entrepreneurial culture and make India a self-sustained growing economy.

INTRODUCTION

The Indian landscape for survival and growth of businesses has evolved significantly in last 5 years. India has emerged not only as a fast growing consumer nation with rising willingness and ability to spend but has also embarked on a journey to create an ecosystem conducive for growth of businesses.

With rising population and in order to maintain current stage and speed of development it is vital for Indian economy to produce continuous employment and provide opportunities to its people to not only earn livelihood but also improve upon their existing living standard. The best way to achieve this is to ensure that people at large become job creators rather than seekers. This has prompted the government to take necessary and fast paced decisions in the direction of promoting start-up businesses.

Over the last few years this change has begun to take shape and a pervasive spirit of entrepreneurship has emerged which is in contrast to the high focus of previous generation on securing a well-paid job. This spirit is supported by environmental changes in multiple dimensions which have made it possible to become stronger and achieve actual implementation. The major policy elements which have made it possible for Indian entrepreneurial spirit to take shape are discussed as follows-

1. A Government of India initiative, Make in India has tried to create a monumental change in strengthening the economic ecosystem for domestic businesses.
2. The Start-Up India Action Plan, a comprehensive set of reforms and policies to encourage entrepreneurs to pursue innovation-based enterprises was launched in 2016.
3. Access to funds has been improved for entrepreneurs through programs like Stand-up India, TREAD (Trade related Entrepreneurship Assistance and Development). Banking sector has also introduced schemes to facilitate the launch and operation of entrepreneurial endeavours.
4. Technological support has played a vital role in the emergence of start-up ventures. Atal Innovation Mission (AIM), Digital India, Biotechnology Industry Research Assistance Council (BIRAC) and Science for Equity Empowerment and Development (SEED) are few such initiatives in the direction.
5. National Skill Development Mission, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Support to Training and Employment Programme for Women (STEP) are attempting to develop skill and impart knowledge to the potential and willing entrepreneurs.

All these and many other such facilitators have enabled entrepreneurs in India to turn their dreams into reality. However, establishing and sustaining a business venture is not a small and easy feat.

Multiple factors play a vital role in the emergence and viability of the same. Up first are the internal factors comprising of the entrepreneur himself, the team, strategy, innovativeness of the product and service offered, financial strength and technological capability. Second set of factors exhibiting strong impact are market forces,

competitive strength and socio-economic elements among many others. Third and the most important factor which can singularly make or break the start-ups is the public policy which affects scalability of the entrepreneurship. It outlines the ease with which businesses can operate and sustain their growth to become profitable ventures in long run.

The presence of clear policy framework can push the growth of start-ups. In the absence of the same, emerging start-ups however promising they might be, fail to remain efficient and less risky. Also since they do not have access to large resource pool they find it difficult to manage regulatory compliances and succumb to the policy failures.

Many environmental factors have been conducive but a lot many aspects play an important role in deciding whether the start-up is able to finally become a success in the long run or not. In the past few years India has witnessed start-ups emerging as successful ventures as well as many who have fallen flat in the wake of experiencing unmanageable situations.

START- UP LANDSCAPE IN INDIA

The evolution of Indian Economy has witnessed transformation from a complex not-so-business friendly system to one of the most attractive platforms for businesses to grow and succeed. On one hand policy framework and execution is being evolved and simplified to enable start-ups to optimize their working. While, on the other hand, Indian start-ups are striving to understand the nuances of surviving financially and strategically in the environment. The Indian start-up ecosystem is therefore trying to break new grounds and push the boundaries to new levels.

Historically Indians have been job seekers rather than creators. However the scale has now shifted to a substantial percentage of population which is more than willing to start their own business and give their secure well-paying jobs. Randstad Work Monitor report of 2017 mentions that people are finding great incentives for job mobility in India, which is not only on the rise but is the highest among surveyed countries. About 41%, of the respondents said they were looking for a new job to some degree. Such an outlook on mobility is aligned with a 72% willingness to move and emigrate for work reasons. This has facilitated the shift of working class to well-paying even challenging jobs from a traditional safe near home source of livelihood. However the report also mentions that while in love with the idea of becoming entrepreneurs, 76% of Indian workers said the risk of failure is too big. It also to be noted that the reduction in number of start-ups founded in 2017 may indicate a trend where lesser and lesser businesses are built as a result of 'general trend' and more of serious ones emerge.

Start-ups focused on advanced technology and creating solutions in segments like Artificial Intelligence, Analytics, Augmented Reality / Virtual reality, Blockchain, and Internet of Things are estimated to grow at a CAGR of approximately 30% in next 5 years. Next most promising segment for start-ups is health tech and fintech as evident from the number of businesses that have emerged and the funding they have generated.

Building solutions for problems like clean energy, healthcare, financial inclusion and agricultural issues among others have emerged as favoured areas where start-ups in India are focusing. This lends higher credibility to their approach and increases the chances of their easy acceptance. It is also to be noted that start-ups provide additional dynamics and competitiveness to any economic system because they are far more flexible and open to changes as compared to any big organization. They can afford to have a disruptive attitude which is not possible for large companies having stakeholders to answer at every crucial decision.

Another emerging positive is that investors from across the globe especially beyond US have expanded their investments in Indian start-ups. This trend is expected to continue and strengthen further in future attracting huge foreign capital and boost the growth of the economy. Unicorn funding became the centre of attraction when major deals were announced in the previous years. It is important to note that Indian unicorns in the B2C space are successfully garnering global funds and generating waves in the competitive landscape.

Start-up businesses also initiate chain reaction setting in motion the emergence of various ancillary/subsidiary units which in turn create developmental changes at the grass-root level by creating employment opportunities. Even a handful of success stories can have an extraordinary impact in the form of value creation. It is also expected that in the next 5 years start-up businesses shall generate almost 3 lakh jobs which is a crucial requirement as well considering the demographic dividend which India is expecting to take advantage of in the next decade.

All the efforts by the Government resulted in India emerging as the third largest start-up base just behind US and UK as per the "Indian Startup Ecosystem Maturing - 2016" report by Nasscom-ZINNOV. Moreover, such

ventures are poised to grow 2.2 times by 2020 generating huge number of start-ups. Bangalore, New Delhi and Mumbai emerged as key start-up centres followed by regions like Hyderabad, Chennai, Pune.

Looking at the scenario it was realized that majority of the start-ups emerged in specific metro city areas. To create a more wide spread impact of the policy across the nation, the government established incubators and accelerators in non-tier I cities such as Ahmedabad, Pune, Jaipur, Lucknow and Chandigarh. The advantage generated thereof is double as it makes Start-up India a pan- India phenomenon on one hand and offers cost effective inputs to businesses in these locations. However the situation is still skewed as majority of the accelerators are located in the main cities like Chennai, Bengaluru, Hyderabad, Mumbai, Ahmedabad, and New Delhi. Bengaluru with highest number of accelerators is followed by Delhi NCR.

Yet another facilitator for the start-up businesses has been initiated in the form of tinkering labs which aim at providing pre-incubation training through multiple mentorship sessions. So far 941 Tinkering Labs have been approved and 374 have received grant of Rs. 12 each.

Appropriate changes are also being incorporated by the government from time to time to meet the changes required for further facilitating the start-ups. For example it was realised that the gestation period for Start-ups was largely longer than 5 years. The definition was therefore amended to consider an entity as a Start-up for up to 7 years (from earlier 5 years) and a Biotechnology Start-up for up to 10 years from the date of its incorporation/ registration. The scope of definition has also been expanded to add scalable business model with high potential of employment generation or wealth creation in the definition.

The government has been actively moulding the policy framework to make the start-up ecosystem more and more conducive. Many steps like modifying the bankruptcy code to ensure a 90-day exit window, provision of rebates, patent certification assistance, landing global level partnerships and raising general awareness about the existence of such provisions and policies among the people at large have been taken by the Government. This has garnered positive response among emerging entrepreneurs and has also created hope in them to see continued support in the direction.

START-UP INDIA: THE SPEED BREAKERS

Many business ventures were started by the enthusiastic Indian entrepreneurs keeping in sight the wave of emerging conducive factors to support their dreams. However the waves became whirlpools for many and as a result their efforts and dreams succumbed to untimely demise.

In its report of 2017 NASSCOM has highlighted that the number of start -up businesses reduced significantly in 2017 as compared to 2016 making to clear that entrepreneurs are now more realistic in approach and understand the harsh challenges which are associated with starting a business.

Some of the reasons which accounted for failure and closure of many start-up ventures can be listed as follows-

1. **Insufficient and not- so- innovative idea-** Many companies have worked on creating a new venture based on an idea which was either based on the examples of western country business or was tackling not so significant problem of the consumers. In former cases where Indian start-ups emulated successful global ideas by fine-tuning an existing model to serve local needs we have seen Ola for Uber, Gaana for Spotify, OYO Rooms for Airbnb and Flipkart for Amazon. However, we have not been able to achieve meta-level start-ups such as Google, Facebook or Twitter. Also, in many cases the socio-cultural adaptation was not accepted by the consumers. For example grocery delivery start-ups looked at breaking the inertia of Indian consumers who prefer to buy locally from a known regular vendor including the fun and 'mandatory' bargaining exercise. The segment of consumers who would go for buying grocery items online is yet to become a substantial share of the population. PepperTap and GrocShop are few examples of such failures. In the latter cases there was either absence of USP when compared to other similar offerings in the segment or the need which was catered to was not that big an agony hotspot. Therefore the start-ups which began by thinking that they will change the world were not needed at all.
2. **Absence of enthusiastic team-** In many cases the rush to launch the idea and enter the domain led to assembly of business team which probably was not as enthusiastic and did not identify with the product completely. This created a team which was not delivering more than 100% as required in any start-up in its initial years.
3. **Lack of alternate course of action-** An entrepreneurial mind knows that the business initiative has a high risk factor and its success depends on a large number of pieces falling in place at the right time. In a scenario where this does not happen an alternative plan is required. Many start- ups in India have failed to develop a backup plan and generate possibilities if the first option becomes unviable.

4. **Failure to scale-** Many companies were forced to shut down due their failure to scale up and generate profits owing to low demands and tough competition. NASSCOM in its 2017 report on start-up has identified lack of scalability as one of the main reasons for start-up ventures being shut down. If the start-ups remain without scale it is a loss of economic as well as social opportunities and wastage of critical societal resources in eventually-failing start-ups and fading entrepreneurial aspirations.
5. **Lack of funding-** Companies which struggled to generate seed funding or were not able to continue inflow of financial support failed to meet the cash burn and high costs, had to shut the operations. However, in 2017 almost 55% of failed start-ups have received funding as per a report by NASSCOM. Many companies are also looking to go for IPO route rather than follow-on funding rounds. According to the latest NASSCOM and Zinnov report, the percentage of global start-ups that are able to successfully raise capital in the grocery tech, healthcare and consumer healthcare, and smart home and home improvement are 41%, 52% and 36 % respectively. The corresponding figures for Indian start-ups are 5%, 10%, and 11%. Venture Capital funds in India generally invest in firms that are already generating revenues, therefore investing relatively late in the start-up cycle. This is a significant time lag in the setting up and funding between global and Indian start-ups and eventually becomes one of the major reasons for start – up failure.
6. **Small potential customer base and slower acceptance-** Many start-ups in Ed tech and Fin tech have not been able to succeed even after having huge potential and generating funds because of long sales cycle, failure to find ways to monetize in a space where consumers are used to free stuff online, slow adoption of innovation by the target consumers or failure to tackle core issues.
7. **Regulatory tussle-** The legislations and policies have strongest power to make or break any business especially in its nascent stage. In 2016 SIDBI failed to disburse any amount from a significant pool of Rs. 10,000 Crore for Venture Capital to be in turn invested in start-ups. Shortage of funds later on emerged as the main reason for many start-ups shutting down in that year. The reason for this was regulatory uncertainty and ever changing policies. A survey conducted by Inventus Capital Partners, a California-based venture capital firm, of over 400 entrepreneurs, advisors, lawyers in India and the US, reveals that regulation uncertainty is the biggest challenge for most individuals looking forward to doing business in India. Moreover, established players can have dedicated team to look into regulatory complexities and be safe from its uncertainties which is not possible for a start up with limited manpower and financial resources.

THE START-UPS WHICH WENT DOWN-

Among the various start-ups many companies were not able to survive. The maximum number of companies which failed belonged to e- commerce followed by fintech and hotel accommodations. Geographically Delhi NCR saw the largest number of companies running out of steam and shutting their businesses in last two years. Some of the glaring failures can be listed as follows-

1. **Cardback-** A Fintech start-up faced inability to raise funds and lack of demand and had to shut-down in April 2017. The unsuitability of investor eco-system for its product along with the fact that most people in India do not have multiple credit cards and the need to invest heavily in educating the customers in safety and security of the products became the reasons for its demise.
2. **Tolexo-** shut-down its B2B retail wing and also laid off 50% of its staff as part of the shutdown exercise. The reasons which were laid down were dropping sales and negative impact of demonetisation.
3. **iProf,** one of the pioneers in test prep for various entrance exams, raised US\$15 million in its seven-year run and Purple Squirrel which connected students with companies offering access for visits and training with US\$2 million of funding were forced to shut down due to lack of market acceptance.
4. Used car marketplace **Zoomo** which raised US\$7 million in funding, decided to fold as it was not able to scale up the operations despite several iterations in its business model.
5. **Doormintan** online laundry service remoulded its business model but was not able to either scale up or realize that the local laundry service provider would give a stiff competition due to its low cost and convenience. The pricing was not able to recover the various costs of providing the services. The business idea ultimately was not able to click as it tried to address a not so big point of concern.
6. Fashion ecommerce saw emergence of many companies with negligible differentiation leading it over crowded option for the customer and ultimately flaming out of some. **Fashionara**, tried to attract customers with huge discounting but could not sustain the model once the cash dried up. Similar fate was experienced by **Ladyblush** also.

7. **Buildzar** was launched as a marketplace for building materials in Delhi NCR however due to real estate business experiencing a hit after demonetization and resultant cash crunch, sellers could not survive on the portal and it had to shut down.

8. **Buysellbitco.in** suffered due to legal changes in the environment. After RBI issued a circular which raised questions on the dealing in virtual currency, this company entered into an uncertain phase and lost business compelling it to ultimately shut down.

START-UP INDIA: THE FUTURE PATH

Building a favourable environment for businesses to emerge is a big challenge and it is imperative that our country not only recognizes but also implements major changes to achieve the same. Given that the Indian youth is getting ready to accept the entrepreneurial challenges, better support is to be created to foster a self-driven economic growth in the country. The following points if addressed can help in deciding a better future path for the start-up businesses India and change the course of the economy in the coming decade-

- **Check the foundation-** There is a dire need for our education system to be upgraded and tuned to the policy being framed by the government. The young entrepreneur needs to know and be proficient in practical aspect of establishing and running a business. The classroom orientation in majority institutes across the country is theoretical and oriented to managing a business rather than establishing one. This gap needs to be addressed with suitable modifications so that the country has more job creators than seekers.
- **Drop the assumptions-** Various studies indicate that it may not be necessary that the ecosystem which favours SMEs will be conducive for start-ups as well. This is evident by the fact that states which have highest number of SMEs like Tamil Nadu and Gujarat are not having maximum number of venture funded start-ups where Karnataka and Maharashtra have gained the top positions. This suggests that identification of specific boosters and facilitators is required which can push the growth of start-ups and it should not be assumed that since the SMEs are working wonders in a current situation start-ups will also automatically emerge.
- **Identify inherent future potential-** Fast growing middle-class (50m in 2007, 583m expected by 2025) in India is an enormous attraction for businesses to emerge due to potential consumer base and rising propensity to spend. Correct identification of their needs can help many businesses emerge out as winners.
- **Enter in uncharted waters-** A lot of blue oceans (Big Data, Internet of Things) can be focused for start-up businesses which may gain advantage due to being among the first few movers.
- **Right basics** - Yet another significant challenge is of basic infrastructural facilities like quick and easy transportation, weather proof warehousing, uninterrupted supply of electricity etc. Although substantial work is being done in the direction but its speed is too slow and may not be able to cope with the requirement of the emerging businesses across the nation especially in tier I cities.
- **Spread out the supports and benefits-** The sectors like technology, consumer goods, health care etc. have been provided with most number of incubators and accelerators. There is a dire need for the same in other sectors as well. For example, incubation centres for commercializing innovations such as in utilities or in the oil and gas sector will open up opportunities for start-up businesses and shall address major problems for the country.
- **Support in Promotion of the business-** Advertising in domestic as well as international markets is also an area where start-up businesses need support due their lack of experience, knowledge and awareness in the domain. Support of Government policies which are inclined in the direction is required. However this is not an easy task and will need multiple considerations keeping in mind the interest of existing SMEs and other domestic and foreign players.
- **Guidance and mentorship-** An important factor which needs to be looked into is providing mentorship regarding industry knowledge and support. Correct and timely guidance can help in strengthening the start-up businesses. Partnership between academia and industry needs to be encouraged to develop a wholesome start-up ecosystem incorporating the generation of idea, incubation and successful operationalization of a business.
- **IT strength-** It is absolutely critical for emerging businesses to have strong IT structure and commitment to handle customer data with utmost care. Most start-ups have a B2B business model which makes it pertinent for them to be aware of the risk of cyber-crimes. They also need to build a backup plan for keeping the business running in case of any accidental loss of their data centre.

- **Smart investing** - Indian investors need to realize that in place of investing large amount ranging from 3- 5 crores in few projects it is much more beneficial for the economy if the amount is disbursed in large number of companies looking for small funds. This will create a better economic scenario in the nation and generate multiple opportunities simultaneously. Alternate debt financing instruments which can help Start-Ups and other small enterprises to solve the problem of lack of adequate collateral, limited cash-flow and the high risk involved need to be developed and promoted among the entrepreneurs.
- **Research-** Since it is far more difficult to sustain a venture than to start one, Indian start-up businesses also need to focus on generating quality research based and long-term sustaining value propositions to be viable in increasingly tough competition.
- **Attention to social objectives-** Yet another point of concern is to update the labour laws so that the start-ups find a suitable framework to function under and finally achieve the socially desirable objectives.

Indian economy is poised for something great with its high growth rate, potential demographic dividend and innumerable global opportunities. Start-up India along with other such complementary programs is an effort which if backed by decisions in the right direction can not only make it possible for the country to emerge as a self- sustained and strong economy but also as a global leader.

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THE ROLE OF A RESPONSIBLE GLOBAL CITIZEN (*GITIZEN*) IN THE 21ST CENTURY

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ABSTRACT

UNESCO promoted global citizenship (*gitizenship*) since the launch of the UN Secretary-General's Global Education First Initiative (GEFI) on August 22nd 2012, which made fostering global citizenship one of its three priorities. This is a pedagogical guidance on global citizenship. It is the result of research initiatives from all parts of the world. This has 3 major outcomes: Education, Defense and Trade. Its becomes the prerogative of the international community to clarify the conceptual underpinnings of global citizenship and provide policy and programmatic directions, this paper which is to a large extent conceptual and directive in nature has been developed in response after deeply studying the needs and demands of and on integrating global citizenship in most of the active countries in the world. It presents suggestions for translating global citizenship education concepts into practical and age specific topics learning objectives in a way that follows principles of adaptation in local contexts. It is intended as a resource for educators, curriculum developers, trainers as well as policy-makers, but it will also be useful for other education stakeholders working in non-formal and informal settings. At a time when the international community is urged to define actions to promote peace, well-being, prosperity and sustainability, this new document offers guidance to help Member States ensure that learners of all ages and backgrounds can develop into informed, critically literate, socially connected, ethical an engaged global citizens. Global citizenship encompasses a sense of belonging to whole humanity and common mankind. It emphasizes political, economic, social and cultural interdependency and interconnectedness between the local, the national and the global. Growing interest in global citizenship has resulted in an increased attention towards global dimension of citizenship, education, policy, curricula, teaching and learning. Global citizenship education entails three core conceptual dimensions which draw on a review of literature, conceptual frameworks, approaches and curricula on global citizenship. They can serve as the basis for defining global citizenship goals, learning objectives and competencies, as well as priorities for assessing and evaluating learning. These core conceptual dimensions are based on, and include, aspects from three domains of learning: cognitive, socio-emotional intelligence and global citizenship education.

Keywords: global, education, citizen, international community, gitizenship

INTRODUCTION

“Global Citizenship gives us a profound understanding that we are tied together as citizens of the global community, and that our challenges are interconnected.” - Ban-Ki-Moon, Ex-UN Secretary-General

Before the outbreak of the First World War, the world must have looked very small to Economist John Maynard Keynes as he aptly writes in his famous Essay *“The Economic Consequences of Peace”* 1919, *“The makers of the world powers could sit in their bed room, sipping morning tea, and order the delivery of the products of future society”*.

The society is on the stage of enlightenment. We have never been more educated, rich, interconnected and technology driven. According to Russian Scientist Nicolai Kardashev, we are at stage 0.2 of civilization index, specifying development and utilization of 20% energy resources of the planet. But, if we pay even a marginal attention to the state of affairs, then we easily assume the global challenges we face because we lack the solidarity, motivation and institutional support to solve them.

Scientist Karen ‘O Brien indicates the present period as *‘The Anthropogenic’*, the first period in geological History having a significant impact of Human activities on the Earth system. Trade, production and consumption are the root cause of all our problems and they can be eliminated by weaving together the concept of Global Citizenship.

The concept of Global Citizenship has various stages of development and evolvement. In the 1800s, only men and property were included in the concept of citizenship and that too only national. With the advent of 1900s, women and children also got included and in the present days, the concept has crossed borders with the liberalization of economies and increased awareness, enactment and acceptance of political, civil and social rights and obligations.

Current perspectives on citizenship vary in different countries weather listed or unlisted, and include social rights and obligations and dimensions of national and global citizenship derived from demographic changes,

historical regimes, and economic development in various geographic regions across earth. Further, the concept of global citizenship is enhanced by the establishment of international trade blocks, transnational organizations and corporations, civil society norms and movements and human rights frameworks. It has to be acknowledged that to what extent the concept of global citizenship extends and compliments traditional citizenship.

The aim of this paper is to spread awareness about the concept of global citizenship, study the challenges that lie ahead, methods to eradicate the imminent dangers lurking in the dark, scope of future research and overcome the limitations to further explore the subject and permanently weave it with the society.

OBJECTIVES

This study has two levels of objectives: *National and International*

a) National Objectives

i) To develop a sense of shared destiny

The first objective of the study is to develop and foster a sense of shared destiny in terms of local, national, social cultural, political, civil and political factors amongst various members of national and international associations. Team spirit should remain undeterred in times of prosperity, calamity or deluge. For achieving this purpose, the process of socialization should be started involving a range of social agents such as the family, peers and religious groups in an explicit manner. The process of socialization has three stages: arrival, encounter and metamorphosis which is the last stage after which a concept, individual, idea or organization is finally accepted in the society.

Formal education is not the only means of spreading socialization; we need a robust public policy at the heart of reproduction of all social activities. Indeed, beyond mere reiteration of theoretical fundamentals and principles, there is a need for building national and international cohesion by the education bodies.

ii) To engage in civic and social action

Active and positive societal participation and transformation for realizing a broader sense of individual and group responsibility towards communities, religion, sect, culture, region, national and world as a whole should be articulately embedded in the curriculum, policy and design of education system. To the set the context, in any given country, this area overlaps many others such as history, geography, religion, social studies, civic and political science. Children and adults should be equally aware of the concept to be engrossed in it.

iii) To stratify the role of women in society

It is imperative for a society to create an environment of overall independence with role stratification. It includes increasing and improving the social, economic, political and legal strength of women, to ensure equal right to women, to make them confident enough to claim their rights, freely live with a sense of self-worth, respect and dignity both inside and outside of their house and workplace and to make their own choices and decisions, have equal rights to participate in social, public and religious activities, have equal social status in the society, have equal rights for socio-economic justice, determine financial and economic choices, get equal opportunity for education, get equal employment opportunity for any gender bias, get safe and comfortable working environment where women have rights for their voices heard. In the process of stratification of women's role in society, the following objectives with a degree of result orientation have to be kept in mind. Employability, talent acquisition, skill enhancement and replacement in certain job roles which were initially designed only for men.

iv) To imbibe Inter-Cultural Justice

Each nation a country chiefly characterized by identity, cultural diversity, world heritage, arts, languages, world history, indigenous knowledge systems, peace and conflict resolution, learning to live together, education and inter-cultural/international understanding. The formulation of values, ethics and learning outcomes in youth and adults can be differentiated from more modest values like empathy and care to more committed in nature like willingness to challenge injustice. It is to be noted that issues of peace and conflict are rooted in the culture. Violent conflicts often and arguably revolve around political, economic, social, cultural and natural resources. Cultural identities and differences serve as ideological opinions and solutions in context of conflict resolution and imbibing inter-cultural justice. Poor and down trodden should be uplifted by the implementation of the above learning outcomes (OXFAM, 2006)

v) To face all sorts of challenges

To face the challenges of a globalized world, the issues of society, economy and polity have to be understood and studied, analyzed and solutions have to be crafted. A global village is the best place to live in. Awareness of the wider world and one's own role both as a citizen and consumer with rights and obligations is foundation

stone for the construction of the formidable fortress and realization of the concept of global human community or global citizenship. One of the key deliverables in the concept of global citizenship is the valuation of the cultural diversity comprising languages, arts, religions and philosophies as components of the common heritage of humanity.

b) International Objectives

i) Commitment to Sustainable Development

The world today is facing considerable number interlinked challenges in the 21st century. Some of them are global financial crisis, climate change, shrinking bio-diversity, declining water and energy resources, threats to food and health risks. E.g. El Nino Mystery. The present anthology keeps us revolving knowledge which is connected to power, history and cultural differences. But, nowadays, mobility and access to new media and academic collaborations have democratized knowledge. Thus, we have to reduce, reuse and recycle for a sustainable future.

For example : World Scientific Community Report says that crude oil will totally vanish from the face of the planet by 2050 and the next generation fuel I.e. Ammonium Oxide whose atoms lied tucked up in the ice molecules has been found in sufficient quantity in the polar ice caps primarily in Alaska and Greenland . And speculations are there that there must be huge chunks buried in Antarctica as well. This next generation fuel is enough to run the planet for next 200 years. This is one of the major examples of Sustainable Development; the concept itself was derived from energy sector.

ii) Environmental Safety & Awareness

"We live in a world without borders as we knew them. We might be in closer interaction with a fellow academic across the Atlantic Ocean than we are with our own neighbors. Through technological development and means of communication and transportation, we can choose to interact with any part of the world. This means that we might think of ourselves as international rather than national beings. - Seyla Benhabib, 2nd World Conference on Environmental Safety, Geneva Protocol, 2006)

There is an imminent necessity to act as local entrepreneurs, or better as flexible citizens, both nationally and internationally at the same time as the definition of global citizenship puts it and this is possible only through environmental safety and awareness. Our students, youth and the entire academic staff will have to be deployed to educate people about poverty, climate, human rights, religious dialogue, global health governance and safety as well as the significance of being a citizen in today's well connected world.

Environmental safety and awareness programs should be made a part and parcel of routine life. People should be taught how to behave and deal in the event of a natural calamity both at the grass root level and at the communal level. The safety and awareness concept only accumulates and forms the content of the concept of global citizenship and is also linked personal health and hygiene.

iii) Ethical Responsibility and Engagement

Human rights approaches, attitudes and values of caring for others, transformation of personal and social responsibility, societal contribution, skill development through a well informed, ethical and peaceful action for exploring own and other's values is the most viable mechanism for socio-cultural and political decision making at local, regional, national and global level.

iv) Upheaval of Global Human Values

Human values can be up heaved only when informed and critically literate person from corners of society come up and create an atmosphere of fostering such value systems completely understanding the underlying assumptions and power dynamics of inter-woven cultures.

A 'spiral-societal' approach is needed which is elaborated in the inclusion of global citizenship education all levels of education; primary, secondary and higher. Teachers should be well versed with the concept, its requirements and scope of implementation and further study and research. As education systems, levels of education and student age groups vary between countries, these groups are merely meant to be indicative. Users at all levels should feel free to select, adapt and organize their own learning objectives in way which is suited to their country, context and preparedness.

v) Social Connectedness and Respect towards Diversity

People differ in their levels of identity and thoughts, the factor which entwines them or separates them is the diversity and that entails a certain degree of respect which is the chief characteristic of this planet. Diversity is characterized by difference in psychographic parameters like styles, appearance, knowledge, loyalty etc which results in difference of opinions. Other kinds of diversities are political diversity, bio-diversity, cultural

diversity, economic diversity, zoological and botanical diversity and above all historical and evolutionary diversity. Now, it depends on us whether we want to harness this aspect or close our windows. It is this diversity only which makes us look beautiful. The only way to garner respect for diversity and spur molecules of positive change is Global Citizenship.

NOTABLE LITERATURE REVIEW

"The concept of Global Citizenship starts with Organizational Citizenship Behavior i.e. relation with peers, sub-ordinates, seniors and the entire surrounding environment with immediate and surround effect and impact on society's health" – **Dorren Mossai, American Researcher, 7 times published in Harvard Business Review**

"Global Citizenship is public deliberation to render them as unbounded to the political, jurisdictional and territorial boundary of a geographical state resulting in creation and protection of global rights and responsibilities" – **Allan T.D. –Minister of State for Public Affairs, Minnesota, USA (2007)**

"Concern for society, culture, policy and academia forms the essence of the concept of global citizenship. Democratic decision-making and community service build resources, time and energy of the country" – **L. Davies, Social Servant, Wisconsin State, USA**

"We have drifted apart, and forgotten our shared destiny (...). But the burdens of global citizenship continue to bind us together. Our candidates must be equipped with social, ethical and civic competences, with initiative and with entrepreneurial spirit. We must provide a learning environment and an atmosphere that are conducive to self-development. " – **Barack Obama, addressing Germans in the 2008 speech, Berlin.**

"Global Citizenship can be seen as a modern version of 'bil-dung', style of society, stimulating autonomy and critical thinking, and fostering an ability to gauge the interdependence that characterizes the world of today." – **Global Citizenship Lecture Series, 2017**

"Not everybody respects diversity, shoulders the responsibility, shares resources and information, empathies, connects openly, competes healthily, dies graciously, which is the essence of global citizenship and emulates the importance of living together" – **Joseph Stieglitz, Nobel Laureate**

RESEARCH TOOLS USED

1. KMO-Bartlett's Test

Generic Preferences	KMO Measure Of Sampling Accuracy	Bartlett's Test of Sphericity Approximation	
		Chi-Square	Significance Level
Linguistic Preferences	0.826	338.780	00.00
Logical/Mathematical Preferences	0.868	707.817	00.00
Visual/Spatial Preferences	0.820	677.971	00.00
Musical Preferences	0.848	980.437	00.00
Kinesthetic Preferences	0.858	386.436	00.00
Natural Preferences	0.825	400.003	00.00
Interpersonal Preferences	0.867	608.780	00.00
Intra-Personal Preferences	0.892	142.096	00.00

Fig-1

Interpretation

- 1). Significance Level remains same for every change in the sample
- 2). Tool used is SPSS
- 3). Accuracy Level changes but remains within a specified range owing to the non-shift in the geo-political climate
- 4) Chi-square value changes signify co-relation between different values and preferences of sub-groups of people
- 5). A group of 150 people was chosen from Wisconsin, Washington and California

2) Paired Sampling with MCT (*Measure of Central Tendency*) of pre and post adoption periods of liberal govt. Policies

Compared Study Variables N = 49	Mean Difference	Standard Deviation	t – Test	p – Value
Average of pre-adoption period	.48	1.28	2.62	.01*
Average of 1 year post adoption	.31	.80	2.76	.01*
Average of 2 year post adoption	.64	.165	2.73	.00*
Average of 3 year post adoption	.63	1.33	3.34	.00*

Fig-2

(* Significant) ($\alpha = .05$ two tailed)

Interpretation

- 1) The trend shows p value greater than .05
- 2) There is a significant difference between averages of pre and post adoption periods
- 3) Pre ESOP window is also under comparison
- 4) There is more subtle difference between 2 and 3 year difference averages
- 5) 3 year difference window is the widest

FUTURE SCOPE

This subject needs quite a further education and exploring on behalf of academicians to identify the global concerns of the global citizens. Each country of a specific trade or regional block has its own advantages, historical baggage, own de-merits on account of population, such as in most Asian countries and occupation. Occupation often depends upon geography and abundance of natural resources in a state which in turn decide the macro-economic parameters of industry. Actionable solutions have to be implemented at the international level for sage guarding against all kinds of controversies, resentments. Major issues needing highlight are: Global Poverty, Communicable Diseases, Education, Migration, Climate Change, Access to Water, International Trade, Hunger, Financial Stability and Regional Conflicts. These areas need extensive research to be brought to the notice on a global scale. Lead education bodies should come hand in hand for joint studies and govt. should provide sufficient avenues for grants boosting the entire process.

CHALLENGES

Global citizenship has two categories of challenges: *primary* and *secondary* which are described below.

Primary

These challenges have arisen as consequences of archaic globalization in which is a term used to describe the relation between states and communities and have they have been created by geographical spread of ideas and norms prompted by travel. The necessity of trade between different regions was majorly because of richness in natural resources and increasing population and gave rise to new trade routes e.g. the famous Silk Route , Suez Canal etc.

- Unsustainable level of CO₂ emissions in atmosphere making life miserable for all forms inhabiting the planet. This is the most pressing challenge. Many species become extinct even before they are discovered. Australian Scientist Edward refers this phenomenon as 'Ermocene' – the age of loneliness.

Inter-connection of financial crises and ecological aberrations which make the world suffer pain agony when due to crunch and unemployment, the society faces a brutal consequence and collapse of machinery and all constituent units. The ultimate safeguard against this vector is prediction and prevention technique. E.g. the Financial and Credit Crunch of 2008. (*Wiley Reports, Lehman Bros. dissolution.*)

- Inability to restrict the spreading of epidemics following natural disasters such as the devastating tsunami of 2004, the spread of emboli in the fall of 2014 , the unprecedented health risks, perils and hazards presented as imminent dangers particularly to the undernourished.
- In the 19th century, people, goods and services used to freely move across borders but due to historical interventions and excavations, the concept of global citizenship has given rise to a new danger, global terrorism which has its roots in commerce and trade regimes of today. The freedom and ability to cross borders can at one time be a blessing and at other time be a bane giving rise to consequences felt far from origin. We as citizens of global human world have to free ourselves from prejudices of actions and words.

- Collapse of judicial and constitutional machinery of at let 10 countries in the fall of 1914, was a concrete example of the dire and bizarre results of an over-globalized world. Our system, the world over is not yet accustomed to enact and implement global commercial, political and legal regimes due to religious, cultural, economic and philosophical differences between various sects of society. There is an absence of acceptance of global norms, willingness to tolerate and expertise to perform and deliver.

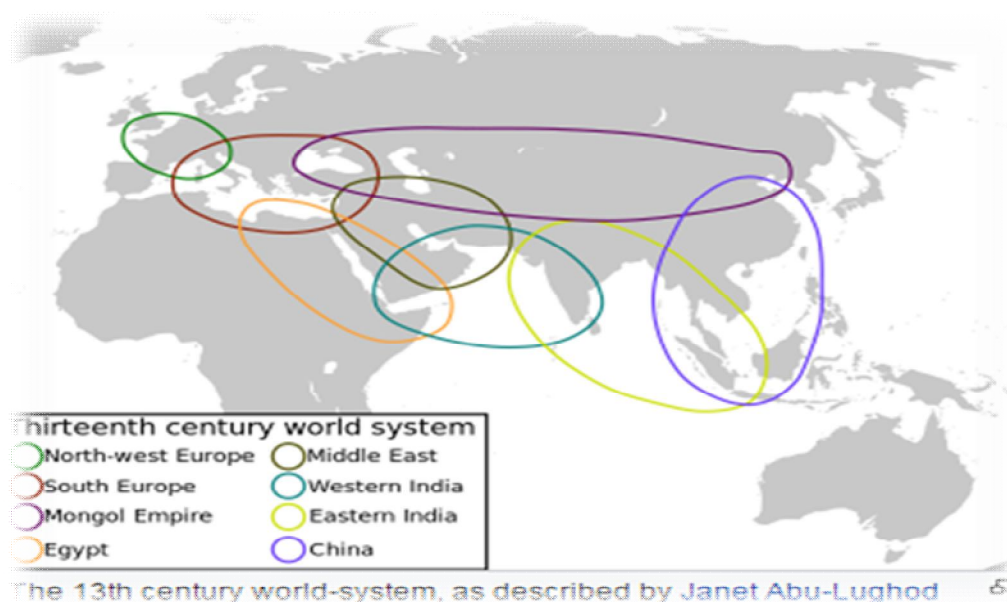
Secondary

These challenges are a result of modern or proto-globalization leading towards increasing trade links and cultural exchanges across the world during early 19th century. Mostly, this was due to European empires who had for more than a century controlled a large portion of land area itself and had in turn impacted and created modern, quick, populist and rather complex systems which were produced in medieval Europe after the sinking of the Spanish Armada and start of the 'The Renaissance Period' (1535 A.D. – 1875 A.D.)

- Non –coherent states on grounds of religion. Religion is product of history and some out-worldly incidents which have shaped our entire social structure in due course of time. It is so close to people's sentiments that the membrane is difficult to crack and penetrate into settling new embodiments there.
- Difficulty in bounding nations due to difference in languages, arts, cultures, customs and habits which are more of individual in nature than communal. The difference in language is a major bottleneck and barrier in communication between the states and people.
- Diversity in geo-politics is another striking impediment in the way of global citizenship. Geographical movements and migrations have always been there since pre-historic times. Some regions, weather naturally or due to manmade reasons are more accessible than others. This is the major reason for development of few regions more than others.
- An innovation in transport technology gives a huge impetus to cross border trade. Those states which have superior transport infrastructure have a better access to trade and commerce filling their ex-checker's pocket as compared to those states which are still in a evolving state.
- Military impact creates a region which is almost inaccessible to people or even difficult to cross. E.g. Nevada, Area 51 & 52, NORAD Mountains Region in USA. These regions have been created for more national security, prowess and military muscularity. This strategy is adopted mostly by those countries which have a long border, vicious neighbor, and vast economic assets to protect and are used for deployment of tactical weapons, weapons of mass destruction and surveillance.

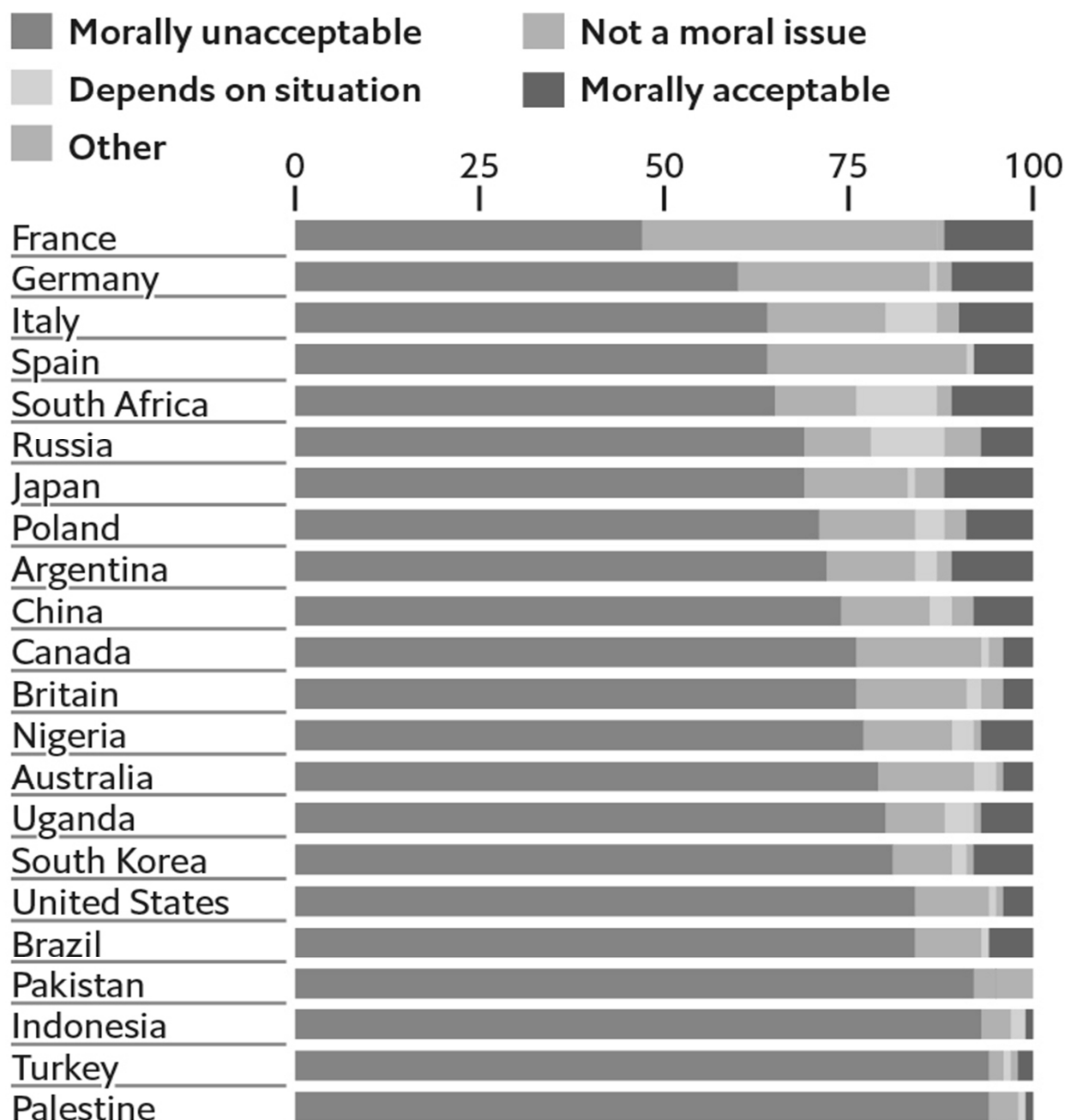
LIMITATIONS

Poverty and inequality play a game foray in introducing limitations in the pathway of research on the area. Regional data due to political influence is often distorted and accurate figures cannot be arrived at most of the times which hampers the final solution to be implemented or suggested. Non access to govt. research labs is also a creepy issue. Trade reforms, malnutrition human development create impediments in the way of research on the topic due to migratory trends exhibited across the world.



At a Glance

By country, % that say infidelity is:



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TO STUDY EFFECT OF NEW INFORMATION ON INVESTORS IN INDIAN STOCK MARKET

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ABSTRACT

The current study sheds light on the new information arrived whether it is good or bad in the market upon investors in Indian Stock Market. This paper examines the relationship between return, return volatility, and volume in a contemporaneous and dynamic context in Indian stock market and contributes to the literature in several respects. For this purpose, a daily closing price is collected from S&P CNX NIFTY index for a period of 10 years from April, 2007 till March, 2017(i.e. 3205 observations). Granger causality test is applied to investigate information flow between the variables. In addition, it uses the GARCH models in the study of return-volume investigation. This study further checks the information asymmetry with EGARCH (1, 1) model. The study provides evidence of positive impact of volume on return using GARCH (1, 1) model. It also shows the negative impact of volume on conditional volatility because of asymmetry that is observed in significant Jarque-Bera test. The study has also used the EGARCH (1, 1) model, which allows for asymmetric shocks to volatility. It indicates the presence of leverage effect and positive impact of volume on volatility. The differential cost of taking long and short positions is the main reason for information asymmetry (leverage effect). In addition, linear Granger causality results support the sequential arrival of information hypothesis, which implies that new information is not simultaneously available to all traders and it takes time to absorb, hampering the price discovery efficiency of the market.

Keywords: GARCH, EGARCH, Leverage, Granger Causality.

INTRODUCTION

The price--volume relationship depends on the rates of information flow and its diffusion to the market, the extent to which markets convey information, the size of the market, and the existence of short-selling constraints. In a stock market, return and trading volume are two prime indicators of trading activity, jointly determined by the same market dynamics and may contain valuable information about a security. Prices and trading volume build a market information aggregate out of each new piece of information. Unlike stock price behaviour, which reflects the average change in investors' beliefs due to the arrival of new information, trading volume reflects the sum of investors' reactions. Differences in the price reactions of investors are usually lost by averaging of prices, but they are preserved in trading volume. In this sense, the observation of trading volume is an important supplement of stock price behaviour. Trading volume is viewed as the critical piece of information which signals where prices will go next. The trading volume is thought to reflect information which stock prices cannot convey to market participants. Relying on this power of volume and to improve the understanding of the microstructure of stock market, the relationship between return, volume, and volatility has received substantial attention in the market microstructure for a number of years. Furthermore, the stock price--volume relation can be used as the basis of a trading strategy and as evidence for or against the efficiency of stock markets.

The emergence of informationally efficient financial markets is an important facet of any country's economic modernization, with far-reaching implication for its macroeconomic stability and performance. Thus, it is in the interest of the economy to achieve efficiency in the dynamics of the stock markets. More can be learned about the market by studying the joint dynamics of prices and trading volume than by focusing on the univariate dynamics of prices. Financial literature has documented various flavors of the return-volume relationship especially in US stock markets. By contrast, relatively little attention has been devoted to this relationship in India. Some researchers have made attempts to evaluate return--volume relationship in Indian stock market but these are elementary efforts and moreover, the studies have failed to take the phenomenon of volatility persistence/volatility clustering in return--volume relationship. In most cases, financial time series behave in a way that does not conform to the normality distribution. Hence, the volatility observed in the market is a natural application for the autoregressive conditional heteroscedasticity (ARCH). To observe this phenomenon, ARCH model and generalized ARCH (GARCH) model is used in many studies. The GARCH specification allows the current conditional variance to be a function of past conditional variances. Therefore, the current study investigates return, volume, and volatility relationship in Indian stock market using symmetric and asymmetric GARCH models.

REVIEW OF LITERATURE

Schwert (1989) using monthly aggregates of daily data on Standard and Poor (S&P) composite index in NYSE, documented the evidence of a positive relationship between estimated volatility and current and lagged volume growth rates, using linear distributed lag and VAR models.

Lamoureux and Lastrapes (1990) investigate using individual stocks from the S&P index. They documented positive conditional volatility--volume relationship in models with Gaussian errors and Generalized Autoregressive Conditional Heteroskedasticity (GARCH)-type volatility specifications. However, the finding was cautiously interpreted as it might be biased due to the simultaneity between stock returns and volume.

Bessembinder and Seguin (1993) Investigates for a variety of futures markets. Finally, Gallant et al. (1992), using non-parametric methods, confirmed the positive correlation between conditional volatility and volume, when examining daily S&P data from 1928 to 1987.

Kocagail and Shachmurove (1998) examined the contemporaneous relationship between volume and absolute return for sixteen futures markets. They found the relationship to be significantly positive.

Daigler and Wiley (1999) examined the effect of different categories of futures traders; and found that the uninformed groups of traders who were distant from the trading floor drove the positive volume-volatility relation.

Gurgul and Otavio (2006) also documented the evidence of significant contemporaneous interaction between return volatility and trading volume in Polish stock market, Brazilian stock market respectively.

Karpoff 1987 and Gallant (1992) A further analysis of relationship between trading volume and return needs to specify which variable is dependent and which is independent. The studies referred to above primarily focus on the contemporaneous relationship between price change and volume. Although some of these research efforts imply a dynamic relationship between price change and volume using cross-correlation, they do not further pursue causal relationship.

Kocagail and Shachmurove (1998) investigated the return-volume relationship for US commodity and financial futures contracts and reported that past trading volume did not increase the ability to forecast returns in future markets.

Chen (2001) examined the dynamic relation between returns, volume, and volatility of stock indices for nine countries and found mixed results. They demonstrated that returns significantly caused volume for US, Japan, UK and France and causal direction from volume to returns was found for Canada only whereas in Switzerland, the Netherlands, and Hong Kong they observed bi-directional causality.

Lee and Rui (2002) examined the dynamic relation between stock market trading volume and returns for the three large markets (viz., New York, Tokyo, and London). They found that returns caused trading volume in the US and Japanese markets but not in the UK market. However, there was no causality from trading volume to returns in any of these markets.

Griffin (2004) investigated the dynamic relation between market-wide trading activity and returns in forty-six stock markets and documented the evidence of a stronger relation between return and turnover in countries with restrictions on short sales.

Nguyen and Diagler (2005) examined the same relationship for S&P 500, NASDAQ, British pound, Japanese yen, Australian dollar, and Canadian dollar futures. They observed unidirectional causality from returns to volume and volatility, and bi-directional causality between volume and volatility, but returns strongly explained the changes in volatility as compared to volume.

OBJECTIVES OF STUDY

1. To Study the Effect of New Information on Investors in Indian Stock Market.
2. To examine the relationship between return, return volatility, and volume.
3. To checks the information asymmetry in Indian Stock Market.

RESEARCH METHODOLOGY

The series of stock return is computed from daily closing prices for the S&P CNX NIFTY index for a period of ten years from April 2007 till March 2017 (i.e. 3205 observations). This has been the period when derivative products were introduced in the Indian stock market. Introduction of futures trading has affected the movement of the index and volume trades in the market in different ways. So the current study attempts to evaluate the

return-volume relationship after the introduction of futures trading. The daily stock returns are continuous rates of return, computed as log of ratio of present day's price to previous days. Data are obtained from website of NSE (www.nseindia.com).

Financial time series such as stock prices often exhibit the phenomenon of volatility clustering. To observe this phenomenon, ARCH model and generalized ARCH (GARCH) model are used. The GARCH specification allows the current conditional variance to be a function of past conditional variances, allowing volatility shocks to persist over time, to test whether the positive contemporaneous relationship between trading volume and returns exists. GARCH methodology is also instrumental in supporting or refusing the mixture of distribution hypothesis (MDH). According to the MDH, a serially correlated mixing variable measuring the rate at which information arrives to the market explains the GARCH effect in the returns. In general, the bulk of empirical studies has found evidence that the inclusion of trading volume in GARCH models for returns results in a decrease of the estimated persistence or even causes it to vanish. This finding, generally interpreted as empirical evidence in favors of the MDH.

However, the results based upon GARCH (1, 1) may again be doubtful because it does not account for asymmetry and non-linearity in the conditional variance. Thus it would be more appropriate to apply asymmetric GARCH model. Thus, among the specifications, which allow for asymmetric shocks to volatility, we estimate the EGARCH (1, 1) or exponential GARCH (1, 1) model. Further, in order to examine the dynamic relationship between variables, linear Granger causality test is applied with the help of E-Views software.

ANALYSIS AND INTERPRETATION

Table 1: Descriptive Statistics

Parameter	Return	Volume	Volatility
Mean	0.000890	2.50E+08	0.000109
Median	0.002150	2.01E+08	7.41E-06
Std. Dev.	0.020155	1.70E+08	0.001036
Skewness	-0.991582	0.834508	19.37200
Kurtosis	12.802360	5.106348	504.7258
Jarque Bera	4178.270	193.2045	154.70263
Probability	0.000000	0.000000	0.000000

Table 1 provides important information regarding the behavior of variables over the period. Mean returns and average volume are higher in the post-futures period. The standard deviation in returns, which is indicative of the unconditional variance, has come down in this phase. Thus there is decline in the daily volatility in the market after the introduction of futures. Further, the empirical distribution of the trading volume and return volatility series are positively skewed, indicating a right tail of distributions, which shows that they are asymmetrical. On the other side, negative skewness is observed for return and magnitude of skewness has significantly increased, which has led the returns to be asymmetric and non-normal and it can be verified from p value of Jarque-Bera test. In addition, Table 1 documents that the coefficient of kurtosis for all variables are significantly greater than 3, which implies that distribution of the variables does not conform to normal distribution, which is the precondition for any market to be efficient in the weak form.

Table-2: GARCH (1,1) estimates for Nifty Returns with Volume

Volume-Return Relationship

Parameter	Coefficient	P-Value
α^2	9.54E-02	0.0035
ω	2.47E-05	0.0000
α_i	0.20874	0.0000
β_j	0.98342	0.0000
$\alpha_i + \beta_j$	1.19216	-----

In this table we analyze that alpha square and Beta would be analyzed that the share market value is less than three basis point so return and volume exists in the GARCH (1, 1). To test whether contemporaneous relationship between return and volume exists using GARCH (1, 1) model with a volume parameter in the mean equation and the results are reported in Table 2. Coefficient of trading volume is positive and significant (i.e. there exists a positive contemporaneous relationship between trading volume and returns). Further, significant α_i and β_j coefficients clearly indicate that conditional variance is predominantly affected by lagged variance, which implies that previous information shock significantly affects current returns. These evidences imply that

Indian stock market is not efficient in weak form. Moreover, there is volatility clustering as measured by the sum of $\alpha_i + \beta_j$ (1.19216), which further supports the increase in asymmetry and inefficiency in market.

Table-3: GARCH (1,1) estimates for Nifty returns with volume

Volume-Volatility Relationship		
Parameter	Coefficient	P-Value
ω	0.00205	0.0000
α_i	0.29001	0.0000
β_j	0.80000	0.0000
\square	-5.27E-15	0.0000
$\alpha_i + \beta_j$	1.09001	-----

Note: * \square is a parameter of volume included in variance equation.

In Table 3 we investigate whether trading volume explains the GARCH effects for returns, GARCH (1, 1) model with a volume parameter in the variance equation is estimated. The study finds parameters α_i and β_j to be positive and significant where trading volume is included in the variance equation of GARCH model. The coefficient on the volume α_i is significant but indicates negative impact on volatility because of asymmetry, which is further checked through EGARCH model. Further, the study shows a decline in the persistence of volatility when trading volume is included in the variance equation, since the sum α_i and β_j falls to (1.09001) in the Table 3 as compared to the sum of α_i and β_j (1.19216) in Table 2 where volume is not included in the variance equation of GARCH model. It means that the degree of persistence is absorbed by the volume series, which indicates that Indian stock market is weak support for the MDH model.

Table-4: EGARCH (1, 1) estimates with volume

Volume-Volatility Relationship		
Parameter	Coefficient	P-Value
\square_1	-2.540967	0.0000
\square_2	1.205635	0.0000
\square_3	-0.524760	0.0000
\square_4	1.945624	0.0000
\square_5	6.34E-06	0.0000
\square_6	-6.23E-06	0.0000

As significant asymmetry is observed in the returns of Nifty index, it would be more informative if we examine the volume--volatility relation through EGARCH (1, 1) model to take into account impact of good and bad news on the volatility knowing the fact that both types of news have different kinds of effect on market. The results of EGARCH (1, 1) are shown in Table 4. The presence of leverage effect can be seen in Table 4, which implies that every price change responds asymmetrically to the positive and negative news in the market. A negative impact of lagged volume on volatility is observed. The parameter \square_2 is statistically significant, which supports the previous evidences of asymmetric distribution of returns in descriptive statistics and significant \square_3 indicates mean reverting behavior of returns because the value of \square_3 is negative, which implies that every price change responds asymmetrically to the positive and negative news in the market. Coefficient \square_4 (which is a parameter of lagged conditional volatility) is significant which implies that Indian market is informational inefficient. Coefficient \square_5 (which is a parameter of volume) shows a different picture of the role of trading volume on the volatility as compared to that in GARCH (1, 1) model. It indicates the significant positive impact of volume on volatility. On the other side, impact of lagged volume on volatility is negative.

Table 5: Granger Causality Test

Regression Eq.: $R_t = \alpha_1 + \beta_1 R_{t-1} + b_1 V_t + \epsilon_t$			
Null Hypothesis	Observation	F-Statistics	P-value
Returns does not cause Volume	2650	9.34724	6.00E-9
Volume does not cause Return	2650	3.47231*	0.04245
Volatility does not cause Volume	2650	3.41720**	0.04485
Volume does not cause Volatility	2650	2.52506	0.35920

Note: * and ** indicate significant at the level of 1 % and 5 % respectively.

Table 5 indicates the robustness of relationship between trading volume, return volatility and to study the direction of information flow between these two, linear Granger causality tests has been applied. There is strong

evidence of bi-directional causality (i.e. reject the null hypothesis of no Granger causality) between return and volume inconsistent with weak-form efficiency. Hence, it is concluded that Nifty index may support the sequential arrival of information hypothesis over the MDH, and trading volume helps to predict return and vice versa. Preceding return volatility can be seen as some evidence that new information arrival might follow a sequential rather than a simultaneous process. This implies that the strong form of market efficiency does not hold since some private information exists that is not reflected in stock prices.

CONCLUSION

The study provides evidence of positive impact of volume on return using GARCH (1, 1) model. In addition GARCH (1,1) documents that the persistence of variance over time partly declines if one includes trading volume as a proxy for information arrivals in the equation of conditional volatility but GARCH effects remain significant, which highlights the inefficiency in the market. It also shows the negative impact of volume on conditional volatility because of asymmetry that is observed in significant Jarque-Bera. Next, in the light of Information asymmetry, the study has used the EGARCH (1, 1) model, which allows for asymmetric shocks to volatility. It indicates the presence of leverage effect and positive impact of volume on volatility. The differential cost of taking long and short positions is the main reason for information asymmetry (leverage effect). In addition, linear Granger causality results support the sequential arrival of information hypothesis, which implies that new information is not simultaneously available to all traders and it takes time to absorb, hampering the price discovery efficiency of the market.

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SOCIAL INNOVATIONS & DIGITAL TRANSFORMATION – A CASE OF PRADHAN MANTRI JAN DHAN YOJANA IN INDIA

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ABSTRACT

Keeping in mind innovative ideas for the upliftment of the masses in Indian economy the Government of India launched Pradhan Mantri Jan Dhan Yojana as a tool for social innovation that appears to address most of the concerns related to a more concrete and substantial engagement with the poor to ensure access to various financial services like availability of basic savings bank account, access to need based credit, remittances facility, insurance and pension. Pradhan Mantri Jan Dhan Yojana is a source of digital transformation that helps the citizens with universal access to banking facilities and financial literacy. The scheme supported the Government to combat corruption, strengthen public service delivery, and accelerate growth. It brought a number of benefits to the Government and financial institutions including the credit expansion among small merchants, rapid expansion of digital acceptance points to make enable India to a cashless economy, positioning India as a global model to learn about how to rapidly reduce cash circulation, the expansion of digital payments, reduction in physical cash, and also broader functioning of the Government in bringing overall efficiency. The PMJDY has reached as a viral effect and linked with all kinds of socio-economic assistance from the Government. Banking practice of the respondents and their operational performance have improved with respect to visiting of banks, savings, loan facilities etc.

Keywords: Challenges, digital transformation, PMJDY, public sector banks, social innovation.

INTRODUCTION

In developing countries like India inclusive growth as one of the emerging aspects helps in the overall and sustainable socio-economic growth. Based on that, Reserve Bank of India introduced an innovative socio-economic contribution scheme called financial inclusion aiming at providing financial services to the unreached people free of cost. However, over the last decade, India's financial inclusion agenda has seen a strategic shift from an emphasis on credit to a more comprehensive approach toward financial services, particularly opening bank accounts and offering basic financial products. This shift has been partly driven by the need to achieve other public policy goals, such as replacing product subsidies with cash transfers which requires beneficiaries to have bank accounts for advancing the transfers.

According to the Census of India (2011), out of 250 million households in the country, only about 145 million had access to basic banking services. About 105 million households do not have access even to basic banking services. The former Deputy Chairman Planning Commission, Government of India (2014) has reported to the Parliament that poverty is the major concern for the country and over 62 per cent of the total population comes under below poverty line. Despite various measures for financial inclusion, poverty and exclusion continue to dominate socio economic and political discourse in India after six decades of post economic independence era. Under this line of facts Pradhan Mantri Jan Dhan Yojana (PMJDY) shows the nation a hope. The prime objective of financial inclusion in developing countries like India is the access and availability of banking and payments services to the entire population at reasonable cost and without any discrimination. That is why there is an urgent need to implement effectively PMJDY by virtue of financial inclusion as all other development activities are hindered by this single disability. This is an important step towards converting Indian economy into a cashless and digital economy. (Shettar, 2016, pp. 19)

PMJDY AS A TOOL FOR SOCIAL INNOVATION

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.

Keeping in mind innovative ideas for the upliftment of the masses in Indian economy the Government launched Pradhan Mantri Jan Dhan Yojana (PMJDY) as a tool for social innovation on August 28, 2014 to address most of the concerns related to a more concrete and substantial engagement with the poor as a national mission for

financial inclusion strategy to ensure access to various financial services like availability of basic savings bank account, access to need based credit, remittances facility, insurance and pension to the weaker sections and low income groups. This Mission has an ambitious objective of covering all households in the country with banking facilities and having a bank account for each household. Comprehensive financial inclusion under the mission is based on six pillars namely universal access to banking facilities, providing basic banking accounts with overdraft facility and RuPay debit card to all households and financial literacy programme under first phase started from August 15 2014 – August 14, 2015; and creation of Credit Guarantee Fund, micro-insurance and unorganized sector pension schemes like *Swavalamban* under second phase started from August 15, 2015– August 15, 2018. This scheme is a national priority for every Indian citizen and mostly helpful for all the income group people who can easily open and continuously have transactions in banking sector. India aims to utilize bank accounts created under PMJDY to extend insurance, pension and credit facilities to those excluded from these benefits. (Saini, 2018, pp. 28)

PMJDY – A SOURCE OF DIGITAL TRANSFORMATION

The widening socio-economic gap between rural and urban India is a worrying factor as it deprives rural India from basic rights such as banking, healthcare and education. The economic empowerment and financial inclusion of rural population is necessary to fill this gap. The rural development has equal importance as the urban growth to achieve overall progress of the country. The advent and rapid adoption of technology brings new and innovative ways to deal with this situation in India. A majority of the country's population does not have basic access to banking infrastructure. People from weaker sections of the society tend to rely on traditional financial activities such as saving, borrowing and managing day-to-day expenses without any access to banks, savings accounts, debit/credit cards, insurance, etc., and depend on informal means such as cash-on-hand, money lenders, etc. Most of the time, these choices are insufficient, risky and expensive.

Pradhan Mantri Jan Dhan Yojana is a source of digital transformation that helps the citizens with universal access to banking facilities with at least one basic banking account for every household. (Confederation of Indian Industry, 2016, pp. 6) Indians are transforming from rural India to digital India with so many initiatives by the Central Government. The recently introduced PMJDY is one of these initiatives that is contributing for the growth of Indian economy to improve the productivity of the country and also for providing a better standard of living for Indians.

India is identified as fastest growing economy. One of the main reasons that contribute for this is Digitalization. Today we are living in digital era. Digitalization is the key word that is heard in every part of the world and especially it is the motto of present India. Government is taking many initiatives to make this change successfully. Digitalization is the use of technologies to provide new revenues to the business and the country as a whole. The fast growing industries like software, e-business, and pharmaceuticals are all playing the key role in the development of Indian economy.

In this regard the Government of India concentrated on the concept of financial inclusion for the benefit of all countrymen that is the process of providing all financial services at affordable costs to disadvantaged and low income sections of the country. But to provide financial services all the people should have access to banks which indicates the need for bank account for every Indian. Pradhan Mantri Jan Dhan Yojana is aimed at this objective. Banking system is the prerequisite of any development strategy as it helps to mobilize financial surpluses of an economy and transfers them to areas of financial deficit. (Sahoo, 2014, pp. 30) It promotes saving by providing a wide variety of financial assets to the general public and then allotted to various finance seeking sectors of the economy for raising the growth of economy. (Sharma, 2015, pp. 3).

Digital transformation is the novel use of digital technology to solve traditional problems and also an integration of digital technology into all areas of a business and society. It is the profound transformation of business and organizational activities, processes, competencies and models to fully leverage the changes and opportunities and their accelerating impact across society in a strategic way on priority basis.

PMJDY – AN ANALYSIS

Table 1 clearly shows an increase in the number of accounts opened and also the account balances under the PMJDY scheme. Highest number of bank accounts was opened by the public sector banks. In 2014, 35.37 million accounts were opened which increased to 226.1 million in year 2017. Regional rural banks and private sector banks also show a continuous increase in accessing people especially in rural areas. But the people have trust on public sector banks as compared to private banks.

Table-1: Progress Report of PMJDY Bank Accounts from 2014 to 2017 (In Million)

	Sep. 18, 2014			Aug. 31, 2015			Jun. 29, 2016			Mar. 29, 2017		
Bank	R	U	T	R	U	T	R	U	T	R	U	T
Public Sector Banks	19.09	16.28	35.37	75.3	6.9	137.2	97.8	77.2	175.0	123.4	102.8	226.1
RRBs	6.01	0.87	6.88	26.8	4.6	31.4	34.0	5.6	39.6	39.8	6.6	64.4
Private Banks	0.41	0.47	0.88	4.2	2.8	7.00	5.10	3.2	8.3	5.5	3.7	9.2

Source – www.pmjdy.gov.in

Note: R = Rural, U = Urban, T = Total

Table 2 shows that in the year 2017 maximum number of RuPay cards (17.76 crore) were issued by the public sector banks. Maximum Aadhaar cards (15.45 crore) were also seeded by public sector banks. Total cash balances in the accounts of public sector banks were also maximum and equal to 49,999.02 crores. Only the percentage of zero balance accounts (23.96 per cent) was maximum in public sector banks as compared to RRBs and private sector banks. This indicates that the performance of public sector banks was satisfactory. RRBs and private banks also played a positive role in the support of PMJDY.

Table-2: Statistics of Accounts Opened under PMJDY as on April 19, 2017 (In Crore)

Bank Type	No. of RuPay Cards	Adhaar Seeded	Balance in Accounts (Rs.)	% of Zero Balance Accounts
Public Sector Banks	17.76	15.45	49,999.02	23.96
RRBs	3.53	2.89	11,853.55	20.72
Private Banks	0.86	0.45	2,107.60	35.56
Total	22.15	18.79	63960.17	23.80

Source - Technical Report, Analyzing Data of Pradhan Mantri Jan Dhan Yojana, 2017

All PMJDY accounts are basic saving bank deposit accounts (BSBDA) which are zero balance accounts with some Government supported additional features like insurance coverage under RuPay debit card and some credit facilities. In the year 2019 up to March 20 there were 35.16 crore total beneficiaries of the scheme out of which 28.07 crore were there in public sector banks, 5.96 crore in RRBs and remaining in private banks. Total deposits were equal to Rs. 95382.14 crores. Maximum deposits were lying with public sector banks followed by RRBs and private banks. In other words it can be said that the contribution of private banks was the lowest as compared to other bank types. The distrust of the people is main reason behind poor performance of private banks. Up to March 2019 in totality 27.83 crore RuPay cards were issued to the beneficiaries through all bank types but the contribution of public sector banks was the highest. Total female beneficiaries were 14.78 crores. (Table 3)

Table-3: Pradhan Mantri Jan Dhan Yojana Beneficiaries as on 20/03/2019 (In Crore)

Bank Type	No. of Rural-Urban Female Beneficiaries	No. of Total Beneficiaries	Deposits in Accounts	No. of RuPay Debit Cards issued to Beneficiaries
Public Sector Banks	14.78	28.07	76407.35	22.94
RRBs	3.30	5.96	16470.44	3.84
Private Sector Banks	0.61	1.14	2504.36	1.05
Grand Total	18.69	35.16	95382.14	27.83

Source - <https://pmjdy.gov.in/account>

The following table 4 shows that top states having significant number of beneficiaries are U.P., Bihar, W. Bengal and M.P. respectively and top bottom states having lowest number of beneficiaries are Lakshdweep, Daman & Diu and Andaman & Nicobar Islands respectively. Similarly top states having balances in beneficiary accounts are U.P., W. Bengal, Bihar and Rajasthan respectively and top bottom states are Lakshdweep, Daman & Diu, Andaman & Nicobar Islands, Puducherry, Nagaland and Dadra & Nagar Haveli respectively. Top states where in maximum RuPay cards were issued include U.P., Bihar, W. Bengal and M.P. respectively and top bottom states are Lakshdweep, Daman & Diu and Andaman & Nicobar Islands respectively. Overall only Uttar Pradesh state has shown a remarkable performance for the successful

implementation of PMJDY. Being the most populous state of India there are maximum beneficiaries in Uttar Pradesh and consequently the total balances are also maximum that are equal to Rs. 17,474.86 crores. In totality 4,40,76,203 crores RuPay cards have been issued till March 20, 2019 as per the Government record in Uttar Pradesh which is again a noticeable number.

Table-4: State-Wise Account Opening Report as on 20/03/2019 in India

S. No.	State	Total Beneficiaries	Balance in Beneficiary Accounts (in Crore)	No. of RuPay Cards Issued to Beneficiaries
1	Andaman & Nicobar Islands	50,540	23.88	40,032
2	Andhra Pradesh	97,23,456	1,791.83	78,65,049
3	Arunachal Pradesh	2,83,082	98.72	2,39,652
4	Assam	1,48,28,798	3,359.85	1,13,79,644
5	Bihar	3,96,21,024	9,556.54	3,22,04,147
6	Chandigarh	2,45,365	104.35	1,99,444
7	Chhattisgarh	1,40,44,969	2,995.53	99,35,541
8	Dadra & Nagar Haveli	1,12,567	49.68	76,111
9	Daman & Diu	50,318	20.08	38,418
10	Delhi	43,16,431	1,696.49	36,83,293
11	Goa	1,61,294	92.54	1,33,275
12	Gujarat	1,36,87,347	4,158.55	1,12,44,018
13	Haryana	70,42,084	2,978.87	60,69,344
14	HP	11,40,760	563.06	9,40,168
15	J & K	20,97,324	900.09	16,50,330
16	Jharkhand	1,22,98,118	3,113.91	1,02,87,784
17	Karnataka	1,39,61,096	3,109.06	1,07,04,331
18	Kerala	37,88,446	1,175.91	27,30,062
19	Lakshadweep	5,249	8.29	5,089
20	MP	3,05,44,193	4,803.61	2,38,50,508
21	Maharashtra	2,46,57,315	5,676.00	1,74,50,236
22	Manipur	9,00,827	189.05	6,94,232
23	Meghalaya	4,75,452	232.29	3,03,041
24	Mizoram	2,99,084	80.71	81,342
25	Nagaland	2,62,852	48.43	2,11,918
26	Odisha	1,40,43,637	4,373.54	1,11,94,571
27	Puducherry	1,49,242	38.67	1,24,318
28	Punjab	66,05,941	2,413.57	55,57,438
29	Rajasthan	2,48,60,462	7,061.56	1,93,22,161
30	Sikkim	92,715	34.93	77,640
31	TN	99,89,264	1,811.81	85,39,668
32	Telangana	95,29,672	1,521.78	75,69,281
33	Tripura	8,71,106	671.23	6,68,953
34	UP	5,46,41,437	17,474.86	4,40,76,203
35	Uttarakhand	24,28,010	1,066.50	19,32,866
36	W. Bengal	3,38,37,950	12,086.38	2,72,53,166
	Total	35,16,47,427	95,382.14	27,83,33,274

Source - <https://pmjdy.gov.in/statewise-statistics>

All India statistics at State level depict that almost all States have reported 100 per cent saturation (that is coverage of all households with at least one bank account) as on March 2019 except a few including J&K, Rajasthan, Nagaland, Manipur, Mizoram, Assam, Orissa, Chhattisgarh and Karnataka. (Table 5)

Table-5: State-Wise Household Report in India as on March 2019

State	Total Households	Covered Households	Household Coverage (%)
Jammu & Kashmir	357340	356295	99.71%
Himachal Pradesh	1298191	1298191	100.00%

State	Total Households	Covered Households	Household Coverage (%)
Punjab	4746147	4746147	100.00%
Chandigarh	193876	193876	100.00%
Uttarakhand	1136431	1136431	100.00%
Haryana	4596617	4596617	100.00%
Delhi	2696322	2696322	100.00%
Rajasthan	11463959	11462956	99.99%
Uttar Pradesh	31159992	31159148	100.00%
Bihar	17281831	17281831	100.00%
Sikkim	131086	131086	100.00%
Arunachal Pradesh	197861	197861	100.00%
Nagaland	334034	333762	99.92%
Manipur	514604	513359	99.76%
Mizoram	181946	181806	99.92%
Tripura	755041	755041	100.00%
Meghalaya	477182	477182	100.00%
Assam	5013404	5011228	99.96%
West Bengal	19261587	19261587	100.00%
Jharkhand	5438679	5438679	100.00%
Orissa	7432140	7420665	99.85%
Chhattisgarh	5189795	5188545	99.98%
Madhya Pradesh	14739932	14739932	100.00%
Gujarat	11709247	11709247	100.00%
Daman & Diu	22528	22528	100.00%
Dadra & Nagar Haveli	59908	59908	100.00%
Maharashtra	16374622	16374030	100.00%
Andhra Pradesh	11855426	11855366	100.00%
Karnataka	11178005	11175204	99.97%
Goa	331457	331457	100.00%
Lakshadweep	10189	10189	100.00%
Kerala	4585375	4585375	100.00%
Tamil Nadu	14353828	14353794	100.00%
Puducherry	252105	252105	100.00%
Andaman & Nicobar	67287	67287	100.00%
Telangana	5223218	5223218	100.00%

Source – <https://pmjdy.gov.in/statewise-statistics>

BENEFITS GIVEN UNDER THE SCHEME

The Government tried to give tremendous direct benefits to the ultimate beneficiaries of the scheme. These include:

1. Direct cash transfer to beneficiaries' accounts through which Government gives subsidies to farmers, consumers and weaker sections on food, fertilizers, and LPG gas through their bank accounts to ensure transparency, eliminate corruption, reduce expenditure on subsidy, and provide subsidy to the real beneficiaries. (Saini, 2018, pp. 27)
2. Inculcating the saving habits through the expansion of banking facilities in unbanked areas among the rural people and thereby creating a platform for developing the habit of people to save and also to channelize the savings.
3. Deposits mobilized under Pradhan Mantri Jan Dhan Yojana were close to Rs 21,000 crore from the accounts opened under the scheme. Zero balance accounts declined to 46.93 per cent in July 2015, from 76 per cent from September 2014, Besides, RuPay debit card had been issued to 15.26 crore beneficiaries who also got a benefit of personal accidental insurance of Rs 1 lakh. A deposit of Rs 20,769.33 crore had been mobilized in the accounts opened under PMJDY. (Saini, 2018, pp. 27)

4. Nearly 1.65 lakh account holders out of total 18 crore availed of overdraft facility under PMJDY. One of the basic objectives was the delivery of financial services at an affordable cost to the vast sections of the deprived people. To facilitate cash-out facility, there were nearly 1.26 lakh bank branches of which 38 per cent were in rural areas. The network of bank branches, ATMs, bank mitras (business correspondents) and enhancement of limit of cash withdrawal helped the customers. (Saini, 2018, pp. 28)
5. Due to vast expansion, mobile communication is now being used by almost 60 per cent of the population. Mobile banking has come in handy because of almost no infrastructure cost to the bank and no additional investment from customers. Only development of certain applications and then making customer aware about how to use it and enable them to gain confidence about its use. Further initiative like National Payments Corporation of India, a company under Companies Act, incorporated in December 2008 is facilitating the Interbank Mobile Payment Service which is a money transfer system through which one can transfer money to other bank accounts instantly using mobile banking. Similar such application like "Bhim" is also enabling financial transactions.
6. Micro ATM, a device that is used by a million business correspondents to deliver basic banking services. With the Government's interest on expanding financial inclusion, the Indian Banks' Association is working out to facilitate branchless banking in villages.
7. Jan Dhan Yojana supported the Government to combat corruption, strengthen public service delivery, and accelerate growth. It also underscored the Government's commitment to continuous improvement and innovation. It brought a number of benefits to the Government and financial institutions including the credit expansion, the rapid expansion of digital acceptance points to make enable India to a cash-less economy, positioning India as a global model for how to rapidly reduce cash circulation, the expansion of digital payments, reduction in physical cash, and also broader functioning of the Government in bringing overall efficiency.

CHALLENGES FACED DURING IMPLEMENTATION OF THE SCHEME

Many cases have been detected wherein an individual has opened more than one account in various banks. Budgetary provisions have not been made by the Government to provide incentives, otherwise the financial status of the banks may be ruined. Insurance companies have to fix a nominal premium to cover the risk of the account holders in case it is not done the state owned LIC may batter with financial losses. Overdraft facility needs to be properly regulated as the same is the discretionary of the concerned banks. Many banks may decline to extend the overdraft facility therefore defeating the purpose. Business correspondents if made to accomplish the objective may misuse the authority and thereby making the life of people under below poverty line miserable. A large majority of accounts in PMJDY are zero balance accounts and a burden to the banks. Banks have launched special drive to bring down such accounts. Several steps have been taken for reduction of zero balance accounts.

KYC norms are not insisted under this programme, therefore duplication is unavoidable. RBI has to accord approval to banks so as to enable them to establish more branches keeping in view the number of villages and the population. Bank correspondence or bank mitra is the idea before the Finance Ministry whereas creating infrastructure for business mitra, including computers, micro ATM, biometric scanners, and internet connectivity may be a major concern. There is a commitment on the part of the Government to provide Rs. 50,000 towards equipment, Rs. 25,000 towards working capital and Rs. 50,000 towards vehicle. These arrangements have been made without budgeting provisions. Bank mitra to be appointed in terms of lakhs and also are required to be properly trained with accurate knowledge, skill and attitude. Private Banks levy hidden charges on the beneficiary which may become a deterrent for the financial inclusion. (Shettar, 2016, pp. 23)

Poor telecom connectivity and lack of infrastructure in tribal and hilly areas of Uttarakhand was a big challenge in the mission of 100% coverage of households in the country. There were a lot of problems in direct benefit transfers due to duplication and dormant accounts. Private Banks were highly discouraged because of increased salary of bank mitras and other operational costs associated with the scheme. Credit facility without the assessment of credit worthiness was a challenge for the creation of Credit Guarantee Fund. It was very tough for the people to get benefit from PMJDY who were not having any document.

As per the announcements made under the scheme, some of the key issues in PMJDY include provision of insurance only to one person in a family for accounts opened between August 15, 2014 and January 26, 2015, availability of the life cover of Rs 30,000 initially for a period of 5 years to one person per family, normally the head of the family or an earning member in the age group of 18 to 59, person must have a RuPay card and Bio-Metric card linked to bank account or in process of being linked to bank account compulsorily, availability of

overdraft facility upto Rs.5000/- to only one person per household, preferably lady of the household after satisfactory operation of the account for 6 months and also accidental insurance cover of Rs. 1 lac for which RuPay debit card must be used at least once in 45 days. (Goel, 2015, pp. 314-315)

REVIEW OF LITERATURE

Any research work needs background information which helps to understand the nature of the issues associated with the topic under consideration and its significance in future. With this aspect review of literature has been framed to study various literatures. A brief summary of some selective reviews has been given below:

Chowhan focused on the launch of Jan Dhan Yojana Scheme for all Indians and its impact on the improvement of living standards of all the people as a part of financial inclusion which emerged in 2000. Financial inclusion helps in providing the financial services like banking facilities to all the citizens. (Chowhan, 2014) Pathak studied to find out number of accounts to be opened in PMJDY and how the weaker section will be benefited from this scheme. This study suggested that the banks should be instructed to serve as a platform to raise the level of economic activity. (Pathak *et. al.*, 2014) Barhate and Jagtap focused on financial inclusion strategy of PMJDY and issues related to the success of the scheme. They concluded that every new thing requires determination and attitude towards success path. To withstand the heat of economic down surge and fight poverty, Jan Dhan Yojana is a good mechanism. (Barhate and Jagtap, 2014)

Patnaik focused on the respondents' opinion on opening bank accounts as per the national mission of PMJDY. The study was conducted in Eastern region of India and capital region of Orissa comprising household servants, labourers, taxi drivers, contractual staff etc. It was observed from the sample that the people were not interested to open bank accounts as they did not have savings to deposit. Thus, awareness camps were required to create interest in people to open bank accounts. (Patnaik, 2015) A study analyzed PMJDY scheme as many Indians were not still availing of bank accounts. They were all out of the growth sector or in unorganized financial system which does not directly contribute to the development of the country. (Rai, 2015) The financial system affects the growth rate of our country. But most of the Indians are not a part of this development. Thus PMJDY is an innovative initiative to increase the contributions of Indians for the sake of our country. (Raval, 2015) Paramasivan and other focused on the role of public sector banks in the implementation of the national mission "PMJDY" and observed that they are working well. (Paramasivan & Kamaraj, 2015) Pradhan Mantri Jan Dhan Yojana is a totally contributory scheme. It has created an impressive result in the banking sector with regard to eradication of financial untouchability in the country. (Paramasivan & Kamaraj, 2015a) PMJDY has been implemented successfully with the help of commercial banks particularly public sector banks. But, still regional rural banks are playing a major role in rural and agriculture development with the support of National Bank for Agricultural and Rural Development and other central and state Government institutions. (Paramasivan & Kamaraj, 2015b) Guntupalli focused on identifying the role of Government and banks to implement and encourage the people to actively participate in PMJDY. The study identified that the low income received by the people is making it difficult to open the accounts and continue the transactions through banks. (Guntupalli, 2016) Kamaraj conducted a study to measure the operational performance of Pradhan Mantri Jan Dhan Yojana in Tiruchirappalli District. The study concludes that operational performance of the account holders, location convenience, banking services, flexibility of schemes, attractive interest rate, and socio-economic empowerment of the respondents have been improved with respect to PMJDY and influenced their social and economic status. (Kamaraj, 2018)

OBJECTIVES OF THE STUDY

The main objectives set forth for the present study are:

1. To know the overview of Pradhan Mantri Jan Dhan Yojana in India.
2. To discuss the various issues and challenges related to PMJDY.
3. To provide suggestions for further improvements.

RESEARCH METHODOLOGY

The present research study is descriptive in nature. Secondary data were compiled from the reports of Reserve Bank of India, Ministry of Finance, bank reports, journals, books, magazines, Newspapers and websites etc. After a deep study of the available literature and data suggestions have been given for further improvement for the successful implementation of the scheme.

FINDINGS

- Majority of the PMJDY accounts were opened in rural areas.

- Majority of the PMJDY account holders open their bank account with public sector banks followed by RRB and private sector banks.
- Majority of the RuPay card were issued by public sector banks followed by RRB and private sector banks.
- Highest amount of PMJDY account balances is maintained with public sector banks followed by regional rural banks and private sector banks.
- The huge number of RuPay debit card were issued by public sector banks followed by Regional Rural Banks and private sector banks.
- Annual growth rate of number of RuPay debit card issued by banks and amount of PMJDY account balances maintained by banksshowed an increasing trend. But the numberof zero balance account opened was decreased during the year 2015, but increased during the year 2016. (Meera *et. al.*, 2017, pp. 14)
- The PMJDY scheme was implemented most successfully in Uttar Pradesh.
- The Scheme was least successful in Lakshdweep.
- Due to having some loopholes in the implementation of the Scheme, in many of the states the Scheme has not been implemented successfully.
- Within a span of more than four years it has been observed that the PMJDY focuses too much on speed and numbers without adequate attention on implementation.

CONCLUSION

The PMJDY has addressed all the existing and possible deficiencies. This scheme is intrue sense one of the poverty alleviation programmes through the financial inclusion programme. It is one of the very successful and most effective financial inclusion drives with respect to opening of accounts with zero balance. Banking practice of the respondents and their operational performance is improved with respect to visiting of banks, savings, loan facilities etc. Inclusive banking and its impact on family aspects, community aspects, financial aspects and investment aspects is improved in a remarkable manner.

The Pradhan Mantri Jan DhanYojana hasyielded results and nearly 98 per cent of households in India now have bank accounts. The scheme aims at building a holistic framework by integrating the other critical elements such as Aadhar, direct benefit transfer, and direct benefit transfer for LPG. These programmes are transforming India andaltering socio-economic landscape and achieving inclusive growth.The PMJDY scheme has created an impressive result in the banking sector with regard to eradication of financial untouchability in the country. Mere opening of bank accounts may not fulfill the aim of the scheme, but there should be continuous operation of bank accounts to give the real success of the scheme.

SUGGESTIONS

After a deep insight into the facts related to the scheme the following suggestions have been recommended:

- The majority of PMJDY accounts holders isfrom rural areas. So, the banks should also attract customers from urban areas.
- Most of the people are not aware of benefits available for PMJDY account. So, the Government and concerned authority should explain properly various benefits of PMJDY scheme to the people.
- Financial literacy camps must be organized to make people financially literate.
- Duplication of accounts by single person should be stopped.
- Private banks should be strictly warned not to levy any hidden charges.
- Ensuring effective use ofmobile banking by the account holders.
- The ATMs need to be increased in numbers with proper functional mode not only in urban but also in rural areas.

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A REVIEW OF TECHNOLOGY ADOPTION AND INNOVATION MODELS

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ABSTRACT

Recognition the needs and acceptance of individuals is the beginning stage of any businesses and this understanding would be helpful to find the way of future development, thus academicians are interested to realize the factors that drive users' acceptance or rejection of technologies. A number of models and frameworks have been developed to explain user adoption of new technologies and these models introduce factors that can affect the user acceptance. In this paper, an overview of theories and models regarding user acceptance of technology has been provided. The current research focused to point out that all together for technical innovation to convey an incentive to associations, it must be acknowledged and completely utilized. It is critical to discover the reasons why people utilize or not utilize technical innovation. The purpose of this study is to enhance the importance of updating older technology models and theories.

Keywords: Technology Acceptance, Technology Acceptance Model, User Acceptance, Innovation in Technology

1. INTRODUCTION

Decision makers should know the issues that influence on users' decision to practice a particular system so they would be able to take them into account during the progress phase. It is the common question of both practitioners and researchers that why people accept new technologies. Answering this question may help them to better methods for designing, evaluating and predicting the response of the users to the new technologies. Technology acceptance models and theories have been applied in a wide variety of domains to understand and to predict users' behavior such as voting, dieting, family planning, donating blood, women's occupational orientations, breast cancer examination, choice of transport mode, turnover, using birth control pills, education, consumer's purchase behaviors, and computer usage. Several researched in the field of technology acceptance, developed frameworks to assess the usage of particular developed and implemented technology.

A number of models and frameworks have been developed to explain user adoption of new technologies and these models introduce factors that can affect the user acceptance such as Technology Acceptance Model, Theory of Planned Behavior and Diffusion of Innovation theory, Theory of Reasoned Action, Model of PC Utilization, Motivational Model, Unified Theory of Acceptance and Use of Technology and Social Cognitive Theory and many studies have used these traditional frameworks to conduct their researches and the rest combined previous models or add new constructs to developed models to carry out their study. More than one theoretical approach is necessary for complete understanding of the issues involved, and for clarity, approaches are treated independently. However, various theoretical complete understandings of involved issues require approaches. Therefore, an overview on available general adoption model is necessary in this field. In this paper adoption theories and models are presented to give an overview for better understanding of these models and theories.

2. LITERATURE REVIEW**2.1. THEORY OF REASONED ACTION (TRA)**

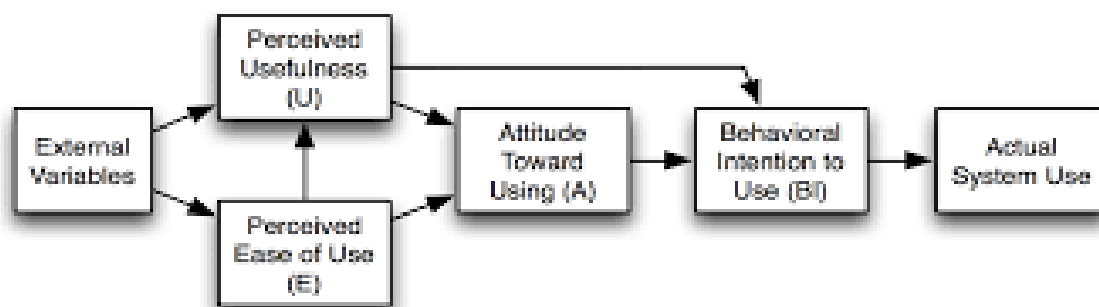
Although TRA model was first developed in 1975 by Fishbein and Azjen's for sociological and psychological researches, it is recently becoming foundation to investigate individuals' IT usage behaviour. In this model, any human behaviour is predicted and explained through three main cognitive components including attitudes (unfavourableness or favourableness of person's feeling for a behaviour), social norms (social influence), and intentions (individual's decision do or don't do a behaviour). This human behaviour should be volitional, systematic and rational. Moreover, three boundaries factors, volitional control; intention stability over time; and measurement of intention in terms of target, time, context, action and specificity, are defined to test and evaluate the TRA. Furthermore, some methods such as generality, target, action, context, and time horizon are established to improve the robustness between corresponding intention and attitude. On the other hand, the main disadvantages of TRA are the lack of addressing the role of habit, the cognitive deliberation, misunderstanding through a survey (attitudes, subjective norms, and intention of the respondents) and the moral factors. In addition, usage voluntariness is a crucial issue for validation of TRA.

2.2. THEORY OF PLANNED BEHAVIOR (TPB)

In this model, perceived behavioural control (PBC) as a new variable is added to extend TRA model. Basically, PBC is determined by the availability of resources, opportunities and skills, as well as the perceived significance of those resources, opportunities and skills to achieve outcomes. Although both TPB and TRA assumed person's behavioural intention (BI) is affecting individual's behaviour, TPB is using the PBC for individual's actions which are not under volitional control. By adding PBC, not only realistic limitations are composed but also, a self-efficacy type factor is achieved. Moreover, PBC has the direct influence on actual behaviour as well as the indirect affect through the behavioural intentions. Therefore, in TPB model, three main factors are affecting BI including perceived behavioural control, subjective norm, and behavioural attitude. However, there are two main problems with TPB model. First, the one's attitudes towards information technology will not be largely relevant if a computer system is not accessible. Second, the revised TPB may be viewed as the more suitable theoretical framework which is influenced the degree of individual's voluntariness that choose or not to choose the use of information technology in the workplace.

2.3. TECHNOLOGY ACCEPTANCE MODEL (TAM)

TAM is a further adaptation of the Theory of Reasoned Action. But while TRA is a general theory of human behavior, TAM was mainly designed for modeling user acceptance in information systems. Similar to the previous theories it is assumed, that users could choose to employ a specific technology based on individual cost-benefit considerations. The Technology Acceptance Model presupposes, that two particular constructs determine the user's acceptance of a technology: perceived ease-of-use (PEOU) and perceived usefulness (PU). According to the definitions of Davis et al., PEOU refers to "the degree, to which the user expects the target system to be free of effort", while PU describes the individual's "subjective probability, that using a specific application system, will increase his or her job performance within an organizational context".



2.4. EXTENSION OF TAM (ETAM)

In ETAM, some new factors are added to TAM in order to improve adaptively, explanatory power and specificity of TAM. ETAM has been proposed in two separate studies. The first study focused on antecedents of perceived usefulness and BI which known as TAM2. TAM2 was proposed by adding two groups of constructs; social influence (image, subject norms and voluntariness), and cognitive (result demonstrability, job relevance and output quality) to TAM, to improve the predictive power of perceived usefulness. Therefore, for both voluntary and mandatory environments, TAM2 is outperformed. The only exception is related to subjective norm which have influence in mandatory settings in but do not in voluntary settings. The second study identified constructs that influence on perceived ease of use. The antecedents of perceived ease of use have been divided to two major groups, namely, adjustments and anchors. The general beliefs regarding the use of computer systems have been put in anchors group (enjoyment and objective usability) while beliefs that are formed on the basis of direct experience of given system are included in adjustments set (external control, computer self-efficacy, computer anxiety, and computer playfulness).

2.5. THEORY OF INTERPERSONAL BEHAVIOR (TIB)

This model is clarifying mainly the human's behaviour complexity which are affected by social and emotional factors. Therefore, this model not only contains all aspect of TRA and TPB but also, adding habits, facilitating conditions and affect in order to improve the prediction power. The concept of social factors which is similar to the subjective norms construct in TRA, contain roles, norms and self-concept. In brief, in TIB, individual is neither fully deliberative nor fully automatic, further, neither fully autonomous nor entirely social. TRA differs from TIB, in the sense that TRA interests in accounting for the most variance with the fewest variables, whereas TIB interests in accounting for the most variance in total, because even a small amount of variance may be socially important, if the behaviour in question is critical. In this model, emotions, social factors (like subjective norms in TRA), and habits are identified as the main factors to form the intention. TIB has three levels to argue the behaviour. In the first level, personal beliefs, attitudes and social factors related to the behaviour is

intentions, situational conditions and past experience. The main disadvantage of TIB is complexity and lack of parsimony compared to TRA and TPB. Also, TIB isn't providing simple procedure for the operational definition of the variables among model and it is left to the researcher.

2.6. SOCIAL COGNITIVE THEORY (SCT)

Inspired from social psychology, SCT was proposed based on three main factors; behaviour, personal, and environment which are interacted bi-directionally in order to predict both group and individual behaviour. Moreover, it can identify methods which can change and modify behaviour. In SCT model, behaviour factor is chiefly focused on usage, performance and adoption issues. However, personal factor is any personality, cognitive and demographic aspects characterizing a person. On the other hand, environmental factor includes physical and social factors which both are physically external to the individual. SCT is an inseparable triadic structure that all three factors constantly influence one another, reciprocally determining each other. SCT model is integrated to evaluate the information technology usage by using some constructs including self-efficacy, outcome expectations performance, anxiety, affect, and outcome expectations personal.

2.7. DIFFUSION OF INNOVATIONS THEORY (DOI)

DOI model examines a diversity of innovations by introducing four factors (which are the time, channels' communication, innovation or social system) which influence the spread of a new idea. DOI not only has been used at both organizational and individual levels but also, offers a theoretical foundation to discuss adoption at a global level. DOI model integrates three major components: adopter characteristics, characteristics of an innovation, and innovation decision process. In innovation decision step, five steps namely confirmation, knowledge, implementation, decision, and persuasion have taken place through a series of communication channels among the members of a similar social system over a period of time. In characteristics of an innovation step, five main constructs; relative advantage, compatibility, complexity, trialability, and observability have been proposed as effective factors on any innovation acceptance. In adopter characteristics step, five categories; early adopters, innovators, laggards, late majority, and early majority are defined. In conclusion, DOI more focus on the system characteristics, organizational attributes and environmental aspects, it has less power in explanatory and less practical for prediction of outcomes compared to other adoption models.

3. DISCUSSION

Adoption models rooted on a diversity of theories for example, Innovation Diffusion Theory (IDT). Is from sociology, Theory of Reasoned Action (TRA) is from social psychology, TIB, TPB and SCT are psychosocial theories. All three theories have proven their effectiveness in predicting and explaining a variety of human behaviours in differing contexts. On the other hand, TRA and TPB differ from DOI in the sense that the former focuses on explaining the behaviour of individuals. The latter concentrates on adoption decisions in which the organizational characteristics play a key role, not the individual. SCT and TPB integrate the notion of perceived outcomes when forecasting behaviour while DOI and TAM focus solely on beliefs about the technology. DOI, TAM and TPB adopt a unidirectional perspective towards causal relationship, in which environmental constructs affect cognitive beliefs, which affect attitudes and behaviours whereas SCT relies on the bidirectional nature of causation in which behaviour, emotional and cognitive factors and environment constantly and mutually affect each other.

On the other viewpoint, TIB, TPB and SCT theories are similar and conceptually overlap, however, SCT and TPB have been used more frequently in the study of behaviour than has Triandis' TIB. The TIB includes all aspects of the TPB model, however it includes additional components that add to its predictive power, namely that of habits and facilitating conditions.

4. CONCLUSION

It is very important that science and its theories are applicable to real life situations and today's technology. Older models regarding technology and Internet needs to be overseen and updated as the surrounding changes. According to TAM the users should be happy and have accepted the service. This study shows otherwise. The usage depends mainly on the ease of use and lack of other similar services, and not on the trust of the companies or their services. To gain a full acceptance from customers, they need to feel safe when using it. These discussions indicate that the Technology Acceptance Model needs to be overseen and corrected, or at least enhance the importance of trust and privacy concerns in today's Internet services.

Similarly, there are some overlapping factors between DOI and TAM such as complexity and perceived ease of use, relative advantage and perceived usefulness. Likewise, facilitating condition used by Venkatesh, Morris captures notions of Ajzen's perceived behavioural control, Thompson, Higgins's facilitating conditions and Moore and Benbasat's compatibility construct.

Most information system researchers have not made a distinction between the affective component of attitudes (which have a like/dislike connotation) and the cognitive component or beliefs (which are the information a person holds about an object, issue, or person). Perluszargued that both cognitive processes and emotional and affective elements influence behaviours. Some of the previous models focus on internal antecedents of behaviour like attitudes, values and intentions while others focus more on external issues such as norms, incentives and institutional constraints.

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A STUDY OF PHYGITAL BANKING AS AN INNOVATIVE TECHNOLOGY

Dr. Sunita Srivastava and Dr. Smriti Mathur

INTRODUCTION

Banking is an industry that handles cash, credit, and other financial transactions. Banks provide a safe place to store extra cash and credit. They offer savings accounts, certificates of deposit, and checking accounts. Banks use these deposits to make loans. The Indian Banking landscape is dynamic and constantly moving towards digital banking. Banks face a new paradigm where the definition of customer experience and the way customers interact with their bank is being refined. The first agenda item adopted by the banking sector is digitization. Rising cost pressures and the need to improve efficiency have forced some banks to close branches. But still some banks believe that human interaction is the key to for banks to build trust, credibility and provide related advisory services. Some customer segments still depend on traditional banking methods and are only comfortable with face-to-face interactions. Banks are looking to reimagine the network and channels where customers interact and aim to make the interactions seamless to provide a frictionless experience. A hybrid approach that combines digital and personal interactions will create a more responsive and cost-effective distribution model. This leads to birth of Innovative Technology called as Phygital Banking. It is used to bridge gap between offline and online customer experience.

OBJECTIVE OF THE STUDY

The main objectives of the study are:

- To know about the concept of Phygital Banking.
- To know about the concept of phygital banking, its characteristics and the role of Phygital banking in accomplishment of goals with a study of Accenture.

REVIEW OF LITERATURE

- A study of Accenture Research published online which focussed on the concept of Phygital Banking or Phygital transformation. The rapid pace of digital evolution has opened a big chasm between the experience's banks deliver today and what can be delivered. The current possible productivity frontier for the banking industry is far ahead of the delivered actual in the industry. This opens up a land grab opportunity. Multiple new entrants starting with clean slates and big ambition will try and exploit these gaps. Existing banks can either wait for their impact or make the 'Phygital' leap themselves to exploit the opportunity.

RESEARCH METHODOLOGY

Research paper is based on secondary data. The present study is review of various articles published online.

PHYGITAL BANKING



Phygital (Physical + Digital) is a marketing term that describes blending digital experience with physical ones. Phygital is a digital description of reality. The concept of phygital insight is to analyse stimuli from the physical world and use them in the digital one.

The truth is that both the digital and the physical world are inseparable part of life and business. The real transformation emerging is not the replacement of the one by the other, it's the marriage of the two into combinations that create wholly new source of value. There is a great reversal of roles that seems to have taken place instead of former digital adaptation and appropriation of material things, physical manifestation of digital concepts and functions has begun to emerge.

It is clear from the behaviour of customers that the physical branch (as it stands – with tellers, large waiting areas, consultation rooms and expansive offices), does not have a future. They understand very well that:

- That the future is digital
- People like people
- The Bank store is here to stay – but it will be smaller and they will be fewer in number
- The future is all about brand and customer experience
- Business growth will be determined by trends – stylistic, demographic and statistical
- Everyone is connected

HOW BANK SHOULD APPROACH PHYGITAL TRANSFORMATION

To date, most banks have focussed on simply improving simple transactions through online or mobile channels, thereby reducing brick and mortar branch costs. They totally ignored making customer's making lives more convenient, easy and engaging by creating a differentiated customer experience featuring truly innovative, useful digital applications and a seamless integration of all channels. Therefore, banks should try to improve the overall customer experience if they want their new phenomenon to be successful.

Successful phygital transformation must be driven from the top and inspire all organisational levels as they focus on the 'how' more than the 'what'. Banks that have successfully implemented phygital transformation strategies and have fully transformed their operations and banking activities models, did not achieve that by building their facilities from the starch but from reshaping the banks to take advantage of valuable existing strategic assets in new ways.

Physical bank branches have endured the test of trust for years and still remain the biggest source of trust for the millennial generation. 80% of millennials say they want the option to visit a bank branch, even as 83% want more options when it comes to overall banking. At the same time, the consequences of ignoring digital and cognitive revolution can create an existential threat for banks. The success lies in perfectly marrying the digital and physical channels to build a bank of the future that is connected, consistent, and customer-centric.

THE PHYGITAL BANKING CUSTOMER MANIFESTO



Figure put the phygital consumer on the epicentre of the phygital transformation strategies and then apply to all organisation no matter the industry they belong. Customer expectations have changed because customers have changed themselves. Marketers till now were trying to decode and behaviourally analysing the digital consumers but now they have realised the importance of phygital consumer. Consumers who expected services that not only cover both online and offline needs but also combine them in a way that the consumer experience improves interaction and touchpoint.

Importance of Phygital Banking to Customers:

- Customers can easily find simple, clear product and services information both online and offline.
- They get the facility of applying for a product and services through one channel and seamlessly finish the transaction on another.
- Customers can buy the same products at the same price, regardless of how and where they go.
- They can access all their accounts on any devise.

- They can most of their day to day banking through digital channels.
- Their transactions are efficient, secure and fast – ‘one and done’ with minimal paper.

CASE STUDY OF ACCENTURE

Accenture is a global management consulting and professional services firm that provides strategy, consulting, digital, technology and operations services. A Fortune Global 500 company, it has been incorporated in Dublin, Ireland, since 1 September 2009. In 2018, the company reported net revenues of \$39.6 billion, with more than 459,000 employees serving clients in more than 200 cities in 120 countries. The services and operations of Accenture includes:

- Accenture Strategy provides business strategy, technology strategy and operations strategy services.
- Accenture Consulting provides technology, business and management consulting.
- Accenture Digital provides digital marketing, analytics and mobility services.
- Accenture Technology focuses on technology solutions, implementation, delivery, and research & development, including its Technology Labs for emerging technologies.
- Accenture Operations focuses on an "as-a-service" model of service delivery. This includes business process outsourcing, IT services, cloud services, managed operations, security and infrastructure services.

AWARDS AND RECOGNITIONS

- In 2018, Fortune magazine named it as the world's most admired Information Technology Services company.
- In 2018, the Ethisphere Institute named Accenture one of the world's most ethical companies for the 11th time.
- Fortune named Accenture one of the 100 Best Companies to Work For from 2009 to 2018.
- CR Magazine named Accenture No. 2 in its top 100 Best Corporate Citizens list for 2018.
- In 2018, Accenture was ranked No. 288 on the Forbes Global 2000 list.
- In 2018, Accenture was ranked No. 316 on the Fortune Global 500 list.
- In 2018, the firm was named 9th in the Top 50 Companies for Diversity by DiversityInc.
- In 2019, Fortune magazine named it as the world's most admired Information Technology Services company.

ACCENTURE INITIATIVE OF PHYGITAL BANKING

Banks nowadays started their digital transformation journeys by migrating customers to digital, rightsizing their branch networks and finance in new capabilities. But some banks still have not yet realized the full benefits of these transformations. These banks have to be compelled to supply customers distinctive, convenient experiences tailored to today's fast-moving, digital lifestyles.

Banks will try this by finance in technology that lets the branch bridge the physical and digital worlds—creating a seamless and integrated “phygital” expertise. Physical touch points with banks and their ecosystem are not only inevitable but also an opportunity to drive differentiation. These touchpoints facilitate an overwhelmingly large percentage of sales but unfortunately, the experiences they deliver are broken. ‘Phygital’ is about being inherently digital across all channels (physical and digital), operations and the very way banks are organized and manage their business.

The three defining characteristics of a Phygital bank are –

- A ‘Phygital’ bank interacts with their customers digitally across both Physical and Online channels. All interactions are power-driven by Digital to own intelligent context aware conversations with the client as a bank and not as siloed people or channels. In each interaction the Phygital Bank of today, embeds artificial Intelligence (AI) powered bots and intuitive user Interface (UI) to break the cognitive, language and literacy barriers to increase end-to-end seamless interactions for all customers.
- Just as the interactions with customers are digital so are its operations. All operations are powered by digital and a Digital First approach is adopted. For example, before a residence verification is

conducted – the bank relies on digital sources like CIBIL, Aadhar etc. Similarly, before mailing the physical documents there is usage of scanned images. Wherever possible digital APIs are used to eliminate the need for the physical documents. Similarly, use of Robotic Process Automation for repeatable tasks, IOT in hypothecated assets, drones for verification in insurance etc. help in significantly reducing costs and simultaneously creating experiences that command a disproportionate market share.

- A Phygital Bank is inherently digital as an organization. Everything in the organization including its leadership, culture, the way organization collaborates to deliver its services and how skills are leveraged, acquired or developed is attuned to the digital era. It is inherently agile and leverages digital tools like living dashboards, algorithms, social and crowd to multiply productivity and evolve rapidly.

Make the Phygital Leap - Deliver higher value at lower costs

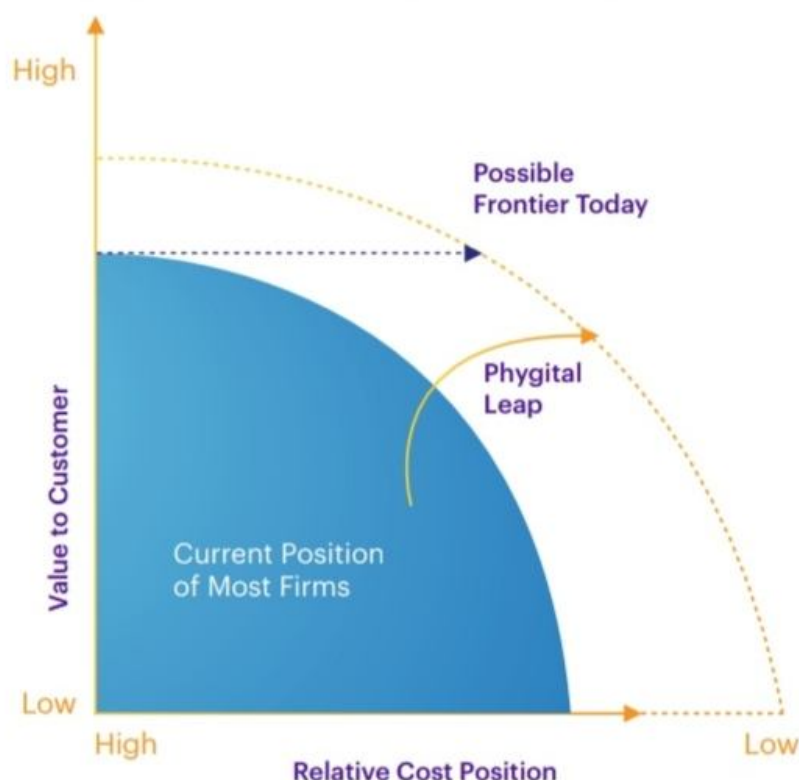


Figure clearly shows that the Impact of adopting phygital transformation is very beneficial. X axis indicates relative cost position and Y axis indicates value to customer. Blue portion of the graph clearly indicates the relative cost position and value to customer before transforming to phygital banking. The Phygital leap is simply the move to a better underlying architecture that will allow you to simultaneously increase customer value and reduce costs.

Phygital, or omni-channel, experiences are critical to a bank's success. Their research found that, on average, omni-channel customers generate twice as much revenue, achieve 30 percent more cross-selling and experience one third as much churn as branch-only customers. Serving these omni-channel customers through a phygital experience should be a key component of banks' distribution strategy.

For banks, making a really phygital expertise suggests that building a connected client and worker expertise that brings physical and digital channels along.

Rather than invest in "shiny objects" or purpose solutions, banks should focus on technologies that can achieve the following goals:

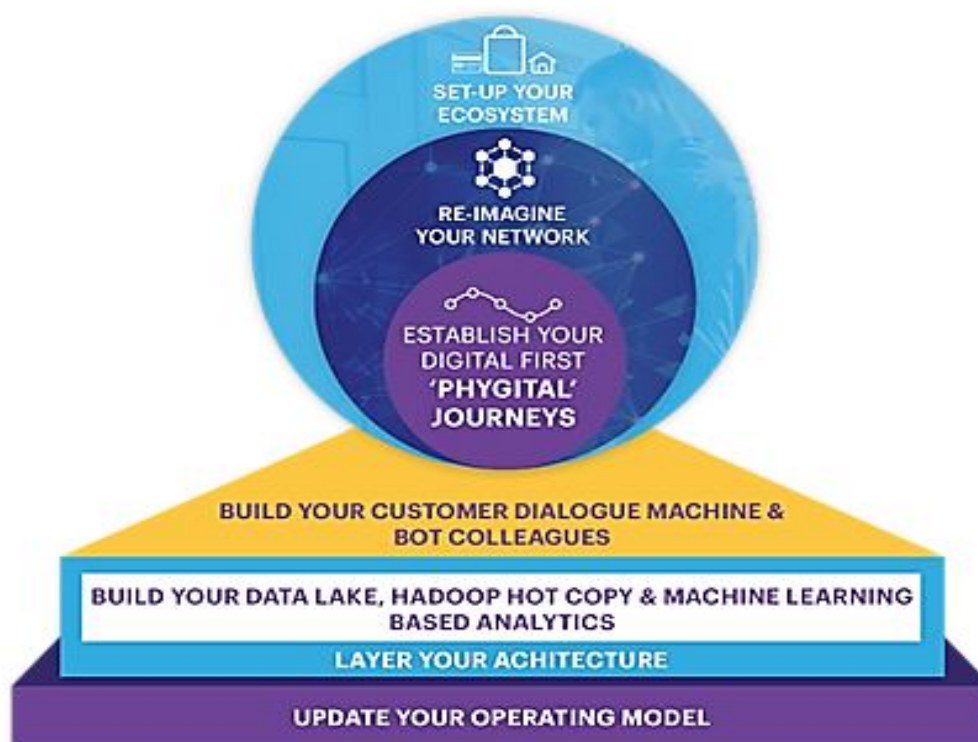
Enhanced client expertise: Capabilities like in-branch video and employees' tablets can empower branch employees to produce an omni-channel experience for purchasers. Moreover, branches will produce self-service phygital experiences by linking ATMs, staff devices and digital/mobile apps together in a seamless customer journey.

Enhanced employee experience: An omni-channel CRM system can provide branch staff with single-click access to a customer's transaction history. With that information, branch staff can better understand the next best opportunity to sell and provide more personalized and high-quality customer support. Additionally, improved front end systems and consistent cross-channel knowledge management tools help employees quickly access needed information.

Increased efficiencies and price savings: Front-office conversion and automation (through robotics), as well as new platforms that support faster account opening and servicing, decrease processing times and save on FTE cost—both in the front and back office. Where a client antecedent required to attend many days or move to the branch, service can now be instantaneous and remote. On the rear finish, technologies that reduce paper help save on material cost and improve accuracy.

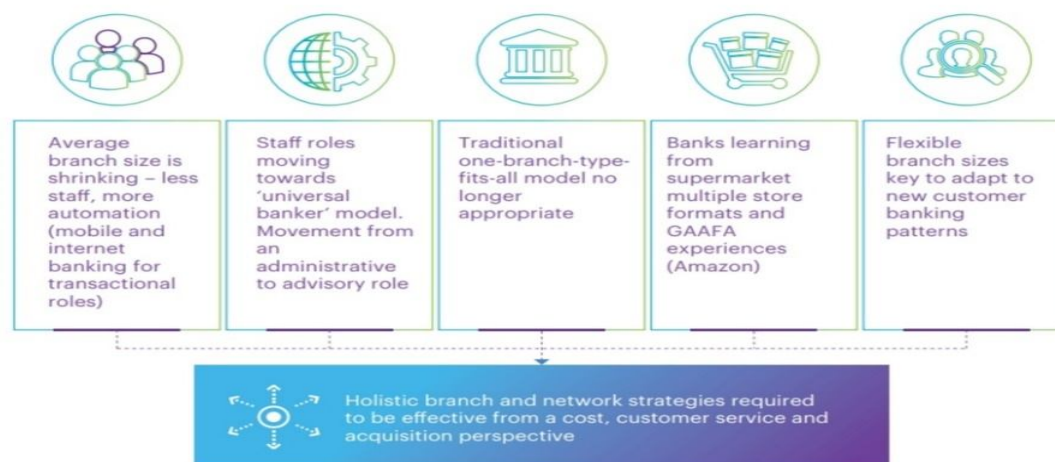
Bringing these investments to life may be a crucial step to drive digital adoption and build a seamless phygital expertise. Banks will any a winning digital transformation by making certain each worker understands the worth of the new client expertise, as well as the interaction the technology is supposed to enable. Through a phygital transformation, banks can lower costs by reducing real estate expenses and more efficiently leveraging their employees. Further, investing in phygital helps banks optimize their distribution networks, reduce cost-to-serve, increase revenue and improve customer engagement. Ultimately, phygital is essential to banks' success as they fight to stay relevant in our quickly dynamical trade.

SEVEN STRATEGIES FOR ADOPTION OF PHYGITAL TRANSFORMATION



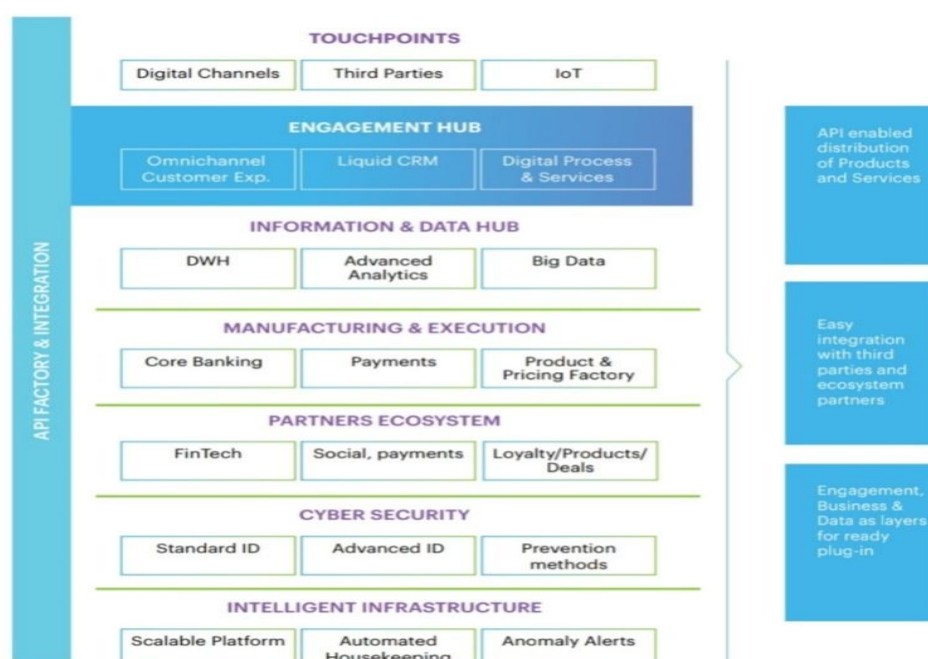
- **Set up your ecosystem:** Current customer journeys typically suffer from three critical design issues. Firstly, these are often extrapolated from manual processes and fail to take advantage of current technology possibilities resulting in a sub-optimal experience. Secondly, the Journeys are typically not architected for all stakeholders. Designing an experience, for the role an employee plays in any journey is critical. Lastly, the customer journeys are not modular enough. This lack of modularity is most apparent in treatment of differing risk levels with the same process and lead times to change in the face of inevitable and increasingly frequent technology and regulatory changes. For example, banks continue to ask salary statement even for customers for whom they hold salary accounts and routinely ask for the same documents whether the customer has an 800+ CIBIL score or 650+. By addressing these design issues Banks can change the shape of their acquisition funnel.
- **Re – Imagine your network:** To succeed Banks must first envision their constraint free to-be network and then operationalize it by developing a living playbook for different branch types and scenarios to be able to execute at speed through their frontline.

Re-imagine your network to leverage on the efficiencies created by digital



When moving towards phygital transformation, banks have to think about the physical network where customers interact. These include branches, BCs, ATMs and even partners. Often, it is not about the hardware but the software and applications that are used to deliver the experience. Similarly, the role of the branch is changing from a transaction hub to service & advisory destination.

Layered Architecture

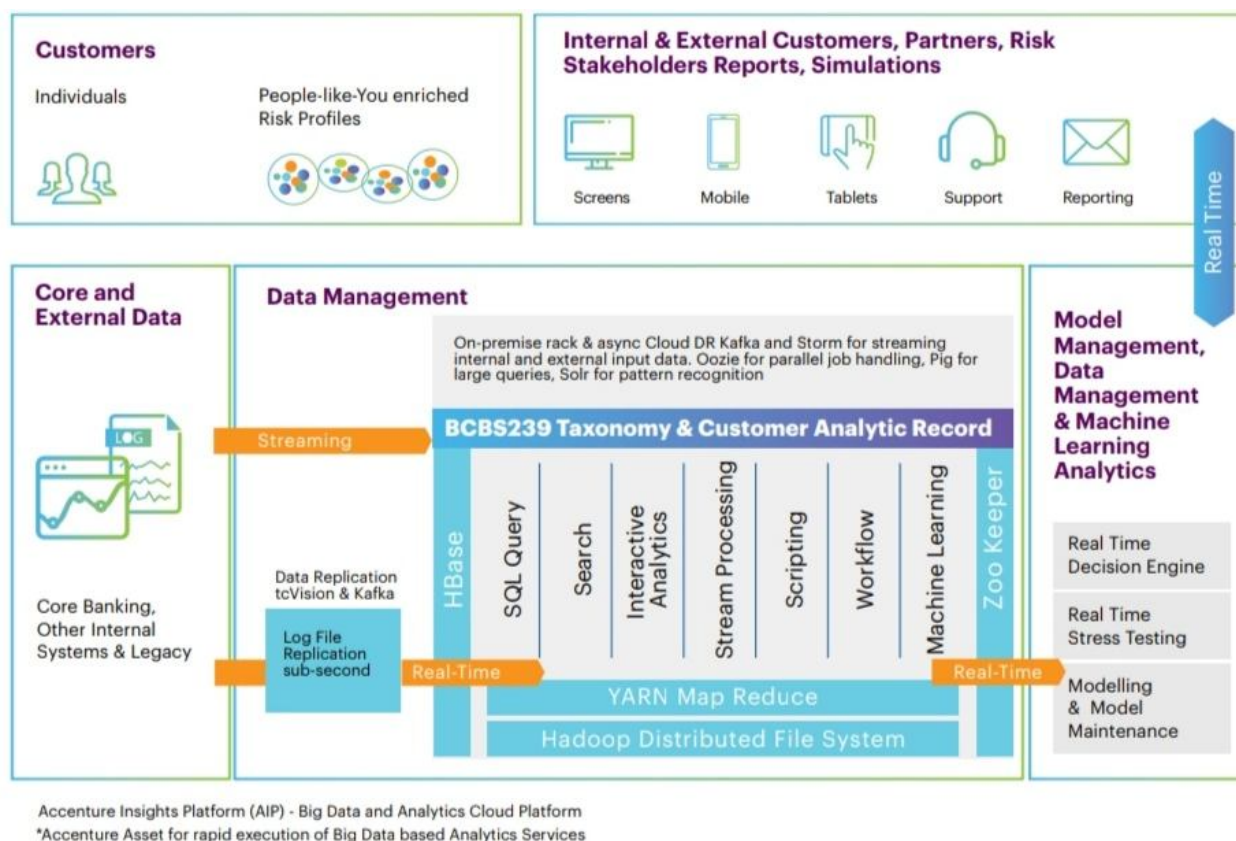


Further, globally the average branch network size is shrinking as banks and customers embrace digital.

- Layer your architecture:** The current Enterprise Architecture at most Banks is a web of interconnected individual point applications with often overlapping areas of work specially around infrastructure services like security, intelligence and governance. Most Banks have identified a few common services and with the wave of SOA and API at least forced their core to expose services. However, the synergies possible with a neat-layered architecture for the bank as a whole have not been realized. Untangling the spaghetti bowl for a neat layered architecture built on principles of liquid, intelligent and connected applications will provide Banks with pace, predictability and reliability as they make those continuous updates which are now a matter of life. It will help Banks move from looking at Technology as the challenge to leveraging it as a competitive advantage.

Build your data lake, Hadoop hot copy and machine learning based analytics: The data environment in most banks is scattered and disaggregated. Typically, data resides separately in databases for each application

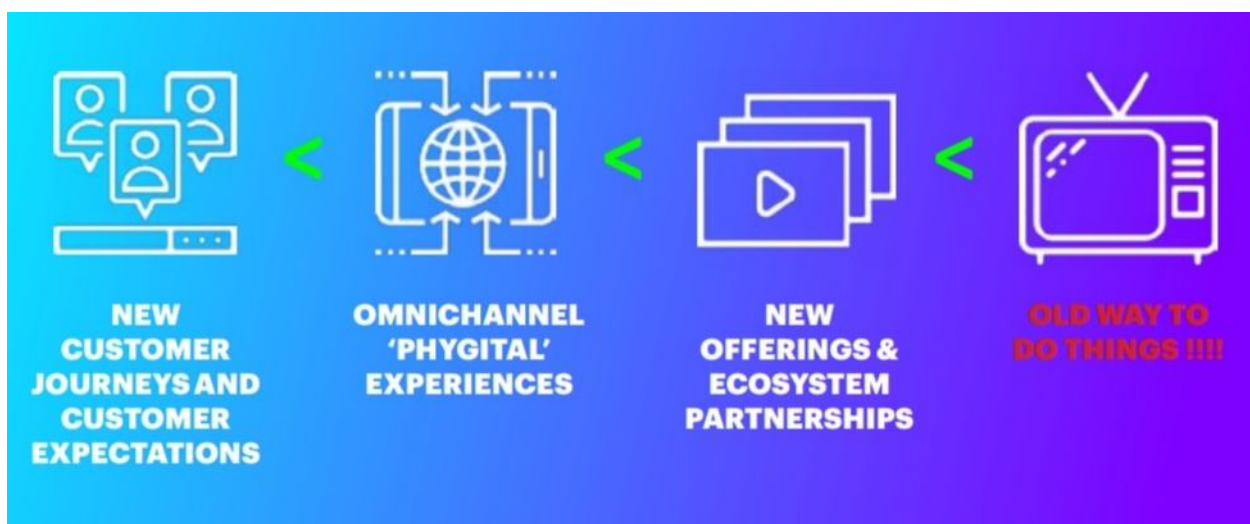
and largely the transaction data is pooled together in the Enterprise Data Warehouse. Multiple sources of data like in-app analytics, location, IMEI, browsing history, logs etc. which hold a treasure trove of information are often excluded. A data lake allows Banks to pool all its structured and unstructured data including external sources to create an unparalleled view of reality. It allows banks to centrally log all touchpoints of customers with the bank in a Customer Journey. Coupled with Hadoop hot copy techniques based on log file replication and streaming technologies, the Bank's data lake is up to date in real time with sub-second delays. Once all the data is in one place and always updated, one can unleash event management and machine learning based analytics on it to power use cases across fraud, risk management, cross-sell and even complaint management. It can help banks to cut down thousands of false alerts, track risk measures in real time, power contextually relevant conversations and drive zero contact resolution for most service breakages. This kind of new data environment also allows to serve read only queries to low cost data environment rather than the expensive mainframe core banking systems.



- Build customer dialogue machine and bot colleagues:** Bots backed by artificial intelligence can help in both front-end customer interactions and automating key front, middle and back-end processes. The Customer Dialogue Machine delivers on the hitherto impossible triad of multiplying customer interactions, improving their quality and reducing their cost. Virtual assistants, agents & chat bots armed with capabilities like Natural Language Processing, Interactive Video and Machine Learning make it possible today to create a great experience irrespective of the channel chosen to communicate or the stage of customer journey. The customer dialogue machine can be the expert advisor, recommendation engine, System generated person that engages with customers across channels on behalf of the bank to guide conversations, enable transactions or service requests. It can drive zero contact-based resolutions reducing costs and improving on the customer satisfaction significantly.
- Set up your ecosystem:** Banks need to curate three distinct ecosystems.
- The End Needs Ecosystem:** Financial services exist at the intersection of needs of the customers and the goods that fulfil those needs. Customers are constantly looking to fulfil these needs in their everyday life both as things they do on a regular basis like payment for daily use goods or making life decisions like buying a House or a Car. Businesses also have similar transactional as well as aspirational / growth related needs.
- The services delivery ecosystem:** This is typically mature in most banks and comprises of the various partners including valuers, lawyers, RTO Agents, DSA, Collection Agents, Payment and Aggregation

service providers etc. who are integral to the delivery of bank's products and services. Most banks continue to treat them as exclusive vendors despite evidence to the contrary.

- ✚ The Fintech ecosystem: While some banks have experimented with hackathons and one-off partnerships in select categories especially around payments, they are yet to see most Banks leverage Fintech to accelerate and innovate. FinTech's provide a great opportunity specially in newer areas like AI and Big Data where most banks have extremely limited skills. Banks can curate this ecosystem to solve difficult business problems with limited investments.
- **Updating operating model:** The Digital Operating Model will need to be re-looked at for the following:
 - ✚ Organize for new activities: Banks need to organize for the new set of activities that they are required to do like building community or algorithms and new methods for doing them. One of the most critical of these shifts will be the transition of the organization from waterfall to agile. It will require organizations to breakdown their current barrier and re-orient their cultures.
 - ✚ Invest to address skill gaps: New activities require new skills. A digitally powered bank which operates in an agile manner will need many new roles such as storytellers (experience design), behavioural psychologists, scrum masters, algorithmic risk specialists, community advocacy builders and data scientists. These roles are not in existence in most banks and they need to think hard and long about their talent and learning strategies to bring these roles to life in their organizations.



- ✚ Re-orient the surplus manpower released: As some of the current activities the Bank undertakes become redundant, the surplus manpower will need to be re-oriented towards other value adding or revenue generating activities.

CONCLUSION

'Phygital' is about being inherently digital across all channels (physical and digital), operations and the very way banks are organized and manage their business. The ability to deliver a consistent level of service across all channels is an increasingly important competitive differentiator for financial providers. More than half of all our consumer survey respondents expressed an appetite for a true omnichannel banking experience, which would allow them to switch seamlessly between physical and digital channels. And yet, not all consumers are satisfied with their experience across channels. Additionally, some say that digital interaction with financial services providers is less satisfactory than their digital experience with companies in other sectors. Therefore, banks should shift towards transforming their banking system.

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ADVENT OF ARTIFICIAL INTELLIGENCE INTO BUSINESS STRATEGIES: DOORS TO COUNTLESS OPPORTUNITIES

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Artificial intelligence is a buzzword that people toss around without understanding tons about what it means or includes. An aspect of computer science, artificial intelligence focuses mainly on laptop systems acting duties with knowledge akin or reflective to that of a human. Artificial Intelligence (AI) has been a game changer for global businesses, establishing doors to countless opportunities. With the mixing of AI in companies, the global economic system is expected to grow exponentially within the coming years. Although the advent of AI into business strategies is considered a progressive idea, what most business executives conflict with is the proper utility of AI throughout their agency in one of this manner that it generates maximum ROI and price.

This gives the upward thrust of numerous questions, “How can we train our staff about AIs? How can we collect AI-trained employees? What is the most suitable AI approach for our business? How will we certify our AI is sincere?”. The solution to these questions is different for every organization. Business administrators must step past their worries of unknown territories and take the leap of trust into the world of AI with a view to holding up with the ever-evolving world of technology.

CONSTRUCTING AI STRATEGY

It's far imperative for business executives to kingpin their time and efforts on the following 11 crucial factors when constructing their company's AI strategy:

SCALE YOUR AI OPERATIONS

The primary and essential step for companies is to scale their AI operations to reinforce decision-making and revolutionary intelligence for employees in each feature and division. The important thing to building a robust AI method is having a various team, which incorporates individuals from the IT branch, specialized AI specialists as well as the enterprise branch. AI models have the electricity of enhancing already current tactics. The splendor in their algorithms is that the same algorithms can solve multiple business-related issues. Subsequently, corporations can start by way of making sure the fulfillment of smaller projects and work their way as much as bigger, broader tasks primarily based at the blueprints from the original achievement.

RECRUITMENT AND SUPPORT

Another significant AI intervention of 2019 will be the developing deployment of smart, predictive and self-mastering HR technologies. The advent of intelligent human resource management AI's has been increasing this yr with outsourcing from a number of the biggest names in HR which include Talend today, Maya structures, textual content Recruit, and Workey and so forth. These businesses offer complete HR functions thru AI recruitment, headhunting, delivery chain, logistics, compliance, retention and termination services. AI in HR solutions is the suitable solution to cut prices, avoid felony complications, enhance productiveness and help the organization overcome its demanding administrative situations that regularly arise when a new project is shaped.

COPING WITH YOUR EXPERTISE

With the accessibility of AI growing 12 months with the aid of year, AI has emerged as a vital asset for corporations. But, the usability of artificial intelligence is involved, and errors are often made. The solution to this setback is growing three ranks of personnel, every equipped with a selected ability set. The first rank of personnel may be of citizen customers. Business enterprise employees can be skilled to use AI-stronger programs and practice good governance of data. The second one rank of personnel will include business experts who are educated to become aware of use instances and information units. These citizen developers will paintings in close quarters with AI specialists and assist in building new AI packages. The third and final rank could be of facts scientists who can be answerable for growing, deploying and managing AI packages.

BUILDING ACCEPTANCE WITH HIERARCHY

Whenever an enterprise opts for a brand new stagey, clearly, apprehensions begin to surface; the same is the case with the integration of AI operations within corporations. Concerns about bias, privacy, cybersecurity, gadget ethics, governance over the AI and interpretability of ways an AI can be depended on to make the proper decisions get up. Duty for every vicinity has to be hooked up. For instance, an internet design enterprise in Dubai, FME designs use an AI table to document obligations for customers, and they take every feasible

approach to make sure its templates are secure from infringement, and its purchaser statistics is at ease from any inner or external cyber-attacks. This requires firm control for allocating tasks and fail-evidence security to keep them secure.

IDENTIFY AND ALLOCATE DATA

AI can interpret facts and convert them into useful statistics. But, with a view to absolutely advantage an advantage from this option, records need to be well categorized first. Figuring out, standardizing and labeling facts is of the utmost significance in order for AI to recognize styles and use them to shape beneficial intuitions about destiny. This element is vital in managing danger, improving classification of documents, automating consumer operations and assisting personnel in making appropriate choices.

AI-POWERED VOICE INSTRUCTIONS

Voice search assistants which include Siri, Cortana, and Alexa were mainstreaming for pretty some time. Within the route of recent years, optimization of voice seeks assistants with AI has opened several new doors for business in each industry and quarter. Corporations are now considered the usage of verbal exchange AIs to apprehend voice commands for his or her merchandise. Those AIs now not only discover the user's reason but additionally provide relevant alternatives primarily based at the modern-day repute of the gadget. With its fast integration, 2019's corporations will significantly gain from its developing tendencies.

PERSONALIZATION TECHNIQUES

The principal impact of AIs on the global financial system is expected from the customer side rather than the enterprise aspect. With AI technology, organizations can create and install personalized, records-oriented services and products. AI's interpretation of patron facts and repetition of patterns permits it to assist groups in creating strategies and forecasts with a purpose to assist in generating better pleasant, target market targeted products. Evidentially, it allows agencies in adopting patron-driven strategies so one can now not simplest improve personalization for customers however additionally growth their sales as more customers might be enticed to alternate cash for his or her convenience.

USE OF AI IN DIGITAL ADVERTISING

Above the entirety else, virtual advertising has been the most significant benefactor of AI development. Digital advertising has made leaps since the introduction of AI, transforming it from the primitive paperwork to miles refined and calculated source of content material propagation. Google's extensive funding into its AI algorithms has helped it automate all its online advertising and marketing protocols for natural in addition to paid advertising and marketing. With the current updates, Google AdWord manager will not require individual run campaigns and could instead generate commercials by itself and take it to stay robotically without any interference. This can further lessen management and QA costs and allow 2019's organizations without problems to create their digital footprint.

PREDICTIVE MODELLING

Predicting fashions via AI isn't simply constrained to digital advertising and marketing. Lots of these models help recognize peripheral on the alternative corner of the spectrum including consumer purpose, customer engagement, conversion rate, or even cart abandonment. AI has served in building predictive models to get rid of lots of these challenges merchants face in understanding consumer behaviors. Predictive fashions are predominantly utilized in personality advent which plays a crucial function in forecasting future income, designing products, rebuffing UX glitches and supplying an excellent client enjoy. With predictive modeling commercial enterprise, entrepreneurs can rework from reactive to proactive planners and seal their leakages efficiently.

DIVERSIFYING REVENUE RESOURCES

Other than figuring out and allocating records, AI has furthermore proved its usefulness in producing new sales streams. The use of AI in day by day transactions and consumer activities help construct large databases that most businesses in the industry need to design, installation, and market and sell their merchandise. This lets in the enterprise to develop into an information supply which its friends and new ventures can use to broaden their marketing and income techniques. Facts-as-a-service is a sound proposition for diversifying sales via AI even as producing a cost for his or her emblem within the market. In 2019, many corporations are operating on facts constructing, and some are already providing analytics for distinctive industries and their sectors.

AMPLIFYING THE STRENGTH OF AI

The combination of AI with different technologies is a major development in improving records-driven commercial enterprise strategies. Converging AI with analytics, the internet of things (IoT), ERP, blockchain and quantum computing boosts the power of AI and consequences in smoother jogging operations. Despite the

fact that this convergence can also show too, first of all, be a challenge for business executives, the advantages will outweigh any hurdles the organization has to undergo. Adopting DevOps techniques is one manner of commencing verbal exchange pathways among employees and in turn, efficiently carrying out the integration of AI with other technology.

HOW DOES AI WRITE CONTENT MATERIAL?

The software program system that robotically creates a written narrative from information is known as natural language generation (NLG). It is already used for a ramification of content era desires in our world consisting of business intelligence dashboards, commercial enterprise information reviews, personalized e-mail, and in-app messaging communication, customer economic portfolio updates and much more. Step one in NLG is to outline what layout of content material is preferred. Every content material type from social media posts to economic reviews to poetry has an entirely unique writing fashion and structure.

The narrative layout, also referred to as the template or narrative type, is constructed by the give up-user, the NLG solution or by way of the software program company. Some of the NLG gear available include Quill from Narrative technological know-how, Amazon's Polly, Wordsmith from automatic Insights, and Google's textual content-to-Speech while a few corporations have created in-house tools which include Heliograph at the Washington summit. As with any artificial intelligence answer, ownership and get right of entry to data are essential. Inside the case of NLG, established records are fed into the software program and are processed via the "conditional good judgment" it's a part of the narrative layout. The goal is for the output to sound like a human-generated every piece of content.

HELP IN NEW DISCOVERIES?

It is not just all. If we talk about the world outside this world we live in, AI has helped discover two new planets. Astronomers working at the University of Texas at Austin, in partnership with Google, have used artificial intelligence (AI) to discover two new planets in the Kepler space telescope archive. The technique promises to find more planets that conventional strategies could not capture. The planets located this time were from Kepler's prolonged venture, known as K2. To find them, the team, led through an undergraduate at UT Austin, Anne Dattilo, created a set of rules that sift via the records taken via Kepler to ferret out signals that had been missed by conventional planet-hunting methods. Long term, the process needs to assist astronomers in locating many more ignored planets hiding in Kepler data. The discoveries had been conventional for an ebook in upcoming trouble of The Astronomical Journal.

Other team contributors include some big names like NASA Sagan fellow at UT Austin Andrew Vanderburg and Google engineer Christopher Shallue. In 2017, Vanderburg and Shallue first used AI to discover a planet around a Kepler famous person—one already known to harbor seven planets. The discovery made that solar gadget the best one known to have as many planets as our very own. Dattilo defined that this project necessitated a new set of rules, as information taken at some point of Kepler's extended assignment K2 differs notably from that accrued in the course of the spacecraft's unique challenge.

"K2 statistics is extra difficult to work with because the spacecraft is shifting around all the time," Vanderburg explained. This alteration occurred after a mechanical failure. At the same time as project planners discovered a workaround, the spacecraft changed into left with a wobble that AI had to keep in mind. The Kepler and K2 missions have already located thousands of planets around other stars, with the same quantity of candidates looking forward to affirmation. So why do astronomers want to use AI to go searching the Kepler archive for extra?

"AI will help us seek the statistics set uniformly," Vanderburg said. "even supposing every megastar had an Earth-sized planet around it, when we look with Kepler, we won't locate all of them. It indeed is just because a number of the data's too noisy, or every so often the planets are merely not aligned right. So, we need to accurate for the ones we ignored. We recognize there are loads of planets obtainable that we don't see for those motives. "If we need to know what number of planets there are in total, we need to recognize how many planets we've discovered, but we also must know what number of planets we ignored. it is where this is available in," he explained. The two planets Dattilo's team determined "are both very usual of planets found in K2," she stated. "they are definitely near into their host big name, they have quick orbital intervals, and they may be hot. they are slightly large than Earth."

Of the two planets, one is called K2-293b and orbits a celeb 1,300 light-years away inside the constellation Aquarius. The alternative, K2-294b, revolves around a celeb 1,230 mild-years away, also located in Aquarius. Once the group used their set of rules to find those planets, they accompanied up by way of analyzing the host stars using floor-based telescopes to verify that the planets are actual. These observations had been

accomplished with the 1.5-meter telescope at the Smithsonian Institution's Whipple Observatory in Arizona and the Gillett Telescope at Gemini Observatory in Hawaii.

The future of the AI concept for locating planets hidden in facts sets looks brilliant. The present-day algorithm can be used to probe the whole K2 records set, Dattilo said—about 300,000 stars. She additionally believes the method is relevant to Kepler's successor planet-searching challenge, TESS, which released in April 2018. Kepler's undertaking ended later than 12 months. Dattilo plans to keep her work the use of AI for planet hunting while she enters graduate faculty within the fall.

APPLICATIONS OF AI

While the word AI doesn't offer any perception into what kind of forms of artificial intelligence exist, there are tech and business sectors – in addition to different places – wherein AI is carried out inside the actual world that is essential to find out about. Entertainment channels like Netflix, for example, utilize artificial intelligence daily by making use of vital records to their systems to enhance the consumer experience. Another fun utility of AI is computer imaginative and prescient, which enables systems process raw visual input (e.g., it helps driverless motors see and be capable of power on automobile-crammed streets!).

ADVANTAGES AND DISADVANTAGES OF AI

As with anything, there are fears about the risks of artificial intelligence – a few warranted...and others? To be precise, let's say that sometimes human beings are effortlessly encouraged through sci-fi horror stories. Gaining knowledge of some of the definite advantages and disadvantages of artificial intelligence could make even the most cussed, opinionated individual more open to seeing both facets and know-how how they affect positive business sectors and individuals.

IMPACT OF AI AT WORKPLACE

As an increasing number of organizations have started to make use of Artificial Intelligence (AI) inside the workplace, it turns out to be increasingly more critical for employers to understand each the risks and rewards that accompany this new generation. While the use of AI can be efficient and value powerful means for employers to handle duties including talent acquisition, reimbursement evaluation, and the final touch of administrative responsibilities, it is not without its challenges. Instead, as mentioned below, using AI might also deliver with it the ability for implicit bias and different effect in the direction of covered categories, specifically in the context of gender and age. Similarly, if AI isn't correctly introduced into the personnel, it can foster concerns among staff that the employer does not value their work or cause tensions in employee task safety.

Have you ever fallen down the AI rabbit hole so far?

In case you aren't intrigued by using artificial intelligence past your wildest desires by now, then there's no eye-catching you. But you feel forced to keep gaining knowledge of about AI so that you have an arsenal of beneficial information to integrate to your commercial enterprise techniques and own lifestyles, then Drinky the robot and me say cheers to that!

DETERMINANTS RESULTING MATCH VICTORY IN ODI CRICKET

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ABSTRACT

The outcome of a One Day International (ODI) cricket match depends on various factors. This research aims to identify the factors which play a key role in predicting the outcome of an ODI cricket match and also determine the accuracy of the prediction made using the technique of data mining. The research is based on the literature review and existing secondary data. Home field advantage, winning the toss, game plan (batting first or fielding first), match type (day or day & night), competing team, venue familiarity and season in which the match is played will be key features studied for the research. For purposes of research, the secondary data has been used of past played matches.

Keywords: Cricket, One Day International matches, Determinants for Match winning

OBJECTIVE

To find the major determinants resulting in match victory in ODI cricket matches.

I. INTRODUCTION

The ability and performance on the day of the athletes taking part are not the sole determinants, the outcome that takes place on a sports field is heavily influenced by weather, venue conditions, and game format also plays a role in the outcome. In many sports, particularly those played outside, the ease with which player's skill and effort can translate into positive outcome can depend heavily on these conditions. One sport where this can be observed is One Day International cricket. The first official ODI match was played in 1971 between Australia and England at the Melbourne Cricket Ground. In ODI cricket, one team bats and has a single —innings in which it seeks to score as many runs as possible. The innings ends when the other team has bowled 300 deliveries (50 overs) to the batsman, or when 10 batsmen have been dismissed, whichever comes first. The team then change roles and the other team has an innings of 300 deliveries or 10 dismissals with which to try and achieve a higher score.

II. LITERATURE REVIEW

It is clear that the use of analytics in sports can contribute to success on the field or court, and at the ticket window thus making it highly popular. Michael Lewis' entertaining story about the use

of data analysis in baseball in *Moneyball: The Art of Winning an Unfair Game* (Lewis 2004) is arguably the most visible account of sports analytics. *Moneyball* shows how any small-market

Oakland A's like organizations can exploit information to gain competitive advantage even against richer, more established organizations. Many other sports including Major League Basketball (MLB) teams have adopted the strategies used by the Oakland A's in a form suitable to them. Although *Moneyball* is clearly not the earliest example of applying analytics to baseball—Bill James (James 2001) [9], George Lindsey (Lindsey 1959, Lindsey 1961, Lindsey 1963), and many others preceded the work described in *Moneyball*—this book was the catalyst for introducing the broader sports community to the potential benefits of quantitative analysis. *Moneyball* became a best seller; in 2011, a movie of the same name (starring Brad Pitt) achieved considerable box office success [6,7,8].

This triggered the use of data analytics in sports and not just in the form of creating an optimal team with the least resource usage but also in the how external factors may play an impact on the field of play, predicting of match outcomes based on previously played matches, the margin by which a team might win etc.

"Introduction to the Special Issue on Analytics in Sports, Part I: General Sports Applications" by Michael J. Fry, Jeffrey W. Ohlmann (2015) shows how various sports have been studied from the usage of data analytics [1]. Cricket is one such sport in which data analytics can be used in a variety of ways. In one-day international (ODI) format, for example, there is an endless number of questions that can be answered with the help of data analytics. Some of the work seen were by Dyte (1998) which simulates batting outcomes between a specified test batsman and bowler using career batting and bowling averages as the key inputs without regard to the state of the match (e.g., the score, the number of wickets lost, the number of overs completed) [4].

Bailey & Clarke (2004, 2006) who worked on how external factors play a role in determining the outcome of ODI cricket matches. Some of the more prominent factors include home ground advantage, team quality (class) and current form [2,3]. the usage of data analytics [1]. Raj and Padma analyzed the Indian cricket team's ODI matches data and mine association rules on the attributes namely home or away game, toss, batting first or second and the match result.[6]

Amal Kaluarachchi and Aparna S Varde, "CricAI: A classification based tool to predict the outcome in ODI cricket". [7] There were several research works done in cricket. Ananda Bandulasiri has written an article on predicting the winner in One Day International Cricket match which specifies the importance of "home ground"[8] player. Courneya and Carron (1992) defined the home advantage as "the consistent finding that hometeams in sports competitions win over 50% of the games played under a balanced home and away schedule"[9] The percentage of games won by the hometeams in these leagues varied from 53.3% to 69.1%. This home advantage phenomenon can be attributed to crowd noise (e.g., Garciano, Palacios-Huerta, & Prendergast, 2005[10]

In this paper, we have calculated match outcome probabilities using past record analysis and various determinants affecting match conditions in ODI cricket matches using secondary data sources. Results are compared to show which algorithm gives a better model.

III MAJOR DETERMINANTS

Cricket winning can be predicted like all other games. We need to find the best attributes or factors that influence the match outcome. The result of a cricket match depends on more of in-game and

pre-game attributes. Pre-game attributes like Pitch, Team Strength, Weather, Venue etc. and in-game attributed like run rate, total run, strike rate, wickets in hand etc. influence a match result predominantly.

TEAM	AGAINST	TOSS	PARTNERSHIP	POWERPLAY	TOSS	VENUE	RESULT
		(BAT)			(BOWLING)		
INDIA	SOUTH AFRICA	SA	45	65		KANPUR	SA WON BY 5 RUN
INDIA	SOUTH AFRICA	IND	3	55		INDORE	IND WON BY 22 RUN
INDIA	SOUTH AFRICA	SA	72	60		RAJKOT	SA WON BY 18 RUN
INDIA	SOUTH AFRICA	IND	28	45		CHENNAI	IND WON BY 34 RUN
INDIA	SOUTH AFRICA	SA	33	80		MUMBAI	SA WON BY 214 RUN
INDIA	ENGLAND		59	68	IND	NOTTINGHAM	IND WON BY 8 WICKET
INDIA	ENGLAND	ENG	69	65		LONDON	ENG WON BY 86 RUN
INDIA	ENGLAND		43	63	ENG	LEEDS	ENG WON BY 8 WICKET
INDIA	PAKISTAN	IND	34	65		ADELAIDE	IND WON BY 76 RUNS
INDIA	SOUTH AFRICA	IND	9	75		MELBORNE	IND WON BY 130 RUN
INDIA	UAE	UAE	29	80		PERTH	IND WON BY 9 WICKET
INDIA	W.I	W.I	11	55		PERTH	IND WON BY 4 WICKET
INDIA	IRELAND	IRELAND	174	74		HAMILTON	IND WON BY 8 WICKET

INDIA	ZIMBABWE		21	55	IND	AUCKLAND	IND WON BY 6 WICKET
INDIA	BANGLADESH	IND	75	54		MELBORNE	IND WON BY 109 RUN
INDIA	AUSTRALIA	AUS	15	75		SYDNEY	AUS WON BY 95 RUN
INDIA	ENGLAND		13	56	IND	PUNE	IND WON BY 3 WICKET
INDIA	ENGLAND		14	58	ENG	CUTTACK	IND WON BY 15 RUN
INDIA	ENGLAND		98	67	IND	KOLKATA	ENGLAND WON BY 5 RUN

Table 1.1

Below are the attributes that helps in deciding outcome of the cricket match:

• Home Ground Advantage

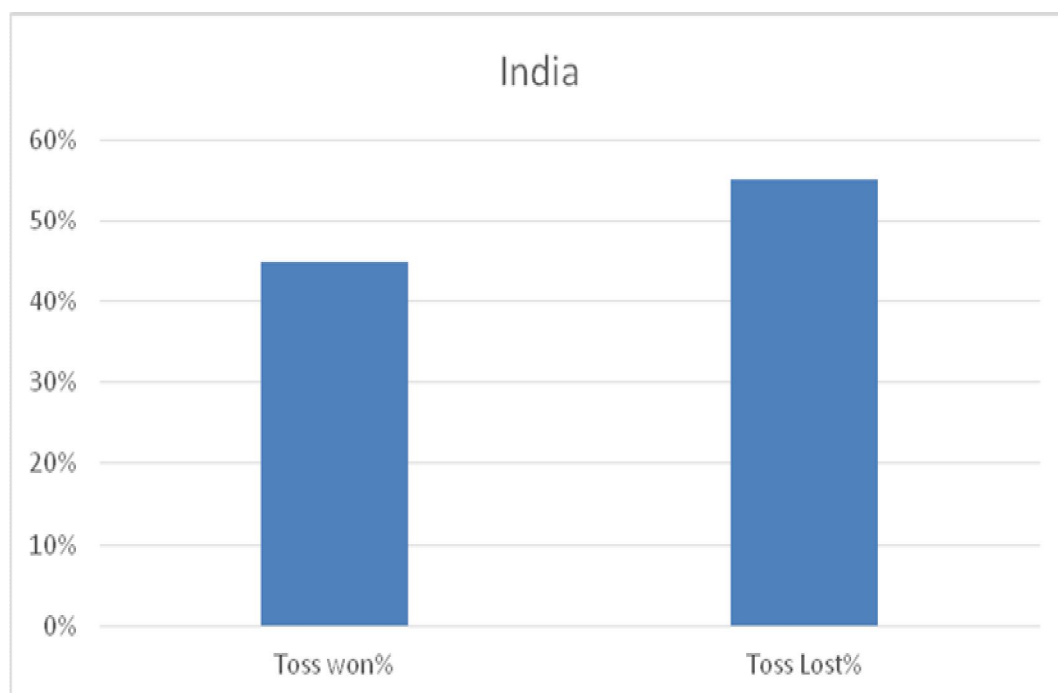
There is a psychological or physiological advantage of playing near home in familiar situations; to the disadvantages away teams suffer from changing time zones or climates, or from the rigors of travel; In a cricket fanatic country, generally, a heavy crowd comes in tens of thousands of numbers for watching a cricket match in the stadium. In such a case people on stands around players, chanting their name and their country's name cheering on every success of theirs, makes a lot of difference. Generally, this will get the best of an individual. Players seeing many people believing in them to do well for their team helps to lift their confidence. This also puts a dent to the confidence of the visiting team.

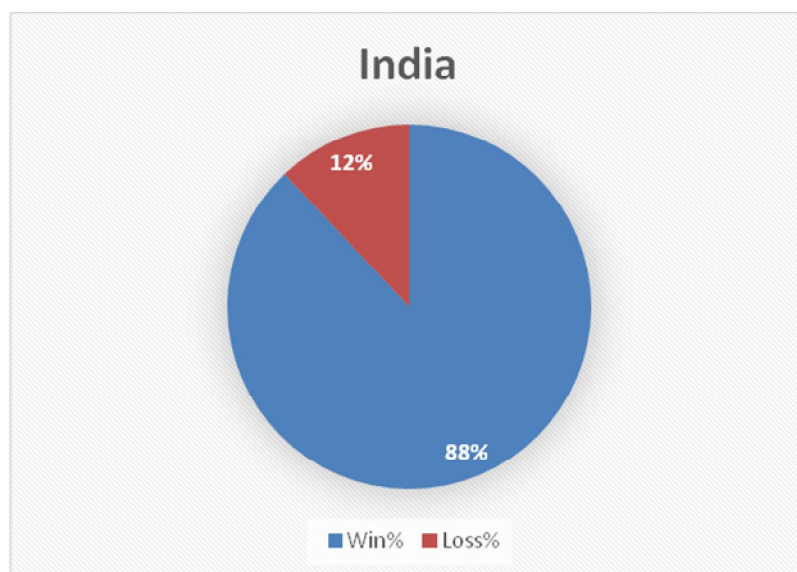
• Toss

According to cricket analysts, there is sure measure of advantage for a team if it wins the toss. This plays crucial role in a match as it would give the team the opportunity of choosing "what they want".

Toss	Toss won%	Toss lost%	Win%
India	45%	55%	88%

Toss	Win%	Loss%
India	88%	12%





- **Team strength**

The team strength should be balanced for winning a match. Captainship in a team is also a deciding factor.

- **Past Records**

The past team performances can be considered to predict the outcome of a match. History of games at that venue how did the teams perform, performance at that specific venue, Performance against the specific opposition and experience at the specific venue. For example, India is playing against New Zealand, in Melbourne and India scores say 150 runs in 25 overs with the loss of 3 wickets, the analysis should be for performance of India in last 25 overs when 7 wickets are in hand, then overall performance of India against New Zealand in general, India's performance in Melbourne and the usual performance in Melbourne by any average team.

- **Pitch**

Unlike other sports, cricket stadium's size and shape is not fixed except the dimensions of the inner circle and pitch which are 30 yards and 22 yards respectively. Outfield variations and pitch can have a substantiate effect on bowling and batting. The spin of the ball, seam movement and the bounce depends on the nature of the pitch. It depends on how wet is the pitch. The more wet the pitch, the slower it will play. On the off chance that it is drying out, those balls will change significantly, yet all it will get less difficult those drier it gets. It additionally relies on upon how much grass is on the pitch. A green top pitch with a greater amount of grass will have a greater amount of crease development, particularly if the pitch is hard. It will be troublesome for spinners to turn the ball. Pitches with no grass tend to help spinners, if dry and dusty (they tend to be simpler to bat at first before they have decayed). It also depends on how hard is the pitch. Hard pitches will have high rate of bounce and the ball will come onto the bat more quickly. They give an equal chance to batsmen and bowlers. Green pitches tend to get easier to bat on. Wickets can get significantly more dry or wet (on the off chance that it downpours). They might start to break up if they are soft (which would help the bowlers). Bowl first, if it is going to get easier to bat. Bat first, if it is going to get harder. After rain, the green pitch becomes soft and the ball bounces more erratically, making it tough for the batsman to bat and as mentioned in [5], in cricket matches where the teams batting first have their innings curtailed, the Duckworth Lewis method tends to prop up their totals, this adds extra runs that the team batting first did not even make. Thus, batting first may be a lot favorable in rain affected games.

- **Current Performance**

The current form (performances and scores) of the team and as an individual player is a deciding factor in a match. Current form is the magnitude of confidence of the players. The performance of the batting depends on the average score of the batting. Run rate is defined as the number of runs scored per the number of overs bowled. However, run rate is considered as criteria for calculating the final score of the match.

- **Climate**

The weather conditions along with toss and other smaller factors play a huge role in determining the final result of a cricket match. Most of the times climate and weather is something that captains take into consideration while making the decision after winning the toss. Good weather conditions and clear skies can help the batsmen in scoring more runs. Similarly overcast and humid conditions can assist the bowling side. Firstly, the clear blue

sky is always a relieving sign for the batsmen, because in these conditions ball usually doesn't swing that much. Even though the clear sky doesn't make any difference as far as the seam bowling is concerned however if the sun is beating hard at the pitch, then usually it takes all the moisture away from the pitch in quick time hence making it a batsman's paradise. On the other hand, bowlers love to bowl in overcast conditions, especially the fast bowlers because ball swings and moves in the air in such conditions. The fast bowlers like these conditions as compared to clear skies. If there is rain in the air or the humidity levels are high, then again it helps the bowlers. When the climate is rainy then pitches also have lots of moisture in them that fast bowlers can take advantage of, also in such conditions the pitch takes long time to dry out therefore giving the bowlers full opportunity to have a go at the batsmen. In addition to the pitch the ground also gets wet in rain which slows the ball traveling speed. Most of the time the pitch is covered but the whole ground is not covered. The ball tends to get slippery and it becomes harder for bowlers to grip the ball. This phenomenon also happens during day night games where the dew causes problems for both bowling and batting sides during the second innings of the match.

• Powerplay

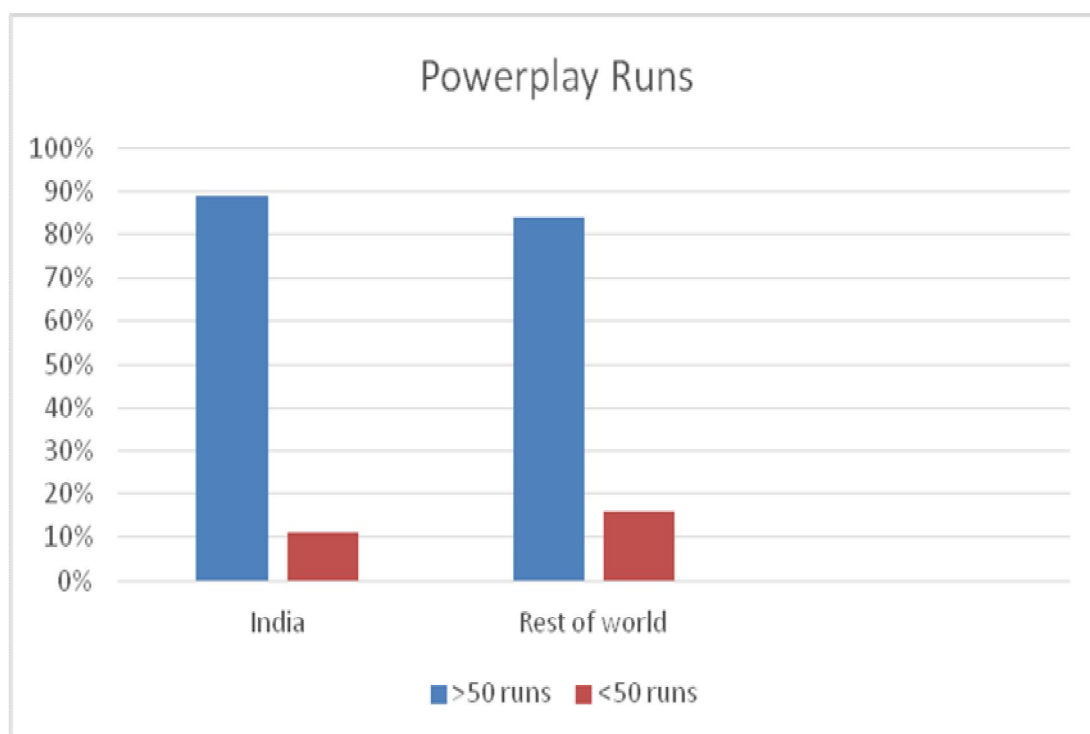
Unlike Test cricket, the fielders are spread out to save runs in limited overs cricket. The powerplay rule (Restrictions on the placement of fieldsmen), along with a number of other factors, has contributed to the big scores (300+) in modern One Day Internationals. Batsmen try to take best out of batting powerplay whereas bowlers try to exploit restricting run strategy in bowling powerplay.

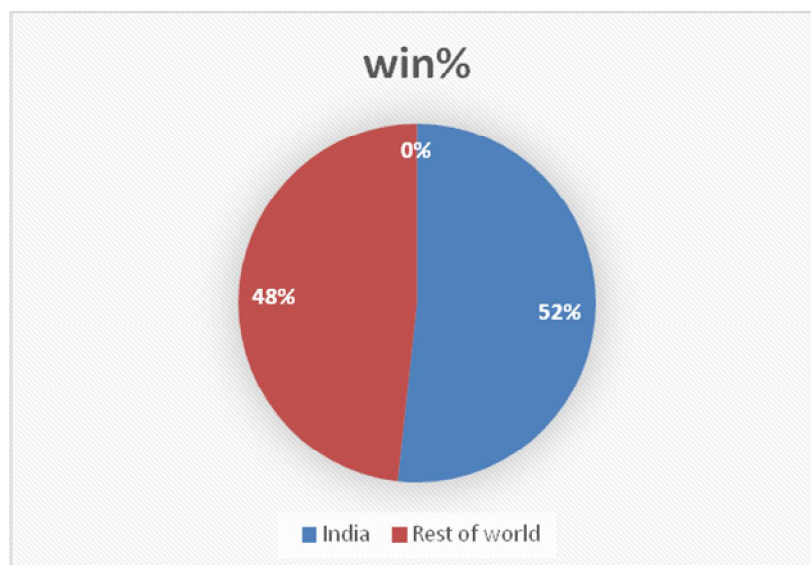
Powerplay rule in ODI cricket match: -

- During the first 10 overs of an innings, a maximum of 2 fielders are allowed outside the 30-yard circle
- Between overs 11 and 40 a maximum of 4 fielders is allowed outside the 30-yard circle.
- In the final 10 overs (41–50) a maximum of 5 fielders will be allowed to field outside the 30-yard circle

Powerplay	>50 runs	<50 runs	win%
India	89%	11%	60%
Rest of world	84%	16%	56%

Powerplay	win%
India	60%
Rest of world	56%



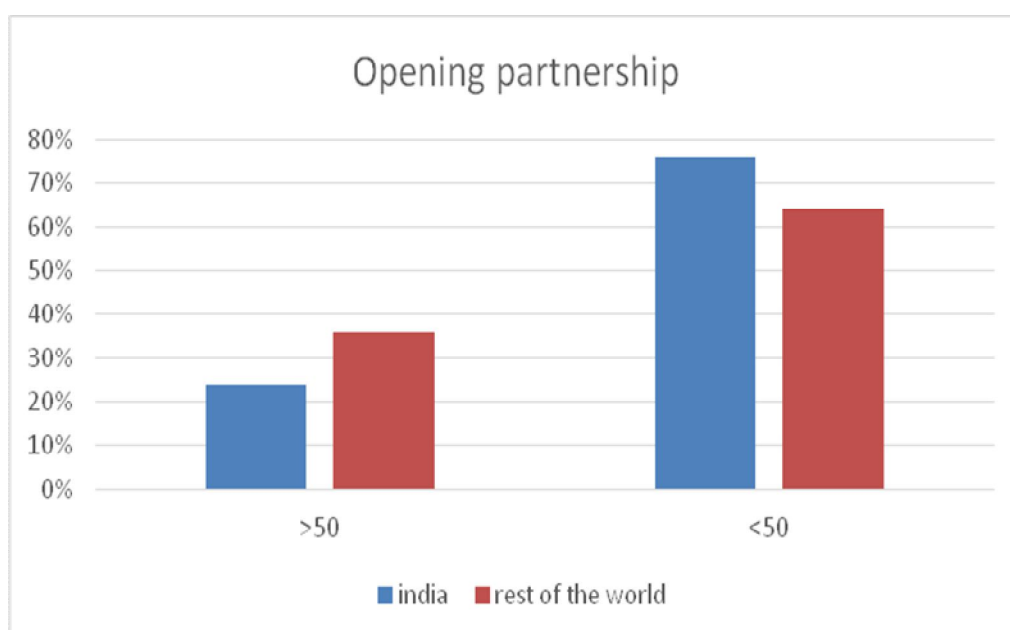


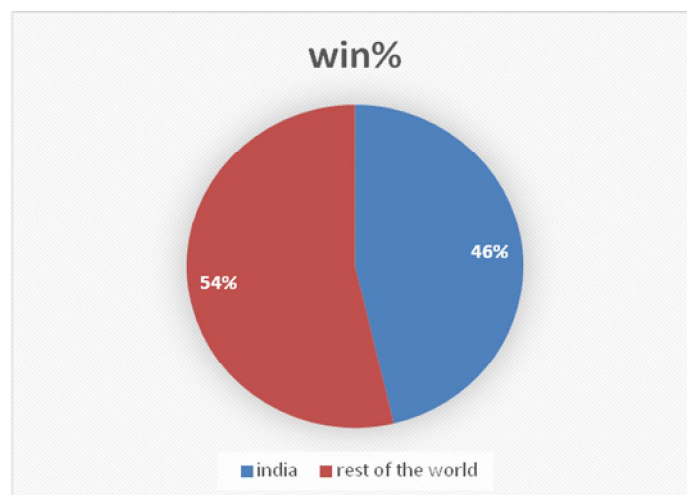
• Partnership

In the sport of cricket, two batsmen always bat in partnership, although only one is a striker at any time. The partnership between two batsmen will come to an end when one of them is dismissed or retires, or the innings comes to a close (usually due to victory being achieved, a declaration, a time or over limit being reached, or the match being abandoned in mid-innings for inclement weather or, exceptionally, dangerous playing conditions). Various statistics may be used to describe a partnership, most notably the number of runs scored during it (either by the batsmen or as extras), the duration of the partnership both in time (usually quoted in minutes) and number of deliveries (balls) faced. Partnerships are often described as being for a particular wicket (for example, a "third wicket partnership", also called a "third wicket stand"—in this context, the "opening partnership" between the two opening batsmen is the "first wicket partnership").

Opening Partnership	>50	<50	Win%
India	24%	76%	50%
Rest of the world	36%	64%	58%

Opening Partnership	Win%
India	50%
Rest of the world	58%





IV CONCLUSION

Based on the various literature review and after studying about all factors effecting the chances of winning or losing a match in ODI —some came out on top of others. The major role played out was found out to be Winning or Losing Toss, Opening Partnership, the runs that are made in Batting Powerplay and home field advantage on One Day International cricket. After winning the toss, the teams have won a good percentage of matches. This indicates that toss can play vital role in ODI match winning, although they are prone to make bad decision. However, it was seen that winning the coin toss gives competitive advantage for —Day & Night matches. Providing a great start in form of opening partnership gives base for bigger score leading to Winning of match. and for Powerplay part, during the first 10 overs of an innings, a maximum of 2 fielders are allowed outside the 30-yard circle which gives batsmen chance to make best out of field restrictions and make good score in those over so that later on other batsmen can build up on that platform they have created. It was also found out that playing at a home ground offers many benefits. Most of these are psychological in nature, such as familiarity with the playing grounds, the ability for participants to lodge in their homes rather than in a hotel, less likelihood of travel immediately prior to the game, and the support of the fans in attendance.

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FACTORS RESPONSIBLE FOR ADOPTION OF DIGITAL WALLET: AN APPLICATION OF TECHNOLOGY ACCEPTANCE MODEL

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ABSTRACT

The development in the field of computer and utility oriented innovations based on internet has changed the means and methods of communication and transactions. This paper is an attempt to examine the determinants of digital wallet adoption by using the details of technology acceptance model. Descriptive and multivariate statistical methods have been used for the analysis of data collected from a sample of 410 people by using structured close ended questionnaire. This study covered only six locations including Delhi, Noida, Ghaziabad, Greater Noida, Gurugram and Faridabad hence this limit the capacity of this research to make any strong generalization of the findings however this study offers important insights about the factors that are important for adoption of digital wallet. The analysis resulted into the extraction of factors that provide practical reasoning about what is important for the adoption of digital wallet. This paper also attempt to construct helpful and important insights on the basis of literature review and statistical calculations.

Keywords: Digital Wallet, TAM, Technology Acceptance Model, Factor Analysis

1. INTRODUCTION

The number of people who use cash for their daily shopping transactions has reduced and one of the prominent reasons is the increased popularity of digital wallet among people. However one way to look at the increase in adoption of digital wallet is due to increased used of smart phones and internet penetration while the other side is the user perspective (Rakhi, 2014). User perspective is important because despite the increased use of smart phone and easy internet accessibility if user is not interested, influenced and motivated then technology driven application alone can't become successful (Madan & Yadav, 2016). One of the most excellent innovations of this century is Digital wallet because it has offered a new medium to millions of people and businesses for making and receiving payments (George & Kumar, 2014). According to the recent data released in May, 2018 by RBI, the value of transaction through digital wallet attained an all time high (livemint.com, 2018). These broad observations through various research reports and the data indicated the affirmative adoption of digital wallet.

2. LITERATURE REVIEW

Au, A, Kauffman, & J (2008) in their study put in plain words that digital wallet is used to complete and confirm the transaction initiated due to sale and purchase of goods and services. Digital wallets are internet based financial application that involve smart phone. Digital payments have created a new segment of payments known as mobile payments. Digital wallets have provided an alternate to the cash and card based transactions.

Shin (2009) in his research publication explained that digital wallet is a form of electronic payment system that work online and helps buyer and seller to complete payment electronically by using smart phone thus digital wallet has substituted the physical cash and wallet.

Poonam & Shalu (2016) in their research paper titled Mobile wallet: An upcoming mode of business transaction, have analyzed that ease of transaction secured profile and convenience in handling application put forth the benefits of wallet money and also concluded that business sectors like banking, retail, hospitality etc., are making use of wallet money and mobile payment instruments including contactless and remote payment in the customers –business and customers to customers areas.

Hemshwetha (2016) have analyzed the factors influencing consumers in adoption of digital wallet and also analyzed the risk and challenges faced by consumers in the handling of digital wallet and concluded that buyers are adopting digital wallet in principal due to simplicity, convenience and ease to use and in the future years digital wallet will gain more widespread acceptance.

T.N.Shukla (2016) in his study mentioned that the sudden growth in the digital payments scenario in India has been driven to a great extent by the increased use of smart phone and penetration of low-cost internet however the catalytic effect of other factors such as government initiatives and improved infrastructure on the industry can't be ignored. Some of the measures undertaken by the government include withdrawal of surcharge, reduced service charge or convenience fee on card and other digital transactions. The major factors which play an important role in consumer adoption are convenience in buying products online, brand loyalty and usefulness of digital wallet.

Oliveira (2016) conclude that perceived trust, perceived mobility and attitudes positively affect the adoption of mobile payment systems. Most of the customers are concerned about the security of mobile payments and the ones who use mobile payments do so because of instant payment solutions

3. RESEARCH OBJECTIVES

The research objective of this study is to examine the factors that determine the adoption of digital wallet by using the technology acceptance model in order to explain specifically important areas for the adoption of digital wallet.

4. RESEARCH METHODOLOGY

This research study is a primary research hence involves original data driven results. In this study a structured close ended questionnaire was used to collect data directly from people who shop regularly through online, offline or both or any one of the medium. Non probability convenience sampling technique is used to obtain data from 410 individuals (sample size). All items aimed to study the factors acting as determinants of digital wallet adoption. Most of the items were taken from the TAM (Technology Acceptance Model). In addition to items from TAM some items related to risk and trust were also included. The measurement of these items was done by using 5 point likert rating scale. The reliability of the scale was evaluated by using Cronbach's alpha calculated by using initial 50 responses. The standard acceptable value of Cronbach's alpha was found to be used as 0.70. The data was analyzed by using MS-Excel and IBM-SPSS.

5. RESULTS

5.1. RELIABILITY STATISTICS

Reliability Statistics		
Cases (N)	No of Items	Cronbach's Alpha
50	25	0.908

Table-1: Reliability Statistics

The initial 50 responses were used to ensure the validity of the questions and the reliability of the scale structure. Cronbach's alpha measure was used for this purpose. A value close to 1.00 considered as excellent measure (Cronbach, 1970) (Nunnally, 1978).

5.2. FACTORS ANALYSIS

Factor analysis is a multivariate statistical method and is used for the purpose of exploration and to find the underlying structure among the variables. In brief, a factor represents the essential dimensions that actually is not expressed directly and can be explained by using the correlation among the set of variables constituting the factor structure. In this study Principal Component Analysis method with varimax rotation method is used while conducting Factor analysis on SPSS 20.0.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.849
Bartlett's Test of Sphericity	Approx. Chi-Square	5588.403
	df	300
	Sig.	.000

Table-2: Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity

The table 2 shows that the KMO measure of sampling adequacy value is 0.849, which is in the acceptance range and the data is appropriate for factor analysis. The Bartlett's test confirms the appropriateness of factor analysis.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.945	35.782	35.782	8.945	35.782	35.782	4.481	17.925	17.925
2	2.121	8.484	44.266	2.121	8.484	44.266	4.108	16.432	34.358
3	1.562	6.25	50.515	1.562	6.25	50.515	2.577	10.309	44.667
4	1.331	5.326	55.841	1.331	5.326	55.841	2.193	8.772	53.439
5	1.122	4.489	60.33	1.122	4.489	60.33	1.654	6.618	60.057
6	1.059	4.234	64.565	1.059	4.234	64.565	1.127	4.508	64.565

Extraction Method: Principal Component Analysis.

Table-3: Total Variance Explained

The above table clearly indicated that six factors have Eigen value equals to or more than one. Cumulative percentage of Rotation Sums of Squared Loadings confirms that these six factors are able to explain closely 65% of the variance and to be very precise it is 64.565%. Following Table-4 representing Rotated Component Matrix and the method of rotation used was varimax to find what the factors represent.

Rotated Component Matrix ^a						
Variables	Component					
	1	2	3	4	5	6
Using a digital wallet would enable me to purchase more quickly	0.456	0.613				
Using a digital wallet would make it easier for me to make purchase	0.624					
Using a digital wallet would give me greater control over my credit and debit card			0.54			
Using a digital wallet would improve the quality of my life because everything would be in one place					0.6	
Using a digital wallet is clear and understandable				0.765		
I find digital wallet easy to use	0.428			0.558		
Using a digital wallet would improve my performance in conduction of transactions	0.423	0.537				
Using a digital wallet would make it easier for me to conduct transaction	0.628					
I would find digital wallet useful in conducting my transactions		0.679				
People who are important to me think that I should use a digital wallet			0.679			
My friends think that I should use a digital wallet		0.762				
I intended to use a digital wallet to store my credit and debit card information		0.538			0.424	
I will frequently use a digital wallet in future			0.816			
I strongly recommend other to use digital wallet	0.606		0.436			
Considering the amount of information I would have to put on digital wallet, it would be risky		0.567				
The overall risk is very high		0.672				

For me loss of information and any other loss due to digital wallet is a great loss hence it is risky to use digital wallet				0.616		
OPT and PIN project digital wallet as risk proof mode of payment		0.475		0.418		
Lack of awareness increase the risk perception of digital wallet	0.733					
I trust company running digital wallet must installed system to safeguard my information	0.792					
I can trust that the privacy is protected on digital wallet					0.745	
Implementation of robust cyber security framework increase trust in digital wallet	0.637					
Advisory on how to avoid risky transaction strengthen trust among users	0.427	0.51				
Customer care efforts improve trust level	0.508	0.52				
Brand reputation build trust						0.836
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 13 iterations.						

Table-4: Rotated component matrix

6. DISCUSSION

6.1 STRUCTURE OF FACTOR-1

This factor can provide explanation for 17.925 % of the total common variance and therefore it is a major factor. Six variables of similar nature constitute this factor. All items of this factor are positive and have considerable loadings varying from 0.606 to 0.792. The internal structure of this factor is mentioned in below Table 5.

Factor-1	Factor Loading
Using a digital wallet would make it easier for me to make purchase	0.624
Using a digital wallet would make it easier for me to conduct transaction	0.628
I strongly recommend other to use digital wallet	0.606
Lack of awareness increase the risk perception of digital wallet	0.733
I trust company running digital wallet must installed system to safeguard my information	0.792
Implementation of robust cyber security framework increase trust in digital wallet	0.637

Table-5: Structure of Factor-one

6.2 STRUCTURE OF FACTOR-2

This factor explains 16.432% of the total common variance thus it is considered as second major factor. Ten variables comprise this factor. All items of this factor are positive and have sizeable factor loadings varying from 0.475 to 0.762. The internal structure of this factor is mentioned in below Table 6.

Factor-2	Factor Loading
Using a digital wallet would enable me to purchase more quickly	0.613
Using a digital wallet would improve my performance in conduction of transactions	0.537
I would find digital wallet useful in conducting my transactions	0.679
My friends think that I should use a digital wallet	0.762

I intended to use a digital wallet to store my credit and debit card information	0.538
Considering the amount of information I would have to put on digital wallet, it would be risky	0.567
The overall risk is very high	0.672
OTP and PIN protect digital wallet as risk proof mode of payment	0.475
Advisory on how to avoid risky transaction strengthen trust among users	0.51
Customer care efforts improve trust level	0.52

Table-6: Structure of Factor-Two

6.3 STRUCTURE OF FACTOR-3

Factor-3 accounts for 10.309% of the total common variance and is the third main factor. The three variables of this factor are all positive and have significant factor loadings varying from 0.54 to 0.816. The composition details of the items forming this factor are given in the following table 7

Factor-3	Factor Loading
Using a digital wallet would give me greater control over my credit and debit card	0.54
People who are important to me think that I should use a digital wallet	0.679
I will frequently use a digital wallet in future	0.816

Table-7: Structure of Factor-Three

6.4 STRUCTURE OF FACTOR-4

Factor-4 is able to explain 8.772% of the total common variance. This factor along with the previous three factors in total is able to explain the 53.439% of the total variance. Though this factor explains the least variance as compared to the previous but in totality it is one of the important factor. The three variables of this factor are all positive and have factor loadings varying from 0.558 to 0.765. The composition details of the items forming this factor are given in the following table 8

Factor-4	Factor Loading
Using a digital wallet is clear and understandable	0.765
I find digital wallet easy to use	0.558
For me loss of information and any other loss due to digital wallet is a great loss hence it is risky to use digital wallet	0.616

Table-8: Structure of Factor-Four

6.5 STRUCTURE OF FACTOR-5

Factor-5 is able to explain 6.618% of the total common variance. This factor along with the previous four factors in total is able to explain the 60.057% of the total variance. Both the variables of this factor are all positive and have factor loadings varying from 0.6 to 0.745. The composition details of the items forming this factor are given in the following table 9

Factor-5	Factor Loading
Using a digital wallet would improve the quality of my life because everything would be in one place	0.6
I can trust that the privacy is protected on digital wallet	0.745

Table-9: Structure of Factor-Five

6.6 STRUCTURE OF FACTOR-6

Factor-six has only one variable in its composition. This reflects that the variable is important but not able to group with other variables. This factor is able to explain 4.508% of the total common variance with a factor loading of 0.836 on the constituent variable.

Factor-6	Factor Loading
Brand reputation build trust	0.836

Table-10: Structure of Factor-Six

7. CONCLUSION

Digital wallets are quickly becoming mainstream mode of online payment. Shoppers are adopting digital wallets at an incredibly rapid pace, largely due to convenience and ease of use. Tech-savvy shoppers are increasingly demanding seamless, omni-channel retail experiences and looking for solutions that deliver this. There's no question 2016 will be a pivotal year as digital wallets gain more widespread acceptance.

The results based on the analysis suggested that there are six important factors that would be major influencing determinants for adoption of digital wallet. From the analysis it is concluded that, Ease of use, recommendation, awareness, risk perception, security, trust, customer support, convenience and privacy are major factors responsible for adoption of digital wallet. These factors are also confirms the output of technology acceptance model with few more additional factors like trust, security and privacy.

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STUDY THE ROLE OF GREEN MARKETING IN INDIA-CONSUMER PERCEPTION & INTENTION

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ABSTRACT

The increasing growth of the economy and the changing pattern of consumer consumption are the main cause of environmental deterioration. The adverse effect of the environment could be seen in developed and developing countries where 60% of the consumer report that they are very concerned about environment issues but they are struggling to get green products.

The study is made to investigate the impact of marketing mix of green products by the consumer and so the design of this research is descriptive and quantitative in nature.

The survey was made with 10 retail outlets selling green products in UP & Delhi NCR regions. The questionnaire was distributed and out of 200, 170 were complete. Therefore as consumer perception is changing towards green products, hence green products must be increased for the sustainability of our economy. Though being green needs time and space in human life that is not available in increasing busy lifestyle. Even teenagers are more aware of green products and their decision changes the buying behavior of the family.

Hence, marketing mix should be made in such a way so as to increase the green products.

INTRODUCTION

Environmental friendly or eco friendly or nature friendly or go green are the terms that are used to promote green products and green marketing. These are the terms used to refer to goods and services, laws, guideline and policies so as to ensure no harm to the society and environment.

According to the American Marketing Association, green marketing is the marketing of products that are regarded as environmentally safe and hygienic. Green marketing incorporates broad range of activities that includes product configuration, production process, packing and packaging and its advertising.

The term green marketing came into existence in the late 1980's and early 1990's. American Marketing association (AMA) held the first workshop on "ecological marketing" in 1975.

Today with the growth of civilized economy and the digitalized world, we human beings are prone towards the artificial or chemically produced goods and services which has impacted on the growing global concern and climate changes and so a demand of green marketing is introduced so as to generate an awareness, impact education and has brought a change in consumers perceptions and intentions towards green products.

Following with the CSR activities, most of the companies have now started focusing on green marketing concept. They not only produce and make green/herbal/natural made products but also tries to educate and generate an awareness amongst their customers to get involved in green marketing. Today, customers are regarded as the king of the market. Customers are educated and well aware, they are health conscious and wants to have a better and a healthy lifestyle and hence demand for the green products. Most of the customers who are aware, either don't get the products in the market and if they get them, companies charges a very high prices for green marketing.

The green marketing concept has influenced the teenagers a lot. They are more health conscious and more prone to save their environment. Their decisions even impacts the decision of the family for buying organic product.

Terms like recycle, renew, reduce, reuse are the terms associated to influence the green marketing.

Hence, as most of the corporate and governing bodies are stepping forward to save the environment and being eco friendly, it also becomes the moral responsibility of we consumers to cooperate and demand for the green/herbal products so as to be fit and healthy and say goodbye to the chemically produced products.

Eg:-Green Coke in US

Eg:-Patanjali products

Eg:-Cotton fabrics

Eg:-Disposable plates of leafs

OBJECTIVE OF THE STUDY

- 1- Sustainable use of resources:-
As the resources are scarce and limited hence to bring the sustainability in consumption ,a judicious use of resources should be done.
- 2- Consumer awareness about green marketing:-
One of the major fact that how much consumers are aware about the green products and its uses.
- 3- Availability of green products:-
One of the biggest issue is availability of the green products in the market and how much companies are taking initiative to produce and market the green products.
- 4- Price effectiveness of green products:-
India is a price sensitive market,price is the major factor of any marketing mix.hifh priced products have a low demand and vice-versa.
- 5- Role of government to initiate green marketing:-
Government plays a key role to raise the living standard of the society and their campaigns to spread awareness for using natural products.
- 6- Role of companies to initiate green marketing:-
Production,distribution and marketing are done by the companies,they follow the CSR norms and have to inform and educate their customers so as to uplift the society.
- 7- Effectiveness of campaigns of green marketing:-
All the campaigns that are runned,are they really having an impact on the society to be haealth conscious and be eco friendly...
- 8- Changes in the lifestyle of the society by using green products:-
How far the green marketing concept has impacted the society at a large scale and what has developed in their living standards.
- 9- Impact of teenagers on using green products:-
Teenagers are the biggest asset for the company to introduce them with green marketing concept.Their decisions influence the decision of the family.

RECOMMENDATION

As per the study and detail research,recommendations for the green marketing concept has been made as follows:-

- 1- **Avoid chemical/artificial made products:-**
One must ensure to averse the chemical or artificial made products so as to maintain a healthy life.eg- carbonated drinks.
- 2- **Involve sustainability in the development:-**
Consumption should be such that it should have sustainability in the development,avoid use of over or extra consumption so to preserve it for future generation.
- 3- **Recycle, reduce, refuse, reuse the wastes:-**
Nature can be saved by the judicious use of the resources and one must make the fuller utilization.
- 4- **Support the government runned campaigns:-**
It's our moral duty to support our government for the good cause which uplifts the living standard of the society.
- 5- **Generate an awareness and educate people:-**
We must voluntarily participate and spread awareness for protecting our environment through natural means.
- 6- **Green products must be charged at reasonable rates:-**
As the green products are very costly,companies must ensure to have reasonable prices of the green products.
- 7- **Celebrities must endorse & advertise the green products:-**
Youngsters gets more fascinated by celebs and follow them hence they must endorse such products which are health conscious and influence the audience

8- Subsidies and rebates should be given to companies promoting green marketing

Companies which promote green marketing activities must be subsidized and should be given special tax rebates as they are following the CSR norms so as to save the environment.

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CONCLUSION

- On the basis of research work done, it is concluded that most of the consumers are affected by green marketing concept.
- People are conscious about their health and lifestyle by adopting the natural products. They are aware about the production of goods, packing and promotion so as to save the natural environment.
- Various campaigns are followed and various activities are initiated and people voluntarily participate so as to educate and spread awareness regarding the green marketing.
- However, costing becomes the major barrier but still they are willing to pay more if they get products which are ecofriendly.
- Green marketing is an emerging opportunities in urban markets where people are more prone towards adulterated products.
- Hence it is not the sole responsibility of the government or companies but of we consumers also so as to make our planet, a better place to live.

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- 4- magazines and news papers

SURVEY - “GREEN MARKETING”

1. Name of the Respondent
2. Gender | a. Male | b. Female
3. Age

(a) 15-20 (b) 20-25 (c) 25-30 (d) 30 and above

4. Education Level:

(a) Secondary Level

(b) Undergraduate

(c) Postgraduate

5. Are you aware of “green products” or Eco-friendly products?

(a) Yes (b) No (c) A little

6. How you became aware of “green products” or Eco-friendly products?

(a) Television

(b) Magazines

(c) Class lectures

(d) Newspapers

(e) Others _____

7. If green features increase the price of the product, are you willing to pay more?

(a) Yes (b) No (c) A little

8. Do you think there is enough information about “green” features when you buy the product?

(a) Yes (b) No

9. What is the main reason that makes you willing to pay more for the “green” products?

(a) Enhance a quality of life

(b) Environmental protection responsibility

(c) potential increase of product value

(d) getting high level of satisfaction

10. What is the main reason that makes you not willing to pay more for the “green” products?

(a) Cannot see the benefit of those features

(b) Product cost is too high, cannot afford them

(c) Producers only claim, actually it is not

(d) Government should pay for them

(e) Producer should pay for them

(f) Environmental issues are gimmick for commercial only

(g) I am ready to pay extra for eco-friendly product.

11. Why do you think green marketing is in headlines nowadays?

(a) Consumers are being aware of green products

(b) Company increasing its competitive edge

(c) Company’s attempt to address society’s new concern

12. Which marketing element strongly influences your buying behaviour of green products?

(a) Product

(b) Package

(c) Place

(d) Promotion

(e) All of the above

INNOVATIONS IN GRAMEEN BANKS TO THE SOCIETY

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ABSTRACT

The society upliftment is majorly depends upon new innovations which must be useful to every corner in the states. Social innovation is a process and best practice of getting an effective solution which is related to the social and environmental issues and must support for social progress. This can be done by introduction of Grameen banks in the society. Now a days Grameen banks plays a vital role compare to other banks because it is created for the purpose of services in the form of small loans (known as microcredit or "Grameen credit") to the impoverished without requiring collateral. The paper focused to study how the Grameen banks come up with innovations to the society for upliftment, savings, risk management. It is studied by considering data of Grameen banks over the period and purely related to secondary data from various journals, magazines, websites.

Keywords: financial performance, comparisons, challenges.

INTRODUCTION

“Grameen bank” is Bengali word for rural or village bank. Which are also called as RRBs- Regional Rural Banks.

The bank nationalization witnessed an incredible growth in the banking sector of the country. Later many grameen banks came into existence that has reversed the conventional practices of existing banking system by removing of collateral, accountability to all users, mutual trust, creativity. Grameen banks started as a cost effective weapon to fight poverty and serve as a catalysts in the overall development of economical and social conditions of the weaker sections to whom the services are not bankable.

The Grameen banks started with the objectives of mobilization of resources to rural people, and credit to all weaker sections, rural people of the society.

HISTORY

A small country in the Indian subcontinent with a population of 130 million, a gross national product (GNP) per capita of about \$300 and a literacy rate of only 38 percent for those over 15 years of age, is Bangladesh. It experienced drought and famine in 1974 that killed 1.5 million people. Having recently completed studies as a Fulbright scholar in the United States, Professor Mohammad Yunus was lecturing on economic theory at Chittagong University and growing increasingly frustrated at his inability to ease his neighbors' suffering. He observed many people in that area are in poverty trap, getting loans at high interest with collateral. So to overcome that suffering he started to give loans with low interest and without collateral and surprised that all borrowers repaid the money. and shared the same experience to all bankers and promoting. from his efforts started “Grameen Bank” in October, 1983 in Dhaka, Bangladesh, reasoned that if financial resources can be made available to the poor people on terms and conditions that are appropriate and reasonable, “these millions of small people with their millions of small pursuits can add up to create the biggest development wonder.” He believed that offering such loans to a large population could stimulate business and reduce the poverty (rural, weaker sections) in any country. These banks undergoes so many changes in the form of reforms by successive governments have distracted them from their original goals. The final blow in that direction came to them in the form of the recent RRBs Amendment Act, 2015.

IN INDIA

The RRBs Came into existence in September 1975, through an ordinance, later by RRBs Act, 1976 is provide to serve poor, small farmers, agricultural laborers, rural artisans, street vendors, small traders & the people who are living below poverty people for the purpose of different needs like credit, mobilization of resources, upliftment, savings, etc. these were set up on the recommendations of the Narasimhan Committee group. The development process of RRBs started on 2nd October 1975 with the forming of first RRB, the **Prathama Bank** with 5 crore as authorized capital. later in 1990s that is with is 15 years many RRBs nearly 196 were established with 14,500 branches in all areas-(rural, tribal, some urban) of the country. So these banks development creates a network that has been rapidly growing.

About 123 million poor were given loans to support their small farming and other economic activities. All this was not without some cost, but this was within anticipated levels. The amendments in the RRB Act increases the share capital from 5 crore to 2000 crore. Grameena banks held shares in the ratio from central, state and sponsored banks is 50:15:35 respectively. These changes encourages privatization and commercialization and Globalization.

As the grameen banks developed and expanded over the years continuous to following two principles. First is when the individuals are provided a credit, they would be able to initiate upward social mobility for themselves through entrepreneurial endeavors. Second is the grameen bank must encourage its members to create a positive impact by actively involved in the politics of their country i.e. exhibiting a democracy.

EARLIER STUDIES

- The Narasimham Committee (1998) emphasized that while discharging their functions as purveyors of rural credit and mobilisers of rural savings, RRBs should not ignore the importance of financial viability and operational efficiency. The productivity, profitability and solvency of the RRBS must be maintained and sustained to enable them to function as an effective and efficient institution of rural credit.
- Schumpeter (1912) and Hicks (1969), deals with the role of financial intermediaries on the growth and development of an economy.
- Levine (1997, 2003) discussed the positive correlation and possible linkages between growth of financial sectors and overall growth and development of an economy. The main findings are that development of financial instruments, markets and institutions ameliorate problems of information, enforcement and transaction costs. This, in its turn, positively influences the savings rate, investment decisions, technological innovations, and finally, the growth rate.
- Jain and Mansuri (2003). They argue that asking for early repayments forces the borrowers to look for subsidiary loans from family and even moneylenders. It is then argued that such bridge loans will be forthcoming provided the borrower is efficient and using the initial loan amount wisely.
- Sathye (2003) measured the productive efficiency of banks in India. He found that the mean efficiency of private sector commercial banks as a group is, paradoxically lower than that of public sector banks and foreign banks in India. The study recommended that the existing policy of reducing non-performing assets and rationalization of staff and branches may be continued to obtain to obtain the same gains and make Indian banks internationally competitive.
- The bank also monitors then it creates a double safety net or not. It reduces the strategic complementary problem leading to a greater monitoring by the borrowers themselves, which is called "pump-priming" (Roy Chowdhary 2005). However, the pump-priming effect relies on the presence of the JLL; bank monitoring by itself does not work.
- Reddy (2006)²¹ examined total factor productivity and technical changes in rural banks by using data from 192 banks for the period 1996 to 2002. It observed that total factor productivity growth of rural banks was higher than the service provision during liberalization.
- Khanokoje and Sathye (2008) measured the efficiency of banks with the help of non-parametric technique of Data Envelopment to 2002; thereafter these scores were compared for before and after 1993-94. The study found that efficiency of RRBs has increased.
- Singh and Singh (2009) in their paper examined the recovery performance of Manipur Rural Bank. The study observed that the repayment of loans mainly depends on proper utilization of the loan amount, supply of quality assets, generation of sufficient income from schemes, availability of infrastructural and marketing facilities, willingness to re-pay continuous supervision and follow up visits etc.
- Ibrahim (2010) studied performance evaluation of RRBs in India and investigated whether the merger/amalgamation of RRBs in India, undertaken in 2005-06 has helped to improve their performance. Various committees have also emphasized the need to improve the performance of these banks which play an important role in the rural credit market in India. The study finds and concludes that performance of rural banks in India has significantly improved after amalgamation process which has been initiated by the Government of India.
- Reddy and Prasad (2011) observed that the banks have penetrated into every corner of the country and have been extending a helping hand in the growth of the economy. Despite the RRBs' journey of over three

decades, they have achieved performance to the expected level turning towards sound financial management and productivity.

OBJECTIVES OF THE STUDY

- ❖ To analyze the productivity performance of Grameen banks to the society
- ❖ To know the recent innovations in the Grameen banks
- ❖ To suggest measures for extending banking services to the poor
- ❖ To improve the challenges faced by Grameen banking sector.

NEED FOR GRAMEEN BANKS

The people in India i.e. who are from Rural and weaker sections, farmers ,etc are facing a major problem of inadequate supply of credit .They are taking credit from informal sector i.e. from money lenders at high interest rate to satisfy their basic needs , satisfaction. So the RRBs were established to cater the needs of rural people at their doorsteps, particularly in where the banking facilities are lacking . The grameen banks are needed especially to agriculture people ,rural people , low income households to smoothening out seasonal fluctuations in their earnings and providing a easy access to credit at conventional rate of interest.

RESEARCH METHODOLOGY

The sources of Data : The data collected mainly from the secondary sources like financial statements compiled by the head office of Regional Rural Banks, RBI bulletin, RBI Annual Reports, RBI Trend and Progress of Banking in India, Annual Reports of NABARD, Directorate of Economics and Statistics, various reports, surveys and research papers. For this study the data related to financial performance of RRBs is collected and analyzed .The paper continuous with descriptive and analytical research.

DATA ANALYSIS AND INTERPRETATION :

❖ List of Grameen Banks which are currently functioning in India :

Earlier, there were 82 Regional Rural Banks in India but based on the 2018 Analysis, there are only 64 RRBs that are currently functioning across various States & UTs of India.

S.No	States	Grameen banks	Head Quarters
1.	Andhra Pradesh	Andhra Pragathi Grameena Bank Chaitanya Godavari Grameena Bank Saptagiri Grameena Bank	Kadapa Guntur chitoor
2	Arunachal Pradesh	Arunachal Pradesh grameen bank	Naharilagun
3	Assam	Assam Grameen Vikash Bank Langpi Dehangi Rural Bank	Guwahati
4	Bihar	Bihar Grameen Bank Madhya Bihar Grameen Bank Uttar Bihar Grameen Bank	Begusarai Patna Muzaffarpur
5	chattisgarh	Chhattisgarh Rajya Grameen Bank	Raipur
6	Gujarat	Baroda Gujarat Grameen Bank Dena Gujarat Grameen Bank Saurashtra Grameen Bank	Bharuch Gandhinagar Rajkot
7	Haryana	Sarva Haryana grameen bank	Rohtak
8	H.p	Himachal Pradesh Grameen Bank	Mandi
9	J&k	Ellaquai Dehati Bank J&K Grameen Bank	Srinagar Jammu
10	Jharkhand	Vananchal Grameen Bank Jharkhand Grameen Bank	Dumka Ranchi
11	Karnataka	Kaveri Grameena Bank Karnataka Vikas Grameena Bank Pragathi Krishna Grameena Bank	Mysore Dharwad Bellary
12	Kerala	Kerala Grameen Bank	Mallapuram
13	Madhya Pradesh	Narmada Jhabua Grameen Bank Madhyachal Grameen Bank Central Madhya Pradesh Grameen Bank	Indore Sagar Chhindwara
14	Maharastra	Vidarbha Konkan Grameen Bank Maharashtra Grameen Bank	Nagpur Aurangabad

15	Manipur	Manipur Rural Bank	Imphal
16	Meghalaya	Meghalaya Rural Bank	Shillong
17	Mizoram	Mizoram Rural Bank	Aizwal
18	Nagaland	Nagaland Rural Bank	Kohima
19	Odisha	Odisha Grameen Bank Utkal Grameen Bank	Bhubaneswar Bolangir
20	Pandicherry	Puduvai Bharathiar Grama Bank	Puducherry
21	Punjab	Malwa Grameen Bank Punjab Grameen Bank Sutlej Grameen Bank	Sangrur Kapurthala Bhatinda
22	Rajasthan	Baroda Rajasthan Kshetriya Grameen Bank Rajasthan Marudhara Grameen Bank	Ajmer Jodhpur
23	Tamilnadu	Pallavan Grama Bank Pandyam Grama Bank	Salem Virudhunagar
24	Telangana	Telangana Grameena Bank Andhra Pradesh Grameena Vikas Bank	Hyderabad Warangal
25	Tripura	Tripura Grameen Bank	Agartala
26	U.P	Allahabad UP Grameen Bank Grameen Bank of Aryavart	Banda Lucknow
27	U.P	Allahabad UP Grameen Bank	Banda
28	U.P	Grameen Bank of Aryavart Baroda Uttar Pradesh Grameen Bank Kashi Gomti Samyut Grameen Bank Prathama Bank Sarva UP Grameen Bank Purvanchal Bank	Lucknow Raibareilly Varanasi Moradabad Meerut Gorakhpur
29	Uttarkhand	Uttarakhand Grameen Bank	Dehradun
30	West Bengal	Bangiya Grameen Vikash Bank Paschim Banga Grameen Bank Uttarbangla Kshetriya Grameen Bank	Murshidabad Howrah Coochbehar

❖ To analyze the productivity performance of Grameen banks to the society :

The growth of RRBs can be studied with the help of the total number of RRBs and deposits accepted into RRBs and credit sanctioned by RRBs and credit deposit ratio from 2010 to 2018.

The RRBs were allowed to finance to the non-target groups — the rich borrowers — removing the barrier of financing exclusively to the weaker section. The priority-sector norms were set just on a par with other commercial banks: limiting only 40 per cent of their lending to that sector and 10 per cent of the total to the poor. These ratios, however, were slightly altered to 60 and 15, yet bringing down the weaker sections' share of RRBs' credit from 100 per cent to 15 per cent.

In addition, the RRBs were given freedom to fix their own interest rates, allowed to liberally invest in shares and securities and the choice of opening and closing the branches was left to the RRBs. Another significant change was the sponsor bank-wise merger of RRBs in each State.

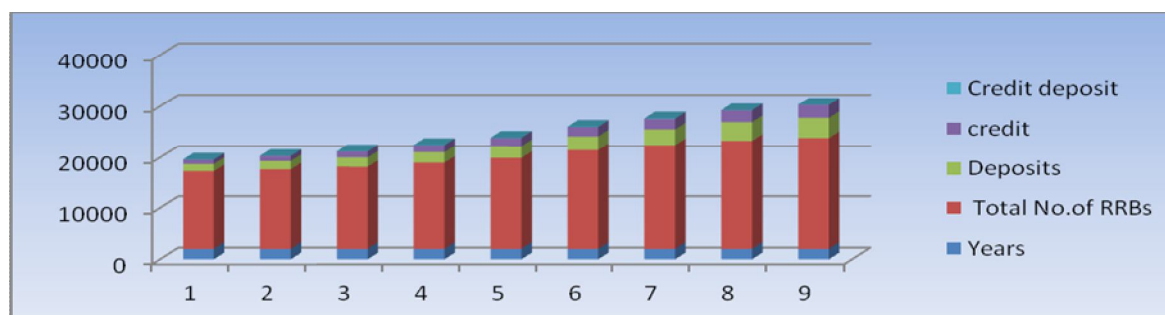
The distancing the RRBs from the rural poor did, however, result in increasing their profits. As per the latest available data, all the RRBs made profits in 2013-14. The net profit earned in the year was ₹ 2,833 corer. The profit earned before taxes during previous five years (2008-09 to 2012-13) was ₹ 12,589 corer. The government got ₹ 9,318 corer towards tax income which was much bigger than its recapitalization of ₹ 1,003 corer it had provided in terms of the Chakrabarty Committee. From this study it is observed that grameen banks growth is more than grameen banks because it satisfy the needs of rural people.

Years	Total Number of Grameen Banks	Total Number of Deposit (billions)	Credit sanctions (billions)	Credit deposit Ratio (percent)
2010	15303	1424	835	58.6
2011	15658	1639	982	59.9
2012	16170	1830	1166	63.7

2013	16985	2065	1367	66.2
2014	17901	2334	1590	68.1
2015	19472	2662	1812	68.1
2016	20416	3065	2067	67.4
2017	21251	3649	2292	62.8
2018	21805	3912	2551	65.2

Source: From statistics of NABARD

From the table it is observed that the total number of RRBs are increases from year to year i.e. from 15,303 to 21,805 and deposits are increases from 1424 to 3912 and credit sanctioned by banks are also increases from 835 to 2551 from 2010 to 2018. The credit deposit ratio is increases from 2010 to 2015 i.e. from 58.6 to 68.1 then slightly fluctuated i.e. 67.4, 62.8, 65.2. This indicates the grameen banks performance, growth increases every year to provide satisfactory service to the people. For this table the bar graph is as follows for simple understanding purpose.



❖ To know the recent innovations in the Grameen banks

Banks play a very important role in the world. Especially in India there is a continuous growth in banks. Among that Grameena banks are playing a vital role and day by day Grameena banks are introducing new innovations which are very useful to the society. The recent innovations in Grameena banks across India compare with commercial banks.

- Introduce BC and Bank Sakhi to the villagers as representatives of the bank for providing doorstep basic banking services
- Support BC in the promotion of banking services to the villages
- Support BC in organizing and conducting financial awareness and literacy campaign in the villages
- Participate in the pre-enrolment meeting being organized by the BC in the villages
- Offering technical assistance and consulting services to organizations serving the low income segment
- Rajiv Gandhi Mahila Vikas Pariyojna (RGMPV) is the SHPI (SHG promoting institution) whose SHG federation provides the network of its women led village level institution for providing banking services to client in the villages. RGMVP provides the services and resource of the following institution promoted by it.

❖ Challenges faced by Grameena banks:

Even though the grameen banks are responding and satisfying some of the needs of poor, still facing so many problems. It totally rejects the idea of subsidy, and arguing that the "poor needs only credit and granting the credit at 16% interest rate. Actually, banks are availed borrowing facility at 2% interest rate since 1976 onwards, but poor (landless, widows, farmers, etc) has to pay 16% rate of interest. This imbalance created many challenges to the grameen banks -

- Lack of coordination in branch expansion
- Charging more interest rates
- Difficulties in Deposit Mobilization
- Slow progress in lending activity
- Urban orientation staff
- Slow response to customer requirements

MEASURES TO EXTENDING GRAMEEN BANKING SERVICES TO THE POOR

- ✓ The success of Grameen banks relies in attitude and behavior of all the participants : bank owners, managers, employees ,customers, government etc. if they are following a better communication process it gets success in functioning.
- ✓ If the banks extending credit to more purposes other than below every poor person in India crossed the below poverty line and started earning ,savings becomes rich.
- 1. livestock (milk animals);
- 2. Fisheries;
- 3. manufacturing (handicrafts) and trade; and
- 4. House loans (roofs, sanitation).
- ✓ If the grant to the poor is based on their need but not based on their income &savings ,then every person can avail the credit. Some special grants are provided to women is beneficiary to the households of poor and then to the society.
- ✓ If the bank interest rate structure is modified as per the convenient , needs of all people but not be as per market structure future needs of people can be met.
- ✓ The banks form a groups of poor and who are in needy . five to six groups are formed in a village and then identify the center (a place to assemble) which is focal point of all members and organizing a weekly meeting in which weekly repayments are accepted. In this way many poor people needs can be satisfied.
- ✓ The bank decided to form group and this group can be act as a intermediary between the bank, the center(place for assemble), the group for monitoring how to use of credit and repayments etc. The group conduct a meeting once in a week at the center to discuss about their activities, procedures, new decisions, clarifying doubts of rural people etc. The groups take decisions and guarantee repayment through mutual accountability, used as alternative for material collateral. The process is based on trust and business is conducted in presence of all members.
- ✓ If proper training facilities are provided to the some of the grameen banks employees about simple accounting procedures , values, benefits of taking training. They created a change in the attitude and awareness among the poor about utilization of local resources and local knowledge. This network is building self confidence and easy access to all rules ®ulations.
- ✓ If the banks maintain a proper monitoring and evaluation mechanism to know about their operations its functioning can be greatly achieved.
- ✓ The new amendment to the RRBs Act will surely help for the deepening of the reforms process which means further distancing the rural poor, from the access of institutional credit, with great impunity.

CONCLUSION

The paper is concluded with the following lines quoted by Mahatma Gandhi is “ *The future of India lies in its villages*”. If the villages are growing the country also growing in all aspects . So for the development of villages and improvement of productivity it must require Grameen banks . The mobilization of resources, cheaper credit facilities to the users, proper monitoring, evaluation system , amendments as per need , makes the Grameen Banks to be successful in the country. If the Government is need to take some measures for not misuse of funds from grameen banks to the needy people. A committee has to be formed to review the entire mechanism , accessibility , awareness to the poor then it is perfectly functioning.

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A STUDY ON RELATIONSHIP MARKETING ON GLOBAL MARKETING MIX

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ABSTRACT

With the growth of digitalization and technological world, it has brought a huge change in marketing of goods and services which has not restricted to marketing mix but expanded to relationship marketing across the globe so as to promote the economic activities and exim policies. The future impact to expand the business, investment activities, distribution networks, sales, purchases, profit and loss and maintaining customer retention can only be possible through relationship marketing.

The study is made so as to investigate the impact of relationship marketing at the global level and so the design of this research is descriptive and quantitative in nature. The survey was made with 50 corporates including colleges and 80% favoured relationship marketing at the global level. Hence, to bring a better productivity of the work environment and exim business, relationship marketing plays a vital role.

INTRODUCTION

In the world of digitalization, where technology is at its booming stage, relationship marketing plays an important role for sale, branding, promotional tools and customer retention and customer satisfaction at not only at domestic level but also at global level.

Today when all the countries are busy in promoting goods, services and production and distribution networks along with export and import operational activities, relationship marketing plays an important role. Countries need to build their relations not only with their neighbouring countries but also across the globe so as to bring a unity among them in terms of policies, rules and regulations, taxes and subsidies.

Relationship marketing plays an important role for promotion of exim business which not only supports the trading activities but also a huge financial support. Relationship marketing builds a path towards the growth and development across the nation and society as well. Hence a study has been made so as to bring a better productivity through relationship marketing.

OBJECTIVE OF THE STUDY**1- To expand the business:-**

For the growth and development of the business, relationship marketing plays an important role.

2- To reduce risk barriers:-

Risk is uncertain and all business involves risk and so a strong relation reduces risk barriers.

3- To maintain cordial relations:-

To cooperate with the countries, relationship marketing plays an important role for sale, distribution, customer retention etc.

4- To follow the Exim Norms:-

To follow the international business trading norms, business must aim at having a strong relationship marketing activities.

5- For better infrastructure:-

A good relation ensures and are bound to have an advanced infrastructure of the economy.

6- For exchange of technology and job opportunities:-

Strong relationship helps to exchange ideas, technology and job opportunities across the globe.

7- To reduce wars and conflicts among countries:-

When there is a strong relationship among the nations, it leads to friendly relations among the nations.

8- To save the natural environment:-

Resources are scarce and limited and so to make a judicious use of resources without harming the environment, relationship marketing plays an important role.

9- For client/customer retention:-

To bring the loyalty of the customers, relationship marketing plays a key role so that it does not lose its customers.

10- To increase market share:-

A strong goodwill and relations in the market, increases the share value of the business.

RECOMMENDATIONS

- 1- Reduction in trade barriers.
- 2- Regular annual meetings amongs the nations.
- 3- To subsidies the tax rates.
- 4- Regular feedback.
- 5- Fringe benefits.
- 6- Quality products at reasonable rates.
- 7- Follow and value each others culture and ethics.
- 8- Regular updates and informations.

CONCLUSION

On the basis of research work done, it is concluded that along with the 4P's of Marketing Mix, Relationship Marketing plays an important role so as to introduce and sustain the demand of the products/services.

Relationship marketing concept is very important and very effective at the global level so that the trade relations are strong and there is no conflicts among the nations. Moreover, along with the marketing mix concept, it should also be given an equal importance so that the client retention and customer loyalty is maintained and there is a smooth working of exim business.

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ROLE OF TRAINING ON EMPLOYEES PERFORMANCE : A CASE STUDY OF SHANGRILA HOTEL PVT LTD.

Dr. Vivek Pachauri and Yachna Malhotra

ABSTRACT

The hospitality industry is a highly guest service-oriented business where the success of the business is determined by the confrontation between employees and guests.

Consequently, hospitality researchers and business leaders have acknowledged the significance of hiring and retaining competent employees and have also considered the company's employees as the most valuable asset to hospitality firms. Therefore, training and retention criteria or qualification are an important avenue to explore.

In order to be successful in the market it is not sufficient to attract new customers managers must concentrate on retaining existing customers implementing effective policies of customer satisfaction and loyalty. In hotel industry customer satisfaction is largely hooked upon quality of service. A management approach focused on internal customer satisfaction can improve outside customer loyalty, thus increasing the positive image of the visitor.

This research evaluates the effect of training on employees' performance in hotel industry as a case study. A major concern amongst organizations in especially the hospitality industry is that consistent evaluation of training is rarely seen as a serious step to appraise employees' performance, and thus, come as an afterthought. The research assessed the performance of employees' at Shangrila hotel and based on its objective and to enhance organizational effectiveness by virtue of training in hotel industry. This research evaluates the effect of training on employees' performance of the case mandate. It is established that a significant relationship exists between the level of training and incentives to motivate employees' in enhancing their performance in Shangrila hotel. Use of various training methods to enhance employees' performance in hospitality industry significantly by Shangrila hotels and resorts should be supported by simplifying administrative procedures.

INDUSTRY OVERVIEW

The hotel industry in India is prospering mainly due to increase in tourism and travel. With increase in number of domestic and international tourists, hotel sector is bound to grow. There is an emergence of budget hotels in India to cater too much of the population who seek affordable stay. Though the hotel industry largely depends on business travelers but tourist traffic is also on the rise. So far the growth of the sector was intense in metros, but now it's slowly picking up in tier-2 and tier-3 cities also. Also, there is an increasing competition from the startups/online industry due to the increasing penetration of the internet. The Indian hospitality industry has been instrumental in contributing to the nation's economic growth. This trend is expected to continue especially with the introduction of e-visa for foreign tourists and with the domestic economy improving. Imbalance in increase in tourists both domestic and foreign not been supported with equal number of rooms is a latent source of opportunity for growth.

CONCEPTUAL BACKGROUND

Hotel Shangrila is a premium business friendly 4 star rated hotel, one of the newest hotels offering a luxurious and comfortable stay with servicing leisure, social and, Airport and Railway station which optimizes the customer time and travel plan. It has the right blend of luxury and architect to make customers to feel comfortable. Hotel Shangrila is located just a few kilometers from International Airport and therefore a right choice and the perfect place to host corporate and social events. Their banqueting space is ideal for galas, weddings and cocktail receptions, while their three boardrooms offer gracious space for smaller meetings.

Even though there is a Human Resources Manager who does specific tasks with his team in hotel; but in contrary human resources is the responsibility of all functions in the hospitality industry. Feasibly, one of the most challenging aspects of the hospitality industry is management of Human Capital. It is people that drive the day-to-day work of a hotel, restaurant or any other hospitality enterprise. Hence, task of everyone from the General Manager down to the Front desk staff is to effectively manage human resources.

Hotels and restaurants are mushrooming at a phenomenal rate and hence the attrition rates of lower grade staff has shot up in the past few years. It is not unusual to find that the human resources team is struggling with recruitment most of the time and therefore cannot concentrate on the other important aspects of HRM i.e. Training and Development, Welfare, Succession Planning, and structured Performance Appraisal.

WORKFORCE PROFILE

Hotel Shangrila is a business hotel located in the center of Industrial hub. By the virtue of its location and proximity to the International Airport it becomes the perfect place for Industries to host its corporate events and meetings.

THE CASE DESCRIPTION

It was a usual working day as David entered the lobby of the Hotel Shangrila and found a very dense crowd gathered in front of the Reception Desk. Coming straight from the college as a Trainee he had a bachelor in Hospitality, and was perplexed as to what was happening. An entire corporate group named “Sanofi Pharmaceuticals” had a doctor’s conference with foreign diplomats and had occupied 110 rooms out of the 181-roomed property. Luggage bags piled up in the Baggage counters, angry guests yelling at the Poor cashier Suleiman as he kept on settling the Guest Bills, completely unaware that David had come to relieve him off his job. Watching all this happen from the Upper Floor was Mr. Shroff, the General Manager of the Hotel and no doubt he was waiting for Chatterjee’s arrival to the desk on a crucial day when his department needed him the most.

Sanofi was an important client for the Taj Hyderabad sales team as it provided a great business for the hotel at a time when competition was at its peak. Amrita the sales manager seeking a reply for this awkward customer experience through constant phone calls to Chatterjee, the operations manager. Chatterjee had been working with the Taj Group since early 2006 and was considered by his team members as friendly and approachable. Often had he been noticed having a chit chat with his team members in the cafeteria whereas other HOD’s were spotted maintaining a certain distance at the same time. His politeness and approachable nature was also liked by the guests as their disputes were eventually solved in the best possible way. And why not? Thanks to the Room Operations team comprising of 3 cashiers, 4 receptionists and 3 Call Operators guided by two Duty Managers with whom Chatterjee bonded very well.

SALES DISTRIBUTION OF ROOM NIGHTS FOR HOTEL SHANGRILA:

Clients	Abbott Pharma	BHEL	Genpact	Sanofi Pharma	AMEX	Conventional Events	Others
%age of business	9%	5%	8%	12%	10%	19%	37%

It was again a late arrival for Chatterjee and after a great battle the Operations team fought Suleiman was finally relieved of his work and went home after 18 hours of continuous work. The Lobby look settled and then came Mr. Shroff, grabbing Chatterjee’s hand in a furious manner no one had ever witnessed from his side so far. A straight set of arguments made it much worse for Chatterjee as the Housekeeping manager Samantha added to his miseries by informing that 50 rooms would be needed within next couple of hours as another group named “Abbott Pharma” was checking in.

Samantha was upset as the Front Desk team mails her any such situation where back to back room cleaning is required as she needs to plan the Duty Roaster likewise. Chatterjee had his side of the story well-guarded as the girl who used to mail Samantha got terminated due to Shangrila’s Zero Tolerance Policy.

The Zero Tolerance policy consisted of 22 clauses which were not supposed to be violated and violation of the same resulted in strict disciplinary action against the employee. These were all mentioned in the CODE OF CONDUCT which an employee had to sign before joining. A win or die situation for an employee as anything that went against the Conducts would lead to disciplinary actions that may also lead to termination. To add to the miseries was the fact that the management what so ever may the level be would not be excused if the same was Violated. Its Clauses covered mainly Political Non-Alignments, Corporate citizenship, Use of the Brand, Shareholder policies, Misuse of Company Property and so on.... With such parameters mentioned it was difficult to ascertain any loophole in their Zero-Tolerance-Policy which was developed with a passage of time. With such clear policies, it was believed that the boundaries set would be the single most important factor to establish a direct control for the management leaving no opportunity for any sort of miss happenings.

The Shangrila Group had left no errors while planning out for its budget property to aim at groups that needed conferences and accommodation for its people who came from different ends of the nation and aimed at maximising their output through this conference which was for them a once in an year opportunity. A newly constructed hotel back in 2011 across the centre of the city providing a fresh ambience for the guests with a variety in dining options which added to the customer’s value. The 181-roomed property was spacious enough to accommodate corporate groups and the young staff was highly energetic and quick to respond to every

guest's needs. However in-experience played its hostile role over here as the employees from various departments often panicked under difficult circumstances and looked for their managers to sort out things with ease and grace. The two managers Samantha (House-Keeping manager) and Chatterjee (Front Desk Manager) were both having an experience of more than ten years in their respective fields and had operated in many Five-Star Properties all across India.

It was 11 P.M. and David was there at the lobby busy with the Abbott Group which was Checking-In Along with him was his Duty Manager but there were no Signs of Chatterjee. It had been another straight 16 hours of work for David and there was no Confirmation of Suleiman's arrival. Chatterjee had left the Hotel leaving his team completely shocked as to how will they get relieved of their work. Another 2 hours of struggle for them and the lobby came to peace after the last guest of the group checked-in. "What has happened today and why are we so lost?" asked David who was completely unaware of the fact that 3 most experienced girls of their Department had been fired few days back for un-authorised use of the Company's Internet. The Hotel's guests were provided Internet on a chargeable basis and the username and password to access it were known only to the front desk. Since last few weeks Guests were constantly misusing the Internet but the same has been charged in their Invoice. On frequent observations the security Manager instructed the IT team to figure out what was happening.

It was found that devices other than those of the guests were being used to access the Internet. It was clear to the security head that the reception team is misusing the company assets and on the same day the entire front desk team's cellular phones were inspected and 4 people were found guilty including one of the Duty Managers. They were given a chance to speak their part of the story and were later terminated for violating the company's code of conduct. However Varun, the Duty manager was not terminated as Chatterjee believed that without his managers the operations would come to a standstill, employees won't make a big difference is what he supposed at that point of time.

David who had just returned from his vacations had a very awful first day and after 21 hours of straight shift it was now time for him to depart. He walked towards the locker room calmly taking out his cell phone from his pocket, switching it off and reported for work after two days. Suleiman on the other hand did the same and the Operations got a huge blow as the only hope of the Department were the two Duty managers neither of them being as quick as their team members.

Chatterjee was left in vein as HR was unable to find a replacement as it was the season time in Hyderabad and there was no time to train fresh recruits. His approach was again casual as he continued to come late for the morning meetings, spent majority of the time in his office when there was staff shortage at the reception and did not even participate to formulate his Department's Duty Roster. His belief in his Duty manager's capabilities seemed to overcome his belief in his own self.

Samantha continued to help the Front-Desk Team and co-ordinated with her Department to release rooms in quick succession. Her support on such a crucial time was helpful for the reception team and she also managed her own Department side by side. Her vision was to provide stability for the entire organisation rather than focusing on her own department. Her assistant managers were also trained well to such an extent that they could easily tackle any complexity which otherwise needed Samantha's supervision and control. This was all a result of Samantha's Daily Briefings which acted as building blocks of the Housekeeping Department.

Mr. Shroff on the other hand was busy attending constant mails from the corporate office regarding poor quality of service provided by his unit and bad reviews on Trip Advisor added to his miseries

GREEN HRM: AN APPROACH TOWARDS SUSTAINABILITY

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ABSTRACT

Over the time, rapid business development has complexed the criterion of living at the cost of natural environment. Due to growing global environmental concern, there is a necessity for companies to implement formal green initiatives (Daily and Huang, 2001). Thus, an increasing awareness on significance of going green and adopting various environment management techniques has been observed within business communities. Human resource department of an organization is supposed to have a means to play an important role in the design of their organization's sustainability culture. As the operation of a company crucially depends on the active role played by the human resource (HR) department, there is a growing need for the integration of green concepts into HRM practices. Today, Green Human Resource Management (GHRM) has become a key business strategy for the significant organizations where Human Resource Departments play an active part in going green at the office. Green HRM means using every employee interface in such a manner in order to promote and maintain sustainable business practices as well as creating awareness, which in turn, helps organizations to operate in an environmentally sustainable fashion. Green HRM encompasses all activities aimed at helping an organization carry out its agenda for environment management in areas concerning on boarding and acquisition of human resources, their induction, performance management, learning and development and compensation and reward management. Green HR can become an active partner in achieving this objective by creating a Green HR platform where the workforce experience high job satisfaction and being better engaged, which will result in higher productivity. The main purpose of this research is to understand about the concept of Green HRM, to study how human resource policies and practices could improve the environmental performance of organizations and to gain knowledge of the outcomes after adopting Green human resource management in the organizations.

Keywords: Green HRM, Human Resource Management, Environment and Human Resources.

INTRODUCTION

Green is the most beautiful color in the world and is the color of nature. Green has strong emotional correspondence with safety. Being with nature and environment can ultimately bring us happiness and prosperity- be it our personal lives or business endeavors. But wanton misuse of natural resources by man has brought us to a point where our existence on our planet and our prosperity are threatened with global warming, reduction in ozone layers, reduction in forest cover and melting of Ice Mountains and glaciers. In the light of these issues, companies are becoming aware of their responsibility towards the society from where they get resources. The green movement for protection of environment has influenced business and industry to adopt environment friendly practices and products which is referred to as Green management.

To resolve the present situation, the organizations need to implement corporate green strategy, program or event in various units of an organization such as human resource, marketing, finance, research and development, information technology and so on. Unlike the some other great revolutions such as green marketing (Peattie, 1992), green retailing (Kee-Hung et al., 2010), green finance (Bebbington, 2001), the green human resource revolution is growing very rapidly. There is a need of integration between human resource and environmental management (Dutta, 2012; Margaretha and Saragih, 2013). Green business practices were defined as those that addressed environmental stewardship and social responsibility. Human resource management (HRM) deals with the most valuable and important asset of an organization which is human resources. According to Daily and Huang (2001), effective implementation of green practices can only be done if the companies have the right persons with the right competencies. The HR function can become the driver of environmental sustainability within the organization by aligning people related practices and policies with sustainability goals reflecting an eco-focus.

Green Human Resource Management is the most significant element of sustainability. Green HR initiatives help companies find alternative ways to cut cost without losing their top talent. All the activities involved in the green human resource management enhance the value of the employees and the company. Many companies, which are taking a greener approach inside their organization, are experiencing a positive and congenial effect on the patterns of employee relations in the organization. This also has a positive influence on the mindset of employees as they feel that apart from their functional contribution on the job, they have an important responsibility in preserving environment.

OBJECTIVES OF THE STUDY

The main purpose of this study is to:

- To develop the understanding about the concept of Green HRM
- To study how human resource policies and practices could improve the environmental performance of organizations and
- To gain knowledge of the outcomes after adopting Green human resource management in the organizations.

METHODOLOGY

The study is primarily based upon the secondary data. For this, literature related to the topic from different databases, websites and other available sources were collected. A systematic review of collected literature was done in detail.

WHAT IS GREEN HRM?

The term Green HRM has become the buzz word within the business field at present and its significance is increasing manifold with the passage of time. This term has also its secured position as a hot topic in recent research works since the awareness on environmental management and sustainable development has been increasingly rising day by day all-round the globe. Today the topic Green HRM not only includes awareness toward environmental affairs, but also stands for the social as well as economic well-being of both the organization and the employees within a broader prospect.

Green human resource management (green HRM) refers to a set of HRM practices that organizations adopt to improve employee workplace green performance. It play an essential role in environmental management as it is an element of sustainable human resource management (SHRM). It involves undertaking environment friendly HR initiatives resulting in greater effectiveness, lower cost and better employee engagement and retention in turn. Marhatta and Adhikari (2013) and Zoogah (2011) defined green HRM is the exercise of HRM policies and practices for sustainable utilisation of resources within business organisations and usually promotes the source of environmentalism. According to Opatha and Arulrajah (2014), green HRM is defined as the process of making green employee with the use of green human resource policy and practices, and this is for the benefit of individual, society, community, and for the whole planet.

NEED FOR GREEN HRM

The “Magna Carta” on Human Environment in the first United Nation’s (International) Conference on Human Environment held in June 1972 in Stockholm declared that to defend and improve the human environment for present and future generation have become an imperative goal for mankind (Shaikh, 2010, p. 122). The corporate world is the most significant in enhancing the environment issues and the corporate has to give solution to this hazards. It helps to reduction of paper usage and the implementation of green human resource policies such as planning, recruiting, selecting, managing employees and the employee relations. It makes the environment green in the workplace. All the activities involved in the green human resource management enhance the value of the employees and the company.

HR AND SUSTAINABILITY

Sustainability is defined as opportunity for businesses to provide long lasting solutions that will help enhance the socio-economic landscape while continuing to create jobs and economic wealth well into the future. Green business practices were defined as those that addressed environmental stewardship and social responsibility. A Sustainable organization can be defined as an enterprise that simultaneously contributes economic, social, and environmental benefits- known as the “Triple bottom line”. The HR function is uniquely positioned to assist in both developing and implementing sustainability strategy. The HR function can serve as a partner in determining what is needed or what is possible in formulating corporate values and sustainability strategy. The Human resource department of a company has the capability to play a significant role in the creation of their company’s sustainability culture (Harmon, Fairfield and Wirtenberg 2010). HR will have to study to manage the whole scope of problems ranging from employee wellness, healthy, and safety workplace multiplicity. The HR staff is expected to be the only department that is efficiently skilled to modify the attitudes and behaviours of the management, managers, and employees by modifying their many Human Resource systems.

GREEN HUMAN RESOURCE AND PRACTICES

Shaikh (2010) confirmed that Green Human Resource plays an important role in organization to support the environment connected problems by accepted it, and in management viewpoint, HR policies and practices, training people and implementation of rules linked to Environment Protection. To be ecological, economical and practical at the same time is possible through by adopting Green Practices.

GREEN HRM INITIATIVES THAT CAN BE UNDERTAKEN BY THE ORGANIZATION

GREEN RECRUITMENT: To start with, HR Department can make Green/EM (Environmental Management) job descriptions for employees. As higher level executives have to take greater responsibility for green initiatives, green goals should be included in managerial job descriptions. Now organizations are giving their advertisement through their web-site. This method is very fast, cheap and easy to assess.

GREEN SELECTION: Interviews are conducted by group discussion, personal interview, and different activities and in online test. Candidates could be given preferences who are more environment friendly for an organization.

GREEN INDUCTION: Employee orientation programmes should be designed in such a way as to facilitate the integration of new employees into a culture of green consciousness. Induction programmes should highlight an organization's concern for green issues of employees like their health, safety and green working conditions.

GREEN TRAINING: Trainer should give their training on presentation or by video conferencing. Trainer should use more soft materials rather than printed handouts to reduce the use of paper. Sarkaris (2010) suggested that employees presented better training on environmental training programme. Daily (2007) suggested Green training will help the employees to identify the challenges of green HR principles.

GREEN PERFORMANCE APPRAISAL: Performance management systems should be developed to include 'green' targets in the key performance areas (KPA). This can be translated into Green performance standards and Green behavior indicators which should serve as yardsticks in performance appraisal of employees at all levels.

GREEN COMPENSATION AND REWARD: Compensation and reward system should be directly linked to use of green skills. Special bonuses given to employees for their effort of less carbon foot print. Forman and Jorgensen (2001) suggested rewards help to improve employee commitment to environment management programmes.

PAPERLESS OFFICE: Most of the work in the office is managed on paper but, with introduction of IT, the consumption of paper has been reduced. Today E-business and learning have changed the methods and procedures at offices converting them into paperless offices. The practice greatly reduce the consumption of paper, the costs of paper-related actions including copying, printing, and storing, and also save the time used for searching paper documents. Jamie Garratt started Idea Rebel, a Vancouver-based digital agency in 2008, which is a complete paperless office (Borzykowski, 2013). At Idea Rebel, pay stubs are emailed to employees and notes are taken on tablet devices and whiteboards.

SAVING ELECTRICITY: Taking innovative initiatives of saving electricity by encouraging volunteering to switch off lights and fans where and whenever required.

ADVANTAGES OF GREEN HRM

Green HRM has its prime importance in the achievement of broader objectives such as cost saving, corporate social responsibility, talent acquisition and management and gaining advantage over the competition. It increases employee morale. It helps in employee retention and reduces labor turnover. It provides lucrative opportunities for quality human talent. It helps in building company image to attract good human resource. With increasing global issues, many organizations are becoming vigilant of their activities and their impact over the environment. Green management practices are also beneficial to the companies as it helps to save money and reduces ill-effects on the environment, hence avoiding much government interventions. It stimulates innovation facilitating growth, improvement in quality and enhancement of procedures and methods. It develops green learning environment in the organization.

CONCLUSION

It is not a hidden fact that the most important asset of an organization that plays an important role in managing the employees are the human resources. Green process and policies are now making their way through within the HR space complementing the existing green practices and initiatives. Green HR efforts have resulted in increased efficiencies, cost reduction, employee retention, and improved productivity, besides other tangible benefits. The effects of GHRM practices are multifaceted and constant monitoring is required to recognize their potential impact on HRM issues. The responsibility of the present generations, HR managers are to create awareness among the youngsters and among the people working for the organization about the Green HRM, Green movement, utilization of natural resources and helping the corporate to maintain proper environment, and retain the natural resources for our future generation i.e. sustainable development(Mathapati, 2013, p. 2).

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HUMAN RESOURCE ANALYTICS: THE WINDING ROAD AHEAD

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ABSTRACT

Purpose: The purpose of this paper is to identify the factors leading to overall organizational performance in the contemporary circumstances. Organizations are using the human resource analytics (HRA) for evidence-based decision making. With the advent of analytics in the business processes companies are getting huge revenues. The biggest example to this is NETFLIX, which got established in 2013 and now with the help of analytics it is earning sky-high revenues. The current paper will explore the factors which lead to overall company's growth in IT industry in India. Since, IT sector has seen a growth of around 35% every year in the past two decades and is still growing. It has not only stabilized the regional development but has also empowered the country's diverse human resources, but most importantly it has put the country on the global map. Also, the flourishing Indian economy has facilitated the IT sector to sustain its competitiveness in the global market.

Objective of the study is to identify the factors responsible for the effective decision making. The use of model- LAMP in the contemporary circumstances. The research framework proposed by Nerur, Mahapatra, & Mangalaraj in 2005 defined the three step process including data collection and compilation in step one. Followed by involvement of different stakeholders (organization & people) who work in close coordination with technology and defined processes under step two. The final step three always provides the expected value creation for the entire process within the organization. Hence, the overall organizational upliftment depends upon the smooth and realistic analytics process which helps in effective decision making. The Lamp Model: The most commonly used model for decision making by managers is the "LAMP Model". Boudreau and Ramstad (2007) and Cascio and Boudreau (2008), proposed this model with an aim to bridge the human capital decision science, to overcome the measurement challenges (e.g., strategic impact, organisational change, validity and rigour, causation, and leading indicators) of scorecards and their predecessors. The four acronym used in the model are:

- 1. Logic: Efficiency, effectiveness and impact are the three generic elements.*
- 2. Analytics: Organises the data and connect the decision framework to the scientific findings.*
- 3. Measures: Considers measures within context.*
- 4. Process: Focuses on effective knowledge management and makes the insights motivating and actionable.*

Keywords: Human Resource Analytics, Organizational Performance, IT Sector, Growth

INTRODUCTION

Out of the various professions in businesses, the reputation of the HR department is rock-bottom. This mainly may be credited to the fact that the human resource department extensively works on the traditionally tested knowledge or intuitions. It is considered to bring no success or dollars and is said to require minimal skills. But the world of commerce and economics is fast developing, replacing the human reasoning and acumen with rapidly evolving technology. This, in turn, is shifting the core of corporate decision making process from intuitions to database. Hence, the role of HR analytics comes in frame. HR Analytics is nothing but simply a transformation of the available qualitative data into quantitative terms, to further the decision making process more comprehensible. Some may call it "people analysis", "workplace analysis" or "talent analysis" indicating it to be a wholesome tool to consolidate the position of HR department, right from recruiting and placement to employee retention. HR Analysis can help find solution to problems like:

- Evaluating and solving the issue related to turnover
- Identifying the gaps between employee performance and organisation's goals.
- Human resource planning
- Compensation Management and so on.

Thus, it would be correct to say that Human Resource Analytics is an approach to turn "gut feeling" into more reliable and business comprehensive numbers. The Human Resource Management Systems have shifted from the Operations management to more strategic and data- based management. Hence the need of the hour is to

implement these statistic tools within the operations of human resource management. The points listed below would address answers to questions- what, why and how HR analytics comes in effect.

WHAT IS HR ANALYTICS?

HR analytics is an integration of statistical sciences and social sciences. It is a systematic process which involves the use of data and research for answering meaningful questions about business outcomes and thus applying scientific studies to align business development and people's attitude. It provides HR leaders with an opportunity to introspect the impact of their policies, processes and initiatives on business outcomes.

HR ANALYTICS = Statistics + Research Design + Behavioural Analysis

Thus, analytics enable HR professionals to make a strategic contribution rather than suggestions based merely on instincts. In simpler terms, HR analytics provides professionals with mechanisms to quantify social setting in the workplace and translate results into the language of business.

Every organisation, today, is spending a significant amount of its employees, from the process of recruitment to designing training and developmental programmes. The organisations have well recognised the importance of serving, maintaining and enhancing the potentials of its internal customers. But the real hurdle is investing right. In most cases, organisations make investment decisions based on either intuitions and traditional HR practices or analysis of erroneous data and hence produce unquantifiable ROI. The analysis of data, here, can assist in making practical investments and programmes. It is vital to assess employees' attitude as it enfolds the success of business. Failing to do so can severely hamper the business' validity in the long run.

WHY HR ANALYTICS?

The advantages of investing into HR Analytics are numerous. Its main aim is to direct investments towards the welfare of not only stakeholders but also the internal and external customers of an organisation. It sets a quantitative benchmark for the personnel departments. Failing to seek which can make them answerable to the senior executives. Since the basic principle underlining analytics in the field of human resources is alignment of people data and business strategies, the implementation of analytical practices can cascade decision making powers to the executive level as well. Alongside, it establishes control in the management programme and redrafts the following in case of inaccuracies. "The rapid pace of change is seeing companies undertaking transformational business models. Hence organizations need to align their workforce strategy to the organization business strategy. Organizations should clearly identify the critical skills/employee segments which are likely to drive the business plan and create a customized strategy for critical segments. Analytics plays a big role in driving evidence-based decision making to organizations," says NeerajTandon, Director, Workforce Analytics and Planning, Willis Towers Watson.

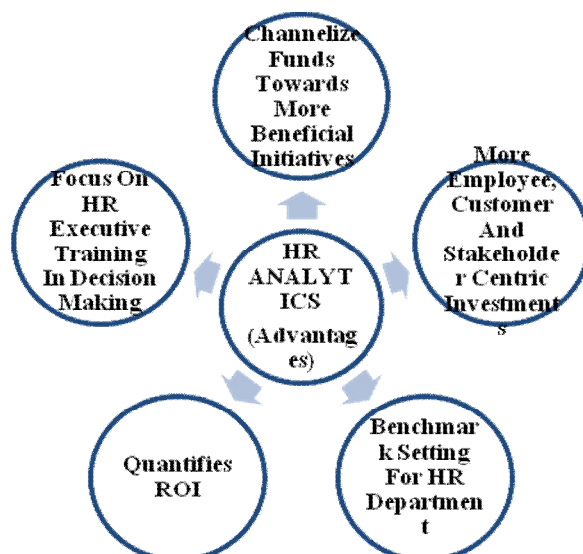


Figure-1: Advantages of HR Analytics

Source: Author's Own

A professional in the field of analytics shall calculate ROI for nearly every decision or investment. The analysis of data enable leaders to suggest evidence based proposals in order to step ahead from people-perspective, rather than exhibiting results of HR processes in traditional qualitative form that may prove to be business-unfriendly, it scales down these conclusion in the form of number's that can be well comprehended by the

business. Chris Havrilla, VP of HR Technology and Solution Provider Research of Bersin, Deloitte Consulting LLP argues, “Transparency, including sharing how the data will be used, is critical to building trust and providing a positive experience for all stakeholders. Companies also need to ensure that people analytics is foundational to their culture, valuing data as an asset and committing to make data-driven decisions.” This, in long run, will help define which stimulant works best for a particular section of employees.

HOW TO MAKE HR ANALYTICS STRATEGIC?

For human resource leaders the science of analytics revolves around developing efficiency metrics or scorecards, highlighting gaps in survey score, comparing organisation’s outcomes with the outside world or correlating people’s data with business data. But in reality, these form the primary step of data analysis in human resources. The figure (ii) illustrates various aspects to be considered while formulating business strategy incorporating the techniques of HR Analytics:



Figure-2: the facets of formulation of business strategy

Source: Author's Own

The Lamp Framework

a) LAMP Model

The most commonly used model for decision making by managers is the “LAMP Model”. Boudreau and Ramstad (2007) and Cascio and Boudreau (2008), proposed this model with an aim to bridge the human capital decision science, to overcome the measurement challenges (e.g., strategic impact, organisational change, validity and rigour, causation, and leading indicators) of scorecards and their predecessors. The four acronym used in the model are:

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4. Process: focuses on effective knowledge management and makes the insights motivating and actionable

Figure 1: LAMP Model

Source: Chrysler-Fox (2011) adapted from Boudreau and Ramstad (2007)

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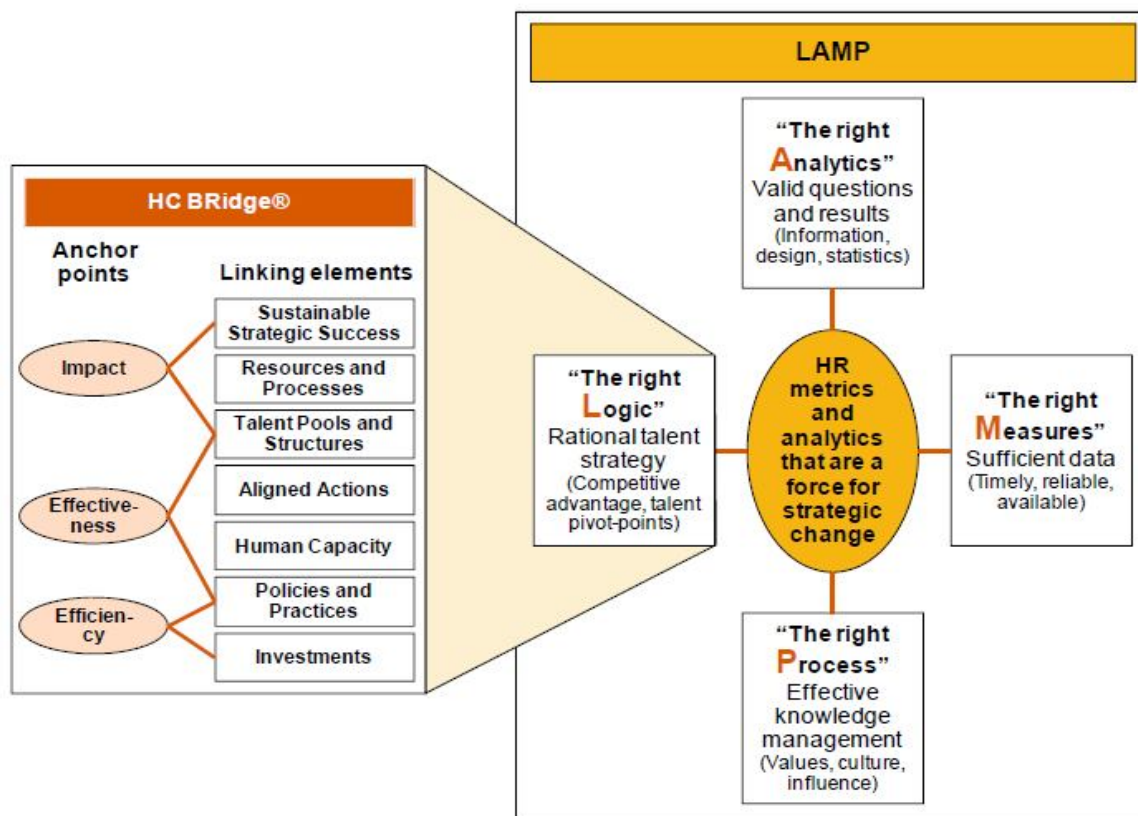


Figure-3: LAMP Model

Source: Chrysler-Fox (2011) adapted from Boudreau and Ramstad (2007)

ADOPTION OF HR ANALYTICS IN THE CORPORATE WORLD

Companies, like Google, Shell, Aramco, PepsiCo, HSBC, have recently implemented human capital analytics as a way to bring more alertness and thoughtfulness to the practice of management. A survey done by Deloitte in 2017 found that 71 percent of companies see people analytics as a high priority in their organizations, however, the progress has been slow. While a latest 2019 study by KPMG says, analytics initiatives remain a low priority among HR leaders and their businesses (PeopleMatters, January 2019).

CASE STUDY

One of the pioneers in the IT sector is NETFLIX. Netflix has been enjoying the spur of success for quite some time now. In 2013 its stock increased more than three times, won three Emmy awards, and its U.S. subscriber base grew to 29 million approx. One of the major reasons for this exceptional success is Netflix's culture and approach to talent. The company follows the principles of integrity, communication, respect and excellence.

- Netflix adheres to the policy of hiring and rewarding only "A" personnel, i.e., the company firmly believes in incorporated a resourceful workforce rather than a subpar individual. Now, most companies spend a lot of time and resources in formulating strong HR policies but invest little hours in implying logics and analysis to filter the highly efficient workforce. By carefully hiring only those who understand companies' interest and drive to perform, better result can be drawn at lower cost.
- Netflix institutes an informal 360-degree review system. The software system involves signed feedback and some departments may even conduct 360's face-to-face. The system is direct and clearly maps out an individual's performance over time. It is done more frequently unlike more companies, where time consuming annual reviews are conducted.
- As Netflix moved from DVD's to a streaming service, it became a huge hurdle for them to identify people deeply experience with cloud services as most of their data was now stored on cloud. This is where HR analytics comes in handy. Analysing the current workforce with upgrading technologies made it possible to fetch right people whose skills shall match their needs.

Thus, Netflix propositioned its workforce as a business innovator first and as an HR professional last.

Another example of IBM can also be inferred. According to Diane Gherson, SVP and CHRO at IBM, HR was much built upon intuitions but with Analytics in picture, the discussion changes (PeopleMatters' Report, 2019),

At IBM the major focus is at empowerment of the managers. The performance reviews are provided throughout the year, emphasising on five elements: Skills, Performance, Responsibility, Innovation and Client success. 'With Analytics, we can do more than mining huge amounts of data, we can also offer more granular, customised solutions, including more flexible responses. Using outcome data like revenues, productivity, or employee engagement, it's easier to understand the probability of success of certain decisions', says Gherson. During 2009, the company suffered high level of attrition, making the company spend more on hiring replacements. In such a scenario, IBM relied on Analytics. Data was analysed to identify certain characteristics in certain clusters. Salary hike was offered to employees having high propensity to quit. The company was able to save about US\$300million. Gherson suggested that apart from increase in salary, there are many other triggers that may aid the situation and that this can be easily identified using HR Analytics.

Despite the numerous similar success stories, the growth of HR Analytics has still not experienced great change. On the contrary, McKinsey Global Institute estimates that companies using a portfolio of HR-analytics solutions could visualize a growth of 275 basis points in profit margins, on an average, by 2025.

As per the reports by PeopleMatters, India witnesses a 77% growth in HR analytics professionals, according to a report by LinkedIn - "The Rise of Analytics in HR: An era of Talent Intelligence." Data shows that in India, 14 percent of total jobs in HR are analytics based which has further led to the rise of HR analytics professionals in India. In the past five years, there has been a 77 percent increase in specialized analytics professionals in HR in India. These professionals are known to fill various specialized job titles such as 'Data Scientist', 'Talent Analytics Director' and 'Diversity Analytics Specialist'.

REVIEW OF LITERATURE

The debate about the importance of human resource analytics has evolved noticeably over the past decade. But the technique of talent analysis is still in the phase of trials and testing. "A recent study by Deloitte found that although 75% of surveyed companies believed that using HCA is important for business performance, only 8% viewed their organizational capabilities in this area as "strong" (Deloitte, 2015). Several consultancy reports and numerous LinkedIn blogs concur: despite the vastness of available corporate data, organizations have been slow to foster their HCA capabilities. Those that have focused on such development have struggled to move from operational reporting for benchmarking and decision making to analytics in the form of statistical analysis, development of 'people models,' analysis of dimensions to understand cause and deliver of actionable solutions (Bersin et al., 2014). A study of 255 European business and analytics professionals confirms that despite progress with operational reporting and strategic workforce planning, most organizations have yet to fully develop their analytical competencies (Kassim and Nagy, 2015)" (Boudreau, J., & Cascio, W., 2017). Analytics, apart from the application of statistics, also involves a mental framework and logical understanding of the information at hand and the problems that need to be solved. By identifying the goals of HR analytics efforts, obtaining executive support, evaluating the presence and accessibility of reliable data, determining if internal needs meet analytical demands, outsourcing to gather required talent if it is not found in-house, and developing a plan for using the results of an analysis, a firm can position itself to find success through the use of data analysis. The potential for the additional resources afforded by evidence-based practice could lead to compounded benefits in the future. But the practical application of theories of HR Analytics still remains a quandary. Despite the skepticism some companies have proved to enhance their effectiveness to drive business outcomes using HR analytics. The findings of a recent study by SHRM (2016) indicate that 79% of organizations with 10,000 employees or more already have data analysis roles in HR, and interest in people analytics continues to rise (Green, D., 2017). The integration of data and judgment have resulted better problem solving and thus a significant increase in the effectiveness of the organization. According to John Boudreau & Wayne Cascio, the emergence of "internet of things" has resulted in much more generation of data of people at work; thus forming a strong foundation for the use of analytics. Wayne F. Cascio¹ and Ramiro Montealegre suggested the relation between people, work and technology. They stated that as an organizational behavior researcher, one must understand that the work and organization does not function without people and as the era of engineering and applied science progress, the impact of technology on organization and in turn on people must be taken into accounts.

Though the application of analytics into the business is essential and beneficial but yet it is believed to become another management fad due to its sluggish adoption. Thomas Rasmussen stated that a large parts of HR analytics, however, are not new and people have talked about HR metrics, utility analysis, HR scorecards, HR ROI (return on investment), personnel economics, and evidence-based management for years without a large noticeable step-change in the business impact of HR. The reasons for the same may comprise of:

- Lack of analytics about analytics.

- Mean/end inversion or data fetish
- Academic mindset in a business setting
- HR analytics run from an HR Center-of-Expertise (CoE).
- A journalistic approach to HR analytics. (Rasmussen, T., & Ulrich, D., 2015)

Thus, HR Analytics by and large is still in its infancy. HR Analytics are further behind what is reasonable to expect and where it should be because:

- i. Maturity- Such reasons include lack of the implementation of good software solutions, bad data/lack of proper data, too few resources as well as lack of organizational wide buy-in.
- ii. Mindset- the major problem is to find and convert the right information into strategic actionable knowledge.
- iii. Organisation- Many HR Analytics functions have been moved around in HR departments in re-organization initiatives as organizations have tried to understand where HR Analytics is best fitted within HR. It creates confusion, lack of permanent ownership and identity issues for the people involved.
- iv. Competencies- Lack of varied competencies at hand (Morten Kamp Andersen, 2017).

HR analytics has too often taken an “inside-out,” HR-centric, and academic approach being governed by a Center-of-Expertise (CoE) distant from the business. A shift towards an “outside-in” approach with a focus on actionable, high-impact analytics is needed. This development is accelerated by technology, which is rapidly consolidating the analytics landscape. This shift enables HR analytics to be taken out of HR and become part of existing end-to-end business analytics, where human resources is just one element in the value chains analyzed (Rasmussen, T., & Ulrich, D., 2015).

FINAL THOUGHT: SCOPE FOR FUTURE RESEARCH

Even though the concept of HR Analytics has been given a lot of importance lately, the two roads- academics and practice seem far diverged. It is evident that the top notch brands have realized the need of data-driven HR department but the impact of HRA over most of the corporate is still far from change demanding. The reason for the same may be concluded as,

- Lack of well-equipped people in the HR department.
- Unavailability of tools, and
- Failing to use analytics for people and their skills.

The need, today, is to enhance the quality of the HR department in order to enhance the quality of the organization. The need to incorporate data, statistics and analysis in the system is paramount.

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COMPARATIVE ANALYSIS OF PERFORMANCE OF MUTUAL FUNDS: A STUDY WITH REFERENCE TO PROMINENT EQUITY LINKED SAVINGS SCHEMES

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ABSTRACT

Mutual funds are considered to be an ideal investment alternative for common investors. Mutual funds are professionally managed, transparent and affordable, and at the same time offer wide range of schemes. They have better return potential and at the same time they reduce risk through diversification of portfolio. One popular scheme of mutual funds is Equity Linked Savings Scheme or ELSS. ELSS, also known as Tax Saving Scheme, not only generates higher returns at lower risk through diversified equity investment but also offers tax benefit under section 80C of Indian Income Tax Act 1961. It also has the least lock-in period of 3 years out of all the investments that qualify for tax benefit under section 80C.

This study is an attempt to compare the performance of prominent equity linked saving schemes on the basis of return generated by them and risk that they carry. Performance of ten prominent tax saving schemes has been analyzed for this purpose over a period of five years. Their performance has also been compared against that of BSE 200 and Nifty 500. Researchers have also tried to find out whether there is any significant difference in the performance of these funds or not. The study reveals that these funds have generated good returns over the period of time and there is no significant difference between these funds as far as their returns are concerned.

Keywords: Mutual Funds, Equity Linked Savings Schemes, Return, Risk, BSE 200, Nifty 500

1. INTRODUCTION

With the rapid growth of Indian capital market, investments in financial assets also increased rapidly. In the past, investors (particularly small investors) had limited investment options e.g. shares, bonds and debentures, post office deposits, and bank FDs etc. But in recent times investors have got lot more avenues for this purpose and mutual funds are one of them.

According to Weston J Fred and Brigham, Eugene, F 'Mutual funds are corporations which accept dollars to buy stocks, long term bond, short term debt instruments issued by business or Government Units, These corporations pool fund and thus reduce risk by diversification'. So it is one of the preferred investment avenues for investors as it provides the opportunity to invest in a professionally managed and well-diversified portfolio.

In the post economic reform period, a new picture emerged in the Indian mutual fund industry-viz. the entry of private sector mutual funds. Consequently, a large number of mutual funds with even larger number of schemes surfaced out. Against this backdrop, the investors are concerned about choice criteria of the funds. Evaluation of past performance is crucial for both the investors and the fund managers. Proper evaluation help the investors to decide the level of investment in various schemes by estimating the amount of return that has been generated by the fund and the level of risk associated with it over a period. It enables the fund managers to identify strengths and weaknesses of these schemes, which help them to take improved decisions in future.

This research paper is an attempt to analyze the performance of prominent equity linked savings schemes (ELSS) based on returns generated by them over a period of five years and the risk associated with them. Their performance has also been compared against that of *BSE 200* and *Nifty 500*. Researchers have also tried to find out whether there is any significant difference in the performance of these funds or not.

ELSS, also known as Tax Saving Scheme, not only generates higher returns at lower risk through diversified equity investment but also offers tax benefit under section 80C of Indian Income Tax Act 1961. It also has the least lock-in period of 3 years out of all the investments that qualify for tax benefit under section 80C. In an ELSS, the corpus is mainly invested in high growth equity shares. This type of fund is ideal for investors who have long-term outlook seeking growth over a period.

2. LITERATURE REVIEW

A large number of researchers and analysts have conducted various studies related to performance of various mutual fund schemes. Some important studies are mentioned below:

Nandhini and Rathnamani (2017) conducted a study on the performance of equity mutual funds (with special reference to equity large cap and mid cap mutual funds). The study focuses on the performance of selected equity large and small cap mutual funds and it was analyzed with risk return measurement tools such as alpha, beta, standard deviation and Sharpe ratio.

Agarwal, Shivangi and Mirza, Nawazish (2017) conducted a study on the risk-adjusted performance of mutual fund industry in India. The research included measuring the performance of selected mutual schemes based on risk and return and comparing the performance of the selected schemes with benchmark index to see whether the scheme is outperforming or underperforming the benchmark. In addition, funds were ranked based on the performance and strategies were suggested to invest in a mutual fund.

Pandow (2017) conducted a study on Performance of Mutual Funds in India. The study advocates that the industry be confronted with number of challenges like low penetration ratio, lack of product differentiation, lack of investor awareness and ability to communicate value to customers, lack of interest of retail investors towards mutual funds and evolving nature of the industry. Based on the analysis the study suggests that if the industry has to utilize its potential fully, it has to address these challenges.

Rangasamy and Priya (2017) to find out the performance evaluation of various mutual fund schemes conducted a study. The main objectives of the study was to analyze the risk and return of the schemes and to evaluate the performance of equity, debt, balanced schemes of selected mutual funds using Treynor, Sharpe, Jensen measure etc. The study was an attempt to evaluate various mutual fund schemes with respect to four financial years (2012-2016).

Damayanti and Cintyawati (2015) conducted a study, which aims to determine factors that affect the performance of mutual funds, especially equity mutual funds. There are several factors that are considered to affect the performance of mutual funds such as: asset under management (AUM), fund age, past performance, asset allocation, turn of the year effect, equity funds with blue chip or non-blue chip stocks, equity funds owned by insurance or non-insurance companies, external factors such as the rupee against the US dollar (exchange rate), and investors behavior etc.

Toyoo et al. (2014) conducted a Trade-off Study of Equity Mutual Fund for Small and Medium Enterprise. The purpose of the research was focused on equity mutual fund in Indonesia in 2007-2013. From equity mutual fund that was active at 2007-2013, the research examined whether selected factors influence the performance of equity mutual funds or not. The research also investigates which equity mutual fund's performance exceeded performance of Indonesia stock index (IHSG). The paper aims to increase earning from the cash position through investment strategy.

Choudhary et al. (2014) wrote a research paper on "Performance evaluation of mutual funds: a study of selected diversified equity mutual funds in India". Through this study, an attempt has been made to analyze the performance of the growth oriented equity diversified schemes based on return and risk evaluation. The analysis was achieved by assessing various financial tests like Average Return, Sharpe Ratio, Treynor Ratio, Standard Deviation, Beta and Coefficient of Determination.

Husain and Sharma (2014) analyzed the performance of equity mutual funds industry against risk free rate and benchmark return over the period of five years. The risk return analysis revealed that out of 10 schemes 3 had underperformed the market while 7 were found to have lower total risk than the market and all the schemes have given returns higher than risk free rates. The result of regression analysis suggested that benchmark market index return has statistically significant impact on mutual fund return at 5% level of significance.

Narayanasamy and Rathnamani (2013) in their study mainly focused on the performance of selected equity large cap mutual fund schemes in terms of risk- return relationship. The main objective of the research work was to analysis financial performance of selected mutual fund schemes through the statistical parameters such as alpha, beta, standard deviation, r-squared, Sharpe ratio etc.

Kumar and Kumar (2012) conducted a research with the prominent objective to determine the appropriate Benchmark Index that consists of appropriate asset classes of securities to pave the way for precise estimation. The study considers Tax Planning (Equity Linked Savings Scheme-ELSS) funds and selected indices of National Stock Exchange and Bombay Stock Exchange. The study reveals that broad based indices that consist of Large cap, Mid cap, and Small cap asset classes would be an appropriate benchmark for evaluating the performance of ELSS funds.

Nimalathasan and Gandhi (2012) wrote an article focusing on the financial performance analysis of mutual fund schemes (equity diversified schemes and equity mid-cap schemes) of selected banks. The main objective of the research work was to analyze the financial performance of selected mutual fund schemes through the statistical parameters (Standard Deviation, Beta and Alpha) and ratio analysis (Sharpe Ratio, Treynor Ratio, Jensen Ratio, and Information Ratio).

Philips and Kinniry (2010) conducted a research based on Mutual fund ratings and future performance. Their paper addresses two questions surrounding mutual fund rating systems. First, why index funds tend to receive an average rating based on relative quantitative metrics and second, whether a given performance rating offers actionable information. Specifically, paper focused at whether higher-rated funds can be expected to outperform lower-rated funds in the future.

Bassoa and Funarib (2001) proposed a model, which can be used to define a measure of the relative performance of mutual funds that takes into, account all the different aspects considered by the traditional performance indexes. The model adopts a data envelopment analysis approach. The set of outputs taken into account comprises the portfolio expected return, the traditional performance indexes and a stochastic dominance indicator.

3. OBJECTIVES OF STUDY

This study has been conducted keeping in mind the following objectives:

1. To analyze the performance of prominent equity linked saving schemes
2. To evaluate the performance of prominent equity linked saving schemes vis-à-vis two most important benchmark indices of India i.e. *BSE 200* and *Nifty 500*
3. To examine whether these funds are significantly different in terms of the return generated by them or not.

4. RESEARCH METHODOLOGY

For the purpose of study, following 10 prominent equity linked saving schemes have been selected:

- i. Aditya Birla Sun Life Tax Relief '96 (Regular)
- ii. Aditya Birla Sun Life Tax Relief '96 (Direct)
- iii. Invesco India Tax Plan (Regular)
- iv. Invesco India Tax Plan (Direct)
- v. Taurus Tax Shield (Regular)
- vi. Taurus Tax Shield (Direct)
- vii. JM Tax Gain Fund (Direct)
- viii. JM Tax Gain Fund (Regular)
- ix. ICICI Prudential Long Term Equity Fund (Direct)
- x. L&T Tax Advantage Fund (Regular)

BSE 200 and Nifty500 have been chosen as the benchmark indices to judge the performance of the selected tax saving mutual fund schemes

Relevant data have been collected through authorized websites for a period of five years ranging from 2013 to 2018.

4.1 Calculation of Return

For the purpose of this research work monthly return of each mutual fund scheme under study has been calculated. In order to calculate monthly return following two Net asset value of the fund is considered

- Opening NAV of the month and
- Closing NAV of the month

Formula for calculating monthly return:

$$\frac{(\text{Closing NAV of the month} - \text{Opening NAV of the month})}{\text{Opening NAV of the month}} \times 100$$

4.2 Calculation of Risk

Risk is calculated on the basis of monthly return of the mutual fund scheme under study. Risk associated with mutual fund is calculated by using standard deviation as a Measure of risk.

Total risk of a mutual fund scheme is measured by calculating Standard deviation of the monthly returns using the below mention formula:

Formula:

$$SD = \sqrt{\frac{1}{n-1} \sum_{t=1}^n (R_t - \bar{R})^2}$$

SD= standard deviation

n= number of monthly returns

R_t = monthly returns of the mutual fund

\bar{R} = mean return of the mutual fund

4.2 Statistical Tests Used in the Study

Excel and R-Programming has been used for data analysis in the study. Descriptive statistics of all the three variables have been presented. One-way Analysis of Variance (Anova) and Two-Sample t-test is used for the comparison of mutual funds.

4.3 Hypotheses in the study

Following are the hypotheses for the study:

H_{01} : There is no significant difference within the returns of various ELSSs mutual funds.

H_{02} : There is no significant difference between the returns of ELSSs mutual funds and benchmark return of NIFTY 500.

H_{03} : There is no significant difference between the returns of ELSSs mutual funds and benchmark return of BSE 200.

5. RESULT ANALYSIS AND FINDINGS

Table 1: Return and Risk of Selected Equity Linked Saving Schemes (Monthly Calculation)

Sr. No	Mutual Funds (ELSS)	Average Return (%)	Total Risk (SD)%
1	Aditya Birla Sun Life Tax Relief '96 (Regular)	0.72	4.08
2	Aditya Birla Sun Life Tax Relief '96 (Direct)	0.77	4.09
3	Invesco India Tax Plan (Regular)	1.14	4.09
4	Invesco India Tax Plan (Direct)	1.09	4.1
5	Taurus Tax Shield (Regular)	1.06	4.19
6	Taurus Tax Shield (Direct)	0.89	4.22
7	JM Tax Gain Fund (Direct)	0.83	4.73
8	JM Tax Gain Fund (Regular)	1.09	4.7
9	ICICI Prudential Long Term Equity Fund (Direct)	1.12	3.99
10	L&T Tax Advantage Fund (Regular)	1.03	3.9

Source: These are the results based on calculations with the help of monthly data for the selected time period (January 01, 2013 to December 31, 2018)

Interpretation

It is clear from the table that the minimum annual return has been generated by Aditya Birla Sun Life Tax Relief '96 (Regular) Fund and it is 8.64% while the maximum return has been generated by Invesco India Tax Plan (Regular) and it comes out to be 13.68%. Other funds have given a return between these two values. These returns are good from any perspective. But at the same time, we shouldn't overlook the fact that there is a risk associated with these returns.

Table-2: Descriptive Statistics of Variables

Average Return		Risk	
Mean	0.009737971	Mean	0.04209
Standard Error	0.000494487	Standard Error	0.00089025
Median	0.010412902	Median	0.04095
Standard Deviation	0.001563707	Standard Deviation	0.002815217
Minimum	0.007150346	Minimum	0.039

Maximum	0.011404269	Maximum	0.0473
Sum	0.097379709	Sum	0.4209
Count	10	Count	10

One way ANOVA is applied to test whether there is significant difference within the 10 mutual funds of equity linked saving schemes or not.

Table 3: Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
MF 1	72	0.514825	0.00715	0.001765		
MF 2	72	0.556138	0.007724	0.001763		
MF 3	72	0.821107	0.011404	0.001557		
MF 4	72	0.781396	0.010853	0.001552		
MF 5	72	0.760123	0.010557	0.001936		
MF 6	72	0.64727	0.00899	0.002388		
MF 7	72	0.596273	0.008282	0.00237		
MF 8	72	0.789448	0.010965	0.001637		
MF 9	72	0.805423	0.011186	0.001943		
MF 10	72	0.739335	0.010269	0.001473		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.001584	9	0.000176	0.095761	0.99969	1.893051
Within Groups	1.30531	710	0.001838			
Total	1.306894	719				

Interpretation

From the above table, it can be seen that within the category of equity linked saving mutual funds there is no statistically significant difference, i.e. all the ten mutual funds in the this category provides more or less same amount of return, so one can invest in anyone of these mutual funds.

Two sample t-test is applied to test whether the observed values of the variables of these ten mutual funds are significantly different from the standard values or not. The following result has been obtained using R-programming:

Table 4: Two Sample t-test Results of the NIFTY 500 and Average return of Equity Linked Mutual Fund Schemes

	NIFTY 500	Average ELSS
Mean	0.008068506	0.009967413
95% Confidence Interval	-0.01550155	0.01170374
Observations	72	72
Hypothesized Mean Difference	0	
df	141.9	
t Stat	-0.27596	
p-value	0.783	

Table 5: Two Sample t-test Results of the BSE 200 and Average return of Equity Linked Mutual Fund Schemes

	BSE 200	Average ELSS
Mean	0.007777114	0.009967413
95% Confidence Interval	-0.01562713	0.01124654
Observations	72	72
Hypothesized Mean Difference	0	
df	142	

t Stat	-0.32223	
p-value	0.7477	

Interpretation

From the table 4 & 5, it can be seen that at 5% level of significance the p-value > 0.05, therefore we accept null hypothesis and conclude that there is no statistically significant difference between standard returns of NIFTY 500 and equity linked saving mutual fund returns, and BSE 200 and equity linked savings mutual fund returns.

6. CONCLUSION

The study reveals that the ELSSs have generated good returns over the period and that too with a reasonable risk. Therefore, it is very safe to conclude that they are good investment option for an investor. They become even more attractive because they also help in tax saving.

The study also reveals that there is no significant difference between these tax saving mutual funds as far as their returns over the given period are concerned. At the same time, there is no significant difference between these funds and NIFTY 500 as well as these funds and BSE 200 in terms of their returns.

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ANALYSIS OF NPA MANAGEMENT BY SBI AND ICICI BANKS

Dr. Bhisham Kapoor¹ and Ramesh Kumar²Associate Professor¹ & Ex-Officiating Principal, Faculty of Commerce and Business Administration, M.M.H College, GhaziabadResearch Scholar², CCS University Meerut and Assistant Professor IME College, Sahibabad**ABSTRACT**

A strong banking system is very important for economy development. The failure of the banking sector may have negative impact on all sector of economy also. Non Performing Assets (NPA) is one of the major issues for banks in India. The profitability and liquidity of the banks are highly affected by the existence of NPAs in banking system. If NPA rate is high it suggests that large number of loans defaults that affect the earning capacity, Net worth and liquidity of banks. After the major economic revolution (LPG) in 1990. The government banks have performed better than private sector banks as far as the financial operations are concerned. However the position of public sector banks is not so good if Non Performing Assets (NPAs) are compared with private sector banks. As per annual report of ICRA the major credit rating agency, gross non-performing assets (GNPAs) of the banking sector are 10 per cent in March 2019 and the net NPA is 5.92 percent. The rating agency, however, cautioned that GNPA and NNPA may be higher at 12.2 per cent and 5.6 per cent, respectively in absence of effective NPA management technique which is resolution. In the present study an attempt is made to analyze the trends and position of NPAs of SBI and ICICI Banks. SBI and ICICI banks have been selected as these are largest public and private banks. In present study the main focus is on NPA and Net profits of both banks so that a relationship between NPA and profitability can be established.

Keywords: Public Sector Banks, Private Sector Banks, Gross NPAs, Net NPAs.

INTRODUCTION

The Indian banking system has witnessed major changes and has evolved considerably over the last three decades. Banks have become more and more profitable in terms of increased revenues, more foreign capital and diversification of banking operations. Reserve Bank of India the governing body for Indian banking system, continuously working for improving the functioning and performance of Indian banks in terms of capital adequacy, assets quality and provisions for NPA. But inspite of Reserve Bank of India's continuous efforts at present banks are facing major issues such as poor asset quality, inadequacy of capital and stressed balance sheets. These issues have affected the performance of the banking sector and raised questions about sustainability of banking sector in India. Today profit earning capacity is a sign of success in a competitive scenario. Profitability ensures the survival and growth and can has become the only parameter for the assessment of performance in banking as well all other sectors. Provisions for NPA are one of the major determinants of profit. Hence, for a banking sector, NPAs have become very challenging and significant. The term non-performing assets emerged in the Indian banking sector after introduction of financial sector reforms in 1992 after economic revolution in 1991. As per the recommendation of the (Narsimham Committee) on the financial system, the prudential norms on income recognition, assets classification and provisioning thereon implemented from the financial year 1992-93. These norms have brought in quantification and objectivity in the assessment and provisioning for NPAs. Public Sector Banks in India are worst affected with NPA as compared with the private sector banks. Among the public sector banks, State Bank of India has the highest amount of NPA, followed by Punjab National Bank, Bank of India, Bank of Baroda, Canara Bank and Union Bank of India. The leading private sector bank in terms of NPA is ICICI Bank followed by Axis Bank, HDFC Bank, and Jammu & Kashmir Bank, respectively.

OBJECTIVES OF RESEARCH

- ❖ To examine and compare the NPA trends of State Bank of India and ICICI for past five years.
- ❖ To compare the Net Profit, Gross NPA & Net NPA of State Bank of India and ICICI banks for last five years.
- ❖ To find the relationship between Net profit and Net NPA in case of both the banks.

LITERATURE REVIEW

Arora and Ostwal (2014) analyzed the non- performing assets of public and private sector banks in India. They also analyze the classification and comparison of loan assets of public and private sector banks. The study concluded that private sectors are improving due to decline in NPAs ratio as compared with Public sector banks.

Babu, K. N. S. and Mayya, S. R. (2016) assessed the movement of Non-performing Assets in selected cooperative banks with special reference to Dakshina Kannada District of Karnataka State. The result shows that the timely assistance to rural peoples an important role by way of giving loans and other amenities to agriculturist. But any default in repayment of loan, will affect operational efficiency and financial health of the bank.

Chatterjee, C., Mukherje, J. and Das, R. (2012) studied the influence of NPA on achievement of banks. The result shows that the NPAs have a negative influence on the achievement of capital adequacy level, funds mobilization and deployment policy, banking system credibility, productivity and overall economy.

Chatterjee, C., Mukherjee, J. and Das, R. (2012) studied that the NPAs have a negative influence on the achievement of capital adequacy level, funds mobilization and deployment policy, banking system credibility, productivity and overall economy.

Debarshand Goyal, S. (2012) emphasized on management of non-performing assets in the perspective of the public sector banks in India. Public sector bank under strict asset classification norms, use of latest technological platform based on Core Banking Solution, recovery procedures and other bank specific indicators in the context of stringent regulatory framework of the RBI.

Hosmani, P., and Hudagi, J. (2011) analyzed the effect of NPA on financial position of the banks. The researcher found that a slight improvement in the asset quality reflected by downsize in the Non-performing asset percentage. Non-performing asset is an important scale for assessing financial performance of Indian banks. The mounting value of Non-performing assets will adversely affect the financial position in term of liquidity, profitability and economic of scale in operation. Banks have to take necessary steps against degradation of good performing assets.

J., Nivethitha and G., Brindha (2014) analyzed the Management of Non-Performing Assets in Virudhunagar District Central Co-Operative Bank. The result shows that a high level of NPAs suggest high probability of a large number of loans defaults that affect the profitability and net-worth of cooperative banks and also reduces the value of the asset.

Jalan (2001) studied the internal factors of leading to NPAs within the banks. The result of the study depicts that some internal factors leading to NPAs, the onus rests with the banks themselves. This calls for organizational restructuring, improvement in managerial efficiency, skill up gradation for proper assessment of credit worthiness and a change in the attitude of the banks towards legal action which is traditionally viewed as a measure of the last resort.

Joseph, A. L. and Prakash, M. (2014) analyzed the trend of NPA level in private sector banks and public sector banks. The result shows that NPAs were draining the capital of the banks and weakening their financial strength. It was also as much a political and a financial issue. The researcher found out that NPA will affect the profitability of the Bank.

Kavitha, N. (2012) emphasized on the assessment of nonperforming assets on profitability its magnitude and impact. Credit of total advances was in the form of doubtful assets in the past and has an adverse impact on profitability of all Public Sector Banks affected at very large extent when non-performing assets work with other banking and also affect productivity and efficiency of the banking groups.

Malyadri and Sirisha (2011) examined the NPA of Public Sector banks and Private sector banks of weaker sections for the period seven years in India. The secondary data compiled from Report on Trends and Progress of Banking in India, 2004-10 which has been analyzed by statistical tool such as percentages and compound Annual Growth rate. This study reveals that the public sector banks have achieved a greater penetration compared to the private sector banks.

Miyan, Mohammad (2017) analyzed the comparative study of the NPA factor and returns on assets of the PSU banks and private sector for the period 2011-12 to 2015-16. The study was based on secondary data. Data was collected through RBI, selected four banks annual report and other secondary resources. Mean correlation and t-test was used for data analysis. the result of the study depict that NPAs had a downward trend over the study period, but Non Performing Assets of public sector banks was still higher than private sector banks. The assets of banks also had downward trends but that was much lower in PSU banks as compared to private banks.

Muniappan (2002) reported that the high level of NPAs in banks and financial institutions has been a matter of grave concern to the public as bank credit is the catalyst to the economic growth of the country and any

bottleneck in the smooth flow of credit, can cause for mounting NPAs, and can create adverse consequences on the economy.

Otwani, Anju (2017) studied the Comparison of Housing Loan between HDFC and Allahabad bank. Primary and secondary data were used for the study. Sample size was 100 respondents through random sampling method and data was collected through self-structure schedule and interview from Managers of Allahabad Bank and HDFC Bank. Secondary data was collected from Annual Reports, Manual, Research papers on Housing loan, Websites and official records of Allahabad Bank and HDFC bank. The result of the study depict that HDFC bank provided home loan at lower rate, lower processing fee with long term time period. So that customer of HDFC was more satisfied as compare to Allahabad bank.

RESEARCH METHODOLOGY

The present study is based on secondary data. The secondary data of Gross NPAs, Net NPAs and Profits of five years has been analyzed for calculating valuable results. For this study two banks SBI and ICICI have been selected for comparative study. The data for the study has been collected from various sources like annual reports of respective banks and RBI, information bulletin, newspapers and journals. For analyzing the data correlation analysis using SPSS has been done and to compare various parameters, tables have been prepared. In this research work NPA is the independent variable and net profit is the dependent variable. For current study Coefficient of correlation between NPAs and Profits of two banks have used as a major variable for measuring the relationship between profits and NPAs.

DATA ANALYSIS

Table-1: YEARLY PERCENTAGE OF GROSS NPA OF SBI & ICICI BANKS

Years	PERCENTAGE OF GROSS NPA	
	SBI	ICICI
MARCH 2014	4.95	3.03
MARCH 2015	4.25	3.78
MARCH 2016	6.50	5.21
MARCH 2017	7.90	7.89
MARCH 2018	10.91	8.84

The table-1 compares the percentage of gross NPA of SBI and ICICI bank. It is visible that for 3 consecutive years 2014, 2015 and 2016, the NPA of ICICI bank is showing an upwards trend as compared to that of SBI. However, in 2017, the gross NPA value of ICICI bank shot up to 7.98% and in the year 2018 it is 8.84% which again showing uptrend, so NPA of ICICI bank is showing uptrend which not good for profitability of ICICI bank. Whereas in first two years SBI Bank shows a good performance as in the year 2015 has decreased from 4.95% to 4.25%. But 2016 onwards gross NPA ratio of SBI is on increasing trend which is 10.91% in 2018 as compared with 6.50% in the year 2016. The gross NPA ratio of both banks SBI and ICICI show an upward trend and at present situation of SBI bank is poor.

Table-2: YEARLY PERCENTAGE OF NET NPA SBI & ICICI BANKS

Years	PERCENTAGE OF NET NPA	
	SBI	ICICI
MARCH 2014	2.57	0.97
MARCH 2015	2.12	1.61
MARCH 2016	3.81	2.67
MARCH 2017	3.71	4.89
MARCH 2018	5.73	5.03

The above table compares the percentage of net NPA of both the banks. The table clearly shows that for 3 consecutive years- 2014, 2015 and 2016, the NPA ratio of ICICI bank is showing an up trend as compared with SBI. However, again in 2017, the net NPA percentage of ICICI bank increased to 4.89 which show approx 50% increase in the ratio of NPA of ICICI bank as compared with the year 2016. In the year 2018 net NPA percentage of ICICI bank is 5.03 percent which again shows an increasing trend of NPA of ICICI bank. The performance of SBI in terms of management of NPA has improved in the years 2015. It has managed to reduce its non-performing assets means percentage of net NPA ratio. In the year 2016 net NPA ratio of SBI bank is 3.81% whereas the condition of SBI bank has improved in the year 2017 because net NPA ratio has decreased to 3.71% and it again increased in the year 2018 to 5.73 percent. If we see the net NPA ratio of both banks performance SBI bank looks better.

STATE BANK OF INDIA**Table-3: YEARLY NET PROFIT AND NET NPA OF SBI BANKS**

YEAR	NET PROFIT	NET NPA
MARCH 2014	10891	31095
MARCH 2015	13102	27591
MARCH 2016	9951	55807
MARCH 2017	10484	58277
MARCH 2018	-6545	110854
Correlation coefficient = - 0.886		

INTERPRETATION OF VALUES

The coefficient of correlation between net profit and net NPA of SBI and ICICI bank is -.886 indicating the negative relationships between the two variables i.e. arise in the net NPA will lead to a fall in the net profits. It shows there is high degree of negative correlation between the variables. Average profits of SBI bank 75798.0000 and average NPA is 56734.5000.

ICICI BANK**Table-4: YEARLY NET PROFIT AND NET NPA OF ICICI BANKS**

YEAR	NET PROFIT	NET NPA
MARCH 2014	9810	3298
MARCH 2015	11175	6256
MARCH 2016	9726	13297
MARCH 2017	9801	25451
MARCH 2018	6777	27823
Correlation coefficient = -0.49		

INTERPRETATION OF VALUES

The correlation coefficient between net profit and net NPA OF ICICI bank is -.43 indicating the negative relationships between the two variables i.e. increase in the net NPA will lead to a fall in the net profits. It shows there is moderate degree of negative correlation between the profits and net NPAs. Average profits of ICICI bank 9825.7500 and average NPA is 12475.5000.

FINDINGS

As the correlation coefficients in case of both the banks is insignificant which indicates that there are factors other than non-performing assets that affects the profitability of both banks. Some of those factors may be Net interest margins, ROA (Return on Assets), investment policies, Capital Adequacy Ratio etc. There might be a situation where in the NPAs are increasing but the increase in net interest margins is more as compared to the increase in NPAs and due to this the impact of net interest margins is more stronger on the net profits of the bank as compared to increased in NPAs. The following are the major findings were drawn from the data analysis:

- ❖ The ratios of gross NPA and net NPAs are on increasing trend for both SBI and ICICI banks.
- ❖ In the case of percentage of Gross NPA, performance of public sector bank- SBI is doing better as compared to private sector bank –ICICI bank as it is increasing with low rate.
- ❖ If we analyze Net profits of both banks. Net profits of SBI bank have been fluctuating over the last five years but if we see net profits of ICICI bank it has been consistent around to Rs. 9000 crore.
- ❖ In last five years the percentage of net NPA of SBI is showing a better position as the percentage increase of net NPAs is lesser in SBI bank as compared with the ICICI bank.
- ❖ The coefficient of correlation for SBI was found to be -0.88 that is high degree of negative correlation between net profit and net NPA of SBI bank. It shows that if NPAs of SBI will increase the net profit will decrease.
- ❖ If we see coefficient of correlation of ICICI and SBI bank which is -0.49 and -0.88, coefficient of correlation of both banks are not equal. Which shows that impact of NPAs in case of both banks are not equal.
- ❖ The important finding is that there is no linear correlation between the profits and net NPAs of both banks.

❖ Further there are some other factors which also affects the profitability of banks.

CONCLUSION

If we compare the correlation coefficients between NPA and profitability of both banks there is no linear relationship between the net profits and net NPA of SBI and ICICI banks. It means there are some other factors which are responsible for the low profitability of banking sector in India and the high level of NPA may be one of them. The management of nonperforming assets is a very important task for every bank not in India but all over the world. The very important reason for management of NPA is because of their multi-level effects on the profitability, liquidity, performance and overall position of banks. Results of study focus on the status of non-performing assets and profitability of SBI and ICICI banks.

The study concludes that non-performing assets management is a biggest challenge faced by both ICICI bank and State Bank of India as it leads to decrease in liquidity balance of the banks and creates bad debts burden on them which leads to low profitability.

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STUDY OF URBANIZATION PROCESS, TREND, PATTERN AND ITS ECONOMIC DEVELOPMENT IN INDIA

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ABSTRACT

The study attempts to understand the Urbanization Process, Trend, Pattern and its development based on census data during 1901-2011 in India. The regional changes in the distribution of urban population are significant. Results indicate that India urban population has rapidly increased from 2.58 crores in 1901 to 37.71 crores in 2011 due to rapid industrialization and rural to urban migration. Percentage urban has increased from 11% in 1901 to 31% in 2011; Urbanization in India has been relatively slow compared to many developing countries. India is at increasing stage of the process of urbanization According to 2011, Census of India; how does the spatial dispersal of economic activity expand as countries grow and develop, and what character does urbanisation play in this procedure? This paper inspects these questions in the context of India, a country which, in spite of significant economic growth, has experienced slow rates of urbanisation. We discuss how India's urban chronology and the spatial distribution of economic task and resources have developed over time (1901–2011), and consider the effect and importance of this process for growth and development. Goa is the highest urbanized state with an urban population of 62.1 percentages. The numbers of cities have increased from 9 in 1951 to 23 in 1991 and to 50 in 2011. Share of Metropolitan cities population has rapidly increased 18.9 percent in 1951 to 42.3 percent in 2011 Rapid urbanization increases many issues that might have both optimistic and pessimistic impacts on the environment. In addition, we examine and elaborate the proclamation on how government policies, institutions, and public investments have influenced the spatial distribution of resources, how these factors affect welfare, development, and growth and, where questions persist, propose a research schedule for the future. The main objective of this paper is to analyse the recent past trends and patterns of urbanization, urban economic growth, and urban equity measured by urban poverty and inequality in India. In addition, it reviews the different urban development policies and programmes which are undertaken in different Plan Periods in India. The examination shows that higher rate of urbanization is affiliated with higher economic growth, lower level of poverty and higher extent of inequality in urban India. Finally, the study recommends that Indian government needs to quicken the urbanization rate as it accord higher share of national GDP by diminishing urban poverty and inequality.

Keywords: Urbanization, Economic Growth, Inequality, Poverty, Urban India

INTRODUCTION

Urbanization is a configuration of social conversion from traditional rural societies to modern urban Communities. It is long term uninterrupted process. The objective of this paper is to understand the extent, trend and pattern of urbanization and also the economic development in the socio-economic Context in India by using data from Census of India 1901-2011, NSSO etc. It is an attempt to outline urban growth process and its outcomes which have severe inference on policy issues. Before attempting an inspection of pattern and trends in urbanization in India, it becomes essential to find the process of urbanization in India through history because what differentiate India most, from many other countries of the world is its long tradition of urbanization dating moves back as far back as about five thousand years, when Indus Valley Civilization saw the birth of the primary urban arrangements in Human history. In India, the urban tradition going on every part of these centuries and during the ancient period in our history there were many well build, big and beautiful cities in different parts of the country. In ancient and medieval times it was a cultural phenomenon and many times it happens due to political expansion because the up and down of new dynasties and kingdoms but in recent times, it is supportive of industrialization, modernisation and socio-economic transformation; hence it known as a socio-economic phenomenon. Urbanization means a process which reveals solely through secular, structural and sectoral Changes in the social, demographic, economic, environmental and technological facts of life in a given society. Urbanization is a developing concentration of population in urban unit (Kingsley Davis-1965). These changes barefaced themselves in the increasing attentiveness of population in human settlements, larger than villages, in the increasing involvement of the people in the secondary and tertiary production functions, and in the progressive Adoption of certain social attributes which are typical of traditional rural societies". Urbanization is not only go along to industrialization, but it is also interconnected with modernization and these three sometimes work in conjunction. The process of urbanization in developed countries has been very slow but continuos and it has been follow up by agricultural and industrial revolution, higher per capita income and high standard of living, whereas in developing countries the rate of urbanization is very quick and it is not

accompanied by industrialization but rapid growth of service sector in the economies (Helen Macbeth & Paul Collinson-2002). In the countries of third world urbanization hasn't been accompanied by modernization's well as industrialization, i.e. a case of pseudo urbanization" and overurbanization". In most of the developing countries, the modern process of urbanization is a recent phenomenon, and it is still unroll. As this process is still unfurl in the developing countries, it is disclosing special features. The study of different aspects of urbanization is imperative in order to have a proper understanding of the urbanization phenomena as well as policies to deal with it.

CAUSES OF URBANIZATION

Industrialization

Industrialization and modernization has expanded the employment opportunities in India. In rural sector, people's livelihood depends on agriculture. But the agriculture of India is seasonal. In natural calamities like drought situation rural people move to cities. Thus, rural people have migrated to cities for the purpose of better employment opportunities.

Social factors

There are so many social factors such as beautiful cities attraction, better and high standard of living, better educational facilities, need for high status also persuade people to migrate to cities. Urban areas are identified by sophisticated technology better infrastructure, communication, medical facilities, etc. People feel that they can lead a comfortable life in cities than villages and they migrate to cities

STUDY OBJECTIVE

The objective of this paper attempts to illustrate on the process of urbanization in India with emphasis on level, tempo of urbanization and urban morphology using Indian Census data during 1901- 2011. It will try to track down the pattern of urbanization, urban problems and various related policy issues.

1. To examine the trends of urbanization.
2. Negative and positive effects of urbanization
3. Economic development

REVIEW OF LITERATURE

Urbanization is a highly manifold phenomenon diversifying itself in a multi-functional space. This process enclose the margins of many disciplines like economics, sociology, demography, politic geography, environmental sciences and many other federal disciplines. The computation of level of urbanization simply includes the estimation of the percentage of urban population in cities and towns of a described criterion. However, the procedures bringing about the focus of population into cities and towns of different sizes are not easy to summarize and measured. The literature on urbanization as a procedure and its spatial demonstration in terms of levels of urbanization has been tremendously varied and intensive, hi India, though urbanization is a current phenomenon, is facing serious problems as it is arising out of more tertiary or allied services than the secondary sector itself. In face of the extensive literature available, only a brief resume could be attempted.

A. D. Mulik, (1989) studied the evolution, spatial and temporal patterns of urbanization, distribution of urban settlement, functional classification of towns and centrality and hierarchy of urban centres of South Maharashtra.

A. K. Singh (2007) (in his Ph.D. thesis entitled 'Patterns and Process of Urban Development in Jharkhand: A Case Study of Ranchi City') examined the Patterns and Trends of Urbanization, Municipal Finance, Urban Infrastructure and Services in Jharkhand. He evaluated growth of Ranchi city from 1834 to 1991.

Barai Daksha (1974), in his article entitled investigates the spatial distribution and rank-size relationship of the urban centres of settlements in Tamil Nadu state.

C. D. Deshpande (1941) studied the cities and towns of Bombay province and his book name 'Shahare' gives historical perspective, aspects and growth of urban centres in Maharashtra.

C. U. Bhore (2012) in his Ph.D. thesis entitled 'A Study of Urbanization in Aurangabad City' studied the Socio-Economic Characteristics, Development of Industries and Infrastructural Facilities in Aurangabad City with respect to the urbanization.

D. R. Khullar (2014) examined the urban settlement and trends in urbanization in India from 1901 to 2011 in his books entitled "India A Comprehensive Geography". He demarcates development of Indian cities in three periods; they are ancient and medieval period, British period and post-independence period. There are three

phase of urbanization in India; the period of slow urbanization, period of medium urbanization and period of rapid urbanization. He also investigates the morphology of Indian cities, functional classification, conurbations, urban sprawl, slums and problems of urbanization in India.

Gupta (1989) examined the relationship between urbanization industrialization and rural development, of the major Indian states based on the Census 1981. He had selected ten variables to determine industrial, economic and technological development of the Indian states.

H. G. Rai (1989), in his Ph.D. thesis entitled 'Urban Growth Trend and Pattern of urban development in Madhya Pradesh' studied the socio-economic characteristic, growth, distribution, migration, rank size rule and spatial relationships, hierarchy and levels of urbanization in Madhya Pradesh based on the data of Census hierarchy and levels of urbanization in Madhya Pradesh based on the data of Census Report, Madhya Pradesh.

K. L. Datta divided India into five urban zones based on population density, which are North Indian plains, Southern India, Mumbai - Ahmadabad, Krishna - Godavari delta, Upper Krishna basin and Island region.

K. N. Singh (1962) (in his Ph.D. thesis) examined the evolution, morphology, functional classification and hierarchy of rural and urban centers in eastern Uttar Pradesh. According to him, the centrality is based on the number of persons dependent upon commerce.

K. R. Dixit (1970) (in his article 'Evolution of cities in Maharashtra') studied the evolution, historical and political aspect of towns. he also examined the various urban aspects of Bombay in his Ph.D. work.

L. N. Verma (2014) in his book entitled "Urban Geography"; he summarized the research work done of other scholars and researchers done in the India and World. He gives detail explanation of urbanization in world and India, classification of towns, central place system, rank size rule, urban primacy, metropolises, urban problems, CBD, city region and urban planning.

M. B. Mugali (2013) in his Ph.D. thesis 'Urban Amenities and the Poor: A Case Study of Belgaum City' analysed the trend and pattern of urban growth and poverty in India, urbanization pattern in Karnataka and slum environment in Belgaum city. **M. S. Vishwanath** examined the growth pattern and hierarchy of urban centres in Mysore based on the population of commerce.

Majid Husain (2015) in his book entitled "Human Geography", gives brief pictures of level and trend of urbanization, mega cities, metropolitan areas, slum population and salient features of Indian urbanization.

O. P. Singh (1969), distinguished the relative and absolute centrality index based on non-agriculture population and commercial population of the towns.

R. Bhalla (2000) (in his Ph.D. thesis entitled 'Urbanization in Post Independence India - A Comparative Study of Punjab and Haryana Upto 1991') examined the urban pattern, inner pattern and factors influencing the urbanization in Punjab and Haryana states.

R. C. Chandna (2014) in his book "Geography of Population- Concepts Determinants and Patterns" gives detail picture of urbanization process of World and India. According to him, the privatizations, globalization, mushrooming of higher technical institutes in India is signal of vast expansion of tertiary and quaternary services.

S. B. Jadhav (2007) (in his thesis entitled "A study of changing of urban settlement in Marathwada after Independence",) examined the evolution of urban settlement, urbanization and urban growth, spatial distribution of urban settlement, occupational structure, functional classification, centrality, hierarchy and morphology of urban settlement in Marathwada region.

S. D. Maurya (2015) in his book entitled "Human Geography" explain concepts of town and urban area, origin of towns and cities, classification towns, functional classification of towns, urban hierarchy, urban morphology, pattern of urbanization in India and World. He differentiate the countries of world based on level of urbanization in very highly, highly, medium and less urbanized countries. The spatial pattern of urbanization in India is divided into three-class viz. high, medium and less urbanized region.

S. Parveen (2002) (in his Ph.D. thesis entitled 'Levels of Urbanization in Uttar Pradesh') examined the demographic, economic and social aspects of urbanization. In this aspect, he studied percentage of urban population, density, literacy, sex ratio, migration, active age group, occupational structure, dependency ratio and educational levels of urban population of Uttar Pradesh.

V. S. Dhaneishwar (2004) (in his Ph.D. thesis entitled ‘Regional Disparities in the Levels of Urbanization in Gulbarga Division: A Drought Prone Division’) studied 27 Origin, Growth and Evolution, Size and Spacing of Urban Centres, Trends of Urbanization and Disparities in the Levels of Urbanization in Gulbarga division of Karnataka state.

IMPORTANCE OF STUDY OF URBANIZATION:

It is pertinent to identify the main issues which are concern with the process of urbanization in India another developing countries as well. These are economic, demographic, Political, social and Cultural. Urbanization has been observed as insignificant factor in the areas of economic transformation, arranging the breakdown of the antique order and Taking societies to higher levels of social emergence. Urbanization is innate connected and irreversible enlaced with the development process, as a crucial strand in the contemporary economic system. At that time, some scholars argue that “urbanization is not merely of industrialization, but accompanying of the whole gamut of factors underlying the process of economic growth and social change.

URBAN DEFINITION

Urbanization in India has been comparatively slow during the last century the period as compared With other developing countries. In India the definition of “Urban” endure increase or decrease same for the period 1901-1951. However in the 1961 Census several modifications were made, and the definition of „town“ adopted for the 1961 Census was much increase rigorous and further, this new definition was followed all over the country uniformly. From 1981 onwards while calculating the proportion of workers in non agricultural activities, the workers in occupation of fishing, livestock, hunting, planting and orchards have been involved in agricultural workers whereas such workers were involved the category of non-agricultural worker at the time of 1961 and 1971 Censuses. The Census of India identified all those Settlements as urban which

- Likewise have a statutory status like municipal committee/corporation/notified Area committee/cantonment board, estate office, etc.
- or fulfil all the following three conditions concurrently;
 - (i) A population of more than 5000;
 - (ii) More than 75 percent of the male category working population is engaged in non-agricultural Activities; and
 - (iii) Population density is more than 400 persons per square kilometre

In some cases, the directors of census functions in states or union territories, in consultation with the related state governments, union territory administration and the census commissioner of India, were permit to include some places having different urban features within the urban category even if such places did not satisfy all the criteria mentioned earlier. While the Census of India applies the criteria of demographic and economic in identifying towns at every census, it is the state governments that decide on the civic status of the In some cases, the directors of census operations in states or union territories, in consultation with the concerned state governments, union territory Administration and the census commissioner of India, were permit to include some places having distinct urban characteristics within the urban category even if such places did not Strictly satisfy all the criteria mentioned earlier. While the Census of India implies the demographic and economic criteria in identifying towns at all census, it is the state governments that decide on the civic status of the qualify as towns in the census as per the first criteria. In every census, many new towns are added to or removed from the roster of towns if they do not satisfy the earlier-mentioned criteria. As many urban residents also live outside the municipal boundary, the Indian Census uses the concept of an urban agglomeration“ (UA) to measure urban population at the town and city level. A UA consists of the population of the core urban centre living within its municipal boundary, as well as the population of contiguous towns and adjoining urban outgrowths (OGs). OGs are areas around a core city or a statutory town that are fairly large and already urbanized such as a railway colony, university campus, port area, military camp, among other examples, but are not involved within the municipal boundary of the key city or town. The municipal boundaries are also flexible from time to time as decided by the state government, but it is a time-consuming process as notification has to go through the offices of Deputy Commissioners And District Magistrates for due processing. However, in the absence of changes in the municipal boundaries, the application of the concepts of UA and OG by the Census takes into account any spill over of urban population outside the municipal boundary.

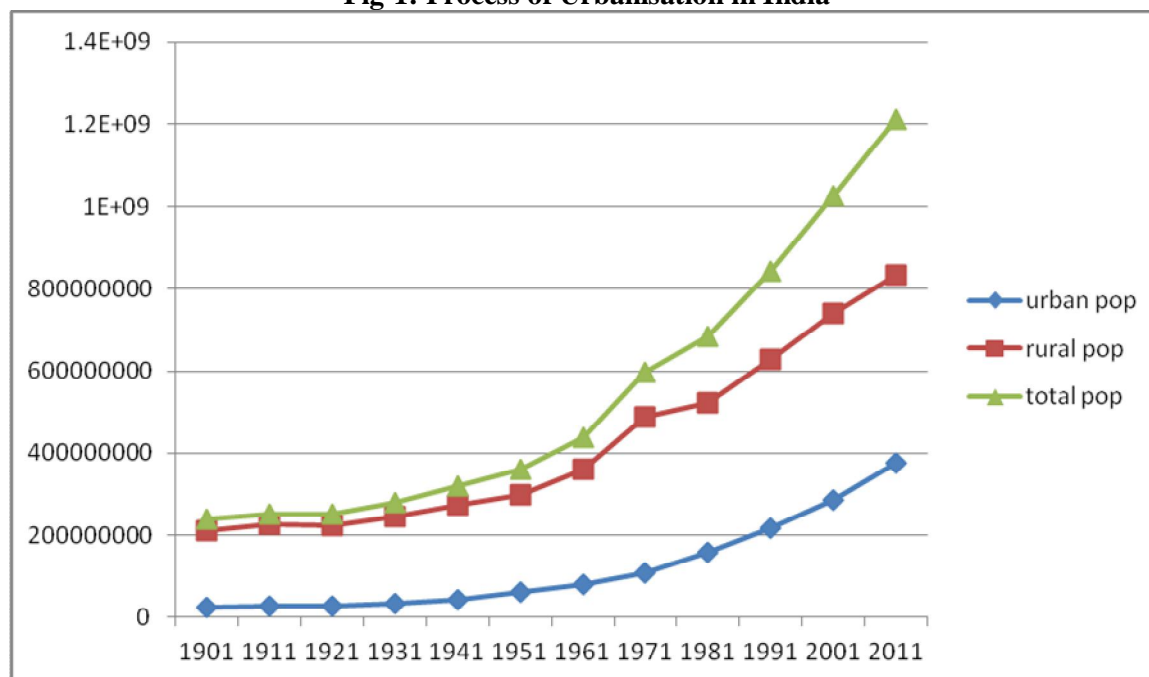
VOLUME AND TREND OF URBANISATION IN INDIA

India shares characteristic features of urbanization in the developing countries. Number of urban collection /town has grown from 1827 in 1901 to 7935 in 2011. Number of the total population has increased from 23.84

crores in 1901 to 121.7 crores in 2011 whereas number of the population residing in urban areas has increased from 2.58 crores in 1901 to 37.71 crores in 2011. (Table 1) This procedure of urbanization shows in Fig 1. It reflects a moderate increasing trend of urbanization. India is at hastening stage of the process of Urbanization

Census Years	Number of Urban agglomeration/town	Total Population	Urban Population	Rural Population	Urban Population in %
1901	1827	238396327	25851873	212544454	10.84
1911	1825	252093390	25941633	226151757	10.29
1921	1949	251321213	28086167	223235046	11.18
1931	2072	278977238	33455989	245521249	11.99
1941	2250	318660580	44153297	274507283	13.86
1951	2843	361088090	62443709	298644381	17.29
1961	2363	439234771	78936603	360298168	17.97
1971	2590	598159652	109113977	489045675	19.91
1981	3378	683329097	159462547	523866550	23.33
1991	3768	844324222	217177625	627146597	25.72
2001	5161	1027015247	285354954	741660293	27.78
2011	7935	1210193422	377105760	833087662	31.16

Fig-1: Process of Urbanisation in India



Sources: Various Census reports

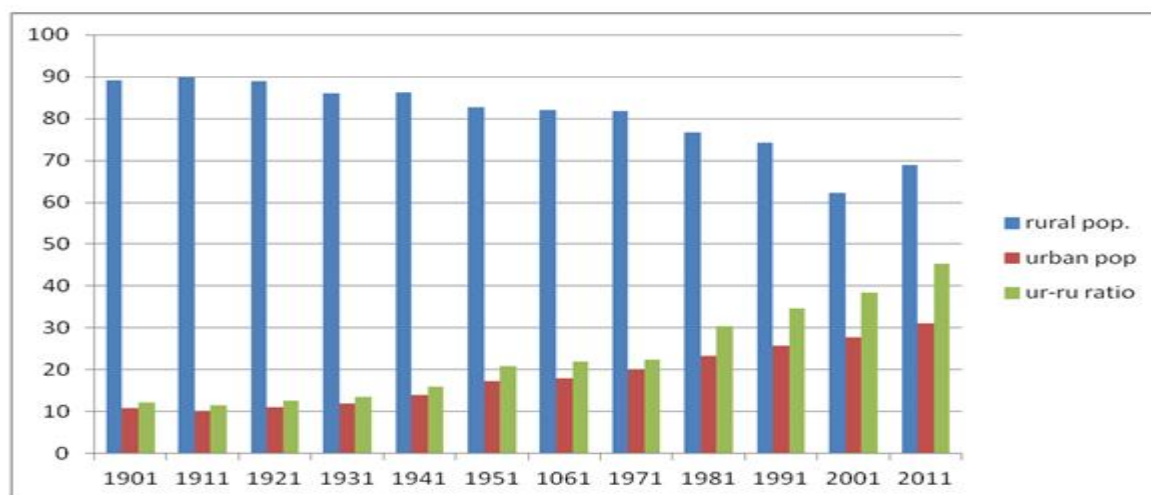
DEGREE OF URBANIZATION

The degree or level of urbanization means as the respective number of people who lives in urban areas. Percentage of urban $[(U/P)*100]$ and percentage of rural $[(R/P)*100]$ and urban-rural ratio $[(U/R)*100]$ are used to measure degree of urbanization. These are most frequently used for calculating degree of urbanization. The ratio U/P (urban) has lower limit 0 and upper limit 1 i.e., $0 < U/P < 1$. The index is 0 for the total population equivalent to the rural population. When whole population is urban, index is one. When 50 percent of the populations rural, it defines that there is one urbanite for each rural person. The urban-rural ratio has a lower limit of zero and upper limit ∞ i.e., $0 < U/R < \infty$. Theoretically upper limit will be infinite when no rural population ($R=0$) but this isn't possible. From table 2, it is clear that percent of urban has increased from 11% in 1901 to 31% in 2011. Where as, percentage of rural has shown the decrease from 89% to around 69% over a century. Urban-rural ratio that is a simple index measuring number of urbanites for each rural person in an area unit experiences an increasing trend during hundred years in the process of urbanization in India. The urban and rural ratio for India in 2011 around 45, it means that against every 100 ruralities there are 45 urbanites in India in 2011. All these indices pinpoint that India is in the process of urbanization (Sovani, 1966), and it is at the acceleration stage of urbanization

Table-2: Table 4 Degree/Index of Urbanization 1901-2011

Census years	Rural Population in %	Urban Population in %	Urban- Rural Ratio(percent)
1901	89.16	10.84	12.16
1911	89.71	10.29	11.47
1921	88.82	11.18	12.58
1931	86.01	11.99	13.63
1941	86.14	13.86	16.08
1951	82.71	17.29	20.91
1961	82.03	17.97	21.91
1971	81.76	19.91	22.31
1981	76.66	23.33	30.44
1991	74.28	25.72	34.63
2001	62.22	27.78	38.48
2011	68.84	31.16	45.27

Sources: Various Census reports



Sources: Various Census reports

EFFECTS OF URBANIZATION

There are two types of effect

Positive effects

- Better Employment opportunities in urban centres.
- Better Transport and communication facilities.
- Better Educational facilities.
- Increase in the standard of living

Negative effects

I. Problem of over population

Over population is a very serious problem of cities. It has resulted in accommodation

Problem, growth of squatters and many more problems Eg: Dharavi in Mumbai.

ii. Cost of living

High cost of living is also a major problem of cities. In Metro cities like Mumbai, Bangalore etc. it is very difficult for lower income groups to afford a decent standard of living.

iii. Increase in Crime rates

Urban centres are very well known for high rate of crimes. Theft, murder, rape etc. are common in urban areas and very serious issues also. Eg: Delhi is the rape capital.

iv. Problem of Pollution

In industries are a major source of pollution in an industrialized cities may be caused by industries waste or by excessive movement of Vehicles.

CHALLENGES IN URBANIZATION**Planning**

Planning is mainly centralized. The planning needs to be decentralized to accommodate the needs of the urban dwellers. There is a scope to create better plans for land use, Infrastructure, environmental sustainability, economic productivity and financial Diversity.

Finances

Revenue generation for urban development is a major challenge. The states have failed to give enough autonomy to ULBs to generate revenues and urban local bodies have failed to utilize The available finances that come through taxes. Due to poor revenue, banks don't give Loans to urban local bodies. There is need to widen the user charge fee for water supply, sewage and garbage disposal

Regulator

There is fraudulent in the real estate business and agricultural lands have been impinging. The property rates are flourishing which are not affordable. This is a common problem in cities like Mumbai and Delhi. For affordable housing, regulation is needed to check fraud practices in real estate sector.

II. Infrastructural challenges**Housing**

Housing provision for the growing urban population is the biggest challenge for the Government. The increasing price of houses comparison to the income has made it Impossible for lower income groups to buy a land and they are residing in squatters Devoid of proper ventilation, lighting, water supply, sewage system, etc. For example in Mumbai, 52% population lives in slums.

Safe Drinking Water

The pure drinking water sources are also found to be contaminated as the expected Population cannot be sheltered with the availability of water. The expenses on Water treatment and reuse are difficult to bear.

Urban public transport

The density of vehicles is multiplying in cities. High income individuals are buying more Private vehicles and thus, they use less public transport. Huge number of vehicles in Cities cause traffic jams that decrease the efficiency of public transport. Also, there is Lack of infrastructure and poor preservation of existing public transport infrastructure in India. The perforation of public transport is poor, which forces people to use private Vehicles.

Waste Management

Garbage disposal is one of the critical issues in urban areas and garbage Management always remained a major challenge for the cities

Sanitation

The poor sanitation condition is another ill-lit feature in urban areas and particularly in slums and unauthorized colonies of urban areas. The drainage system in Slums is in a bad shape and cause blockage of waste water. These conditions lead to many diseases such as, malaria and dengue.

Health

The health condition of urban poor people in some areas is adverse compared to rural areas. The National Family Health Survey, says that a lot of women and children are Suffering from nutritional anaemia and diseases like tuberculosis and asthma due to Increased level of pollution day by day People are unable to afford health services and thus they stay in the cruel cycle of poverty.

III. Other challenges**Poverty**

Approximately, one-third of the urban population in India lives below the poverty line. The poor people of urban areas are victims of exploitation, misery and discrimination that force them into poverty. As per UN habitat report, urban inequality in India rise from 34% in 2005 to 38 % in 2010.

Employment

The cities have become a bin ground for surplus population working in unskilled, Susceptible and low wage informal service industries and trade. The urban workers are growing being pushed into the informal sector in the cities in public places like Footpaths, open empty spaces, parks or streets. As the rural agriculture sectors are Subside day by day, the challenges before the urban sector are to provide employment to Migrating population.

Environmental concern

According to UNDP (the united nation development programme) 70 % of Indian population is at risk to floods and 60% susceptible to Earthquakes. The risk is higher in urban areas owing to density, overcrowding and Industrialization. The recent example is that of Uttaranchal flood

Urban Crime

Cities are paving increased criminal activities on account of unchecked migration, Illegal settlements, socio-cultural disparities among Hindu-Muslims, gangsters, Traffickers, rapists. Prevention of crime in mega cities like Delhi, Mumbai, and Chennai is a challenge.

Role of Urbanisation in Economic Development of India

Urbanization and the economic development are closely associated. Economic development of a country indicates increase in the level of per capita income and standard of living along-with the enlargement of employment opportunities for its growing population. With the attainment of economic development and growing industrialisation, the process of urbanization starts at a rapid scale. Some areas emerge as a huge urbanised centre with huge scale industrial and trading activities. These areas started to provide increasing number of employment opportunities leading to a shift (migration) of population from rural areas to these urbanized centres urban areas. Thus economic development of a country aid in its process of urbanization. Increasing industrialisation increases the rate of economic development along-with the pace of urbanization in the country. Increase in the rate of economic development increases the level of per capita income and standard of living of the people which in turn more extensive the demand for various goods and services. This will increase in aggregate demand expands the production system leading to a large scale production of various goods and services simultaneously development of economy

All these guide to increase in the step of urbanization in the country. Thus there is a good connection between the level of per capita income and the pace of urbanization. In India, the correlation coefficient between the proportion of urban population to total population and the level of per capita income is estimated at 0.5, which is significant.

Economic development paves way for growth and development of cities and towns. Thus with the growth in the number of cities and towns the proportion of urban population to total population is also increasing. Over Excessiveness of urbanisation cannot decrease the unemployment problems in India significantly through the absorption of increasing number of surplus labour force from rural areas as the scope for raising urban employment is also limited. In India there is an unimportant positive correlation (0.18) between the proportion of urban population and the rate of daily status of unemployment.

Moreover, there is a lenient negative correlation, i.e., 0.22, between the proportion of urban population and the percentage of population below the poverty line in India.

Factors which are responsible for this stereo typical situation are:

- (a) Deterioration of urban slums in our planning coverage;
- (b) Growing squeezing of unorganised sectors by capitalists, contractors, landlords etc. and
- (c) Growing application and techniques of capital intensive in urban areas.

Thus in comparison to the degree of urbanisation attained in India, the mopping capacity of the urban centres is very little. This shows the cause why urbanised centres in India could not make much progressive in reducing the degree of unemployment in the country.

Thus, in conclusions, it can be analysed that the achievement of high rate of economic development introduce the way for increasing urbanization along-with the increasing in the level of per capita income and the development of many urbanized infra-structural facilities like transportation and communication, housing, education, health, trade, banking etc. But this growing urbanisation has also lead to huge concentration of population in urban areas, resulting in various drawbacks side by side such as growth of slums, increasing congestion and pollution, problems of transportation, problem of housing, water supply, health services, unemployment and poverty.

RECENT URBAN DEVELOPMENT PROJECTS IN INDIA**Smart City Concept**

Budget of, 2014, it was estimated for 'one hundred Smart cities', sometimes means to as smart cities mission, is an urban renewal and retro lifting program by the government of India with the main objective to develop 100 cities across the country making them citizen friendly and sustainable . It is likely to include e-governance

system through Digital India initiative, continuous improvements in urban design and management, mass transit oriented development, smart PDS rationing, social and financial inclusion etc.

Swachh Bharat Abhiyan

Clean urban areas will attract tourists and can grow the economic diversity of the urban People. Swachh Bharat mission is also called nation wide campaign in India for the period 2014 to 2019 that aims to clean up the streets, town roads and infrastructure of India's cities and rural areas. It is also a way to manage waste and reduce land pollution

CONCLUSION

Economic development of India believes on economy growth. Cities are heart of growth and development there is a bifacial link among growth development and urbanization. the rural areas have to be urbanized for the sake of India's development means economy development and growth. Every economy has followed the path which begins with agriculture. Agriculture being the main source of income for the large number of the population and ends with agriculture employment being a insignificant fraction of the total labour force. India our economy needs to stop thinking little plants and start thinking big plan and implement that plan for the development. It is fascinating that urbanization is happening at an increasing rate even though most of the population of India is rural. The noticeable fact is that there is a new area developing concurrently known as the Urban Village. Regardless the same trend of relocation (migration)to cities, the rural societies have also started adopting urban culture like change in lifestyle, adoption of modern technology, transport and communication, enlightenment of women, involvement in politics, magnification of infrastructure like Banks, Post office, increasing demand for high standard goods and services. Urbanization has helped in changing the Indian economy by introducing Industries and Service sectors. More than half of our GDP comes from the urban areas, specially the metropolitan cities, where service industries like the IT, BPO and TELECOM Company's turnover that are making huge profits. Urbanization has also introduced the modernization of agriculture by technological revolutions and better warehousing, transport, marketing and food processing facilities. This has helped the farmers to lift up their standard of living. But the urban collections indicate uncontrolled urban growth which is obstructing our progress. Cities are becoming the centres of crisis due to absence of urban planning and management. Urban areas are the main platform for many demographic, environmental and social problems. Expansion of migration has caused housing problems, environmental pollution and generated urban quarrel. Thus, urbanization needs to take decision in a proper way for which new policies shall be prepare and implemented at State and Central level and accomplished the desired goals. Old plans shall be replaced by new plans that are applicable to the current scenario of urbanization

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