

Volume 6, Issue 2 (XIX)  
April - June 2019

ISSN 2394 - 7780



International Journal of  
**Advance and Innovative Research**  
(Conference Special)

Indian Academicians and Researchers Association  
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ON

BUILDING BUSINESS UNIQUENESS TOWARDS INDUSTRY 4.0  
(ICBBUTI)

ORGANIZED BY  
DEPARTMENT OF COMMERCE  
KRISTU JAYANTI COLLEGE, BENGALURU

14<sup>th</sup> & 15<sup>th</sup> March 2019



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# International Journal of Advance and Innovative Research

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Volume 6, Issue 2 ( XIX ): April - June 2019

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**Journal - 63571**

## UGC Journal Details

**Name of the Journal :** International Journal of Advance & Innovative Research

**ISSN Number :**

**e-ISSN Number :** 23947780

**Source:** UNIV

**Subject:** Multidisciplinary

**Publisher:** Indian Academicians and Researchers Association

**Country of Publication:** India

**Broad Subject Category:** Multidisciplinary

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## A COMPREHENSIVE STUDY AND CLASSIFICATION OF BARRIERS THAT IMPEDE GREEN SUPPLY CHAIN MANAGEMENT

**Dr. R. Jagadeesh<sup>1</sup> and Shreekanth Deshpande<sup>2</sup>**

Professor<sup>1</sup>, Operations Management and Quantitative Techniques, SDM Institute for Management Development, Mysore

Ph.D Scholar<sup>2</sup>, SDM Research Center for Management Studies (SDM RCMS), Mysore University, Mysore

### ABSTRACT

*Across the world, need for green supply chain management (GrSCM) is realized, to protect and minimize damage to the environment and at the same time support business operations to be sustainable in the long run. However organizations face many barriers during their journey of implementation that slows down the adoption of green practices in GrSCM. In this paper, the barriers that impede GrSCM are studied and a comprehensive listing has been done. Barriers are then analysed and classified into five categories to understand the nature of the issues which would also trigger the process of finding the solutions. The possible topics for further research are indicated.*

*Keywords: green supply chain management, barriers, classification, performance measurement, drivers*

### INTRODUCTION

A supply chain is a network of suppliers, manufacturing plants, warehouses and distribution channels organized to acquire raw materials, convert them to finished products and distribute to end customers. Supply chain management (SCM) operations were traditionally focussed on the operations within the boundary of the organization only. Gradually the supply chain covered the extended supply chain, which includes external business entities like suppliers on downstream and distributors and end customers on upstream. The supply chain processes can be classified into three main macro processes, related to supplier, firm and customer, as depicted in the

**Figure - I**

Supplier	Firm	Customer
SRM	ISCM	CRM
<ul style="list-style-type: none"> <li>Source</li> <li>Negotiate</li> <li>Buy</li> <li>Design</li> <li>Collaboration</li> <li>Supply</li> <li>Collaboration</li> </ul>	<ul style="list-style-type: none"> <li>Strategic Planning</li> <li>Demand Planning</li> <li>Supply Planning</li> <li>Fulfilment</li> <li>Field Service</li> </ul>	<ul style="list-style-type: none"> <li>Market</li> <li>Price</li> <li>Sell</li> <li>Call Center</li> <li>Order Management</li> </ul>

Source: Chopra, S., Meindl, P., Kalra, D.V., 2018. Supply Chain Management. Noida, India: Pearsons

The three supply chain macro processes are:

1. Customer Relationship Management (CRM): Processes exchanged between customer and the organization.
2. Internal Supply Chain management (ISCM): Processes those are internal to the firm.
3. Supplier Relationship Management (SRM): Processes between suppliers and the organization.

These macro processes assist organizations to manage the flow of information, material and funds required to generate, register and fulfil a customer requirement.

There are several definitions for supply chain management as given by different scholars. Jain et al., (2010) have listed the following definitions in their literature review on supply chain management.

- Srivatsava, (2007) "Integrating environmental thinking into supply-chain management, including product design, material sourcing and selection, manufacturing processes, delivery of the final product to the consumers as well as end-of-life management of the product after its useful life".
- Mentzer et al., (2001) "The systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole."

- Handfield and Nichols (1999) "A supply chain encompasses all activities associated with the flow and transformation of goods from the raw material stage, through to the end user, as well as the associated information flows".

Organizations are now beginning to re-examine their manufacturing processes and the configuration of their supply chains to become more sustainable not just in terms of their economic viability but also their environmental and social impacts. In recent years, much attention has been given to the concept of green supply chain to help organizations improve their environmental performance along the value chain. The basic idea involves integrating metrics and best practices into the existing supply chain processes, which not only improve the environmental performance but also add value to the business Srivastava (2007).

The improved logistics facilities and information exchange with the help of advanced information technology has helped organizations to expand operations from the national level to global level. The improved supply chains have helped organizations to increase their level of business activities across the globe, which have resulted in growing import and export activities in recent decades. The growing supply chain operations and the industrial activity is impacting environment at global level and consequences are increased pollution, depleting natural resources, overflowing waste material landfills and the subsequent impact on health and well-being of the citizens. This undesirable development at the global level has brought "Green Supply Chain Management" (GrSCM) into focus and has attracted the attention of the researchers and practitioners across the globe.

### **OBJECTIVES**

The objective of this paper is to examine the various barriers that organizations face in different functional areas while implementing GrSCM. In addition, the barriers are also classified into groups based on their impact to enable better interpretation, analysis, and decisions.

### **OVERVIEW OF GREEN SUPPLY CHAIN MANAGEMENT**

Organizations started environmental management practices to gain competitive advantages starting from the environmental management movement of the late 1960's Sarkis et al., (2011). The environmental management practices received growing attention during 1980s and studies and publications in this direction got established in the mid-1990s Seuring and Müller (2008). The GrSCM is emerging as an important organizational philosophy to achieve the objectives related to economic performance (profit and market share of organizations) by minimizing the environmental impacts while improving the ecological efficiency (Diabat et al., 2013). One of the earliest literatures that can be mapped to GrSCM is by (Kelle and Silver, 1989) where they have discussed on forecasting system for Returns and Reusable containers. The first paper on GrSCM appears to be written by Navin (1991), highlighting the need for green design to reduce the impact of product waste.

Green supply chain is conceived by different research scholars from different perspectives as given below:

- (i) "GrSCM = Green Purchasing + Green Manufacturing/Materials Management + Green Distribution/Marketing + Reverse Logistics" Hervani et al., (2005)
- (ii) "An approach that aims to integrate environmental issues into SC management procedure starting from product design, and continuing through material sourcing and selection, manufacturing processes, the final product delivery and end-of-life management" Gnoni et al., (2011)
- (iii) "A way for firms to achieve profit and market share objectives by lowering environmental impacts and increasing ecological efficiency" Buyukozkan and Cidci (2012)

From the above, it can be noticed that there is a range of author's focus and purpose on green supply chains and their management (i.e. design, procurement, operations, logistics or end-of-life management of the product) , which has influence on the definition of GrSCM.

### **METHODOLOGY OF LITERATURE REVIEW**

The methodology started with identifying and analysing the literature around GrSCM and barriers and then classifying them in to groups as per the plan given below:

1. Search for literature on GrSCM available till end of 2018 to identify published papers around main topics of GrSCM.
2. The relevant literature is identified using Google from reliable sources like Research Gate, Emerald Insight, Google Scholar, ScienceDirect and ProQuest.
3. Key words used for searching papers using Google in conjunction with Green Supply chain management are: barriers, performance measurement, drivers and framework.



The search resulted in more than 300 papers on GrSCM which were then filtered and papers discussing barriers for GrSCM were picked for further analysis. The barriers listed by different authors were collected and analysed and the result is discussed in the following sections.

### **IDENTIFYING THE BARRIERS FOR GRSCM BY LITERATURE REVIEW**

Industries design products and manufacturing processes mainly keeping in mind the economic dimension to make the business process economically viable while meeting the various existing environmental regulations. Organizations marketing their products at global level, have to meet environmental regulations as desired by both from customers and governing bodies. The international customers demand organizations to abide by regulations which may not be required in the local market. In addition the international agencies are coming out with environmental regulations which are applicable for all organizations irrespective of geography of operation. The changing market characteristics, consumer behaviour and regulations influence regulatory authorities and customers to introduce new regulations time to time.

This forces organization to modify their operations to meet the new expected environmental standards. This constant tweaking of the operations in an organization over the years results in broken systems and obstructs the earlier planned seamless flow of operations to achieve their organizational objectives. In addition organizations have to make room for collecting information on various environmental aspects and report compliance on periodical basis. Organizations cannot afford to neglect environmental dimension as it impacts compliance and reputation in the market. And as a consequence, the entire supply chain has to bear an extra time and cost element, which eventually impacts the economic bottom line.

The reasons for not adopting GrSCM can be one or more of the following:

- Barriers for implementation in different areas of GrSCM
- Failure to understand the drivers of GrSCM and their influence on overall performance of the organization
- Continuously changing regulatory requirements from government agencies
- Demand on environmental factors to be met from customers
- Environmental regulations from international bodies.

Different academicians and practitioners in the area of GrSCM have studied barriers or challenges that hinder the adoption of GrSCM, in their area of interest. This is an attempt to represent an overall picture of the barriers which should help researchers to develop a comprehensive solution to overcome them.

In their study on Indian Automobile industry, Luthra et al., (2011) identify and analyse the barriers for adoption of GrSCM. In their opinion, environmental regulations play an important role in influencing adoption of GrSCM for improving performance of the processes and products. They identify 11 barriers for implementing GrSCM in Indian automobile industry and use Interpretive Structural Modeling (ISM) methodology for finding contextual relationships among various barriers to implement GrSCM in Indian automobile industry. Interpretive Structural Modeling (ISM) is a well-established methodology for identifying relationship among number of factors which influence a problem. In any problem scenario, the direct and indirect relationships between the factors explain their collective influence on the problem, better than each factor taken in isolation.

Considering that customers are becoming more environmental conscious and governments are making stricter environmental regulations, the industries need to reduce the environmental impact of their supply chain. In their paper to study the barriers for implementation of GrSCM, Jayanta and Azharb (2014) aim to determine the relationship among the barriers and to identify the most influential barriers from the list of 20 barriers identified. They have used interpretive structural modelling (ISM) for this study. A structural model of barriers to implement GrSCM in Indian industry has also been put forward using Interpretive Structural Modelling (ISM) technique. Out of 20 barriers recognised, nineteen barriers have been identified as linkage variables and one barrier is been identified as the driver variable. Using ISM technique, they find that Lack of Government Support Systems as the driver variable. Their proposed model helps to understand interdependence of the barriers.

In their paper Dube and Gawande (2014), suggest an approach to find the dominant barriers in the adoption of GrSCM. They identify 20 barriers and broadly group them into three categories:

1. Financial Barrier
2. Knowledge barrier and
3. Technology barrier

Their observation is that eradicating the barriers is not an easy task and it needs an in-depth analysis. It is difficult for organizations to overcome all kinds of barriers simultaneously. Hence, industries have to determine the most influential barrier and aim to resolve one by one. The authors refer to lack of awareness and support systems to adopt reverse logistics in automobile industry is a major barrier in practicing GrSCM (Ravi and Shankar 2005; Mudgal et al., 2010). Reverse logistics has a large scope to minimize waste and increase profits through recycling.

Da Silva et al., (2018) have identified 43 barriers (grouped into 13 categories) in a study of three first-tier suppliers in automotive industry in Brazil and analysed how they affect three areas of the company - purchasing, quality, and production. The study showed that cost implications are the most influential barrier from the perspective of a first-tier supplier in the sector. The barriers are also identified as internal (organization can decide on the solution) or external (multiple stakeholders required to decide on the solution). The identified barriers are grouped into five categories as indicated below:

1. Economic performance
2. Environmental performance
3. Operational performance
4. Knowledge and information and
5. Support and involvement

### CLASSIFICATION OF BARRIERS

The barriers for GrSCM implementation have been analysed in detail to find common (listed by two or more papers) and unique (listed by one paper only) barriers. Some authors have classified the barriers on the basis of control over the solution for the barrier namely, internal and external. However, in this paper, we have followed the classification scheme as suggested by Da Silva et al., (2018) because of its ease of application in our work. Accordingly, five categories were used for the analysis and the findings of our analysis on barriers are as follows:

- Total Number of barriers: 94
- Number of common barriers across two or more papers: 33
- Number of unique barriers across papers: 30

The detailed list of common and unique barriers is shown in Table I below.

**Table I: Area wise classification of barriers for implementation of GrSCM**

Common Barriers (33 numbers)	Area	Unique barriers (30 numbers)
Cost implications	Economic performance	High cost of ecological packaging
Cost of disposal of hazardous products		High investment and low financial return
Non-availability of bank loans to encourage green product		Lack of competitiveness of organic products
High cost of waste disposal		Unavailability of cash flow
Competition and uncertainty in the market	Environmental performance	Belief in the loss of competitive advantage
Fear of failure		Corporate restrictions regarding the product
Lack of corporate social responsibility		Decrease in the efficiency of GSCM
Lack of sustainability certification like ISO 14001		Environmentally inappropriate strategic planning
		Inadequate business self-regulation
		Lack of metrics for internal performance evaluation
		Lack of metrics for performance evaluation common to chain members
Customer's unawareness towards GSCM products and services	Knowledge and information	Difficulties in interpreting environmental and sustainable concepts
Lack of environmental awareness to the		Environmental Labelling

Common Barriers (33 numbers)	Area	Unique barriers (30 numbers)
supplier		
Lack of IT applications		Internal communication Failures
Lack of knowledge or technique		Lack of green architects, consultants, green developers, contractors in the region
Lack of Quality of Human Resources		Lack of information dissemination among chain members
Lack of staff training		Lack of skilled human resource professionals in sustainability and GSCM
		Linguistic and cultural diversity
Lack of acceptance of advancement in new technology	Operational performance	Disbelief in the performance and quality of green products
Lack of energy management and waste management of the organization		Lack of external sustainability audits for suppliers and contactors
Lack of human resources		Lack of internal sustainability audits within the organization
Lack of implementation of green practices		Lack of recycling and reuse efforts of organization
Lack of management initiatives for transport and logistics		Low eco-efficiency due to complexities in product design
Lack of proper reverse logistics practices		
Pollution/Wastage in industries		
Poor implementation of green practices within a supply chain		
Resistance to innovations in technology, materials and processes		
Supplier's flexibility to change towards GSCM		
Lack of client commitment	Support and involvement	Dependency among members of the chain
Lack of commitment by the senior management		Incompatibility of legal requirements among countries
Lack of integration of IT system		Lack of commitment of employees
Lack of corporate socio-environmental responsibility		Lack of integration between members of the chain
Lack of Organization Encouragement		Lack of integration with stakeholders
Lack of public policies and favourable government regulations		Lack of involvement in environmental networks
Poor organizational culture in SCM		Lack of professional treatment and long term contracts for adopting GSCM from government
Lack of supplier commitment		
Resistance to change		

Common and unique barriers across five areas have been grouped and tabulated as shown in Table II below.

**Table II: Area wise classification of barriers for implementation of GrSCM**

Sl. No	Area	Number of Barriers	Percentage
1	Economic performance	8	13
2	Environmental performance	11	17
3	Operational performance	15	24
4	Knowledge and information	13	21
5	Support and involvement	16	25
<b>Total Number of barriers</b>		63	100

The distribution of 63 barriers across the five categories is shown in the chart Figure-II below.

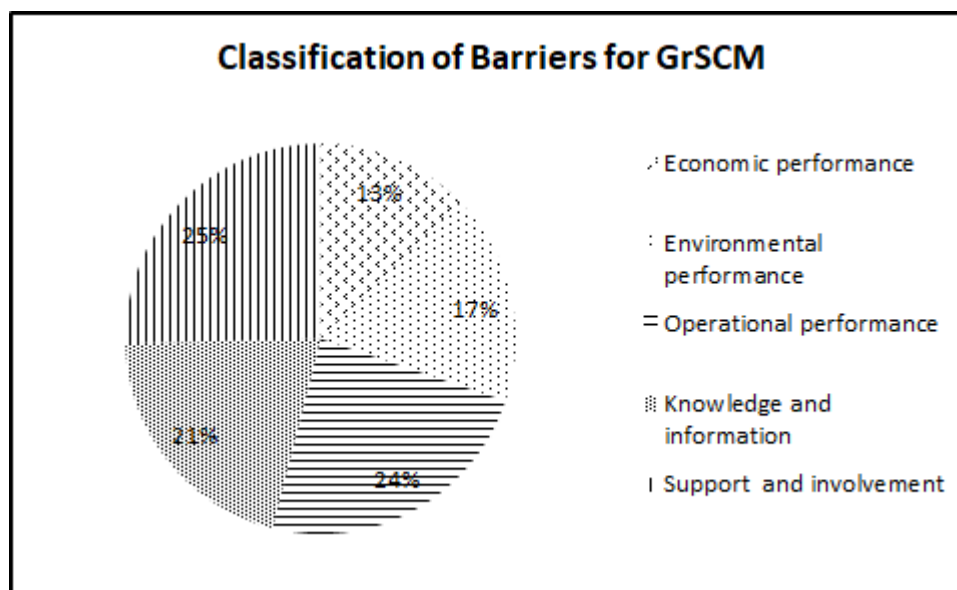


Figure II: Classification of Barriers for GrSCM

## DISCUSSION AND CONCLUSION

In the classification scheme of barriers for GrSCM, social dimension of GrSCM is considered as a part of “Support and Involvement”. Considering the growing importance of social dimension for organizations in reporting overall performance, we suggest that a separate category should be created for capturing the barriers in “Social Responsibility” area. Under social responsibility area, performance of an organization can be measured in terms of its practices towards human rights, social commitment, addressing customer issues and fair business practices. Also, looking at the increasing usage of information and communication technology (ICT) in GrSCM, we suggest a new category for identifying and capturing barriers specifically in this area can be created.

It is observed that organizations find implementing green practices as an economical burden in the absence of support from customers (readiness to pay extra for green product) and government agencies (incentives for adopting green practices). Organizations can derive business sense and achieve higher profits by taking proactive steps through various R's (Reduce, Re-use, Rework, Refurbish, Reclaim, Recycle, Remanufacture, Reverse logistics), by integrating environmental friendly activities at every stage in the supply chain. Based on the literature review, it appears that more research work is required in the field of model building for identifying barriers and overcoming them, performance management, and benchmarking of GrSCM in the developing countries. The outcome of such studies can help more number of organizations to decide on adopting green supply chain practices.

The authors have observed some limitations in the present work which of course, would be addressed in their further work. There are several developments in the adoption of information and communication technology (ICT), which have added a new dimension for GrSCM. However, the current work has focussed mainly on barriers in the core areas of GrSCM. The identification and analysis of barriers faced in adopting ICT for GrSCM can throw light on how to make its adoption easy for implementing GrSCM. Scope for future research work exists for in-depth study of barriers in the area of adoption of ICT - for automation and coordination of operations, reverse logistics and reporting of GrSCM performance.

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**AN ANALYTICAL STUDY GREEN BANKING INITIATIVES AMONGST CUSTOMERS WITH  
SPECIAL REFERENCE TO BANGALORE**

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**Vijayakumar R<sup>1</sup> and Nelson Michael Justin<sup>2</sup>**Associate Professor<sup>1</sup>, Head, Department of Commerce, Kristu Jayanti College, BengaluruProfessor<sup>2</sup>, Kristu Jayanti School of Management, Bengaluru

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**ABSTRACT**

*Sustainable development and preservation of environment are now recognized globally as overriding imperatives to protect our planet from the ravages inflicted on it by mankind. Various global initiatives are underway to counter the ill effects of development that we encounter today such as global warming and climate change. A common thread running across all these initiatives is the focus on reducing the demand for fossil fuels by implementing the 3R's viz. Reduce, Reuse and Recycle. Banks and financial institutions can play a major and decisive role in these global efforts to make our planet a better place to live in. As providers of finance, banks can ensure that businesses adopt environment-friendly practices. Hence the paper analysis the banks involvement in green banking initiatives amongst customers, The study is done with the sample size of 400 customers from Karnataka through multistage stratified sampling.*

*Keywords: Sustainable development, Financial institutions, environment-friendly*

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**INTRODUCTION**

Environmentalism is a broad philosophy and social movement regarding concerns for environmental conservation and improvement of the state of the environment. Environmentalism and environmental concerns are often represented by the color 'green'. Global warming, also called as "Green House Effect" is a global issue that calls for a global response. The warming effect of certain man-made gas emission such as carbon-dioxide, methane, nitrous oxide and hydro-fluoro carbon is found responsible for distortion in climate changes. The rapid change in climate will probably be too great to allow many eco systems to suitably adapt, since the changes have direct impact on bio diversity, agriculture, forestry, dry land, water resources and human health. However, there is general lack of adequate awareness on the above issues and hence there is urgent need to promote certain urgent measures for sustainable development and corporate social responsibility.

Banking sector is generally considered as environment friendly in terms of emission and pollutions. Internal environmental impact of the banking sector such as use of energy, paper and water are relatively low and clean. This is an effort by the banks to make the industries grow green and in the process restore the natural environment. This concept of Green banking will be mutually beneficial to the Consumers, banks, industries and the economy. Green banks should also have lower fees and give rate reductions on loans going towards energy-efficient projects. This is banking beyond pure profit. Another important aspect of green banking is the involvement and outreach from the individual banks to their local community.

**LITERATURE REVIEW**

(BAHL, 2012) conducted an empirical study "Green Banking- The new Strategic Imperative on public sector banks and collected managers views on green banking financial products, carbon footprint reduction by paperless banking, carbon footprint reduction by energy consciousness, green building and social responsibility services". She found that carbon footprint reduction by green building had been given top priority in green banking strategies.

(Prasad, 2002) has studied the impact of Economic Reforms on Indian Banking and suggested how banking sector will face the changes and challenges. He highlighted the need for change it would be agreed that transformation in the usual model for the sustainable development is essential in order to understand the evolution of the banking sector towards sustainability. -kets and avenues for product differentiation. As initially, these

**OBJECTIVE OF THE STUDY**

- To analysis the awareness of green banking initiatives amongst customers
- To understand the customers perception about green banking initiatives

**STATEMENT OF THE PROBLEM**

Society is facing most complicated issues of climate change. People nowadays are more conversant with global warming and its inherent consequences on human life. So change is the need of the hour for the survival and

continuous efforts should be made for the environmental management in a sustainable manner. It is not only the concern of the government and the direct polluters but also of other stakeholders like financial institutions such as banks, which are playing a fundamental role in the development of the society. Banking activities are not physically related to the environment, but the external impact of their customer activities is substantial.

### METHODOLOGY

The study is explorative in nature and is based on both the primary and the secondary data. Secondary data was collected from various sources such as; the websites, books and journals, while primary data is collected through a structured questionnaire 400 respondents units based on Random sampling. The data were analysed and interpreted with the help of SPSS software. Statistical tools are Chi-square, Factorial analysis, Ranking.

### DATA ANALYSIS AND INTERPRETATION

Analysis to find customer view on Green banking Intitavies

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.644
Bartlett's Test of Sphericity	Approx. Chi-Square	36367.728
	df	1081
	Sig.	.000

KMO=0.664>0.6; and Bartlett's Test of Sphericity rejects the null hypothesis that the variables are not correlated significantly. Hence, it is appropriate to carry out factor analysis. The number of factors to be chosen is based on the Eigen values of the factors (>2) and the total variance explained by such factors (>60%). The Researcher feel that every 2 respondent are out of 4 respondent are similar kind of nature hence the Eigen value is taken as 2 .In the present case, researcher take 6 factors for further analysis since they have Eigen values >2 and total variance explained is 77.414% which is moderate.

Extracted Factor	Rotated Component Matrix <sup>a</sup>						
		Component					
		1	2	3	4	5	6
EaseAccess	Like the idea of green banking	.905					
	Green banking is a good idea	.881					
	Green banking is advisable	.860					
	Green banking service enhance the bank's image	.775					
	helps to serve our customers better using green banking	.757					
	Using green banking would increase the quality or output of banking	.721					
	Green banking are easier than traditional services	.696					
	High dgree of convenience	.647					
	Green banking activites increase the profitability	.634					
Awareness need	Provide knowledge through seminars		.882				
	Assured of security and privacy for transaction		.879				
	Demonstrates to use green banking service		.865				
	Interaction with green banking is clear and understandable		.654				
	Keep reminding customer through written communication (e-mail, SMS)		.626				
	Green banking Minimal fees on transaction		.544				
Eco-friendly	Environment Sustainability			.904			
	Access to banking service anywhere any time			.884			
	Useful channel for environmental sustainability			.829			
	Reduce carbon foot print			.781			
	Reduce time			.771			
	IT reduce paper consumption			.753			
	Faster than traditional banking to reduce carbon foot print			.697			

	Effective and efficient				.664		
	Not expensive among other applications				.593		
Convenience	convenient to use				-	.737	
	Incentives were given to the green banking users				-	.735	
	Banks are demanding use of green banking in doing business					.633	
	Security concerns is the most discouraging factor in using green banking services						.748
Security	Banks provide few of the green banking services and not yet adopted						.717
	High fees charges on use of green banking						.556
	Contacting every customer personally						-.545
	Pressuring to adopt green banking						.483
	Customers prefer traditional (branch) banking over green banking services						.824
Preference	Not aware of green banking services provided by banks						.721
	Clients demand it						.469

Form factorial analysis the extracted variable are **Awareness need, Eco-friendly, Ease Access, Security, Preference**. In which it clear shows the customers opinion related to green banking , hence researcher feels that the most of customer aware about green banking initiatives done by the their respective banks

	Occupation					Total	Statistical Significant
	Student	Service	Business	Professional	Others		
Vital	4	11	8	31	34	88	$\chi^2 = 69.987$ Df =12 0.003 > 0.05 Significant
Essential	9	15	29	66	37	156	
Desirable	0	9	12	19	32	72	
Cannot say Exactly	0	0	0	63	21	84	
Total	13	35	49	179	124	400	

## Interpretation

The above table shows that 44.8% of the respondents are opined that the green banking initiative is playing a vital role in the banking functions. 31.0% of the respondents are opined that the green banking initiative is playing a essential role in the banking functions. 12.2% of the respondents are opined that the green banking initiative is playing a desirable role in the banking functions. 8.8% of the respondents are opined that the green banking initiative is playing a vital role in the banking functions.

It is understood that maximum 44.8% of the respondents are opined that the green banking initiative is playing a vital role in the banking functions.

The above table shows that there is no significant association between the occupation of the respondents and their green banking initiative is playing a vital role in the banking functions. Hence the calculated table is greater than the table value ( $P > 0.05$ ). So that research hypothesis is rejected and null hypothesis is accepted

### Analysis: Mean rank of applications of green banking initiatives

	Low	High	Mean	median	Standard Deviation	Mean Rank
Online Banking	8 (2.0%)	392(98.0%)	1.02	3.0000	.14018	I
Mobile Banking	28 (7.0%)	372(93.0%)	1.07	2.0000	.25547	II
Green loans	46 (11.5%)	354(88.5%)	1.88	2.0000	.31942	XI
Green mortgages	65 (16.3%)	335(83.8%)	1.83	2.0000	.36937	X
Green credit cards	118 (29.5%)	282(70.5%)	1.70	2.0000	.45661	VII
Solar powered ATM'S	188 (47.0%)	212(53.0%)	1.53	2.0000	.49972	V
Green channel counters and	131 (32.8%)	269(67.3%)	1.67	2.0000	.46989	VI



no queue banking						
Instant voice response	28 (7.0%)	372(93.0%)	1.23	1.0000	.42296	IV
Energy efficient branches	177 (44.3%)	223(55.8%)	1.55	2.0000	.49730	
Bonds & mutual funds meant for environmental investments	48(12.0%)	352(88.0%)	1.88	2.0000	.32537	XI
Benefit of 50% waiver in processing fee of energy efficient cars	79 (19.8%)	321(80.3%)	1.80	2.0000	.39861	IX
Benefit of reduced processing fee on purchase of LED certified buildings.	86 (21.5%)	314(78.5%)	1.78	2.0000	.41134	VIII
Online money transfers between countries from branch banks	59 (14.8%)	341(85.3%)	1.14	3.0000	.35505	III

### Interpretation

The above table shows that mean rank of perception of customers to avail the green banking applications through their bank. The respondents are avail the green banking applications through online banking So that first rank gets the online banking application from the above analysis. The second rank is secured by the application of mobile banking. The third rank is got by the application of online money transfers between countries from branch banks. The least rank are calculated by the applications of green loans and benefit of 50% waiver in processing fee of energy efficient cars

### CONCLUSION

Banks are proactively initiated a number of green banking practices. This initiative of the the banks are creating awareness about environmental issues through green banking among the internal and external environment of the bank such as the staff, customer and mass people. Gradually, the banks green banking activities have shifted from encouraging and implementing of e-banking to the recycle of the waste, water treatment plants, rain water harvesting, using solar based equipments, constructing green building etc. in more effective manner and reduce the carbon footprint and increase their carbon credits and contribute to a greener and accomadative environment for the future generations.

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**PERCEIVED CUSTOMER SATISFACTION ON ACCEPTANCE OF MOBILE BANKING SERVICES: A STUDY WITH SPECIAL REFERENCE TO BANK OF INDIA (BOI)**

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**Mohan Ram Naik**Research Scholar, Bharathiyar University, Coimbatore

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**ABSTRACT**

Mobile banking technology which is the third era of technical and hi-tech innovation of banking sector after phone and e-banking and reasonably its development is amazing when compared to the first and second eras. Presently in India the Mobile Banking is increasing fast because demonetization of Indian economy, the consumers are selected for e-banking and Mobile banking services provided by the bank and the world's third main subscriber in mobile sector therefore this leads to growths the mobile banking operators in India. The foremost aims of the study is to highlight the theoretic contextual and present situation of mobile banking services in Indian background and to examine the demographic outline of mobile banking users of BOI bank and to study the reasons for customers implementation of BOI mobile bank facilities and to evaluate the customer usage of BOI mobile banking services. This study covers the customers satisfaction towards BOI mobile banking facilities in Mangalore city. The study has been composed from primary data on the basis of issue questionnaire. The sample size selected for study was 200 mobile banking operators of BOI. The purpose of study of data built on normality test applied for non-parametric tests such as mean, mode, standard deviation, mann- whitney u-test and kruskal wallies z-test. This study results majority of the respondents has strongly agreed and opined the optimistic usage of mobile banking services provided by the BOI in Mangalore City.

*Keywords: Mobile Banking, Consumer Satisfaction, 24\*7 services, demonetization, customers friendly.*

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**INTRODUCTION**

Mobile banking is a system that permits customers of mobile financial institution to offering banking services of make deposits, withdraw and to send funds from a mobile account through a cell phone device such as a mobile phone or personal digital system . Mobile banking offers services of banking such as account data, payments, deposits, withdrawals and transfers, investments and other related services. The RBI has add Mobile banking facilities available to all bank consumers irrespective of the mobile network. All the banking activities of these customers such as conducting monetary transactions with their financial organization and permitting consumers to transfer money and make credit card payments everywhere, obtaining financial account data etc. is made possible through the mobile banking system. BOI bank's focus on digital and e-network.

The customers in mobile banking facilities are increasing day by day due to the safety measures taken by the banks. More numbers of customers are opted the mobile banking services because they have satisfied the measures taken by banks to secure and safe mobile banking transactions. The customers can now get many benefits in the bank like eassy fund transfer, withdrawals, deposits etc. and it saves the time and cost for these transactions. Therefore the customers to complete the financial transactions by sitting at home but the customers were having problems of carrying but mobile phones are free from these difficulties. Mobile phones can be carried everywhere and used by large number of people. The liberalization, globalization and digitalization , mobile banking has shown a way to spread the top of the pyramid in the banking business through its diversity of services.

**MOBILE BANKING SERVICES PROVIDED BY BANK OF INDIA:**

1. Mobile Banking Service over application/ wireless application protocol (wap):

The service is obtainable on java /android mobile phones /i-phones where the user is required to download the application on to the mobile handset. The service can also be availed via wap on all phones with gprs connection. The following services are available:

- a) Quick Funds transfer (inside and outside the bank)
- b) Prompt Payment Services (pps)
- c) Enquiry services (balance enquiry/ mini statement)
- d) Cheque book application
- e) Demat Enquiry Service
- f) Bill Payment (utility bills, credit cards, Insurance premium), Donations, Subscriptions

- g) Mobile /DTH Top up
- h) M Commerce (Mercantile payments, BOI life insurance premium).

### 2. Mobile Banking Service over SMS:

The facility is available on all phones and mobiles. The consumer can send keywords as SMS to 9223880000. This number gives all the user menu of mobile banking services. Ordinary SMS charges are applicable. The following functionalities are available:

- a) Enquiry Services (Balance Enquiry/Mini Statement)
- b) Prepaid Mobile / Mobi Cash wallet Top up
- c) DTH Recharge
- d) IMPS Fund transfer – (Mobile number & mmid and Account Number & IFS Code)
- e) Change MPIN
- f) IMPS Merchant payments,

### 3. Mobile Banking Facility over USSD (Unstructured Supplementary Service Data Information):

The service is existing on all phones except cdma phones. Downloading of application is not obligatory. Subscribers have to dial \*585# to avail the service. The following facilities are available:

- a) Enquiry Services (Balance Enquiry/Mini Statement)
- b) Mobile Top up
- c) Funds Transfer (within and outside Bank).
- d) Mobile banking registration through ATMs has been introduced
- e) BOI swipe – all missed call solutions in a single mobile application.

### THE PRESENT SITUATION OF MOBILE BANKING IN INDIA

In the years back nobody knew about the mobile banking wallets in India. Now a days mobile banking wallets have observed enormous popularity. The people are facing currency crisis in India and this is where the mobile banking wallets are reducing the burden of the people. These M-banking wallets attract the users by offering discounts and cashback points. In India “Mobile Banking Study” in spite of the impetus provided by demonetization, digital banking is not yet a universal involvement in India. There is plentiful potential for banks to move more into the digital universe. Only 58 percent of retail banking customers have a dependable online and mobile banking experience with their main financial institution. These results were based on in-person interviews with 5,478 retail banking customers conducted between January and March 2018 across 15 states and included both private and public banks customers are unavoidable they were opted for mobile banking services and partially satisfied this mobile banking facilities. Therefore this study was conducted on customer of BOI they are satisfied with the mobile banking services provided by the bank in Mangalore City. The number of registered mobile banking users has also increased to 98.8 lakhs and net banking users increased to 58 lakhs as at March 2018.

Bank of India online service (At your convenience, any time anywhere) BOI mobile banking, Bank of India's new mobile banking Application. BOI mobile banking is safe, secure and convenient channel for anytime anywhere banking. You can now access your account, view mobile passbook, transfer funds and much more. DiYA (Digitally your account) A Mobile app to instantly apply online for opening new savings account. Launching the bank's new mobile banking application BOI mobile. G. Padmanabhan chairman BOI, said the mobile banking application one stop solution for daily banking needs of our customers. The facility would create not only view or fund transfer profile but would also provide with online services like M passbook, immediate fund transfer facility, cheques related requests ATM and branch locator etc.

### MOBILE TRANSACTION IN APRIL

Bank	No of mobile transaction(Lakh)	Value of transaction (cr)
State Bank	78.5 L	1701
ICICI Bank	38.6 L	5342
Axis Bank	26.7 L	1897
HDFC	17.5 L	5686
Kotak Mahindra	7.5 L	946

Yes Bank	5.7 L	288
Citi Bank	4.2 L	397
Canara bank	2.9 L	1987
Bank of India	25.9 L	2198

HDFC Bank is the largest in the mobile banking service in terms of value of transaction with Rs. 5686 crore of transactions in April. BOI is the 3<sup>rd</sup> highest in the mobile banking service in terms of value of transaction with Rs 2198 crore of transactions in April. Mobile banking is growing 100% and we expect that this overtake internet banking by next year

### REVIEW OF LITERATURE

Hamza Salim (2012), this study focused on factors affecting Jordanian consumers acceptance of mobile banking services. He presently attempt on exploratory study is to identify the underlying factors that affects mobile banking adoption in Jordan. These studies have been collected using a questionnaire containing 25 questions. Out of 450 questionnaires that have been distributed and factors that may affect Jordanian mobile phone users' to adopt mobile banking services were examined. Finally he come out with the findings suggested that all the six factors, self-efficacy, trainability, compatibility, complexity, risk and relative advantage were statistically significant in influencing mobile banking adoption services.

Prerna Sharma (2013), this study was conducted on mobile banking in India: barriers in adoption and services preferences. He revealed in his study mobile banking is growing yet there are numbers of issues and threats in mobile banking system and the major problem of mobile banking is its non-adoption by the customers and also research focuses on the barriers in adoption of mobile banking. It more emphases on favored services by the mobile banking customers and influence of demographic variable on mobile banking facility implementation. Finally this study suggests that customers security concern is the major obstacle in adopting mobile banking services and also favored services are concern balance check tops as customers favor information based facilities rather than monetary services provided by the bank.

Martin Kweyu(2015), this study attempts on factor analysis of customers perception of mobile banking services in Kenya. In this study investigated factors that influence the adoption of mobile banking services in Kenya. This study results indicated that there was no significant difference in the perception of ease of use and risk of use between genders in the decision. The major findings of the study will therefore provide the financial industry with a better understanding of the factors underlying consumer adoption of mobile banking services.

Mohammed Husein(2015), this study was undertaken on preference on the perception of mobile banking: A Saudi Arabian perspective. This study was also to examine specific factors that forecast the acceptance of mobile banking in Saudi Arabia and a questionnaire was developed to attention on a number of concepts, recognized in the literature, as potential forecasters of acceptance quality of Internet connection was highlighted to have a important impact on the perceived ease of using mobile banking. And the perceived usefulness of mobile banking was meaningfully affected by the degree of awareness among customers. Finally this research extended the existing Technology Acceptance Model and made valuable contributions to mobile banking service providers as well as to researchers in mobile and Internet banking in the Saudi Arabia.

Lalitha Balakrishnan (2016), this study also revealed on factors affecting mobile banking services – An experiential study on implementation of mobile banking mode of services, presently the Internet technology has brought the third revolution to this world. The banking sector has been advancement their services with the use of technology from time to time like introducing the ATM – Automatic Teller machine which took more than a decade to get popular and the phone and net banking took half the time of ATM. In this study finds mobile banking technology which is the third era of technology of banking sector after phone and net banking and comparatively its growth is phenomenal when compared to the first two eras. Even in India the Mobile Banking is growing fast because of the world's largest subscriber base in mobile sector after China.

Suresh(2017), this study focused on changing consumer behavior for mobile banking services in India. Mobile banking is the modern and most innovative and advanced service offered by the Banks. The purpose of the study is to investigate determinants of Mobile banking adoption based on an individual's benefits and costs of adopting mobile banking. The key factors that determine the customer satisfaction of mobile banking in India are security, efficiency, cost effectiveness, easy demand fulfillment and accuracy in results. It aims to examine the customer response and customer satisfaction of mobile banking through these factors. Mobile banking is one of the substitutes in e- channels available to customer for fast and effective of service at any time of the day and from anywhere to use. Finally this paper an attempt has been made to discover the consumer satisfaction of the

new electronic payment service as mobile banking and the factors influencing the implementation of mobile banking services.

### OBJECTIVES OF THE STUDY

1. To highlight the theoretic background and current scenario of mobile banking services in Indian context;
2. To study the demographic profile of mobile banking users of BOI bank in Mangalore city;
3. To examination the reasons for customers adoption of BOI mobile bank services in Mangalore city;
4. To evaluate the customer usage of BOI mobile banking facilities in Mangalore city;
5. To study the customers satisfaction towards BOI mobile banking services in Mangalore city; and
6. To offer findings/suggestions in the light of the study.

### RESEARCH METHODOLOGY

The current study has been collected from both primary and secondary sources. The primary data was collected on the basis issue of questionnaire. The study area has been identified BOI bank branches in Mangalore city. The questionnaire was designed and contained several questions for collection of data from the customers or mobile banking users. The sample size for study was only 200 respondents form BOI Bank. The method of sampling used is simple random sampling. The secondary data was collected from related research publications in books, journals and periodicals, dailies and annual reports of BOI bank available on the selected topic. And also collect information on website to develop theoretic background of customer perception towards mobile banking users in BOI bank.. For the purpose data analyze applied test of normality of data. A significant test means the sample distribution is not shaped like a normal curve ( $P > 0.05$ ). The sample size is small  $N=23$  therefore to test the normality of data used Shapiro-Wilks W test ( $P=0.003$ ). Therefore the data is abnormally distributed we applied non parametric test mentioned, mean, standard deviation, Mann-Whitney U- Test and Kruskal Wallies Z-Test to prove the hypotheses of the study to measure the reliability of data.

### HYPOTHESES OR ASSUMPTIONS

1. There is a significant variance between demographic profiles of mobile banking users in BOI Bank.
2. There is a significant change between reasons for customers adoption of BOI mobile bank services
3. There is a significant relationship between customer usage of BOI mobile banking facilities;
4. There is no significant variation between customers satisfaction towards BOI mobile banking services.

### ANALYSIS AND INTERPRETATION

#### 1. Demographic outline of the mobile banking users:

Table No.1 represents the demographic profile of the mobile banking users of BOI bank in Mangalore city. The overall respondents were numbering, 200 customers out of that 130 respondents are belongs to male category and 70 respondents are belongs female category this shows male customers more used mobile banking users compared to female customers. In the context of age pattern, majority of the respondents numbering, 110 customers belongs to age group of between 30-40 years, this shows younger and middle age generations were more used mobile banking services compared to adult generation. Further the educational background of

the respondents majority numbering, 60 and 90 respondents were graduates and post graduates respectively. In the context of occupation of customers, majority numbering, 70 and 80 respondents were belongs to private employee and businessmen respectively. In the context of monthly income level of the customers, Majority numbering, 56 and 84 respondents were belongs to monthly income level of between Rs.20,000 to Rs. 30,000 and above Rs. 30,000 respectively.

**Table No.1: Demographic profile of the mobile banking users**

Particulars	Frequency	Chi-Square	P-Value	Hypothesis(H0)
1. Age Pattern:				
a) Less than 30 years	70	3.06	0.001	Significant
b) Between 30-40 years	110			
c) Above 40 years.	20			
2. Gender:				
a) Male	130	2.86	0.003	Significant
b) Female.	70			

3. Educational Background:	24	4.72	0.623	Not Significant
a) SSLC	26			
b) PUC	60			
c) Graduation	90			
d) Post Graduation.				
4. Occupation:	50	3.91	0.585	Not Significant
a) Government employees	70			
b) Private employees	80			
c) Business.				
5. Monthly Income Level:	22	5.03	0.001	Significant
a) Less than 10,000.	38			
b) Between 10,000 to 20,000	56			
c) Between 20,000 to 30,000	84			
d) Above 30,000				

Source: Primary Data.

To calculate, chi –square test for data of age pattern of the, the table value of  $\chi^2$  for degrees of freedom at 5% level of significance, The calculated P value is 0.001, which is less than the Alpha Value of 0.05 it was found to be significant. Therefore the results indicate that the stated null hypothesis to be accepted. In the context of gender profile of the respondents, the table value of  $\chi^2$  for degrees of freedom at 5% level of significance, The calculated P value is 0.003, which is less than the Alpha Value of 0.05 it was found to be significant. Therefore the results indicate that the stated null hypothesis to be accepted. Further the data of educational profile of the respondents, the table value of  $\chi^2$  for degrees of freedom at 5% level of significance, The calculated P value is 0.623, which is more than the Alpha Value of 0.05 it was found to be not significant. Therefore the results indicate that the stated null hypothesis is rejected and alternative hypothesis is accepted. In the context of the data of occupation of the respondents, the table value of  $\chi^2$  for degrees of freedom at 5% level of significance, The calculated P value is 0.585, which is more than the Alpha Value of 0.05 it was found to be not significant. Therefore the results indicate that the stated null hypothesis is rejected and alternative hypothesis is accepted. Further the data of monthly income level of the respondents, the table value of  $\chi^2$  for degrees of freedom at 5% level of significance, the calculated P value is 0.001, which is less than the Alpha Value of 0.05 it was found to be significant. Therefore the results indicate that the stated null hypothesis to be accepted.

## 2. Reason for adoption mobile banking facilities:

Table No.2 depicts that reason for customer adoption of mobile banking services. Majority of the customers numbering, 39 and 26 opinioned that no need to visit the bank and faster 24x7 transactions is main reason customers of BOI will adopt mobile banking services.

**Table No.2: Reason for adoption mobile banking facilities**

SI. NO.	Particulars	Frequency
1.	Saving of time	20 (20.00)
2.	No need to visit the bank	39 (39.00)
3.	Customer friendly	15 (15.00)
4.	Faster/24X7 Transaction	26 (26.00)
Total		100 (100.00)
Kruskal–WalliesZ-Test		Kruskal –Wallies Z-Test =2.189 Asymp. Sig.(2-tailed) =0.001 Mean Rank = 21.80 Degree of Freedom=03

Source: Primary data.

Table No.2, indicates the Kruskal –Wallies Z-Test it's a category of non parametric test. describe to test the significant difference between the customer reason for adoption of mobile banking facilities , the P value (Sig 2-

tailed) is 0.001, which is less than the Alpha value of 0.05, it was found to be significant. Therefore the results indicate that the stated null hypothesis to be accepted.

### 3. Usage of mobile banking facilities:

Table No.3 shows that customer usage of BOI mobile banking facilities in Mangalore city. Majority of the customers numbering, 45 and 25 are opinioned that customers used when required and once in a fortnight customers are more used of mobile banking facilities.

**Table No.3: Usage of mobile banking facilities**

SI. NO.	Particulars	Frequency
1.	Everyday	12 (12.00)
2.	Once in a week	18 (18.00)
3.	When required	45 (45.00)
4.	Once in a fortnight	25 (25.00)
Total		100 (100.00)
Kruskal-Wallis Z-Test		Kruskal –Wallies Z-Test =3.715 Asymp. Sig.(2-tailed) =0.004 Mean Rank =26.87 Degree of Freedom=03

Source: Primary data.

Table No.3, shows the Kruskal –Wallies Z-Test it's a category of non parametric test. describe to test the significant change between the customer usage of mobile banking facilities, the P value (Sig 2-tailed) is 0.004, which is less than the Alpha value of 0.05, it was found to be significant. Therefore the results indicate that the stated null hypothesis to be accepted.

### 4. Customer satisfaction towards mobile banking services

Table No.4 highlights the customer satisfaction towards mobile banking services in BOI. Majority of the respondents has strongly agreed and positive opinions about the all mobile banking services and customers were satisfied with mobile banking services provided by the BOI bank. According to The Mann-Whitney U-test it's a category of nonparametric test. describe to test the significant difference between the customer satisfaction towards mobile banking services, the highest mean and standard deviation were found mobile banking charges are less compared with other services, was recorded the value of 26.42 and 7.38 respectively. As against the lowest mean and standard deviation were found easily availability of mobile network, was recorded the value of 20.32 and 3.02 respectively. To be concluded that, from below analysis majority of the customers were positively opinioned, mobile banking menu is very easy to understand and navigate, mobile banking provides faster services, It is easy to make transfer Funds, It is easy to make a balance inquiry and less degree of risk in usage of mobile banking category results, the P value (Sig 2-tailed) is which indicates less than the Alpha value of 0.05, it was found to be significant. Therefore the results indicate that the stated null hypothesis to be accepted. In the context of awareness of mobile banking services and maximum safe security for each mobile banking transaction and also false transaction occurs refund facility category results, the P value (Sig 2-tailed) is which indicates more than the Alpha value of 0.05, it was found to be not significant. Therefore the results indicate that the stated null hypothesis is accepted.

**Table No.4: Customer satisfaction towards mobile banking services**

Statements	Mean	S.D	Whitney U-Test	(Sig 2-tailed) P-value	Hypothesis (H0)
Mobile banking menu is very easy to understand and navigate	25.30	6.81	4.193	0.000	Significant
Mobile banking provides faster services.	23.60	4.83	3.127	0.002	Significant
Awareness of Mobile Banking Services.	18.92	2.56	2.014	0.683	Not Significant
It is easy to make transfer Funds	24.83	6.49	2.783	0.001	Significant



It is easy to make a balance inquiry	22.87	5.26	3.740	0.000	Significant
Easy availability of mobile Network.	20.32	3.02	4.174	0.004	Significant
Charges for mobile banking are less compared with other services.	26.42	5.78	5.206	0.005	Significant
Maximum safe security for each mobile banking transaction.	21.48	7.38	4.851	0.504	Not Significant
False transaction occurs refund facility	23.21	5.08	3.001	0.591	Not Significant
Less degree of risk in usage of mobile banking	20.57	3.86	2.763	0.003	Significant

Source: Primary data.

### FINDINGS OF THE STUDY

1. The overall respondents were numbering, 200 customers out of that 130 respondents are belongs to male category and 70 respondents are belongs female category this shows male customers more used mobile banking users compared to female customers.
2. In the context of age pattern, majority of the respondents numbering, 110 customers belongs to age group of between 30-40 years, this shows younger and middle age generations were more used mobile banking services
3. In the context of awareness of mobile banking services and maximum safe security for each mobile banking transaction and also false transaction occurs refund facility category results indicate that the stated null hypothesis is accepted.

### SUGGESTIONS FOR THE STUDY

1. The awareness about Phone/ Mobile banking has to be given before or once the technology is launched and advantages and drawbacks of this technology should be revealed to customers.
2. Suitable security services should be provided because that is the key reason for not implementing this technology.
3. The customer's security in-terms of availing the services should be strengthened as there is a possibility of hacking and cracking of personal details.
4. Time is valuable therefore the banks must come up with a system that tries to solve the issues on such factors affecting the Mobile banking services.
5. Customers must be given individual training regarding the usage of the Mobile Banking services who want to avail such services as they may not be technically sound and also it takes some time for understanding the technology.
6. The banks must give a breakup of the charges levied on various services, but the banks have to reduce its annual charges for mobile banking.
7. Further the educational background of the respondents majority numbering, 60 and 90 respondents were graduates and post graduates respectively.
8. Majority of the customers numbering, 80 and 50 are opinioned that no need to visit the bank and faster 24x7 transactions is main reason customers of BOI will adopt mobile banking services.
9. Majority of the customers numbering, 86 and 54 are opinioned that customers used when required and once in a fortnight customers are more used of mobile banking facilities.
10. Majority of the respondents has strongly agreed and positive opinions about the all mobile banking services and customers were satisfied with mobile banking services provided by the BOI bank.
11. The highest mean and standard deviation were found mobile banking charges are less compared with other services, was recorded the value of 26.42 and 7.38 respectively.
12. The lowest mean and standard deviation were found easily availability of mobile network, was recorded the value of 20.32 and 3.02 respectively.

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**CONCLUSION**

The current study focused on customer's satisfaction towards mobile banking services. From the above analysis majority of the customers were positively opinioned, mobile banking menu is very easy to understand and navigate, mobile banking provides faster services, It is easy to make transfer funds, It is easy to make a balance inquiry and less degree of risk in usage of mobile banking category it results, the stated null hypothesis to be rejected and alternative hypothesis is accepted. In the context of awareness of mobile banking services and maximum safe security for each mobile banking transaction and also false transaction occurs refund facility category results that the stated null hypothesis is accepted. Finally in this study find out customers faced the problem of network and lack of awareness to usage of mobile banking services. Therefore this study suggests bank will provide a training and create awareness to customers regarding the technical aspects definitely more customers are adapting the mobile banking services in Mangalore City.

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**AN EMPIRICAL STUDY ON THE ANTECEDENTS, MODERATORS AND CONSEQUENCES OF EMOTIONAL INTELLIGENCE IN BUILDING BUSINESS UNIQUENESS IN ORGANIZATION**

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**Dr. Preetha F. James**Associate Professor, Bishop Appasamy College of Arts & Science

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**ABSTRACT**

*The purpose of this study is to empirically study the antecedents, moderators and consequences of emotional intelligence and to explore neglected resources that may influence emotional intelligence and their role on turnover. This study presents a model showing the the role of moderators on emotional intelligence. The moderators may impact the role of emotional intelligence on turnover. Theoretical implications are discussed in this study. Prior studies have found out the resources that would reduce the negative impact of emotional intelligence on commitment.*

*Keywords: Emotional intelligence, Turnover Intention, Well-being, Work engagement*

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**INTRODUCTION**

Globalization has brought a competitive environment in every organization. In this competitive era, companies are expected to make changes to the organization's environment. The changes may be brought to the internal environment or external environment of the organization. The organizations need to respond to the changes and be adaptive to the changes in a competitive market environment.

Even in these changing competitive market environment, an employee's well-being is of importance to the organization for the optimal functioning of the organization and so is emotional intelligence of employees. Emotional intelligence is of major concern to many management. The resources in every individual serves as a source of accomplishment and depletion of resources leads to reduced emotional intelligence at work or away from work. The emotional categories such as love, joy, fear, anger, shame, sadness, (and sometimes happiness, surprise, pride, anxiety, and boredom) are considered as universal set of emotions from which a full range of at least 24 emotional experiences are derived (Diener et al., 1995, Ekman, 1992; Fisher, 1993; Izard, 1971) which serve as a building blocks of emotional experience (Weiss, 2002a), and will be referred to as basic emotions. Emotion is a continuous process that develops from the ones' personal situation (Schutz & DeCuir, 2002).

Emotions are the inherent part of workplace (Bande et. al., 2015) whereas in competitive environment, organizations need employees who work effectively, adaptive in nature, and constantly focusing on the improvement of process and system. Individuals keep the emotions to themselves thinking that others should not know about their emotion and feeling. Denzin (1984) described the forms of emotional transactions as "emotional inter-subjectivity" recognizing that this conceptualization is only evident when emotional experience is considered temporal. Emotion is a major factor in an employee's life and is linked with the well-being of employees. Emotion need to be monitored and felt through emotional intelligence. Emotional intelligence is defined as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey and Mayer, 1990).

**REVIEW OF LITERATURE**

Peter Salovey and John Mayer in 1990 coined the word "emotional intelligence" and used in literary writing (Cherniss, 2000). Mayer and Salovey's four branch model of emotional intelligence gives importance to emotional perception, emotional assimilation, understanding and management (Mayer, Salovey, & Caruso, 2004), whereas Reuven Bar-On (2002) agrees on the qualities of emotional self awareness, self-actualization, interpersonal relationship, reality testing, stress tolerance, optimism, happiness, etc. depends on the emotional intelligence of a person.

Carson et al. (2000) developed a measure of emotional intelligence based on Goleman's five behavior-based factors namely empathetic response, mood regulation, interpersonal skill, internal motivation and self-awareness. Goleman (1998) was the first to apply the concept of emotional intelligence to business through his article in Harvard Business Review. He found that effective leaders have high degree of emotional intelligence. Individuals having high emotional intelligence can analyze their own feelings as well as others' emotions. They take up the responsibility for their behaviors and control their environment which is consistent with their internal locus of control.

An individual with good technical knowledge and IQ will initially help in job entry (Goleman 1998). On the other hand a good interpersonal, social and team building skills, will help to develop a good rapport

with his colleagues, higher officials and subordinates which is vital for a person's success. But to remain in an organization and to be successful in the workplace, emotional intelligence is of prime importance (Emmerling and Goleman, 2003; Cherniss et. al. 1998; Boyatzis and Oosten, 2002).

### **IDENTIFYING EMOTIONS INTELLIGENCE**

Experts agree that emotional intelligence play an important role in success. Emotional intelligence involves the ability to manage emotions. Emotional intelligence is linked to everything from decision-making to organizational achievement.

A key element to identify emotional intelligence is self-awareness. The ability to recognize and understand one's own emotion is self-awareness. Becoming aware of the impact of your own emotions is much beyond just knowing the emotions of self. Self-awareness is a capacity to monitor your own emotions, identifying different emotional reactions, and then correctly utilizing the emotion. Apart from knowing the emotions, emotional intelligence will help to self-regulate and manage ones' emotions. Self-regulated employees will be flexible to the surroundings and adapt well to change. They can also manage conflicts and dissolving difficult situations. Apart from self-regulation, interaction with others is another important aspect of emotional intelligence.

### **EMOTIONAL INTELLIGENCE AS ANTECEDENT**

Emotional intelligence in an individual is identified through self-awareness, and self-regulation. The self-regulated individual will interact with others, therefore exhibiting the level of emotional intelligence. The majority of the researchers used emotional intelligence to project behaviors. The outcome of this study revealed that emotional intelligence as an antecedent which can bring out many positive outcomes in the organization such as positive work attitudes, unselfish behavior (Carmeli, 2003), attitudes towards organizational changes (Vakola, Tsaousis, & Nikolaou, 2004), cognitive-based performance (Lam & Kirby, 2002), transformational leadership (Barbuto & Burbach, 2006), critical thinking disposition (Stedman & Andenoro, 2007), and higher quality of interpersonal relations (Schutte, Malouff, Bobik, Coston, Greeson, Jedlick, Rhodes, & Wendorf, 2001). This study has found out that reduced turnover as an outcome of high emotional intelligence. The emotional intelligence is negatively related to turnout of the employees.

### **ROLE OF MEDIATORS**

An extensive review of the literature concluded that the emotional intelligence as an antecedent that influences the well-being, engagement and turnout of the employees. The literature has also shown that well-being as one of the determinant of emotional intelligence. Research has categorized well-being into three categories (Grant et al., 2007), which includes physical, social and psychological well-being. Studies have shown that psychological wellbeing are the consequence of the hedonism and the eudemonism (Ryan and Deci, 2001). Hedonism is measured through employee's job satisfaction. Hedonism is feeling about their job in an organization (Locke, 1976; Weiss, 2002), whereas, eudemonism refers to employees' perception in the way they express their abilities (Wrzesniewski et al., 2003). Employees' well-being is also seen in the quality of life and psychological status at work (Siegrist and Rodel, 2006). Many researchers through their studies have understood that employees with higher emotional intelligence are more satisfied with their well-being (Goleman, 1995; Salovey and Mayer, 1990; Salovey et al., 1995) and employees who have more control over their emotions have better work engagement and are also emotionally healthier. Many studies have shown the relationship between emotional intelligence and well-being. Their study also shows that employees with high emotional intelligence scoring are less prone to sadness and sorrow (Schutte et al., 1998), which in turn leads to higher optimism (Schutte et al., 1998) and they have more satisfaction with life and job (Ciarrochi et al., 2000).

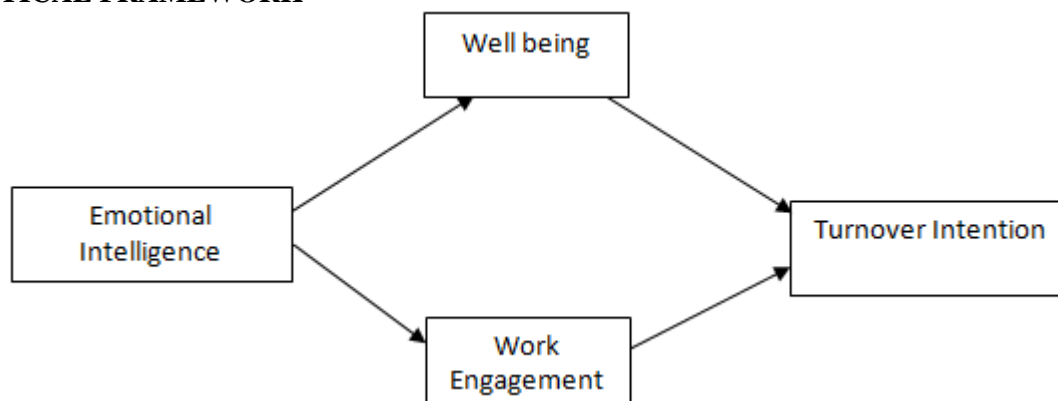
Studies have shown the mediating role of work engagement between emotional intelligence and turnover intentions. Mayer (1997) states that the emotionally intelligent employees show better performance at work and they also show high level of engagement.

### **TURN OVER INTENTION AS A CONSEQUENCE**

Employees with high emotional intelligence are optimistic. They are satisfied in their well-being and the job they do. Employees who have less emotional intelligence are more likely to quit the job or organization. Turnover has become an area of concern for the organization in the recent trends. Turnover raises the requirement of hiring new employees and then training (Thanacoody et al., 2014). To overcome this concern, focus is turned towards increasing employees' attachment with the organization. Studies have shown that employees who are more attached with their organization, stay with the organization for long (Shuck and Reio Jr, 2014). On the other hand employees who are less attached to the organizations are more likely to quit. Literature shows that engagement has an inverse relationship with intention to leave (Saks, 2006).

Mayende & Musenze (2014) studied the relationship between emotional intelligence and turnover intention. The results shows (Mayende & Musenze, 2014) that employees who have low emotional intelligence will tend to leave job, while employees who have a high level of emotional intelligence are more likely to remain in the company.

### THEORITICAL FRAMEWORK



Kahn (1990) states that work engagement is a situation where employees find their work meaningful, and therefore, they want to work more to achieve personal and career benefits. Saks (2006) defined employee engagement as “an emotional and intellectual commitment to the organization”. Brunetto et al. (2012) research on police officers showed that emotional intelligence was the motivational factor for employee’s turnover with work engagement and well-being as mediator. Pena Garrido and Extremera Pacheco (2012) in his research states that emotional intelligence of teachers is associated with higher level of engagement. According to Zhu et al.(2015) employee engagement is a consequence of emotional intelligence. Extending the findings of previous research, this study focusses on the role of well-being and work engagement as the mediating factor for reducing the turnover intention in employees in the automobile industry.

### METHODOLOGY

This study employed a non-probability sampling method using a structured questionnaire. The sample of 98 employees were taken through an e-mail survey. The specific items measuring each of the variables hypothesized to influence the turnover intention are adopted from previous studies.

Employees are the unit of analysis and data were collected through e-mail questionnaire survey among the employees of automobile sector in Coimbatore. For data collection after stratifying the population, simple random sampling technique has been used

### INSTRUMENTS

Emotional intelligence has been measured by the sixteen items scales of WLEIS developed by Wong and Law (2002). Turnover intentions is measured with four item scales developed by Bludern (1982) is used. For the measurement of employee engagement nine item scale developed by Schaufeli and Bakker (2003) is employed. For the measurement of well-being, four-item scale developed by Brunetto et al. (2012) is used. The final version of the survey questionnaire was based on five point Likert scale.

### CORRELATION AND REGRESSION ANALYSIS

Table 1 shows the results of correlation statistics and the reliability of the variables. The mean value of emotional intelligence is 3.36. and turnover intention is 2.56. This shows that majority of the respondents have expressed their awareness towards emotional intelligence at work and the employees have less intention to leave the organization.

Emotional intelligence is positively correlated to well-being (0.68\*\*), which means that higher the emotional intelligence of the employees, they enjoy a satisfied well-being in the organization and employees engagement to the organization is highly significant. Emotional intelligence is positively correlated with employees engagement (0.69\*\*) and negatively correlated with turnover intentions (-0.68\*\*). Employees engagement is negatively correlated with turnover intentions (-.673\*\*). The level of significant reliability is 0.70 which is recommended by Nunnally (1978) and this level was also recommended by Ndubisi (2006).

**Table-1: Showing the correlation and reliability between variables**

	Mean	SD	EI	WB	EE	TOI
EI	3.36	.64	(.817)			

<b>WB</b>	3.06	.82	.677**	(.828)		
<b>EE</b>	3.46	.80	.695**	.468**	(.732)	
<b>TOI</b>	2.56	.86	-.687**	-.647**	-.673**	(.695)

\*\*Correlation is significant at the 0.01 level (2-tailed). N=98

EI= emotional intelligence, WB= well-being, EE= employee engagement, TOI= turnover intention

Table 2 shows that emotional intelligence ( $p = 0.000$ ,  $\beta = -.65$ ) has negative impacts on the turnover intentions.

**Table-2: Effect of EI on turnover intentions**

Variables	$\beta$	$R^2$	$\Delta R^2$	Sig
Step 1: TOI	-0.12	0.013		0.024
Step 2: EI	-0.657	0.53	0.514	0.000

**Dependent variable: TOI; N=98**

Table 3 shows the regression analysis that well-being mediates the relationship between emotional intelligence and turnover intentions. Well-being ( $p = 0.000$ ,  $\beta = -0.523$ ) mediates the relationship between emotional intelligence ( $p = 0.000$ ) and turnover intentions. If automobile sectors employees are highly emotionally intelligent then their well-being level is also high towards their jobs, therefore decreasing their intentions to quit. And if employees have low emotional intelligence, then their well-being level is low, leading to higher intentions to quit.

**Table-3: The mediating role of Well-Being in the relationship between Emotional Intelligence and turnover intentions**

Variables	$\beta$	$R^2$	$\Delta R^2$	Sig
Step 1: TOI	-0.12	0.013		0.024
Step 2: EI	-0.657	0.53	0.514	0.000
Step 3: EI	-0.373	0.67		0.000
Step 4: WB	-0.523		0.147	0.000

**Dependent variable: TOI; N=98**

Table 4 shows the regression analysis that work engagement mediates the relationship between emotional intelligence and turnover intentions. Work engagement ( $p = 0.000$ ,  $\beta = -0.453$ ) mediates the relationship between emotional intelligence ( $p = 0.000$ ) and turnover intentions. If automobile sectors employees are highly emotionally intelligent then their work engagement level is also high towards their jobs, therefore decreasing their intentions to quit. And if employees have low emotional intelligence, then their work engagement level is low, leading to higher intentions to quit.

**Table-4: The mediating role of Work engagement in the relationship between Emotional Intelligence and turnover intentions**

Variables	$\beta$	$R^2$	$\Delta R^2$	Sig
TOI	-0.106	0.011		0.047
EI	-0.429	0.547	0.535	0.000
EI	-0.233	0.467		0.000
WE	-0.453		0.147	0.000

**Dependent variable: TOI; N=98**

## MANAGERIAL IMPLICATION

The current research states that emotional intelligence can be effectively used in automobile sector. The study recognizes the effect of emotional intelligence on employee's well-being (satisfaction) and work engagement, which in turn influences their intention to leave. It also identifies the link between emotional intelligence and turnover intentions.

It is central for an automobile sector to retain experienced and trained employees for achieving desired outcomes in automobile sector. From the research we can find that turnover can cost up to 80 to 90 percent (Griffet & Horn, 2001); and in customer service industries the rate of turnover is particularly high (Korczynski, 2002).

## LIMITATIONS AND FUTURE DIRECTIONS

Present study investigated the effect of emotional intelligence on employee's engagement, employee well-being and turnover intentions. Used simple random sampling method, limited sample size was used and was

conducted in automobile sector. The study needs to be more comprehensive and may be examined with larger sample size. More industries could have been studied and comparisons among different sectors could have been done. The impact on employee engagement, employee well-being and turnover intentions may have been seen. Further researcher can also study the mediating roles of well-being and engagement in the relationship between emotional intelligence and organizational outcomes (job performance, organizational citizenship behavior and job satisfaction).

## CONCLUSION

This article states that employee engagement mediates the emotional intelligence and turnover intention relationship and employee well-being mediates the emotional intelligence and turnover intentions of employees. Current study has investigated the path relationship from employees' of automobile showroom. Emotional intelligence to employee well-being, work engagement and finally turnover intentions. This article indicates that emotional intelligence must be included in retention strategies because of its impact on employee's turnover intentions. The findings suggest that emotional intelligence level of automobile showroom employees affects their engagement and well-being level, and their engagement and well-being level have effects on their turnover intentions. Present study highlights the complex role of emotional intelligence in building business uniqueness through reduced turnover in organization.

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**A CASE STUDY OF ORGANIC FARMING IN HONG VILLAGE, ARUNACHAL PRADESH**

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**Landi Nado, Eshia Aruchou and Shayistha. A**Student, MA Economics, IADC-A, Bangalore

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**ABSTRACT**

*Abundant use of chemical fertilizer and pesticides in farming sector became a threat for health care as many deadly diseases occurring due the consumption of those infected foods. In order to tackle this particular problem people are marching towards organic cultivation and output and is creating better scope for future growth in this area. Hong village district Lower Subansiri, Arunachal Pradesh is one among the second largest village in Asia with its fertile land for cultivation. Agriculture is a part of their living associated with nostalgic old day's culture and tradition, but at the level of subsistence where most of its products are far away from the large and organized market structure. Apatani tribe is habitants of that's village, where most of them are organic farmers doing settled cultivation following old day's traditional method of cultivation and their cultivation mostly subsistence in nature.*

*The researcher try to understand and analysis the future scope of organic farming for increase in health issues and also farmer awareness and attitudes toward organic farming at Hong village of Arunachal Pradesh.*

*Keywords: Organic farming, Health care, Subsistence, Farmer attitude and awareness.*

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**INTRODUCTION**

Health issues are increasing these days with the excessive use of chemical fertilizer and pesticides in the farming sector and consumption of those harmful agriculture and horticulture products. Traditional method of cultivation is compromising with the health of people in order to increase their quantity and with that to increase the surplus profit. So glimpsing into this problems Organic way of cultivation would be the key to address these issues and there is transition happening from the traditional method of farming into Organic technique of cultivation. All around the world the demand for organic products are surging as people becoming more concern about health issues due to consumption of harmful substances, particularly in the developed countries. Hong village of Ziro Lower Subansiri district, Arunachal Pradesh with the total population of 1197 as per the census 2011 is a second largest village in Asia located at east side of India. The people living there are mostly depended on agriculture for their subsistence. Majority of them are subsistence farmers relied on traditional mode of cultivation, but recently government taken initiated to take them toward modern way of doing organic farming under various schemes. Although population there covered by the hilly and terrain mountains they too inflicted with health issues contributed by the consumption of polluted products mostly imported from other parts of India. Now they have become more aware of imperative of organic farming and its output. The attitude of people toward organic farming is positive and which create the better future scope of organic cultivation for increase in the health issues at that's particular area.

**REVIEW OF LITERATURE**

Sunantar Setboonsarng, Rouselle F. Lavado, (Dec. 2008), "Does Organic Agriculture Lead to Better Health Among Organic and Conventional Farmers in Thailand? An Investigation of Health Expenditure among Organic and Conventional Farmers in Thailand", in their paper tried to investigate if adoption of organic agriculture leads to better health or lower expenditure on healthcare. Their findings revealed that organic household has lower Out-of-Pocket medical expenditure than conventional households. And the impacts of catastrophic medical expenditure are greater in low-income households than higher-income households. Their findings also indirectly show that organic households experience less illness than conventional households. They suggested that promoting organic agriculture among the poor, who are at high risk of pesticide abuse, would result in more significant health gains than promoting organic agriculture among higher-income farmers.

Axel Mine, Helle Raun Anderson, Philippe Grandjean, (2017) "Human Health Implications of Organic food and Organic agriculture: a comprehensive review", in their review summarized the existing evidence on the impact of organic food on human health. They compared organic and conventional food production with respect to parameters important to human health. It indicated that organic food consumption reduces the risk of allergic disease and of overweight and obesity as consumers of organic food tend to have healthier lifestyle overall. They emphasized that an application of such production methods will likely be beneficial within conventional agriculture.

E. Rembialkowska, D. Srednicka, (2009) "Organic food quality and impact on human Health", in their paper studied the quality and safety of organic foods and investigated if the health effects of organic consumption is growing. Their results indicated higher nutritional quality and safety of organic foods in terms of many measured compounds. They also showed positive impact of organic foods on reproductive and immune status of animals. However, they found that the results are still inadequate to formulate the explicit conclusions.

## OBJECTIVES

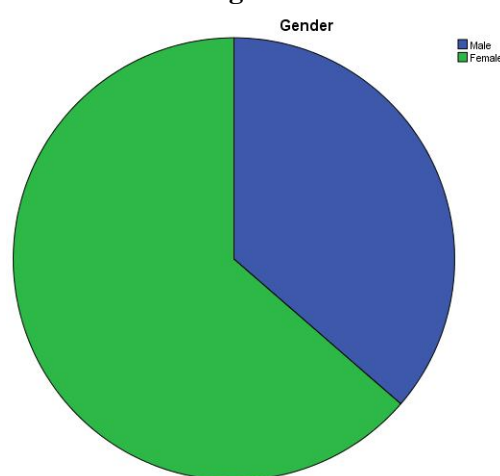
1. To explore future scope of organic farming for increase in health issues.
2. To analysis farmer awareness and attitudes toward organic farming.

## METHODOLOGY

The study is completely based on primary data. The data are collected with the help of structure questionnaire. This research is based on sample survey with non-random sampling method. The sample size is 44 and the sampling unit is in Organic farming at Hong village, Arunachal Pradesh.

## ANALYSIS

**Figure-1**



**Table: 1**

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	16	36.4	36.4	36.4
	Female	28	63.6	63.6	100.0
	Total	44	100.0	100.0	

From the table and graph above it shows the proportion of female comparatively to men is more in organic field with the percentage of male 36 and female 63.

**Figure-2**

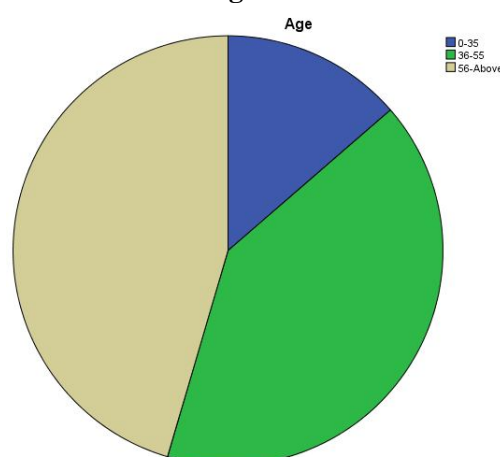


Table-2

Age				
	Frequency	Percent	Valid Percent	Cumulative Percent
0-35	6	13.6	13.6	13.6
36-55	18	40.9	40.9	54.5
56-Ab56-above	20	45.5	45.5	100.0
Total	44	100.0	100.0	

It can be seen from the above table and graph that about 45% of organic farmers are above the age of 55 and 40% between the ages of 36 to 55. Thus the contribution of young population is very less.

Figure:3

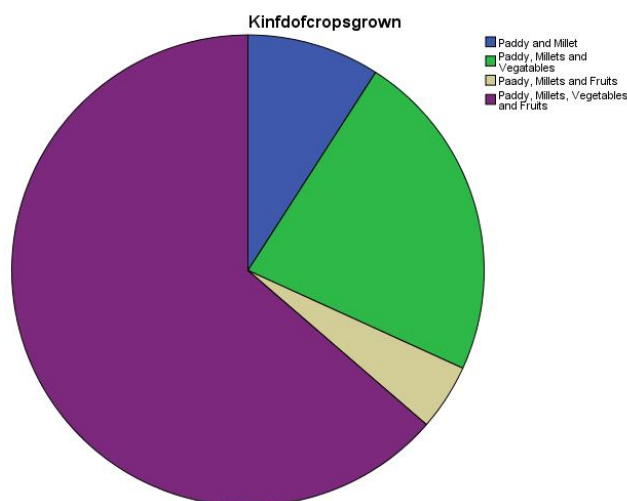


Table-3

Kind of crops grown				
	Frequency	Percent	Valid Percent	Cumulative Percent
Paddy and Millet	4	9.1	9.1	9.1
Paddy, Millets and Vegetables	10	22.7	22.7	31.8
Paddy, Millets and Fruits	2	4.5	4.5	36.4
Paddy, Millets, Vegetables and Fruits	28	63.6	63.6	100.0
Total	44	100.0	100.0	

As shown by the graph and table that more than 50% of farmers do a mix cultivation consisted of Paddy, Millets, Vegetables and Fruits area under cultivation.

Figure-4

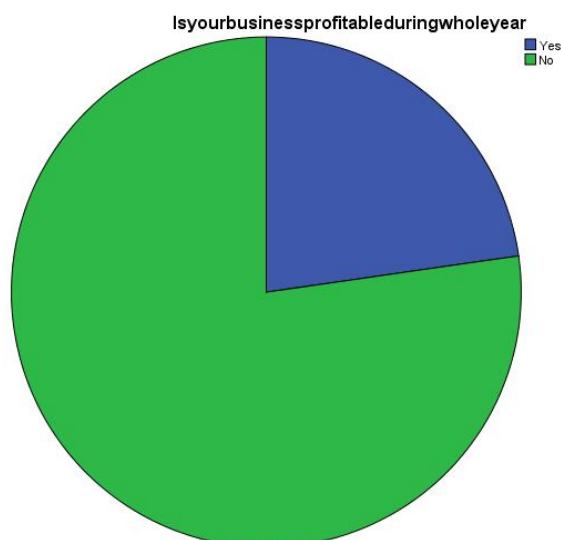


Table-4

Is your business profitable during whole year					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	22.7	22.7	22.7
	No	34	77.3	77.3	100.0
	Total	44	100.0	100.0	

From the above during the whole year majority of the farmers given negative responded about profit with 77% could not achieve their profits, whereas remaining only 23% abled to meet their profit margin.

Figure: 5

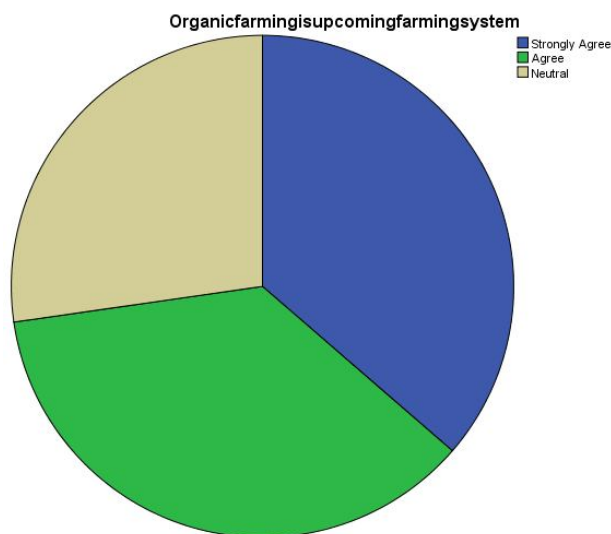


Table-5

Organic farming is upcoming farming system					
		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Agree	16	36.4	36.4	36.4
	Agree	16	36.4	36.4	72.7
	Neutral	12	27.3	27.3	100.0
	Total	44	100.0	100.0	

The pie chart as well as table depicts that more than 50% believe that organic farming is upcoming generation of farming activities, considering into the present health and climate issues.

Figure-6

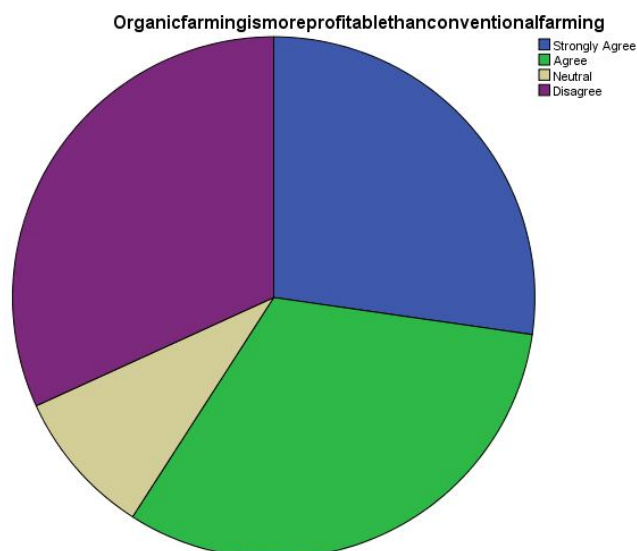


Table-6

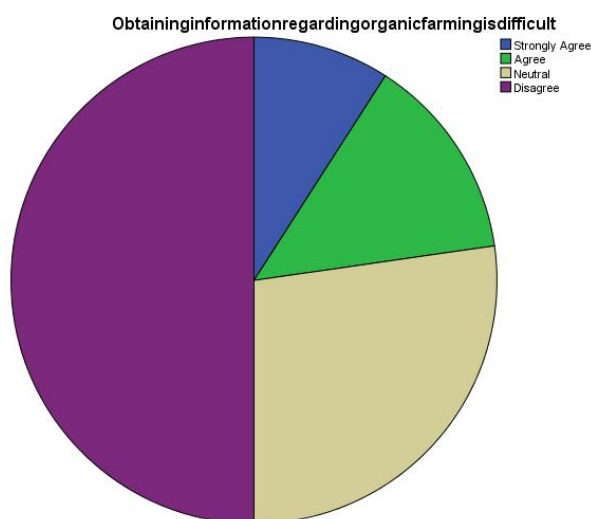
Organic farming is upcoming farming system					
		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Agree	16	36.4	36.4	36.4
	Agree	16	36.4	36.4	72.7
	Neutral	12	27.3	27.3	100.0
	Total	44	100.0	100.0	

From the above chart and table, it is clear that the views on about current market for selling its organic products are easy to find out, wherever most of those are in unorganized way.

Table:7

Obtaining information regarding organic farming is difficult					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	9.1	9.1	9.1
	Agree	6	13.6	13.6	22.7
	Neutral	12	27.3	27.3	50.0
	Disagree	22	50.0	50.0	100.0
	Total	44	100.0	100.0	

Figure-7



From the above could be interpret that farmer are finding difficulties to get the information about the way of doing better organic farming and it's various methods to increase productivity and that shows with the percentage approximately 50% agreed on it.

Figure-8

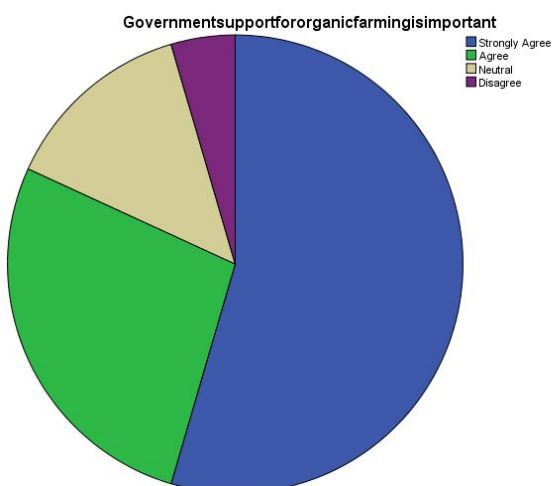


Table-8

Government support for organic farming is important					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	24	54.5	54.5	54.5
	Agree	12	27.3	27.3	81.8
	Neutral	6	13.6	13.6	95.5
	Disagree	2	4.5	4.5	100.0
	Total	44	100.0	100.0	

The pie chart and table indicates that organic farmers strongly believe that the role of the government is imperative to boost the organic farming sector and that's would help to free the farm from harmful chemical fertilizers and pesticides.

Figure-9

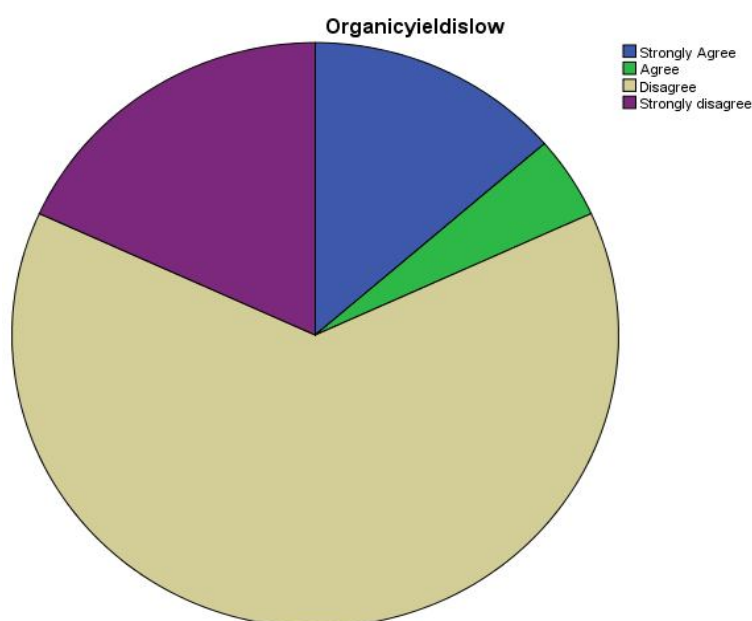


Table-9

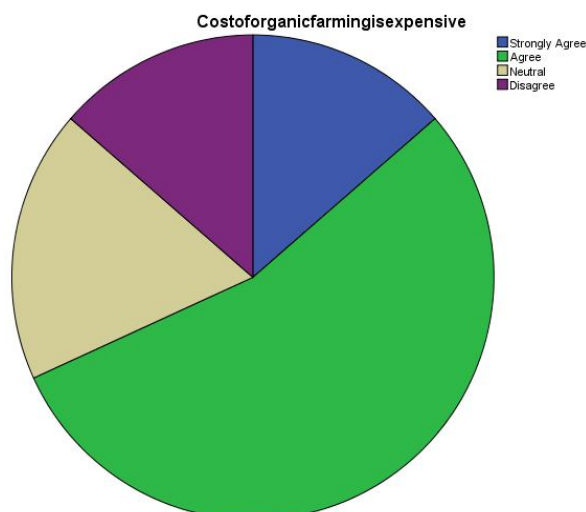
Organic yield is low				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	6	13.6	13.6	13.6
Agree	2	4.5	4.5	18.2
Disagree	28	63.6	63.6	81.8
Strongly disagree	8	18.2	18.2	100.0
Total	44	100.0	100.0	

The above chart and table depicts view of the organics crops yielding of that particular place, where it is found that about 82% farmers accepted the statement mentioned before and the main factor behind is the high fertility of soil.

Table-10

Cost of organic farming is expensive					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	6	13.6	13.6	13.6
	Agree	24	54.5	54.5	68.2
	Neutral	8	18.2	18.2	86.4
	Disagree	6	13.6	13.6	100.0
	Total	44	100.0	100.0	

Figure-10



The above chart and table indicates the opinion of farmers upon the cost of organic farming mostly for purchasing of raw materials is quite expensive which some way or others discouraging them.

Table-11

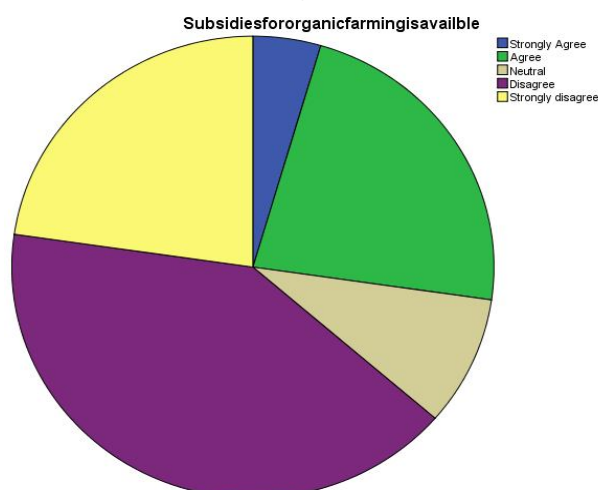
Consumer is ready to pay higher price for organic products					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	22	50.0	50.0	50.0
	Agree	18	40.9	40.9	90.9
	Neutral	4	9.1	9.1	100.0
	Total	44	100.0	100.0	

From the above table it is showing that consumers are willing to pay for organic products even at the high price due to health concern and benefits.

Table-12

Subsidies for organic farming is available					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	2	4.5	4.5	4.5
	Agree	10	22.7	22.7	27.3
	Neutral	4	9.1	9.1	36.4
	Disagree	18	40.9	40.9	77.3
	Strongly disagree	10	22.7	22.7	100.0
	Total	44	100.0	100.0	

Figure-12

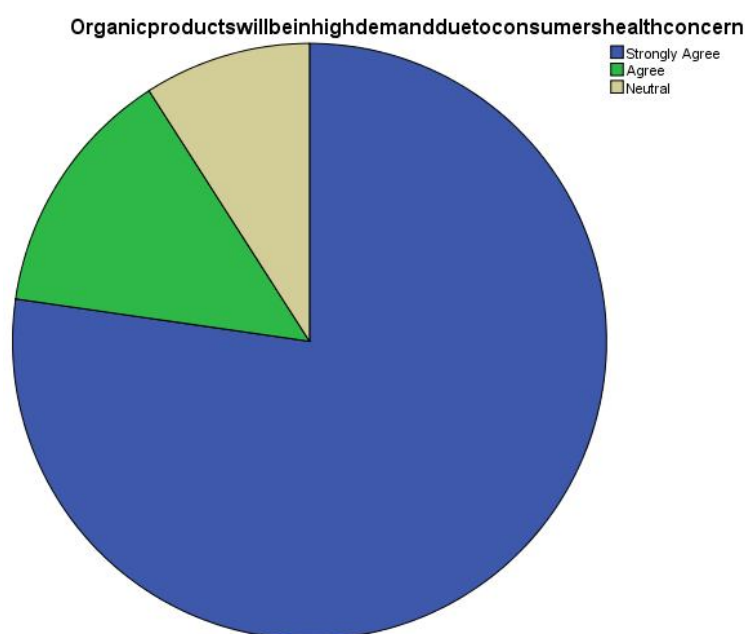


The table and chart above indicates the availability of subsidies for the organic farming where majorities of respondents with the percent of 40 as per the table mentioned believes that they do not have sufficient amount of subsidies.

Table-13

Organic products will be in high demand due to consumers health concern					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	34	77.3	77.3	77.3
	Agree	6	13.6	13.6	90.9
	Neutral	4	9.1	9.1	100.0
	Total	44	100.0	100.0	

Figure-13



It is depicting from above, the future prediction of the demand for organic products considering into health problems would rise and many of them agreed upon in the future more people would shift into the organic products due to health concern.

Figure-14

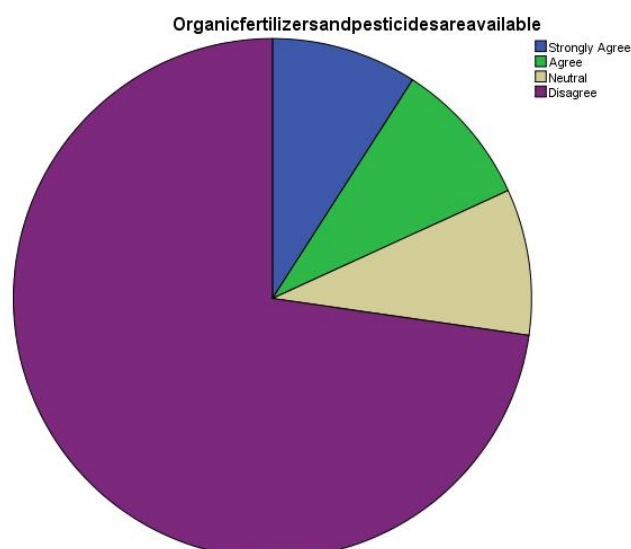




Table-14

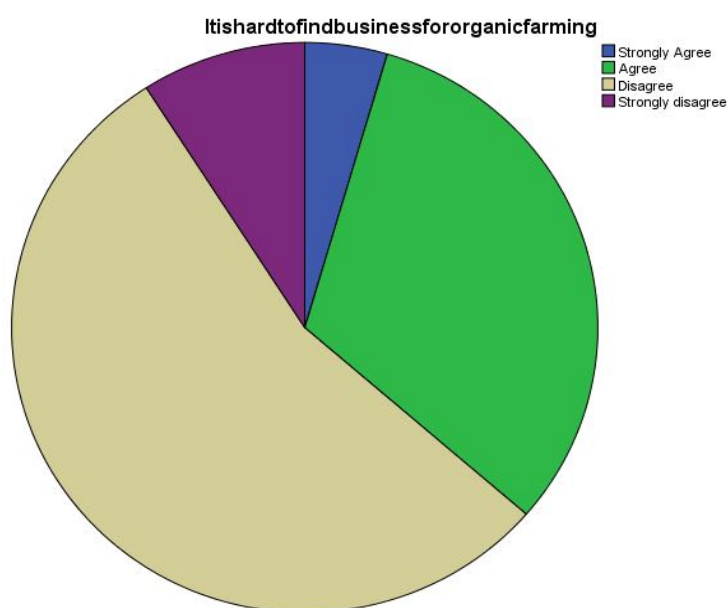
Organic fertilizers and pesticides are available					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	9.1	9.1	9.1
	Agree	4	9.1	9.1	18.2
	Neutral	4	9.1	9.1	27.3
	Disagree	32	72.7	72.7	100.0
	Total	44	100.0	100.0	

In the above chart and table indicates that farmers are disagreeing about the availability of organic fertilizers and pesticides in that particular place.

Table-15

It is hard to find business for organic farming					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	2	4.5	4.5	4.5
	Agree	14	31.8	31.8	36.4
	Disagree	24	54.5	54.5	90.9
	Strongly disagree	4	9.1	9.1	100.0
	Total	44	100.0	100.0	

Figure-15



From the above it is showing that it is easy to find a market to sell their organic products as the people awareness are growing about positive impact of organic products into human health.

## FINDINGS

1. Most of the cultivators are above the age of 40 which indicate that the young population is less engaged in farming activities.
2. Majority of cultivators are involved in mixed cultivation composed of paddy, millets, vegetables and fruits.
3. Sufficient amount of organic crops yielded.
4. There would be a higher demand in future for organic products due to health issues. Thus there is a future scope of organic farming.
5. There is a positive attitudes and awareness among the villagers about the organic farming.

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**CONCLUSION**

In recapitulate, maintaining healthy life is a goal of every human being, but with the advent of harmful chemical and fertilizers in the farming sector it became challenge. People are encountering many deadly diseases due to intake of harmful or non- organic products available in our surrounding. There is transition happening all over the world toward organic farming to tackle the growing health issues and so Hong village of Arunachal Pradesh is one among them as a small unit of sample. There is a bridge future of organic farming in that's area with sound attitude and awareness among the population, however there are some of the challenges which cultivators are facing and that mainly are low profit, lack of organized markets, inadequate subsidies etc. Thus, role of the government is crucial for the promotion and growth of organic farming to sustain the healthy population.

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**DIGITAL REVOLUTION IN EDUCATION –WITH REFERENCE TO E-LEARNING AND SOCIAL MEDIA**

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**Gracy Christina.A and Maria Jennifer A**Lecturer in Commerce, St.Anne's FGC for Women, Bangalore

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**ABSTRACT**

*Changing today's economy into a knowledge and Digital based economy For Industry 4.0. Digital revolution on educations enhances the changes and methodologies of improvements in educations fields. The educational institutions are contending with the improvements of the digital revolution on both the delivery of education and on the learning styles of the students. In the digital era, online courses has become the latest trend and digitized information crosses barriers of time, space and efficiency. Without digital technology, life is a big challenge to live and move forward because development is majorly dependent on Growing technology . The online platform is available 24×7, so it ultimately increasing the convenience for the students for accessing the information. Online courses are now in greater demand than the offline classroom courses. Moreover, the online education is easily accessible across the various devices and also considered to be eco-friendly for the growing economy. Which helps in saving a lot of trees from being cut by changing our habits from books made of paper to subscribe to the digital realm. The present paper is an attempt to analyze the digital revolution in the field of Education. Digital education should be highly valued, well funded from the government and effectively implemented in Educational sector to meet the criteria for Digital India.*

*Keywords: Education, higher studies, Digitalisation, Social media, E-learning.*

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**INTRODUCTION**

India is a diverse nation with much diversity – in culture, language, heritage etc. and so is its education system. India is said to be having one of the largest tertiary age accompanied with second largest country in producing graduates globally leading to platform for a drastic growth in educational sector by the end of 2020. India holds an important place in the global education industry and witnessed as one of the largest higher education systems in the world. Digital is not just about computers and Internet but also about mobile phones, social networking sites, artificial intelligence (AI), mobile apps and much more.

The Digital Revolution is the advancement of technology from analog electronic and mechanical devices to the digital technology. The era started to during the 1980s marking the beginning of the Information Era. Social media are interactive Web 2.0 Internet-based applications used for connecting with people of different countries. Social media facilitate the development of online social networks by connecting a user's profile with those of other individuals or groups in the SNS'S (social networking sites).

E-learning has been defined as a tool of learning which involves suing internet and intranet. E-learning has grown significantly in the last few years ,ultimately leading to drastic change in higher education. E-learning has drastically transformed the education by enabling to study online with the help of internet .E-learning courses have been indicated to outperform the traditional courses.

**HISTORY OF DIGITAL REVOLUTION**

18<sup>th</sup> century: Social media may have been influenced by the introduction of the concept telegram which led to better connection between people from different countries during 1840's.

1947-1979 :The transistor, which was introduced in 1947, paved the way for the introduction and development of digital computers, leading to the use in the government, military and other organizations during the 1950s and 1960s. the development of Intel 4004 laid the foundations for the microcomputer revolution that began in the 1970s.

- 1980s : The computer became a familiar machine and by the end of the decade, was being used in schools, homes, business, and industry ultimately becoming a necessity for many jobs. The first cell phone was also introduced in 1983 and World Wide Web in 1989..
- 1990s : By 1992, the World Wide Web had been introduced, and by 1996 the Internet became a necessity for most business operations. and the introduction of various social networking sites like which moved the generation from connecting through online and was also widely used for job orientation and business.
- 2000s :The Digital Revolution became global during this time, mobile phones were seen as a necessity more than a device, the number of Internet users continued to grow, and the television started its transition from

analog to digital signals. This decade witnessed the development of popular social networking sites like twitter, facebook, linked which emerged to be landmark for social media.

- 2010 and beyond :By this decade, Internet makes more than half of the world's population to be connected .By 2015, tablet computers and smartphones were expected to exceed personal computers in Internet usage, which marks the development for digitalizing economy.

## **REVIEW OF LITERATURE**

Ashraf Jalal Yousef Zaidieh: The Use of Social Networking in Education: Challenges and Opportunities (2012), the author explains the relationship between the social networking and education. The author conclude that there are benefits like flexibility, accessibility and obstacles like Privacy with the using the social networking as educational tool.

Rasmita Kalasi: The Impact of Social Networking on New Age Teaching and Learning: An Overview (2014), The paper studies how social media has influenced teaching and learning. . The paper found out that new technologies are used extensively by the young people for personal use and suggests that Social Network Sites are also creating E-environment at education level which makes us to provide a new and innovative dimension in order to enable student adapt to a future where everything rapidly evolves.

Sreeja Rajesh: Effectiveness of Social Media in Education (2015), the study aims at proving how social media is useful for students in education and its effectiveness in young people and the different area in which students can get the benefit of using social media, the paper also concentrates on the negative aspects of social media .The paper finally concludes that social media very useful tool in education purposes and career opportunities.

Preeti Srivastava: Social Networking & Its Impact on Education-System in Contemporary Era (2012), The study concentrates on understanding the social networking, their roles, impact of networking sites on education and its drawbacks ,privacy in networking for the future generation. The study is based on observation and documentary analysis which is qualitative in nature, the author neutralizes his opinion on having balanced and socially approved use of SNSs with wisdom for better economy.

Nivedita Jha and Veena Shenoy, Digitization of Indian Education Process: A Hope or Hype (2016), the paper aimed at analyzing the nature of the modern education process in India. The paper suggests and concludes that there should be a combination of physical presence of the teacher and technology for Effective and better education system.

## **METHODOLOGY**

### **RESEARCH STATEMENT**

The main idea of this study is to understand and analyze the digitalization on higher education, which helps in the transition of knowledge based economy into a more competitive and technological oriented economy.

### **RESEARCH OBJECTIVES**

- To understand the concept of transforming the traditional education in India towards ICT (information and computer technology) in educational sector
- To analyze the positive and negative impacts of education through social media and E-learning
- To provide an outlook showcasing the E-learning and Social media as a boon or bane to Growing Economy

### **SCOPE**

The main intention of this study is made to understand digitalization on education which helps in improving the quality of Education system in India.

### **METHODS**

Data collection involves :primary data through views and discussions from faculties of various colleges through personal interview and discussions. Secondary data for the study includes various articles, journals, newspapers and books relating to digitalization on education

### **EDUCATION SYSTEM - BEFORE DIGITALIZATION**

Before digitalization it was a formal education system in India, Ancient Indian education was different from the rest of the world where the involvement of society with interference with curriculum or the administration was restricted, for a student to get higher education they are supposed to leave their homes and parents and live with the teacher which was basically called as gurukul system of conducting classes. The only advantage of education those days was cost free and personal attention from the guru. Before digitalization the education was all manual work, debates and discussions, students were thought individually by the teachers based on their

capabilities and aptitudes and the other basic medium to impart knowledge were oral recitation. Storytelling, memorization, critical analyses and mainly concentration on practical study in various fields.

### **EDUCATION SYSTEM - AFTER DIGITALIZATION**

Change is the only thing which is constant for a infinite period of time and which also opts for the word digital revolution. Digital revolution has brought many changes in various field, here we discuss how digitalization influenced education system in India. Offcouse we can witness the biggest revolution that has transformed ancient education with digital education.

Digital transformation has affected every industry. Unexceptionally, education is one of the last industries to adopt immeasurable change, holding on to anticipated methods and practices. Educators of different levels are realizing the benefits of technology in class rooms. Gone are those days of gurukul system where students are expected to sit and listen to the teachers, Teachers have begun to make huge changes to their assessments, instructions and even the physical makeup of their class rooms much faster than expected. Student's intention in education as changed to be completely practical and entertaining to keep their attention according to the point of view of educators therefore teachers have involved in the use of digitalization in teaching by adopting augmented, virtual reality and mixed reality by usage of internet, technology and social media sites has completely digitalized the education system.

### **IMPORTANCE OF DIGITAL REVOLUTION ON EDUCATION:**

- It helps in enhancing learning skills
- Accessing information worldwide easily
- It creates opportunity for getting updated in the current affairs for students.
- It creates easy access and convenience for teachers and student to acquire knowledge and time effective in nature.
- The students are able to convey their views and thoughts through social networking sites for the social development.

Overall the digital revolution has made technology and social media a necessity in higher education in the current generation.

### **ROLE OF DIGITAL REVOLUTION IN TRANSPARENCY OF HIGHER EDUCATION**

Digital revolution play a major role in transparency of higher education Transparency here refers to easy access and availability of the information 24X7 in any corner of the world to any users ,for such information to be used by the users instant access is required, transparency in effective students and parents to learn the worth of education before they enroll themselves in any institution or course study therefore digital revolution acts as a transparency tool to access available information to the end users without much difficulty.

### **MEASURES FOR ADOPTING AND DEVELOPING DIGITALIZATION EDUCATION IN INDIA**

The Digital India programme is an initiative by the Government of India launched on 2 July 2015. The campaign focuses on a complete digital transformation of society and the development of a knowledge economy. The Study of Webs of Active – Learning for Young Aspiring Minds (SWAYAM) project is aimed at providing learning opportunities to students to study anytime, anywhere and at any place, but within a structured curriculum. It consists of massive open online courses (MOOCs) in a controlled environment. It is completely free of cost courses available for all students from 9th standard to PhD.

The government supports financially the R&D projects in the area of E-Learning at various academic educational institutes. NIOS helps in promoting E-Learning at the school level, such as, Virtual Open Schooling (VOS), Eklavaya–Massive Open Online Courses, etc.

### **SOCIAL MEDIA ON EDUCATION**

#### **SOCIAL MEDIA FACTS**

There are 370 million internet users in India, pointing towards India's enormous potential as a huge market for e-learning. In 2019, it is estimated that there will be around 2.77 billion social network users around the globe.

1. Facebook : facebook is an ever growing social networking sites connecting people from different parts of the world. Everyday there are half million new users creating new facebook profiles and facebook messages cross 60 billion .It acts as a book for creating new friends through online leading to better social communication .
2. Instagram: Uploading and sharing creative ideas .

3. LinkedIn : Linked stands as a platform for career development of students
4. Pinterest: A to Z information can be generated. Right from kitchen to fashion everything can be accessed.
5. Twitter: To create profiles, follow profiles of various personalities. It helps in sharing the views and it acts as a pocket newsletter of political and social affairs.
6. YouTube: 1.6 billion users watch 5 billion videos on the site every single day. YouTube is available for the users in 76 languages across 88 countries, covering 95% of all internet users.

According to a report by KPMG, the Indian online education industry will register a 6X growth in 2021. From 1.6 million users in 2016, it will grow to 9.6 million users by 2021. It will also be worth \$1.96 billion.

(source: <https://www.indiatoday.in/education-today/featurephilia/story/how-online-learning-is-doing-away-with-traditional-learning-methods-1382923-2018-11-05>)

#### **THE POSITIVE IMPACTS OF SOCIAL MEDIA INCLUDES**

- Better communication and encourages freedom of views, thoughts and ideas on various issues.
- Exchanging ideas and enhancing networking skills.
- Development of technical expertise and knowledge of systems and technology.

#### **THE NEGATIVE IMPACTS OF SOCIAL MEDIA INCLUDE**

- Cyber bullying as a threat to social media websites.
- Increasing addiction to SM websites negative health impacts.
- Sexualizing practices through SM.
- The facts and information provided in Social Networking sites (SNS's) are not always true. Hence there is no complete reliability

#### **EDUCATIONAL APPLICATIONS FOR STUDENTS THROUGH E-LEARNING**

The educational application helps the students to get online resources and mastering the various subjects for students leading them to top the exams from High school foundation classes to Competitive exams. It also helps them in downloading videos and audios of various lectures, speeches for offline learning. E-learning is less costly, less time consuming and accessible from any parts of the world. The best Educational applications for students through E-learning are Byju Academy, Unacademy, EDX Price, Ted, Google play books, Khan academy, Quiz Let, Socratic, Solo learn, One word, Udacity, Udamey, Wolfram Alpha, Coursera: Online courses, Dictionary.com, Duolingo

#### **ADVANTAGES**

- Live instruction and Student-to-student interactions (video conferencing): The instructors remain in one location addressing students from various parts of the world. Video conferencing is also used to provide interactions between students and instructors.
- Video content delivery: Pre-recorded content such as lectures, documentaries, and other video content may be delivered in a way which can be accessed at any point of time.
- Remote test administration: standardised tests are used to evaluate students on a level of understanding the subject
- Up-to-date materials: E-readers accessibility of online books.
- Self-learning: Computer-based training or self-paced learning is enhanced in higher education and E-learning. Post-graduate students working in remote locations as part of their study may be able to consult instructors at the university when needed.

#### **DISADVANTAGES**

- Reducing self-discipline and social values among students
- Too much dependency on technology prone to technological issues.
- It lacks in motivating students through personal contact, providing examples during online sessions which might not be adaptable for all students.

**POLICY IMPLICATIONS**

The digital economy is heavily based on technology leading to intellectual property rights. The users and developers should enforce strict protection to patents and copyrighted work, either produced in India or elsewhere outside the country.

**SOCIAL MEDIA AND E-LEARNING AS A BOON OR A BANE TO CAREER GROWTH OF STUDENTS**

**Social media and E-learning as a boon:** It becomes a boon when humans are controlling Technology. When effectively used it acts as a tool for better communication and improves the career opportunities through accessing resources online and offline. There is no Discrimination for the users and viewers of Social media websites and E-Learning apps like reservations, personal bias etc which motivates students to cross barriers and express their freedom of freedom of speech.

**SOCIAL MEDIA AND E-LEARNING AS A BANE**

It becomes when humans are taken control over by Technology. It improves only non-verbal communication rather than verbal communication, wherein the verbal communication is a necessity to face the corporate world. Numerous casual relationships are formed through social media which is not lasting for a long time. It attracts students to spend more time online which is an outcome of someone else idea and thoughts, which reduces their creativity and generation of new ideas.

**ANNEXURE**

A Personal Interview with:

- Priya M.S, M.Sc from Computer Science and Indumathi from Hindi department currently working has a lectures in St.Annes First Grade college , Bangalore
- Gladys agnes, M.com and Manoj Prabhakar, M.com currently working has a lecture in the department of commerce in Kristu Jayanti college , Bangalore
- Priyadarshini, M.com, (Ph.d) currently Pursuing Ph.d in Reva University, Bangalore.

This interview was conducted as part of primary data for the study. Following are the set questions asked.

**QUESTIONNAIRE**

1. What are a students/Faculty's perception towards usage of social media ? \*

Your answer

2. Do you find social media websites as a tool for carrier growth and development ?

Yes ☐

No ☐

May be ☐

3. Do you find E-learning as more convenient than traditional courses ? \*

Yes ☐

No ☐

May Be ☐

4. Have You used social media for accessing information for Academic purposes ? \*

Yes ☐

No ☐

5. How frequently do you visit library to gather information from books ? \*

Very Frequently Visited ☐

Rarely Visited ☐

Never Visited ☐

6. How frequently do you visit online sites to gather information ? \*

Very Frequently Visited ☐

Rarely Visited ☐

Never Visited ☐

7. Have you seen improvements in teaching aids due to adoption of technology \*

Yes ☐

No ☐

8. Is Social Media and E-Learning a Boon or Bane to educational sector ?comment\*

9. Are you aware about Intellectual Property right \*

Yes ☐

No ☐

10. Is Digital revolution is an improvement to the growing economy ? \*

Yes ☐

No ☐

11. Comments and/or questions \*

Your answer

### CONCLUSION FROM PERSONAL INTERVIEW

The Digital revolution in educational sector is considered as technology oriented. Students who are technology freak will accept the Online Education, as it makes their work much easy and time effective. The difficulties in implementation of digitalization on Education are: level of technology skilled Faculty and students are minimal, Infrastructural facilities for adopting to new software and hardware are costly, Equipment requirements for practical oriented Subjects are unavailable as it does not involve a personal contact between the teachers and students etc., faculties have seen a various improvements in the teaching aids due to adoption of technology in the educational field. To a certain extent, faculties feel that the Usage of ICT has helped them in improving their teaching aids. There should be workshops, seminars conducted to update the faculty and students regarding the IPR (Intellectual property rights) knowledge because of the drastic growth of plagiarism and developing technology. The students and faculties concluded that the digital revolution is always an improvement to the growing economy in the educational sector.

### LIMITATIONS OF DIGITAL EDUCATION

- The Non-IT students need to increase the level of technological and communication skill to benefit from the opportunities of e-learning.
- The students lack the confidence and experience in using technology.
- The education institution need to restructure their courses according to the online requirement which requires more time and increases the cost.
- Lack of personal contact to students and teachers in E-learning.
- For inventing digitalization, lot of time, cost and knowledge is required on hardware and software, but for adapting it only requires interest and experience.

The integration of technology into the teaching and learning process remains difficult as it requires management support along with resources and sufficient time allocation for a succesul educational sector. There should be conscious effort by course designers and developers to ensure that digitization does not leave behind masses and create a massive digital divide between technology freak and not tech savvy.

### CONCLUSION

From Guru-Shishya system of conducting the class in open garden under the trees to closed class room lectures leading to presentation form of teaching with the aid of LCD projectors and online notes through email and instant WhatsApp messages is the move highlighting the digitalization on education. Whatsapp has acknowledged the formal means of communication among the students and the academicians. E-Learning should be a beneficial investment for a country because of the increase in productivity, knowledge, and educational level that it brings for the society.



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**STREET VENDORS' INTENTION TO USE E WALLET: EXTENSION TO TECHNOLOGY ACCEPTANCE MODEL**

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**Dr. C. Nagadeepa and Swathi P K**Assistant Professor, Kristu Jayanti College, Bangalore

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**ABSTRACT**

*In today's electronic era, not even a single day goes without usage of internet and smartphones. This has made us more convenient way of handling things at the tip of finger. One of those applications which all of us come across is "E-wallet", which we often called mobile wallet or digital wallet. E- Wallet is a type of electronic card which is used for transactions made online through a computer or a smartphone. Its utility is same as a credit or debit card. The main purpose of E- Wallet is to carry out the monetary transactions in small business with a click of button. This study focuses on the reason behind the acceptance of non-cash payment from the customers through various types of e-wallets by the Street food vendors. Further this study extends its views to find out the acceptance of the new technology by street vendors using Technology Acceptance Model (TAM). For this study a sample size of 170 street vendors were selected as respondents from various parts of Bangalore. To find out the intention to use this technology by the street vendors, Structural equation modeling was used. The study aimed to find out the users attitude towards the usage of this technology and also the find out the relationship between perceived usefulness, perceived ease of use and users intention to use the technology. The result of the study supported that the street vendors are comfortable and ready use this technology currently and in the future also.*

*Keywords: E Wallet, street vendors, TAM, SEM.*

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**INTRODUCTION**

Commerce is literally buying and selling of goods and services in large scale. In today's era, Commerce is going online. It has reached the extent of using commerce in mobile. Smart phones are helping the new advent of E Commerce in its own way. Now a day's smartphones has become more dominant replacing desktop computers and laptop computers. One among the E commerce trends which are more popular now is E Wallet. It is also called Digital Wallet. The digital wallet is like an engine of mobile commerce. If E Wallet was not there in this society, we were supposed to go to all places where we had to stand in queue wasting our times. Now E Wallet has made us very easy that at the tip of figure one can pay all the bills, taxes etc. Among all the individuals who are using the E Wallet services street vendors are one.

Street vendors are one who sells their products in the street, platforms and in petty shops such as vegetable vendor, Tea/coffee shops, small food vendors, small grocery vendors etc. These small vendors to boost their business and cope up with the new trend they started using E Wallet. The main reason behind their adoption of this technology is started after demonetization. The small vendors are started accepting and switched to E Wallet and cash less transactions. E Commerce has extended its hand even to those street food vendors. According to them, E wallet makes them easy their transactions through online payments, which is directly linked to one's bank account. Most of them prefer Paytm for their transactions. This study was mainly concentrated upon the intention to use this technology because of the technology usefulness and ease of use. The Technology Acceptance Model (TAM) was used to find out what determines the user to accept the E Wallet. In this study to find out the intention towards this technology by the users are proved using the model which is well developed by Davis (1986) i.e., technology acceptance model (TAM).

**LITERATURE REVIEW**

Suki (2013) accepted that there is a relationship between students' purchase behaviour and their dependency of smartphones payments. Elogie (2015) accepted that that ease of use and ease of availability of the e wallet technology have universally ingrained e wallets into everyday activity of the people. Usage of smartphones like a leather wallet is called as 'Digital Wallet' or commonly known as 'Mobile Wallet'. Cole et. al.,(2009) accepted that today's fast world, the users are using the mobile wallet as a substitute for a physical wallet. Patel (2016) found that young generation's perception about the usefulness of the e wallet services could increase the efficiency of consumers' buying. According to Amoroso et al, (2012), Indian e wallet market has been significantly increased both in volume and value after demonetization. Mykytyn (2007) analyzed the factors motivated the customer adoption of online payment. The research found that a majority of respondents are considered that primary intention to use the online payment is risk which is associated with online payments. Deng, Lu, and Chen (2010) examined a model for acceptance of online banking with three constructs i.e., perceived credibility, usage of SMS and perceived service cost. They found insignificance between perceived

ease of use, perceived credibility, perceived cost and behavioral attitude toward mobile banking among the users. Chen(2008) tested the determinants affecting the users mobile payment (m-payments) acceptance. Consumer acceptance towards mobile payments was determined by four factors such as perceived use, perceived ease of use, perceived risk, and compatibility. They found that there is strong influence of among the dependent independent variables.

## METHODOLOGY

This study adopted descriptive survey design; the study was conducted in Bangalore City. The sample size of the study was 175 which include the various street vendors such as vegetable shop vendor, Tea/coffee shops, small food vendors, small grocery vendors and road side vendors of various products. The data was collected through interview method as many of them are not much literate to understand and not able to fill up the questionnaire. The main objective of this paper is to find out the acceptance of the E Wallet (cash less payment system) by the street vendors by using TAM. Technology acceptance model was used in this study to know the relationship between perceived usefulness (PU) of E Wallet technology , perceived ease of use(PEOU), attitude towards usage of the technology (ATU) and behavioral intention to use e wallet to receive the payment from the customer (BIU) by street vendors. Perceived usefulness (PU) means the degree to which a user believes that using new digital technology would enhance users' performance in the course of action, whereas perceived ease of use refers to the user's perception that using the technology will make themselves free of hardship and hard effort. Based on the objective, the following hypotheses were developed and tested using SPSS.

H1: PU will have a significant influence on attitude towards usage of e wallet.

H2: PEOU will have a significant influence on attitude towards usage of e wallet

H3: PEOU will have a significant influence on PU of e wallet.

H4: ATU will have a significant influence on user's behavioral intention to use e wallet.

Based on the above hypothesis the following conceptual frame work has been developed to prove the hypothesis.

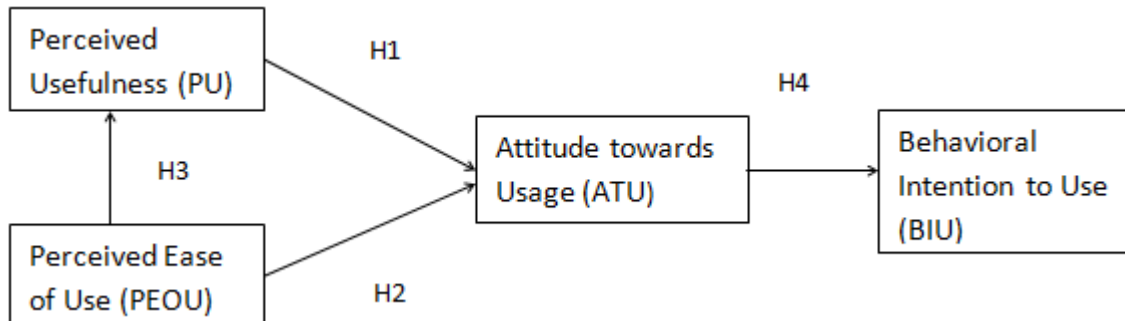


Fig-1: Conceptual framework – Technology Acceptance Model

## ANALYSIS AND FINDINGS

A descriptive analysis was performed to provide the information with respect to the demographic profile of the respondents. The following table shows the demographic profile of the respondents:

Table-1: Socio-demographic profile of the respondents

Socio-demographic variable	Description	Frequency %
Gender	Male	38
	Female	62
No. of year they are doing this business (in years)	<1	10
	1 to less than 3	31
	3 to less than 5	27
	5 to less than 7	17
	7 and above	15
Average sales per day (in Rs.)	Less than 2,000	40
	2000 to 4000	45
	4001 to 6000	10
	Above 6000	5

Reliability testing was performed to ensure that all research items are reliable. Cronbach's alpha was calculated to ensure the consistency of the data and the result same showed in the below table:

**Table-2: Reliability Test**

Variable	No. of items	Cronbach's Alpha
Perceived usefulness	4	0.842
Perceived ease of use	5	0.770
Attitude towards usage of technology	4	0.834
Behavioural intention to use the technology	4	0.868

### CORRELATION ANALYSIS

Correlation analysis was executed to examine the relationship between independent and the dependent variable. The result of the correlation test is shown below correlation at 1% significant level

**Table-3: Results of Correlation analysis**

	PU	PEOU	ATU	BIU
PU	1			
PEOU	0.467**	1		
ATU	0.615**	0.470**	1	
BIU	0.682**	0.504**	0.562**	1

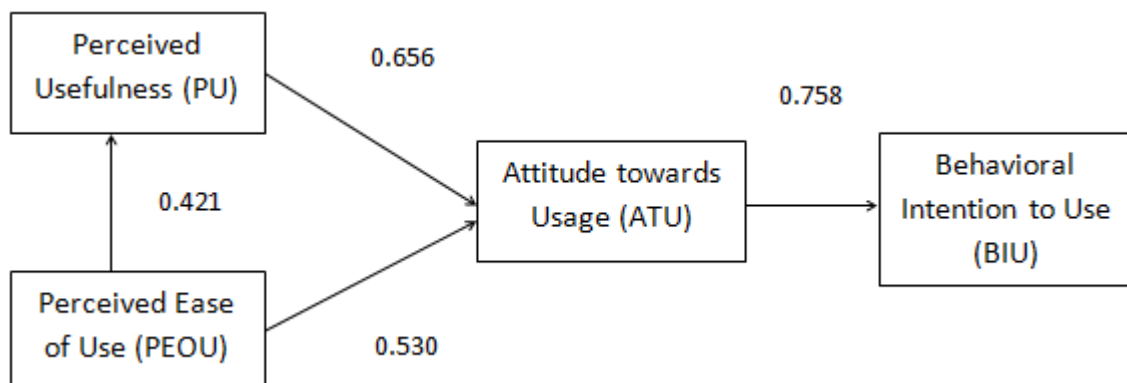
The result clearly shows that there is positive relationship between the independent and dependent variables at 1% significant level.

### REGRESSION ANALYSIS

Regression analysis was conducted to find out the relationship between the dependent and independent variable. The following table shows the strength of independent variable to the dependent variable.

**Table-4: Regression analysis**

Independent variable	Dependent Variable	Beta	P value
PEOU	PU	0.421	0.001
PEOU	ATU	0.530	0.000
PU	ATU	0.656	0.002
ATU	BIU	0.758	0.001



**Fig-2: Research Result – Technology Acceptance Model**

The first hypothesis namely H1 is PU will have a significant influence on attitude towards usage of e wallet by the street vendors. The result of the study revealed that PU has a positive significant influence on ATU ( $\beta=0.656$  &  $p<0.01$ ) at 1% significant level. The usefulness of the e-wallet shows the positive attitude of the users. Further the results of study proved that (H2) PEOU also has a significant influence on ATU ( $\beta=0.530$  &  $p<0.01$ ) at 1% significant level, and also it has a significant influence on PU (H3) too ( $\beta=0.421$  &  $p<0.01$ ) at 1% significant level. Finally, the attitude of the users' towards the e wallet among the street vendors exhibited a significant relationship with intention to use the technology (H4 -  $\beta=0.758$  &  $p<0.01$  at 1% significant level) in their day to day life.

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**CONCLUSION**

The study was mainly focused on the acceptance of E Wallet services among street food vendors. And also it is extended to find out the relationship between PEOU, PU, ATU towards usage of e wallet a new technology by the street vendors who are not familiar with the technology. Results showed that the street vendors are moderately intended to use the digital technology in their day to day life for accepting the cashless payments. At the same time they are also benefited by the digital technology to improve their knowledge and getting interested because of the convenience of the new pedagogy. Even though there was increase in sale sales after implementing E Wallet services, the cash transactions were more in number rather than E Wallet transactions. Few of the respondents feel that there are quite difficulties like network problems and amount will be credited late to their accounts. Many street food vendors also revealed that they were happy with E Wallet services and they feel it very easy to access.

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**EMERGING ROLE OF WOMEN BANKS IN INDIA - DIGITAL FINANCIAL INCLUSION**

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**Noopur and Dr. Sujatha Susanna Kumari D**

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**ABSTRACT**

*Industry 4.0 is a revolution which has brought the world very close by removing all kind of physical barriers. The greatest invention and boon in the recent time to mankind has been development of internet and technology. Though the researchers and industry experts has always debated about the opportunities and threats to mankind because of technology usage and dependence, a smoother life without internet and the range of services availed using it at this age is beyond imagination. Hence, the entire world is focusing on opportunities the Industry 4.0 has brought rather than the expected threats to the society. Information and Communication Technologies (ICT) has changed the way of doing business by bringing in more efficiency and transparency in business processes. This paper discuss about one of its many such applications, its role in achieving the goal of financial inclusion. Digital financial Inclusion is key enabler for making finance not only available but also accessible at an affordable cost. The paper discusses about the government initiatives in the field of digital financial inclusion and how the women banks can play a vital role in taking forward the government efforts and reducing the gender gap in financial inclusion.*

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**INTRODUCTION**

Industry 4.0 is a revolution which has changed the interaction between the man and the machine it has transformed from physical to virtual. The world has been introduced to a lifestyle which is very fast, efficient and convenient. From replacing manpower to robots, to the way of doing business, to its penetration in our day to day activities the presence of Industry 4.0 can be felt everywhere. We are not only surrounded but dependent on technological innovations. Hence, we have to find a balance between the creativity and dependence. It has given us a vision to move beyond the geographical barriers and make world a single cosmopolitan space where each one is connected or can get connected.

Financial accounts and asset ownership help women to come out of the vicious circle of poverty and become resilient to economic shocks. Having an account ownership at a financial institution or with a mobile money service provider is a measure of women access to financial services. Women are often dependent on men in account ownership.

A broad working definition of financial inclusion as given by the Committee on Financial Inclusion is, “the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost”

According to the Global Gender Gap report 2018 by the World Economic Forum, India ranks 124 among 149 countries in Economic participation and opportunity; it occupies the place of 114 in Educational attainment, with an overall rank in Global Gender Gap Index as 108.

The gender which constitutes 48.19% of the total population lacks both the availability and accessibility of financial products and services. The data indicates the gap of women accessibility to financial resources. The present technological development can be used to achieve the objective of financial inclusion. It is important to divert our efforts to include and bring this 48.19% of the population into the financial system and utilize their potential for economic growth and development.

This paper highlights the emerging role of women banks in reaching out to the women and encouraging them to get into the formal financial system using information technology and devices. Digital Financial Inclusion digital access to and use of formal financial services by excluded and underserved populations. Such services should be suited to the customers' needs and delivered responsibly, at a cost both affordable to customers and sustainable for providers.

**OBJECTIVES**

1. To study initiatives by the government towards Digital Financial Inclusion
2. To describe the emerging role of Women Banks in Digital Financial Inclusion

**STATEMENT OF THE PROBLEM**

The three main dimensions of financial inclusion are access, usage and quality. Women make a meager 17.4% of mobile subscribers in the country, of which only 30% of the women use internet. The gender gap in financial inclusion is 6%, though the progress has been positive a lot more need to be done. Global Findex Report 2017

reaffirms the potential of the 'Jan Dhan - Aadhar - Mobile (JAM) Trinity in expanding financial inclusion. Hence the government, financial institutions and women should work together for an inclusive growth and development. This paper highlights the significance of Women Banks in Digital Financial Inclusion.

### RESEARCH METHODOLOGY

The present study is a descriptive research paper. The study is based on secondary data. The data is collected from various articles, research papers and national/international reports.

### FINDINGS AND DISCUSSION

India has made an impressive progress in the last few years in financial inclusion its efforts such as Jan Dhan Yojana one of its kind a massive programme of making the unbanked open a bank has received appreciation from all over the world. With the strategy of 'India stack' a set of systems, policies and APIs (Application Programming Interfaces) that enable government, businesses and others to use its digital infrastructure to support a range of paperless and cashless services.

India Stack consists of four main levels which together are making India's financial sector more efficient, expanding access to financial services across the country, opening the market to competition from entrepreneurs, start-ups and e-commerce firms, supporting economic growth and development and reducing poverty.

<b>Level I</b>	Digital id and ekyc for identification and simplified account opening
<b>Level II</b>	Open electronic payment system, infrastructure and an enabling regulatory and policy environment that facilitate the digital flow of funds from both traditional financial intermediaries and new market entrant
<b>Level III</b>	Account opening initiatives and electronic provision of government services, providing vital tools to access services and save
<b>Level IV</b>	Design of digital financial market infrastructure and systems that, in turn, support value-added financial services and products and deepen access, usage and stability.

(Source: 2016 Brookings Financial and Digital Inclusion Project Report)

India has successfully designed an efficient strategy to achieve the goal of financial inclusion and has been able to reduced gender gap in ownership by six percentage points as compared to 2014 with 83 percent of the men and 77 percent women now having an account. Although the improvement is significant it is not satisfactory as the gender gap has reduced but not eliminated.

The Women Banks can play a crucial role in reducing this gap as their reach to the women community from all the sectors is comparatively more than its other counterparts in the banking system. It is because the working of women banks is mainly through Self Help Groups (SHG), Non-Profit Organisations (NGOSs) and is entirely focused on women welfare and well being. The women banks have the required staff and resources to reach to the women community. Hence, the women banks can perform better and will be instrumental in reducing the gender gap in financial inclusion. The groundwork for digital financial inclusion is already in place, the platform and the infrastructure is set in, the need of the hour is to bring awareness, increase accessibility, increase usage and quality of the financial products and services offered to women.

The women banks can impede the ongoing financial inclusion progress by taking the following steps:

#### (I) to get a Unique Identification Card

It is important to make women, especially from the rural and backward region to realize the fact that they have right to participate in the society and economy. To instill in them a belief that they are valuable and capable, to live a financially independent life. The first step towards making a women financially independent, is to own a bank account. Adhaar card is a tool which has made processes such as opening a bank account and getting a SIM card very simple and convenient. A 12 digit Unique Identification Card is a multipurpose card which can be used as a proof of identity, proof of address and proof of age. It is the only Identification Card which can be accessed online anytime and anywhere. These features and uses linked with Adhaar Card have made it a vital tool of economic equality for women in India. The Indian government has strategized to transfer subsidies directly in the beneficiary's bank account; to keep the bank accounts active and make women the part of financial system. The reach and network of Women Banks to the women community is widespread, hence their

role in the financial inclusion of women is of the utmost importance in reducing the gender gap in financial inclusion.

### **(II) Encourage women to own and use Mobile Phone**

Mobile phone is the key enabler for digital financial inclusion success. In the 21<sup>st</sup> century mobile phones are not just a device for communication rather it is gateway to a slew of financial services. An Internet connection and Mobile phones have become the necessities of life. According to the Department of Telecommunication, women make meager 17.4% of mobile subscribers in the country. India has the higher gender gap in mobile phone ownership among 18 comparable countries. It said 80% of men use mobile phone in India while the number of women stood at 43%. At times when prices of mobiles are low are affordable, the data revealing the inequality in ownership of mobile phone is not favourable. The Women Banks should provide loans to purchase mobile phone. Women Banks dedicatedly work for the women; it works on the principle of customization of financial products, hence they have the required resources to reach and understand the reasons of not using a mobile phone by a woman. It should promote more usage of mobile phones for banking to its clients. So, its role in increasing the number of women mobile subscribers in India is vital.

### **(III) Internet Literacy**

According to the report Internet in India 2017 report issued by Internet and Mobile Association of India, only 30% of the total internet users in India are women. The immediate steps should be taken to increase the number of women internet users in India. The internet literacy programmes should be conducted to literate women about the various uses of internet

Availability is not just enough, accessibility is essential for complete financial inclusion. The variables to keep in mind while designing the programmes for internet literacy.

- Level of literacy
- The type of occupation
- The curiosity to learn and adopt

The awareness about the various e-payment platforms such as Paytm, PhonePe, GooglePay, and many more, is essential to reach the goal of financial inclusion. The programme should include and teach how to open accounts, transfer money online, payment of various bills, recharge phone and online shopping.

### **CONCLUSION**

Empowered women community is the most essential asset for a nation to prosper and develop. To empower women and provide her equal opportunities digital literacy is the most powerful and effective tool. Women Banks role is most crucial in achieving the target of Universal Digital Literacy and Digital Financial Inclusion of the government. The government should provide the necessary manpower, infrastructure, support and encourage Women Banks to make Digital Financial Inclusion as one its main objective.

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**IMPACT OF MGNREGA ON HOUSEHOLD DECISION MAKING OF WOMEN BENEFICIARIES: A CASE STUDY OF EAST SINGHBHUM DISTRICT OF JHARKHAND**

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**Annesha Biswas**Christ (Deemed to be University), Bangalore

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**ABSTRACT**

*Using a field survey, this paper examines the impact of MGNREGA on household decision making of women beneficiaries in East Singhbhum district of Jharkhand. Also it helps to find out the real issues and challenges faced by them under this program. The result of the study revealed that there was an improvement in the decision making power of the women beneficiaries after getting employment in MGNREGA and therefore has a positive impact in the decision making power of women beneficiaries.*

*Keywords: MGNREGA, Employment Generation, Decision Making, Rural Development.*

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**INTRODUCTION**

As said by Mahatma Gandhi, "India lives in its villages", Gandhiji's this statement holds true as more than 60 percent of the world's population live in rural areas. One of the major bottlenecks to socio economic development in India has been the disparity of income between the rich and poor as well as the female workforce and male workforce and much efforts have been taken to enhance and promote the socio economic conditions of the rural population after the independence. Rural development enhances both the social and economic betterment of the rural population by various aspects like larger participation of people in the rural employment programmes, easy access to credit, better enforcement of land rights etc which further provides better prospects of socio economic development for the rural masses. In order to eliminate poverty effectively by providing the provision of wage employment, the central government formulated the National Rural Employment Guarantee Act (NREGA) in 2005 and is one of the most progressive and ongoing legislations enacted till now. The concept of gender equality and empowerment has been recognised as the important pillars of MGNREGA which includes women participation as an important component.

**LITERATURE REVIEW**

The National Rural Employment Guarantee Act, which entitles rural households to 100 days of guaranteed employment on public works at the statutory minimum wage, contains special provisions to ensure full participation of women (Khera and Nayak 2009). There are various provisions of the act which are of special interest to women workers which says that one-third of the workers to be women (Khera and Nayak, 2009). Women participation in MGNREGA varies across regions and the share of women workers in Jharkhand is less than the National Average (Pankaj and Thanka 2010). The act has an overall positive impact on the women empowerment (SK 2012).

Since a long time, in India and elsewhere, male family members have greater control over property and other economic resources, including access to paid employment, they enjoy better bargaining positions inside their households (Pankaj and Thanka 2010). The women's ability to earn outside their household increases their own self-perception of their contribution to the household, and this has similar effects in their decision making power Moser (1993).

The growing issues and challenges in rural India requires a realistic and sensible system to empower women. The critical issues involved in the program are the issues of registration, proof of application, problem of job cards, selection and execution of work, transparency, monitoring and staffing (Mishra A 2012). The other main issues with the act's implementation are a) worksite facilities like first aid, drinking water, childcare facilities (if more than five children under the age of six are present at the worksite, one of the woman labourers is supposed to look after them), b) issues of productive assets, c) fictitious gram Sabha's d) the 'bicholias' (middlemen's) (Dreze 2006). Under MGNREGA, all rural households are entitled to apply for a job card. The design of job cards in Jharkhand is quite defective as there is no space to record wage payments. This defeats one of the main purposes of the job card (Bhatia and Dreze 2006). According to Charles LJ and Velmurugan JM (2012), poor administration and planning skills, inadequate awareness, discrimination, corruption and irregularities and delay in payment of jobs are some of the major constraints faced by the beneficiaries.

Thus, many studies have analysed the impact of MGNREGA and Women's Empowerment, their socio economic conditions, the ground realities, household-consumption and nutritional patterns of women beneficiaries in Jharkhand but have not focused on the decision making aspect of women beneficiaries who are

employed in the program. In other words the study dealing with household decision making of women beneficiaries as an impact of MGNREGA has been missing.

### **OBJECTIVE**

This study tends to examine the impact of MGNREGA on the household decision making of women beneficiaries and the challenges faced by them in the MGNREGA program in the East Singhbhum district of Jharkhand.

### **OPERATIONALISATION AND METHODOLOGY**

The study has been conducted in East Singhbhum District of Jharkhand which comprises of eleven blocks. Two blocks were selected from the district namely Golmuri-Cum-Jugsalai Block and Potka Block as the works of MGNREGA are effectively taking place in the villages of Potka block followed by Jamshedpur block. The selection gram panchayats and villages were done from the above mentioned blocks. From Golmuri -cum-Jugsalai block 'Khakripara' panchayat and from Potka block 'Hathi-Binda' panchayat was selected. Two villages namely Khakripara village and Dhatkidih village were selected from the above mentioned blocks. In all total Fifty beneficiaries were selected from the two different villages out of which Twenty beneficiaries were from the Khakripara Village and rest thirty beneficiaries were from Dhatkidih village.

The data was collected from the above mentioned villages through a Questionnaire. The major variables that were associated with the objectives were age, education, occupation, caste. Age was measured as the number of calendar years which have been completed by the respondent at the time of interview. It was measured with the help the scale developed by Trivedi (1963) and Vinay Kumar (2008) with slight modifications. Beneficiaries belonging to 25 to 35 years were categorised under young age category, 36 to 50 years under middle age category and more than 51 years were categorised under old age group. Caste was measured into three different categories namely OBC, SC, and ST. It was measured with the help the scale developed by Trivedi and Pareek (1963) with slight modifications. Beneficiaries belonging to general caste were categorised as upper category, OBC as middle and SC/ST as lower category. In this study occupation means their main time occupation despite of being employed in program. Occupation was further categorised under a) Agriculture b)Trader c) Self-employed d) Daily-wage labour e)other. The other category included work like constructions( not part of MGNREGA), small scale industries etc. It was measured with the help the scale Schedule developed by Jayanta Roy (2012) with slight modification. Education of the women beneficiaries were categorised under two categories of literate and illiterate. The socio economic status of women beneficiaries was measured in terms of their number of days employment in MGNREGA, their awareness about wages, the actual wage received by them, their monthly income from the program, their control over income, their savings pattern before or after the program.

The main objective of the study is to analyse whether there has been any improvement in their Household decision making power of women beneficiaries. The household decision making comprised of various aspects of household affairs that contributes in one's decision making regarding household matters. The various aspects included food and clothing, children education and health, expenditure on self, participation on labour force, attending social gathering, children marriage and purchasing assets, means of expenditure like expenditure on food consumption, children education, medical personnel etc were measured through the total response received from the respondents and its percentage and the ranking has been given which had the highest percentage increase after the program.

Regarding the Constraints or problems faced by the women beneficiaries in the MGNREGA program, the major six constraints were given in the schedule and the respondents were directly asked to indicate their responses which they faced. For each response it was noted as 'yes' or 'no'. The constraints included issues related to continues worked being provided or not, delay in payment of wages, delay in issue of job card, hundred days employment given or not, same wage rate for both men and women and also for same kind of work.

### **RESEARCH FINDINGS**

One of the major objectives of MGNREGA is to ensure women participation in the development process. The study revealed that 48%(majority) of the women beneficiaries were from the middle age group followed by the young age group with 32% and the old age group with 20% which indicates that to attain a healthy livelihood the women beneficiaries are engaging themselves in the program which further helps them to earn and spent over their families wellbeing. The larger proportion of women beneficiaries were of OBC (66%) and ST(32%) category. Also, 48% beneficiaries were employed in the other category (small scale industries, farming) followed by the daily wage labourer (36%), Agriculture (12%) and Self-Employed (4%) category as these

were their main time occupation. Regarding the educational qualification half of the beneficiaries were illiterate comprising a 68% of the total sample followed by literate category with 32%. The illiteracy among the women beneficiaries was due to chronic poverty, cultural constraints like lack of resources, household responsibilities and early marriages. The socio economic status of women beneficiaries after the program showed that there is a positive impact of MGNREGA program.

Regarding the household decision making of women beneficiaries there was a positive increase in each considerations that influences the decision making pattern of women beneficiaries. It was observed that there has been a the maximum % increase is in the category of Children education and health (76%) with a rank (I), followed with the category on expenditure on self (66%) with a rank (II). The third increase was in terms of participation in labour force( 60%) with a ranking (III). The fourth increase has been in the category of food and clothing( 56%) with a ranking (IV) and the least increased categories include attending social gathering(42%), children marriage (26%) and purchasing assets (4%). Figure 1.1 reveals the percentage increase in decision making before and after the program and Figure 1.2 shows that Percentage increase in the number of respondents after the program for each attributes of decision making.

The result of the study also revealed that there has been improvement in the means of expenditure of women beneficiaries. The study revealed that 86% of beneficiaries agreed to have an improvement in the food expenditure, followed by the children education with 72%, personnel expenditure with 56% and medical expenses with 52%.

Table 3 shows the major constraints faced by the women beneficiaries during the program. However, the main suggestions expressed by the women beneficiaries for overcoming the problems faced by them were “provision of facilities like drinking water, toilets, medical etc., at work site, engagement of creche to look after children at work place, timely and regular payment of wages, provision of continuous work under the program.

### SUMMARY AND CONCLUSION

The study reveals that there has been a positive impact of MGNREGA on the household decision making of women beneficiaries with certain ongoing challenges that are faced by them. Therefore regarding the two hypothesis of the study, we reject both our hypothesis. It is evident from fig 1.1 that there is significant improvement in the decision making power of women beneficiaries as compared before and after the program and from table 3 it can be observed that there are several challenges faced by women beneficiaries during the MGNREGA program.

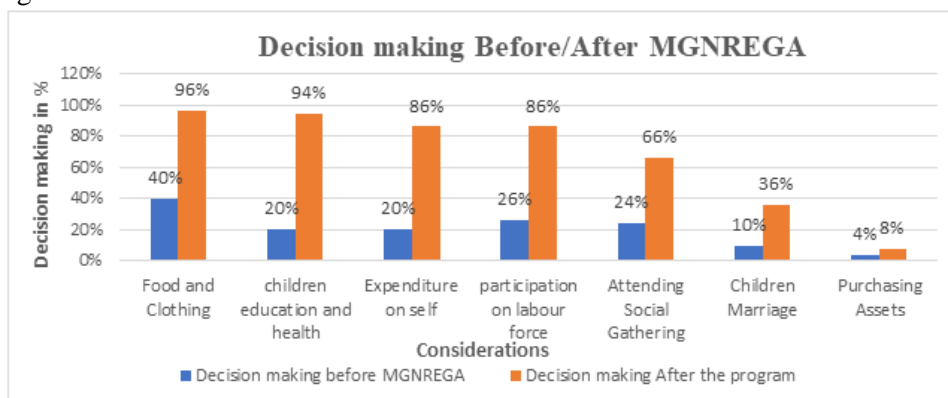


Fig-1.1: Percentage increase in decision making before and after the program

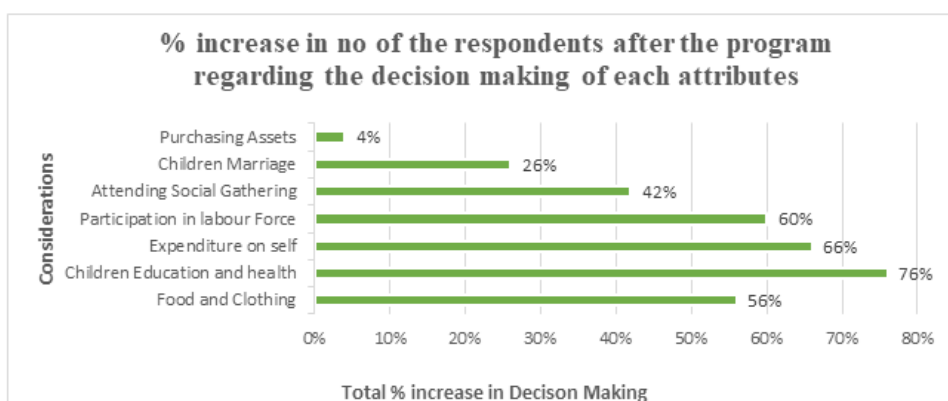


Fig-1.2: Total percentage increase under each considerations

**POLICY IMPLICATIONS**

In the study, an attempt has been made to study the household decision making and the impact of MGNREGA programme only on women beneficiaries in East Singhbhum district of Jharkhand. Therefore, it is suggested to conduct similar studies in different areas and among different categories of MGNREGA beneficiaries. At present, works under MGNREGA are on a seasonal basis in East Singhbhum District of Jharkhand due to which the women beneficiaries tend to engage themselves in some other main time occupation. Therefore the works under the program should be guaranteed to 100 days so that the women beneficiaries make it their main time occupation.

**Table-3: Constraints faced by women beneficiaries**

Sl. No	Constraints	Response of women beneficiaries		Rank
		N	%	
1.	Continuous work is not being provided	50	100	I
2.	One hundred days of Employment not given	49	98	II
3.	Delay in issue of Job cards	48	96	III
4.	No Person engaged at work place to look after beneficiaries children	48	96	III
5.	Delay in Payment of wages	47	94	IV
6.	Same wage rate for both men and women	45	90	V

During Personnel interview most of the women beneficiaries have suggested to increase the wage rate as they are getting Rs 172/per day. However the actual wage rate sanctioned by Jharkhand Government is Rs 200. Therefore, the concerned authorities of the program can consider the missing Rs 28 into account for effective participation of beneficiaries. During the personnel interview, it was observed that women who were pregnant were working very hard under the program due to financial constraints in their family without care of their health. So, the government can make provisions for such women beneficiaries where in her absence also, they will be paid half the amount during the maternity period through direct deposition of amount in her account. This helps the women beneficiary on humanitarian grounds and inspires other women beneficiaries to take part in the programme actively. Also, It was evident from the findings of the study that continuous work is not being provided, 100 days of employment not given, delay in issue of job cards as well as payment of wages, differential wage rate between men and women, there was no person to look after the beneficiaries children at work place, lack of facilities at work were the important problems confronted by the MGNREGA women beneficiaries. Therefore, the implementing agency of the MGNREGA program need to make necessary provisions or amendments to the programme to overcome the above mentioned problems.

**LIMITATIONS**

1. The sample size of the study could have been larger to get a more robust picture of the working conditions and the roles & responsibilities of the women beneficiaries.
2. The study has been limited to East Singhbhum District of Jharkhand.
3. Being a Post Graduate student, there has been time constraint for the collection of sample from the above mentioned district.

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**DIGITAL TRANSFORMATION AND GREEN CUSTOMERS**

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**Swathi P K and Dr. Reenu Mohan**Assistant Professor, Kristu Jayanti College, Bangalore

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**ABSTRACT**

*Development of the global economy as a consequence of Information and communication technology was considered as a challenge for the sustainable development of environment. The waves of technology changes have played a very important role in balancing human development and natural environment. The synchronization of digital and green economy has given birth to a responsible and empowered generation of consumers better known as green consumers. This article has tried to understand the way customers have adopted themselves to build a better economy. The digital economy focuses on manufacturing of products and services with innovation which can be made possible in the era of globalization and sustainable development. This has impacted the customer's behavior in manifold ways.*

*Keywords: Green consumers, Green marketing, environment protection, consumer satisfaction, substantial development.*

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**DIGITAL TRANSFORMATION IN INDIA**

Digital India is a dream of the Government of India where the government services are made available to citizens electronically by augmenting the country's online infrastructure and increasing internet connectivity. It is one of the biggest step by Indian government to connect Indian economy to the knowledge world. The success of digital India project depends upon better connectivity and reduction in cyber security risks.

It is crucial that focused attention must be given to each and every pillar of this programme so that it does not end up in failure. The users need to be mentally prepared for this change and be ready to counter the challenges of implementing this policy, only then it would be possible to make this vision a reality.

Gupta and Arora (2015) studied the impact of digital India project on India's rural sector. The study found that many schemes have been launched in digital India for boosting the agriculture sector and develop entrepreneurship in rural areas. Assimilation of the digital technology into various areas of a business so as to deliver value to customers is referred as digital transformation. It is considered as imperative for small as well as big enterprises. It would require a cultural change that which continuously challenges the status quo of the enterprise. The drivers for digital transformation are – a leadership that thinks differently, encourages innovation and new business models, technology usage to improve the experience of all the stakeholders.

**GREEN CONSUMERS**

When the consumers prefer environmentally friendly products or services than traditional ones they are termed as green consumers. The consumers who are concerned towards the environment and buy the green products which are eco-friendly are known as green consumers. They have the education and intellectual orientation to appreciate value. The green consumers are the people having comparatively more money to spend. These consumers do not mind paying more for a greener products looking at its advantages. They shop and spend more. Consequently, the potential products for them are found to be highly priced in the market. This green generation has turned the marketing managers to adopt appropriate segmentation and positioning strategies. The green consumers are geared up to pay more money to maintain greener and cleaner surroundings. These consumers are also aware about initiatives of Indian companies. They keep themselves updated about the attributes and use of products that's why the requirement for green products is ever increasing. The corporate sector is working constantly and rigorously to find out the green material, methods of making green finished product which are commercially viable. The Industry, society and government needs to work together for bringing up solutions to environmental challenges in a coordinated manner.

he 1990s have been identified as the 'decade of the environment', 9 – 11 or as the 'the Earth decade'.

12 During this decade, social and environmental concerns took on a greater importance for consumer purchasing decisions. he 1990s have been identified as the 'decade of the environment', 9 – 11 or as the 'the Earth decade'. 12 During this decade, social and environmental concerns took on a greater importance for consumer purchasing decisions

**REVIEW OF LITERATURE**

The study by Meenakshi Handa (2006) has indicated that Activist groups and the media have played a major role in enhancing the environmental awareness and consciousness of consumers in recent years. Most studies on

the subject show that although the awareness and environmental behavior of consumers across countries, educational levels, age and income groups may differ, environmental concerns are increasing worldwide.

The study by Banumathi Mannarswamy (2011) proved that World wide evidence shows people are concerned about the environment and are changing their behavior accordingly. As a result there is a growing market for sustainable and socially responsible products and services Chandrasekaran (2010) examined that Indian companies are going green in line with many of their Western counterparts who are building environmental sustainability into their business practices. The companies like Walmart, Bajaj Auto, CISCO, Wipro, PepsiCo's and MRF have adopted green supply chain initiatives into their marketing system.

The study by Sandhya Joshi (2011) pointed that Environmental issues have gained importance in business as well as in public life throughout the world. Clearly green marketing is part and parcel of over all corporate strategy; along with manipulating the traditional marketing mix -product, price, promotion and place.

The study by Vinay et al (2011) determined that the concept of green marketing has been around at least since the first earth day in 1970. But the idea did not catch on till 1980's, when rising public interest in the environment led to a demand for more green products and Arun Kumar & N. Meenakshi (2009) Consumers have to play an important role if companies have to be made responsible for preservation of the environment. They should stop buying products of companies which are polluting the environment. Apart from companies, NGOs also have very important roles to play. NGOs should carry out research and tell the companies how they can make their process more environment-friendly.

The study conducted by Sourabh Bhattacharya (2011) states that the green marketers in India should carry out heavy promotional campaigns, because majority of the Indian consumers are price-sensitive and are not sure about the quality of green products.

## **OBJECTIVES**

1. To know the importance of digitalization.
2. To understand the importance of green consumers.
3. To analyze the efforts of green companies for green consumers.

## **RESEARCH METHODOLOGY**

This paper is based on the secondary data and the information is retrieved from the internet through journals, research papers and expert opinions on the same subject.

## **GREEN COMPANIES IN INDIA**

Companies like Bharat Petroleum, Larsen & Toubro, J K Tyres Industries, HCL, Samsung, TCS, ONGC, Indusind Bank, ITC and Wipro top the list of green companies.

- Desktops and laptops called Wipro Greenwares launched by Wipro. It was the first company in India to come up with the concept of eco-sustainability.
- The Hewlett- Packard had declared plans for delivering energy-efficient products and services and institute energy-efficient operating practices in all its facilities worldwide.
- At BankBazaar, employees are setting up clubs for carrying out activities like beach-cleaning, tree plantation and trash collection from the Bangalore Zoo. BankBazaar has moved to completely paperless hiring processes.
- Bokaro Steel Plant renewed its factory effluents into eco-friendly bricks that have also made a niche in the local market.
- At online brokerage startup Zerodha, regular clean-up drives are carried out by their employees over the past few months in areas close to its office. The company conducted a session for collecting electronic wastes.  
Jombay employees are advocating virtual deliveries of projects in order to ensure minimal use of paper. Employees at Jombay bring their own cutlery to the workplace.
- IRCTC has allowed its customers to carry PNR numbers on their laptop and mobiles while travelling as a result of which customers can travel without carrying printed version of their tickets.
- Forest and environmental ministries of India has ordered retail outlets like Big Bazaar, More, D-mart that they could avoid polythene carry bags to customers only if customers are ready for pay for it.

- State Bank of India by using Eco and power friendly equipment in its 10000 New ATM with the banking giant and has not only saved power cost and carbon credits but also set the right examples for others to follow.
- Maruti Suzuki was able to reduce its groundwater consumption by resorting to rainwater harvesting and usage of recycled water.

### DIGITAL TRANSFORMATION AND GREEN ECONOMY

Digital transformation in India will help in decreasing documentation and reducing paper work. Digital India mission is an approach for cashless transactions. This would benefit small businesses. It will play a vital role in the growth of India's GDP. The inspiration for this economy is a promise for environmental protection, while at the same time being profitable. Most of the initial costs required to start businesses in the green economy are high, especially those that are related to energy production. Apart from using energy carefully, digitalization focuses on minimization of global warming, better use of resources and overall prevention of environmental damage and pollution.

The notion of Green Marketing has evolved over a long period of time. This evolution of green marketing can be categorized into three phases.

1. **First Phase:** The first phase of green marketing was termed as “**Technological green marketing**”, where all marketing activities were framed to help the environment and provide remedies for environmental problems.
2. **Second phase:** This was called as “**Environmental green marketing**”, where the main focus was on clean technology that involved designing innovative new products, which could bring down pollution and waste issues.
3. **Third phase:** It was “**Sustainable green marketing**”, which emphasized on the sustainability of green marketing concept.

### GREEN PRODUCT AND ITS CHARACTERISTICS:

Green products are the one which manufactured through the use of green technology, which causes no environmental hazards. For the preservation of depleting natural resources and their sustainable development it becomes imperative to promote green technology and green products. We can define green products by following measures.

- Products that are organically and locally grown
- Product those are recyclable, reusable and biodegradable.
- Products made using natural ingredients
- Products containing recycled containers and non toxic chemicals.
- Products contain approved chemicals.
- Products that do not pollute the environment.
- Products which will not be tested on animals.

### STRATEGIES FOR GREEN CONSUMERS

- ❖ **Product differentiation:** There should always be a paramount difference between the green products and coated green products. It has been pragmatic that products with good eco performance becomes the target for new substitution.
- ❖ **Value positioning of consumer:** The organization can design environmental products to perform as promoting and delivering the customers designed value of angle on products and target relevant customer market segment can be proved to organization to differentiate.
- ❖ **Designing bio degradable packaging:** It has been observed that promotion of green products job can strongly influence the customer decision making by the biodegradable packing and designing.
- ❖ **Product strategy for Green Marketing:** There is an urgent need to identify the customer's needs and development and accordingly make products to match their requirements without harming the environment.
- ❖ **Distribution strategy of Green Marketing:** The location must be differentiated from the competitors. It can be achieved by promoting the in store activities like recycling of materials to focus in the environmental and other related benefits.



**FUTURE OF GREEN ECONOMY AND DIGITAL TRANSFORMATION**

Nowadays companies are worried over various environmental concerns to make sure that there is always a sustainable growth to the society in general. The companies should also strive to make aware the consumers regarding the need for green products rather than more usage of non-green ones. The Government too is supporting the green marketers. Meanwhile marketers must understand this as an opportunity to build their product portfolios and endorse themselves as green. It is also the responsibility of consumers, industrial buyers and suppliers to promote the positive effects of Green marketing on the environment. In case of developing countries like India, green marketing should be a path breaker and trendsetter for others to follow.

The enterprises should come forward by decreasing the direct effects of the production, distribution, operation and disposal of technology on the environment. It can be possible only through improved energy and materials efficiency, reduced use of toxic materials and improved recycling. The other method can be by improving the efficiency of production and distribution of goods and services in the economy by increasing the enabling effects of digitalization on the development of the green economy. It can also be done by dropping the demand for energy and materials through the replacement of virtual products and services for their physical equivalents.

**CONCLUSION**

Each and every organization is focusing more on green customer's satisfaction and it is organization's responsibility to safeguard environment too. Protection of environment is the responsibility of human being for the welfare of current and next generation for this perspective green marketing plays important role in today's business organization. Green consumers are still on the learning curve. The older generations are more green as they are educated, experienced and have fewer members in family, while the younger generation is yet to integrate it fully in their shopping behavior. There is pressing need to address digital divide. For that it is essential to educate and inform the citizens, especially in rural and remote areas, about the benefits of internet services and increase the internet usage. The enterprises must hit upon prospects to enhance their product's performance and reinforce their customer's loyalty in order to command a higher price.

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**IS THE GREAT DECOUPLING HAPPENING IN THE HEALTH CARE SECTOR IN THE CONTEXT OF INDUSTRY 4.0?**

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**Dr. Naseer Mohamed Jaffer<sup>1</sup>, Sindhu R. Menon<sup>2</sup> and Agnus Baby<sup>3</sup>**

Professor<sup>1</sup> and Research Associate<sup>3</sup>, Xavier Institute of Management, Bangalore

Assistant Professor<sup>2</sup>, Presidency College, Bangalore

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**ABSTRACT**

*Technological advancements during the ongoing Fourth Industrial Revolution (Industry 4.0) have been very successful in value creation and value capture but not in value sharing. The number of good jobs and median household income are either stagnant or falling. The top one percent got about two thirds of all the gains from global economic growth during the past two decades. This phenomenon is called the Great Decoupling. Instead of shared prosperity there is increasing inequality. Healthcare sector is increasingly privatized and commercialized in India. Health is made a commodity affordable only to some. Western neo-liberal ideology persuades pharmaceutical industry, hospitals and even doctors to join hands to take care of the 'rich well' and neglect the 'sick poor'. The present paper is a small attempt to explore the dimensions of this issue.*

*Keywords: Great Decoupling, neo-liberal ideology, healthcare sector*

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**INTRODUCTION**

The ongoing Fourth Industrial Revolution has been disrupting the economy, the society and the environment. Value creation and value capture have been the major achievements of the technological advancement which go with the latest version of the Industrial Revolution. The fact that value sharing is not happening is reflected in either stagnant or falling share of wages in the national income of most countries, disappearance of good jobs, stagnant or slow growth of real wages among the blue collared workers and vast majority of white collared workers and increasing inequalities in the distribution of income and wealth (Milanovic, Branko 2016). Labour productivity and the size of the economy are expanding while job growth and real wages are stagnant or falling. This phenomenon is described as the Great Decoupling and it is witnessed in developed as well as developing countries (Brynjolfsson, Erik and Andrew McAfee, 2014). This decoupling is also there in healthcare sector along with other segments of the economy. Corporates define what is health and what is sickness. Healthcare is commodified and sold in the market. The present paper is divided into three parts: The Great Decoupling phenomenon in the context of the ongoing Fourth Industrial Revolution is explained in the first part. Health sector getting increasingly privatized and commercialized in India under the influence of main stream neo liberal ideology is explained in the second part. Major inferences and suggestions for further research are given in the third and final part of the paper.

**PART 1: IMPLICATIONS OF THE GREAT DECOUPLING IN THE CONTEXT OF INDUSTRY 4.0**

Automation and its impact on the economy and society have been analysed and reported in various studies. It is said that half of today's jobs might vanish in two decades. There will be huge social and psychological problems of joblessness among those without the necessary skills. Automations have been going on for a long time with different impacts. There are three eras of automation (Davenport and Julia Kirby 2015). In the first era during the nineteenth century, machines took dirty and dangerous work from the manual labour. Machines took away dull work in the second era during the twentieth century. Call centers and ATM transactions in banks explain the changes that happened during this era. In the twenty first century there is the third era, when machines take away decision making tasks from the humans. Automation is coming to knowledge work through Artificial Intelligence (AI) and many of things which executives do will be automated. It is said that this trend is as fundamental as it is overlooked.

Augmentation strategy is emerging. This means knowledge workers would consider smart machines as partners and not competitors in creative problem solving in work places. There is need for T-shaped individuals who can go deep in their areas of expertise. There is an increasing need for 'multiple intelligence'. AI impacts every field of activity including agriculture. There are research efforts and discussions to develop data for 'precision agriculture' to improve productivity and quality of crops. Professionals in many fields like bankers, financial advisers, accountant, architects, lawyers, teachers, journalists, doctors and experts in many other areas view augmentation strategy with great hope and enthusiasm (Harari 2018). However there are many people who suffer from an automation mindset. They have to be convinced that the combination of humans and computers is better than either of them working alone (Davenport and Julia Kirby, 2015). There are challenges and opportunities in this exciting area of activity.

The term Fourth Industrial Revolution is important in understanding certain trends shaping the world. It helps us in analyzing broad historic changes and provides powerful insights which enables us to navigate the way to better future at national and general levels. The Fourth Industrial Revolution can be described briefly in the following way (Schwab, Klaus 2017). The first industrial revolution happened during 1760 to 1840. The key aspects were invention of steam engine and construction of railroads. The second industrial revolution took place during the period between late 19<sup>th</sup> century and early 20<sup>th</sup> century. Electricity and mass production through assembly line process were the key factors. The third industrial revolution happened between 1940 and the end of 20<sup>th</sup> century. Computer and internet are the defining features of this period. The fourth industrial revolution is a 21<sup>st</sup> century phenomenon. Cloud computing, Artificial Intelligence (AI) and Internet of Things (IOT) are the leading features of the ongoing transformation in the economy and society.

The phenomenon of the Great Decoupling is being discussed widely in recent times (Brynjolfsson, Erik and McAfee, Andrew 2104). There are a few mismatches among the key indicators of progress of an economy, namely per capita GDP, labour productivity, number of good jobs and median household income. During the three decades after the end of World War II in the US and other developed countries, all the four indicators mentioned above increased more or less in a similar way. However, since 1980s the median household income shows either stagnation or a slight fall. The growth of good jobs slowed down while the per capita GDP and labour productivity showed decent rates of growth. This phenomenon is described as the Great Decoupling. Experts say that they have not come across anything quite like this (Reich, Robert 2015). This is reflected in labour's share of GDP falling in most of the countries. Corporates are shifting investments away from labour and towards capital. A large part of capital goes towards R&D efforts to develop technologies which assist efficient automation and effective augmentation. People with more education, training and experience in selected fields get good jobs and handsome compensations. In the 'winner- takes- all' world, capital and highly skilled labour join hands at the top (Stiglitz, Joseph 2015). Workers are being made more efficient by technology. However, technology and economics do not make the workers more prosperous. This is the crux of the problem. This adversely affects every aspect of society , especially the healthcare sector of developing countries like India. This issue is explored in the second part of the paper.

## **PART II – HEALTHCARE PROVIDES FOR 'RICH WELL' AND NEGLECTS 'POOR SICK'**

Several indicators point out that India has one of the most commercialized healthcare systems in the world (Dreze, Jean, and Amartya Sen, 2013). Public expenditure on health in India is only 1.2 percent of the GDP and only nine countries in the world have a lower ratio than India. The world average is 6.5 percent of the GDP. Public expenditure on health is \$39 per person in India compared to \$203 in China and \$483 in Brazil. In India, Public Health Centers (PHCs) are supposed to provide healthcare to fifty thousand people on an average. According to one study only 69 percent of PHCs had at least one bed and only 20 percent had electricity. Absenteeism rates among doctors and other health workers at PHCs was as high as 58 percent. When public health facilities are so inadequate, inefficient and mismanaged there would be a large space for private players to enter and expand business (Deaton, Angus, 2013). According to one study 47 percent of the deliveries performed in private hospitals in Chennai happen to be Caserian when in most cases it is not necessary. This implies a big income for the private hospitals and a huge financial burden for the family.

According to one World Bank study around 800 million people around the world spend more than 10 percent of their income on healthcare and about 100 million people are pushed into extreme poverty every year because of healthcare related expenses. In Uganda for example 53 percent of the families of patients had to borrow money for medical treatment, 21 percent sold their assets and 17 percent lost their jobs due to family disruptions arising from expensive healthcare issues (Financial Express, 2018). Healthcare sector in India and other developing countries is becoming increasingly privatized and commercialized under the influence of neo liberalization and globalization. Fraud of different kinds and degrees, unnecessary and over medication, exploitative drug prices, unnecessary tests and surgeries, corruption and scams in organ harvesting are all rampant, especially among corporate hospitals. There is nexus between pharmaceutical companies, private hospitals, diagnostic centers and doctors and the victims are patients and their families. There is also the infamous and disabling private insurance trap (Nundy, Samiran et. al 2018).

The prevailing mainstream neo-liberal ideology distorts priorities drastically in the matter of healthcare delivery system in India, leaving private hospitals virtually unregulated in their pursuit of profit. In this process healers become predators and the victims are patients and their families. There are three levels of healthcare corruption in India (Nundy, Samiran et. al 2018). The first layer began with privatization of medical education. Children of politicians, corrupt civil servants, big business families and highly successful medical practitioners pay hefty capitation fees to join in these private medical colleges which compromise on quality of intake at the time of

admission. Doctors who are out of these colleges get back their investments through joining the second layer of corruption. The second layer thrives in private hospitals especially corporate hospitals. Doctors who advise tests get compensation from diagnostic laboratories. Expensive and unnecessary diagnostic tests are done and again the victims are patients and their families. Master health checkup is conducted at a high fee. Large hospitals insist on tests even though the patients have with him test reports given to him by another large hospital only a few days ago. The third layer involves an unholy nexus between pharmaceutical companies, hospitals and medical professionals. In most cases the amounts given by pharmaceutical companies and the amount earned by doctors through referrals are more than the consultation fees charged by the doctors. The patient is helpless and there is little he can do to protect himself from consumer exploitation. Large business houses have ethical officers. But these ethical officers are not there in corporate hospitals. The inferences one can draw from such a scenario are mentioned in the third and concluding section.

### **PART III – INFERENCES AND CONCLUSION**

A major inference is that the Great Decoupling explained above has adverse impact on healthcare sector, among others in the context of Industry 4.0. Data from World Value Survey (WVS) show that there is a growing concern about economic inequality especially among people of developing countries in recent years. The study shows that it is very high in India (Mint 2019). In 1989-90, only 13 percent of Indian respondents said that incomes should more equal to reduce miserable condition of the poor people. In 2013-14 this increased to 48 percent, the highest in the developing world. In 2018-19 the numbers should have increased as the trend indicates a rising awareness on inequality as a major cause for increasing unemployment, stagnant wages and declining public services including healthcare services. The Fourth Industrial Revolution and globalization have been behind India's emergence as the fastest growing major economy in the world. However the Great Decoupling phenomenon and the growing awareness on adverse effects of income and wealth inequality have negative effect on public policy priorities. Populist policies expand at the global level especially in India. Nationwide farm loan waivers Rythu Bandhu Scheme of Telengana, Odisha's Kalia Scheme, and Center's announcement of Rs.6000 handouts to small farmers in 2019-20 interim budget and promise of universal basic income (UBI), are all examples of populist policies in India.

The National Health Policy 2017 is a comprehensive health scheme to ensure affordable quality healthcare for all. The policy states that public spending on healthcare will be increased from the current 1.2 percent to 2.5 percent of GDP by the year 2025 (Economic Times, 2019). Ayushman Bharat Yojana or Pradhan Mantri Jan Arogya Yojana (PMJAY) or National Health Protection Scheme aims at making interventions in primary, secondary and tertiary care systems to ensure affordable healthcare holistically for all. The scheme has two major initiatives especially National Health Protection scheme and Wellness Centers in all parts of the country. However it is pointed out that the push for insurance based healthcare model comes at a huge cost of decrease in allocation for preventive public health schemes (Business Line, 2019). Healthcare sector faces huge challenges in the era of the Great Decoupling, growing awareness on income inequalities, rising populist policies and the ongoing Fourth Industrial Revolution. This exciting area needs further research and analysis. The present paper is a small step in this direction.

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**IMPLEMENTING BLOCKCHAIN IN THE MANUFACTURING SUPPLY CHAIN!**

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**V. Kalyani<sup>1</sup> and P. Praveen Babu<sup>2</sup>**Assistant Professor<sup>1</sup>, Department of Commerce, Kristu Jayanti College, Bangalore  
Assistant Professor<sup>2</sup>, Business Studies, CHRIST (Deemed to be University), Bangalore

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**ABSTRACT**

*Businesses around the globe are visualizing technology and its infusion as the savior to their overall success and growth in this highly complex ever-changing world. On the one side the need to satisfy extensive demand and on the other side the need to retain consumers is forcing organizations to embrace technology to their maximum possible capacity. This bipolar need of demand and retention management is leading organizations to collect huge volumes of information about all internal activities and its customers every single day. This has led to information explosion and therefore the need to protect such information is on its steady rise. In addition to protecting information, harnessing such information is occupying the front seats in business discussions today. Many technologies and advances have been utilized in almost all functions of business organizations like big data analytics, artificial intelligence, virtual reality etc in varied capacities and implementation levels. This article conceptually emphasizes the extension of such technology that manufacturing organizations are focussing at in terms of blockchain (BC) implementation. The practical areas of application, the need for adoption and way forward for BC implementation along the entire supply chain is detailed out in this article as a conceptual model. Further this article paves way for further analysis on blockchain implementation with specific industries in the manufacturing arena.*

*Keywords: blockchain, supply chain technology, technology in manufacturing, information security*

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**INTRODUCTION**

Organizations are hard pressed to constantly innovate. The demand from markets and the need to analyze such demands is enforcing organizations to invest heavily in market research. This being the start that all organizations tend to undertake, the tool that is largely banked upon for handling data is driven largely by high-end technologies. As a subset of market research and the need to analyze data for staying fit in business, organization accumulate humungous data to arrive at various patterns of understanding. This complicates the entire process of arriving at strategies and conclusions based on data analysis. Inevitably this complex data becomes highly vulnerable to security issues and warrants strategic ways and means to preserve them with utmost care. Many critics and researchers across the globe consider BC to be the next high-end technology for data protection.

Many organizations across the globe as per a recent survey (Deloitte, 2018) comprising of 1053 respondents and 7 countries across the globe have varied responses with respect to their understanding and usage of BC in their organizations which were a sample of responses across 10 prominent industry categories. According to the survey results, BC technology is inferred to be a Trust-as-a-Service (TaaS) platform which is overhyped in terms of its capacity to transform the information world. While BCs are seen as possessing greater speeds, agility and are new business models to work with, the application and practicality of usage is questioned by many researchers. As per the survey data, China and Mexico have the highest levels of BC implementation and these countries are also hiring talent who exhibit BC related skills to a large extent. The survey further throws ample light on the various industries that can benefit out of BC usage, the prominent ones being the financial services, technology, healthcare, pharmaceuticals, automotive, oil & gas, life sciences and even public sector enterprises.

India is at a very nascent stage with respect to BC but there is ample requirement for such a technology driven data management tool in almost all industries. As a country India is now progressing and investing heavily on automation technologies, artificial intelligence, Internet of Things, expert systems and virtual reality to a large extent. Such technologies are largely used at present in major industries like electronics, heavy electrical, agricultural equipments, automobiles and IT services as per a report (Jujavarapu, Hickok, & Sinha, 2018). BCs are considered to be a new form of Internet i.e., the Internet of value (Ratna & Sharma, 2018) and are an urgent need in today's times where owning digital assets are highly vulnerable as it is subjected to various online transactions.

**CONCEPTUAL BACKGROUND**

The essence of many organizations both in production and services lie in its supply chain. Today every organization needs to lend itself to a supply chain model because their efforts from raw materials sourcing to

manufacturing or creating services to reaching customers cannot be designed by their own. Also the nature, volume and veracity of interactions that revolves around the entire wing of stakeholders in the supply chain are highly networked. This complexity necessitates the usage of advance softwares' to make work easier and efficient across all stakeholders. While organizations are rarely able to debate on the uniqueness of their products or services in a highly competitive market, the area of value addition and cost reduction that organizations are looking at in present times are in their supply chain systems. Supply chain management occupies huge costs, time and maintenance in almost all organizations.

The velocity and variety in terms of supply data is increasing every single day and organizations expect better control over the entire supply chain and its stakeholders. The routine Enterprise Resource Planning and Supply Chain Management tools may not be in a position to capture all forms of supply chain data with greater accuracy and speed (Columbus, 2015). This is a result of the transformation of the entire supply chain, where linear supply chains are now becoming highly complex owing to the increase in number of supply chain stakeholders. Also the need to protect data along the supply chain is vital to the success of the organizations because of intense competition in the market. Practical areas of security concerns could be in product design, distribution model, customer database etc which needs to be shared across majority of stakeholders in the supply chain. Therefore, data security and accessibility by the appropriate link in the supply chain needs to be ensured.

Technology driven data security systems like blockchains can primarily help organizations push their limits further because not only possess the trait of channelizing data along the supply chain, but can reinforce security and data alignment along the entire chain. While many fear the concept of BC revolves only around bitcoins it needs to be understood that bitcoins and cryptocurrencies are not the only forms of BC technology (Crosby, Nachiappan, Pattanayak, Verma, & kalyanaraman, 2016) and can be applied to many other non-financial services as well.

### **BLOCKCHAINS IN SUPPLY CHAIN**

Supply chains are of varied forms and are highly dependent on the organization's nature of business. It does not carry a generalized format even within the same industry because of the usage of different stakeholders with respect to an organization and its products. Therefore, the interactions between the various stakeholders and the manufacturer in the supply chain are a highly subjective phenomenon. But the nature of issues that might emerge is in general based on the way in which data is handled at all links in the supply chain.

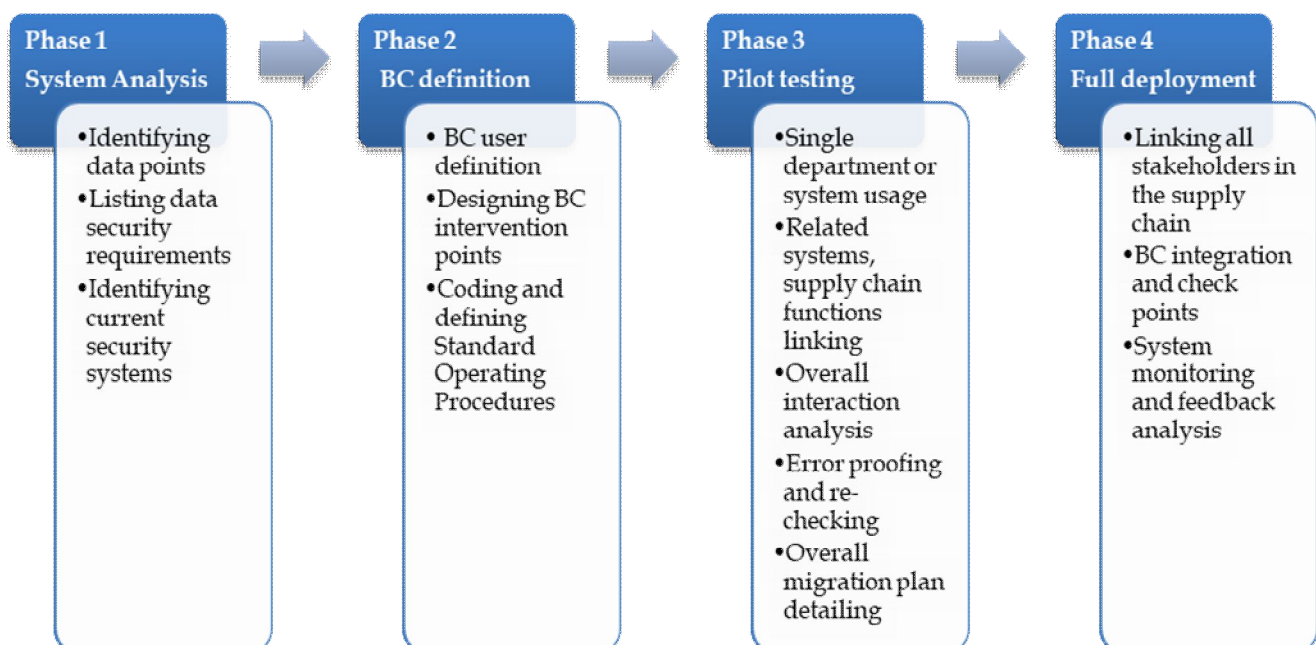
Organizations that have automated their supply chain using digital technology have their systems interacting directly with the systems of the other stakeholders in the supply chain. This results in huge volumes of data sharing between the various stakeholders in the supply chain and the need to integrate such interactions in the supply chain is of pertinent requirement in the present times (Korpela, Hallikas, & Dahlberg, 2017). The greater role played by blockchain in manufacturing supply chain and its capability to decentralize data yet ensure trust, transparency and immutability is discussed by many researchers (Abeyratne & Monfared, 2016; Hackius & Petersen, 2017).

Manufacturing organizations are increasingly relying on third party ERP and supply chain softwares for maintaining their entire supply chain data. The dependability of these external softwares is purely on trust and manufacturing organizations are the mercy of such a trust. A blockchain technology has the supreme power to reinforce such a trust by eliminating the third party used in data transactions through the logic of distributed trust in a common marketplace where no individual user can own or manipulate the data independently without the knowledge of the other users in the blockchain (Francisco & Swanson, 2018).

While many researchers have constantly worked on deliberating the advantages of blockchain in improvising supply chain effectiveness and scalability, the way forward in successful deployment of blockchain in supply chains still remains as a grey area for researchers and academicians. While manufacturing organizations might rope in blockchain experts and software professionals to enable the smooth transit of manual or automated supply chain systems into systems containing blockchain technology, the sequencing of deployment of such highly cryptographic services in the entire wing of supply chain is a realistic challenge to take up. No manufacturer's supply chain can be stopped for exclusive blockchain implementation and neither blockchain implementation can happen on a vibrantly active supply chain. Therefore managing activeness of the supply chain while at the same time deploying blockchain all along the supply chain needs to be done in a phased manner.

### BLOCKCHAIN IMPLEMENTATION

While blockchain implementation reflects complexity and expertise at all levels, the phased manner approach detailed below as a conceptual model serves as a disciplined approach in blockchain deployment. The phase 1 emphasizes the need for existing system analysis so that the current data handling mechanisms, security levels and system requirements can be clearly charted. Following system analysis blockchain definition specific to the supply chain system under consideration needs to be detailed out. This phase considers all users in the supply chain and the various points of transaction between the stakeholders are identified for blockchain linkage. The overall public domain or permissioned domain of blockchain is crafted and the coding is structured during this phase. The third phase is the pilot testing phase wherein the blockchain capabilities are infused into one or more individual departments/systems before overall deployment. The system or supply chain function is checked for accuracy of data transfer, recall and intrusions. Since blockchain deployment across the entire organization is a very time consuming and costly affair, pilot testing serves as a crucial stage in blockchain deployment. The results of pilot testing can be diagnosed further to check whether the desired output is arrived at and also can be tested further before establishing complete trust on full implementation. The final phase aims at extending the micro implementation carried out in the previous phase on a full-scale manufacturing supply chain wide implementation. The need to integrate and connect the various touch points in the entire spectrum of supply chain is the most crucial algorithm in the entire exercise of blockchain deployment.



**Figure-1: Proposed blockchain implementation phased model**

The implementation of blockchain in supply chains systems should further be shielded by a strong and robust feedback mechanism. The overall integrity of the system and the interlink between the various stakeholders in the blockchain enabled supply chain is the trust pillar behind all transactions enacted in the supply chain. Therefore system monitoring and error proofing if any are vital attributes in blockchain deployment.

### BLOCKCHAIN SPECIFICATION

The above mentioned conceptual model depicted in figure 1 is the most idealistic way of carrying out a blockchain implementation in a manufacturing supply chain. However more clarity needs to be established on the various nodes(stakeholders), user profile, product information, type and nature of transactions, degree of accessibility and the unique identification key with respect to usage of blockchain. These specifications are distributed across the server in the form of distributed blocks with each bit of data having a link to the previous data, but no available on a single server in its complete sense. This continuity of blockchain specification has to be maintained all along the supply chain and this serves the purpose of blockchain implementation in manufacturing supply chains.

### CONCLUSION

The need for careful implementation of blockchain in a phased manner determines the success of the entire supply chain post blockchain deployment. While technologies are ever changing in a global economy, the need for protecting data amidst competition and distributing user specific content is central to any data handling



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technologies. In this respect, the present technology of blockchains earn an edge over other available technologies in the market, simply because of its trust, transparency and decentralized division of data in a common market place without the intervention of any form of third party can serve as the greatest boon to supply chains in the manufacturing sector.

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**STREET VENDING IN INDUSTRY 4.0****Dr. Joseph Charles Tamilmaran. D**Assistant Professor, School of Management, Kristu Jayanti College, Bangalore

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**ABSTRACT**

*Street vending is a micro entrepreneurship that is very simple and easy to run with less skill and knowledge level. But, the challenges and the problems faced by the street vendors are numerous. In spite of such challenges, the street vending has been the main source of income for a larger section of people, who generally are termed as the urban poor. The street vendors are known for their hard work, long working hours and for providing timely availability of the right product at the right time and at the right price.*

*With the businesses gearing up for Industry 4.0, this paper aims to propose a new model of street vending in the Industry 4.0 with the digital technology. The proposed model attempts to bring a strong partnership between the governments, street vendors, suppliers, the courier companies, electronics and technology firms, fintech companies, banks, financial institutions etc. The proposed model of street vending requires tremendous involvement and efforts from the government.*

*The paper concludes that the proposed model of Street Vending in Industry 4.0 will benefit all its stakeholders such as the street vendors, government, suppliers, courier companies, fintech companies, banks, financial institutions, electronics and IT companies, service engineers and the environment. It is also set to transform the informal sector into a formal business sector over a period of time.*

*Keywords: Street Vending, Industry 4.0, Informal Sector, Micro Entrepreneurship*

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**INTRODUCTION**

It is very difficult to trace back the origin of street vending in India. But, studies suggest that street vending is a means of living for the urban poor in India. The national policy of street vendors in India defines street vendors as, “a person who offers goods or services for sale to the public without having a permanent built up structure but with a temporary static structure or mobile stall”. Street vending is considered as a less skilful job and hence the street vendors find it easy to have it as a means of livelihood in India. Street vendors are considered as the informal sector in the urban India.

**OBJECTIVES**

Many researches have been conducted in the past to study the street vendors in India and their challenges. This study proposes a new model of street vending in Industry 4.0 and its implementation. Gartner 2017, defined Industry 4.0, “the Industry 4.0 is about driving digital value chains, thus creating more agile and market focused competencies”. Gartner also noted that the technology is an important enabler of the digital business of Industry 4.0. As the business across the globe gear up towards the Industry 4.0, this study aims to propose a digital based street vending in the Industry 4.0.

**RESEARCH METHOD**

The research is based on the secondary data that is collected from the government portals, national association of street vendors of India and the previous published research articles.

**BACKGROUND OF STREET VENDING**

Renuka Garg et.al 2014 defined street vendors as micro entrepreneurs. Though the definition is smart, the so called micro entrepreneurs face various challenges that are not faced by an established entrepreneur. In their study of street vendors in the city of Surat, they identified the following as the major challenges of the street vendors; access to finance, vulnerability, working conditions, competition and lesser scope for scaling up the business. Sindhu A.R 2015, in their on the street vendors in the South Indian towns in the state of Tamil Nadu found that almost 80% of the surveyed respondents were not aware of the facilities that are offered through micro finance.

Konwar 2015, in the study on the financial inclusion of the street vendors in the state of Assam, further analysed the problems faced by the street vendors in accessing credits from the banks. It was identified that the low level of awareness is a major challenge. Also, the improper response from the bankers, lack of proper identity documents, unstable income, lengthy bank procedures etc were identified as other challenges that the street vendors face in Assam.

A study by the environment support group on the street vendors in Bangalore in 2010 highlighted the harassment faced by the street vendors from the police and the government officials in terms of bribe. Sonawane 2017 in the study to assess the problems faced by the street vendors in the city of Nashik, identified the following as the problems; very difficult reach to credit, harassment by the officials, poor mobility due to traffic and also identified certain issues such as non-availability of toilets to the street vendors, poor health due to increased pollution etc and that were an eye opener.

Saha 2011, in the study on the street vendors in Mumbai identified access to finance, access to space, security and hours of work as major challenges that are faced by the street vendors on a regular basis in Mumbai. With all these studies focusing on the challenges or problems faced by the street vendors in the cities of India, the question that is being raised is can there be a sustainable model with the help of digital technology that could redefine street vending in industry 4.0? A new model of street vending with the help of digital technology is being proposed in this study. Though the model requires tremendous support from the government in terms of policy, implementation and a futuristic approach, the model will yield a win-win for every stake holder in street vending.

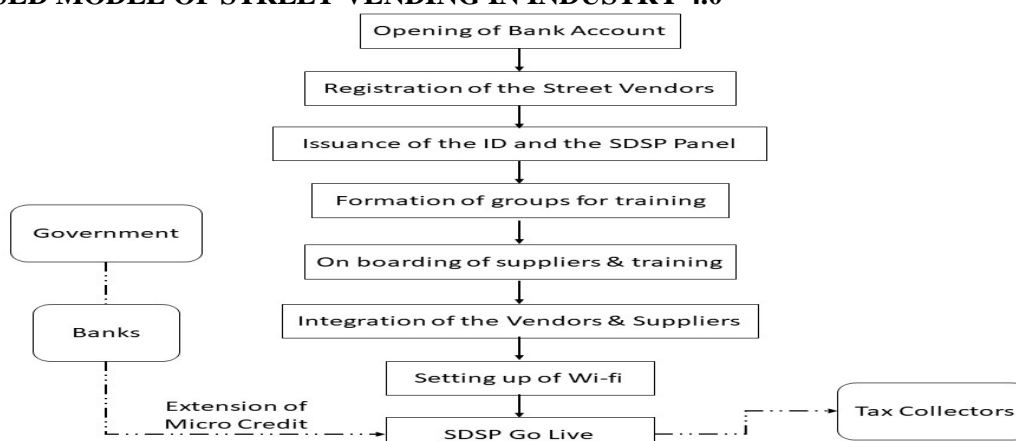
### STREET VENDING IN INDUSTRY 4.0

Street vending will change in the Industry 4.0. The street vendors who have selling products physically to the people in their locality would now sell the same products through a Smart Digital Street Panel (SDSP). The SDSP will have a touch screen and will display the items that the street vendor sells. The people passing by on the streets may browse through the products in the display, select the product, provide the delivery address, time of delivery and make the payment. The order is forwarded by the system to the suppliers, manufacturers or the cottage industries. The system also confirms the order, delivers an e-bill and also sends the details of the supplier. Based on the orders received, the supplier does a door delivery to the customer's preferred address.

The payment is auto transferred to the supplier after paying the commission to the street vendor, holding back the interest for any loan obtained and the deduction of taxes. The amount paid would be kept on hold until the supplier initiates the despatch process. The amount on hold would be auto-transferred to the courier agency's account after paying the commission to the supplier. The amount auto transferred would be on hold until the shopper confirms the receipt of the product. The amount on hold would be released to the courier agency post-delivery of the product to the shopper and their confirmation.

One of the interesting process during shopping with the street vendors is the process of negotiation. In order to maintain that interesting process, the prices are dynamic in the SDSP. The street vendors will also have options to bundle products, cross sell, and upsell to their customers. The customers will also have the same options to negotiate and bargain so as to get the value for their money. The vendor needs to pay a margin amount depending on the items that he/she chooses to display in their SDSP. All these will work only when the government is able to collect the details from the street vendors and register them individually to the scheme. The SDSP should be issued only to the registered vendors. It is not just the role of the government, the bankers should come forward to open bank accounts, the financial institutions should come forward to finance, the street vendors should be willing to change and adapt and the technology infrastructure should be in place to support the proposed model. The government instead of forcing the vendors to register should work with them to gain their support in registering. The method of implementation should be on the basis of invitation and not on the basis on threat to the livelihood.

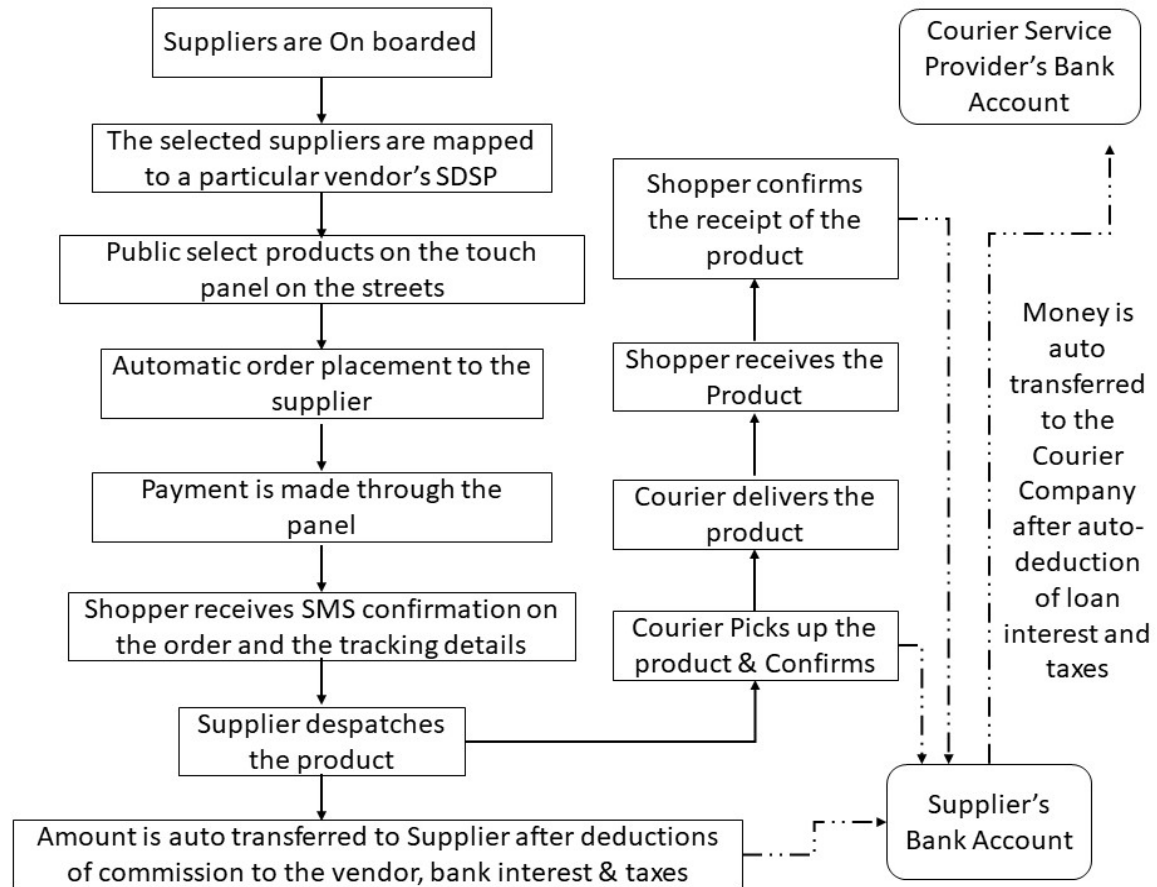
### PROPOSED MODEL OF STREET VENDING IN INDUSTRY 4.0



Source: Author's own proposition

### THE PROPOSED STREET VENDING PROCESS:

The following is the proposed Street Vending Process:



Source: Author's own proposition

### ROLE OF THE GOVERNMENT

Government should create the infrastructure that is required for the street vendors. The following are the infrastructure that is required, i) The Smart Digital Street Panels, the application for the SDSP, the network connectivity, data storage and management, on boarding processes of suppliers and street vendors, training, blacklisting of irregular or defaulting suppliers and street vendors, communication to the shoppers such as order tracking, complaints, returns, replacements, partnering with the fintech, banks and financial institutions, setting up of wifi networks, service centres for the panels etc. The government's role in setting up the infrastructure for the street vendors is crucial to sustain their lives.

### STREET VENDING IN INDUSTRY 4.0 – A WIN FOR ALL STAKEHOLDERS

The vendor may also be extended a micro-credit by the government in tie-up with banks and financial institutions through the SDSP to enable them to pay the margin money and to choose the right products for their SDSP. As the transactions happen electronically through bank accounts, banking penetration would increase and tax collection and the collection of interest on the extended micro-credit will also become easier for the governments and the financial institutions or banks.

The street vending of this style in the Industry 4.0 in addition to sustaining the lives of the street vendors, will also sustain the small manufacturers and suppliers, will create new opportunities for repairing and maintenance of the SDSP, will create new job opportunities for the tech job seekers, will create delivery jobs. The proposed version of street vending will also create more tax payers in the country there by benefiting the economy and the government. Hence the street vending in Industry 4.0 will be a win – win for every stakeholders.

### STREET VENDING IN INDUSTRY 4.0 AND THE ENVIRONMENT

Because of the non-requirement of a store for the street vendors, the urban space will not get impacted. The city plan will not get disturbed due to the street vending in Industry 4.0. As there is no movement of goods from the street vendors to the public, the usage of plastics will be reduced. The pollution in the city will reduce and the cleanliness of the city will improve. The environment surrounding the street vendors of Industry 4.0 will get a facelift. The proposed version of street vending will thus transform this unorganized sector of street vending into a much organized version of street vending 4.0.

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**CONCLUSION**

The proposed street vending model for the Street Vending in Industry 4.0 digitizes the street vending in India. It eliminates the physical cash completely and utilizes the digital technology in integrating the government, fintech companies, banks, financial institutions, the street vendors, suppliers and manufacturers, telecom companies, electronic hardware companies, IT companies, repair service providers and the courier agencies together on a single platform. Elimination of physical cash results in the removal of bribe. The conversion of the physical store or a built up structure into a digital touch panel eliminates the problems associated with the city planning and the related issues.

The digital payment technology also assists in recovery of the interest for the loan that is extended and also in tax collection. Thereby the informal sector gets converted into an organized sector. The avoidance of direct sale or movement of goods results in decreased usage of plastics and also results in cleanliness of the city. Thus, the proposed street vending model in Industry 4.0 would be a futuristic, greener and cleaner model in transforming the informal sector of street vending into a formal sector.

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**A STUDY ON CUSTOMER AWARENESS AND PREFERENCE TOWARDS ONLINE SHOPPING  
WITH REFERENCE TO BENGALURU CITY, KARNATAKA**

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**Dr. Saranya S**Assistant Professor, Kristu Jayanti College, Bengaluru

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**ABSTRACT**

*E-Commerce has a great revolution in the era of globalization. Especially, online shopping is a rapidly growing e-commerce area. In recent years, it is tough to envisage the life without the Internet because the people can browse through the Internet to source information for whatever they want and whenever they want. The Internet has also changed the way the people consume the products and the means of satisfying their demands for comfort.*

*Keywords: Internet, e-commerce, online shopping*

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**INTRODUCTION**

E-Commerce is getting bigger every day. E-Shopping is one of the major aspects of the dynamic e-commerce which has grown leaps and bounds in India. The tremendous growth of e-commerce has transformed the world retail infrastructure rapidly. The emergent use of e-commerce in India provides a developing vision for online shopping. It is a network of linked computers enabling millions of people to communicate and search for information as well as to sell and buy products.

**REVIEW OF LITERATURE**

**Chen and Chang (2003)** in their study entitled “A descriptive model of online shopping process: some empirical results” reveals that in order to be successful in the Internet niche, many retailers engage in business model reengineering to keep up with changes in how customers acquire goods and services. The present study depicts a common online shopping process and identifies three common online shopping components: interactivity, transaction, and fulfillment. These components and their respective factors form one's online shopping experience.

**Cheung et al. (2003)** in their study entitled “Online Consumer Behavior: A Review and Agenda for Future Research” provide an exhaustive review of the literature and propose a research framework with three key building blocks (intention, adoption and continuance) so as to analyze the online consumer behaviour in a systematic way. This proposed framework not only provides us with a cohesive view of online consumer behavior, but also serves as a salient guideline for researchers in this area.

**Harn et al. (2006)** in their study entitled “E-Commerce: A Study on Online Shopping in Malaysia” has indicated that there is a significant mean difference between online shoppers and non-online shoppers in gathering product information and comparing price of goods and services before a purchase decision. Results also indicated that this group of non-online shoppers constitutes more than 60% of the total number of online consumers in Malaysia, implying a huge potential of online shopping to online retailers. In conclusion, online consumers in Malaysia still lack confidence and trust in utilizing the Internet as a shopping channel.

**Islam (2007)** in his study entitled “Changing Attitude of Indian Consumer towards Online Shopping” focused on factors which online Indian buyers keep in mind while shopping online. The research found that information, perceived usefulness, ease of use, perceived enjoyment and security/privacy are the five dominant factors which influence consumer perceptions of online purchasing.

**OBJECTIVES OF THE STUDY**

1. To identify the influencing factors for preferring particularly online shopping with reference to Bengaluru city.
2. To examine the level of awareness towards online shopping in Bengaluru city.

**METHODOLOGY**

The present study explores the sample respondents' awareness about online shopping and the factors influencing for preferring online shopping in Bengaluru city. Snowball sampling technique has been used in the study. A Sample of 150 are covered by the study. In the study, primary data are collected by using a well-structured questionnaire and secondary data like journals, magazines, etc. were also used in the study.

**REASONS FOR PREFERRING ONLINE SHOPPING**

The Henry Garrett ranking method has been applied to analyze the reasons for preferring online shopping and the details of Garrett points and mean is presented below.

**Table-1: Reasons for Preferring Online Shopping– Garrett Scores and Rank**

S. No	Reasons	Total Score	Average	Rank
1	Convenience	62919	59.92	I
2	More Variety	57442	54.71	III
3	Special Offers/Coupons	50925	48.50	VI
4	Fun & Enjoyment of Shopping	49997	47.62	VIII
5	Time Saving	59631	56.79	II
6	Ability to do comparison shopping easily	42348	40.33	XI
7	Ability to shop anytime (24/7)	51805	49.33	V
8	Privacy to shop	46020	43.83	X
9	Less Stressful	48757	46.44	IX
10	Availability of Security & Privacy Information	52033	49.56	IV
11	Availability at better prices	50373	47.97	VII

Source: Compiled from Primary Data

Table 1 states that ‘Convenience’ was ranked as a first reason with a score of 59.92 Garrett points. ‘Time Saving’ was ranked as a second reason with a score of 56.79 Garrett points. ‘More Variety’ was ranked as a third reason with a score of 54.71 Garrett points. ‘Availability of Security & Privacy Information’ was ranked as a fourth reason with a score of 49.56 Garrett points. ‘Ability to shop anytime (24/7)’ was ranked as a fifth reason with a score of 49.33 Garrett points. ‘Special Offers/Coupons’ was ranked as a sixth reason with a score of 48.50 Garrett points. ‘Availability at better prices’ was ranked as a seventh reason with a score of 47.97 Garrett points. ‘Fun & Enjoyment of Shopping’ was ranked as a eighth reason with a score of 47.62 Garrett points. ‘Less Stressful’ was ranked as a ninth reason with a score of 46.44 Garrett points. ‘Privacy to shop’ was ranked as a tenth reason with a score of 43.83 Garrett points. ‘Ability to do comparison shopping easily’ was ranked as a eleventh reason with a score of 40.33 Garrett points.

**WEBSITES USED NORMALLY FOR SHOPPING ONLINE**

To analyze the websites used normally by the respondents for shopping online, the Henry Garrett ranking method has been applied and the details of Garrett points and mean is presented below.

**Table-2: Websites Used Normally For Shopping Online– Garrett Scores And Rank**

S.No.	Websites	Total Score	Average	Rank
1	Jabong.com	59233	56.41	III
2	Myntra.com	60957	58.05	II
3	Snapdeal.com	57332	54.60	IV
4	ebay.com	53073	50.54	VII
5	Irctc.co.in	53403	50.86	VI
6	Redbus.in	53682	51.12	V
7	Flipkart.com	64631	61.55	I
8	Amazon.com	51655	49.19	VIII
9	Yebhi.com	49792	47.42	IX
10	FabFurnish.com	48282	45.98	XI
11	Shopclues.com	45121	42.97	XIV
12	Makemytrip.com	48424	46.11	X
13	Yatra.com	46211	44.01	XII
14	Naaptol.com	46018	43.82	XIII
15	Others	41230	39.26	XV

Source: Compiled from Primary Data

Table 2 reveals that ‘Flipkart.com’ was ranked as a first website with a score of 61.55 Garrett points. ‘Myntra.com’ was ranked as a second website with a score of 58.05 Garrett points. ‘Jabong.com’ was ranked as a third website with a score of 56.41 Garrett points. ‘Snapdeal.com’ was ranked as a fourth website with a score of 54.60 Garrett points. ‘Redbus.in’ was ranked as a fifth website with a score of 51.12 Garrett points.

'Ireco.co.in' was ranked as a sixth website with a score of 50.86 Garrett points. 'ebay.com' was ranked as a seventh website with a score of 50.54 Garrett points. 'Amazon.com' was ranked as an eighth website with a score of 49.19 Garrett points. 'Yebhi.com' was ranked as a ninth website with a score of 47.42 Garrett points. 'Makemytrip.com' was ranked as a tenth website with a score of 46.11 Garrett points. 'FabFurnish.com' was ranked as an eleventh website with a score of 45.98 Garrett points. 'Yatra.com' was ranked as a twelfth website with a score of 44.01 Garrett points. 'Naaptol.com' was ranked as a thirteenth website with a score of 43.82 Garrett points. 'Shopclues.com' was ranked as a fourteenth website with a score of 42.97 Garrett points. 'Other websites' was ranked as a fifteenth website with a score of 39.26 Garrett points.

### FACTORS INFLUENCING THE RESPONDENTS' DECISION MAKING IN THE FINAL SELECTION OF THE PRODUCT

To analyze the factors which influence the respondents' decision making in the final selection of the product, the Henry Garrett ranking method has been applied and the details of Garrett points and mean is presented below.

**Table-3: Factors Influencing The Respondents' Decision Making In The Final Selection Of The Product– Garrett Scores And Rank**

S.No	Factors	Total Score	Average	Rank
1	The best prices	58555	55.76	II
2	Convenience & Time Saving	67468	64.25	I
3	Not available in local stores	46238	44.03	V
4	Price comparison available	47283	45.03	IV
5	Product reviews available	50722	48.30	III
6	Additional Discounts/Offers	42224	40.21	VI

Source: Compiled from Primary Data

It is understood from the above table that 'Convenience & Time saving' was ranked as a first factor with a score of 64.25 Garrett points. 'The best prices' was ranked as a second factor with a score of 55.76 Garrett points. 'Product reviews available' was ranked as a third factor with a score of 48.30 Garrett points. 'Price comparison available' was ranked as a fourth factor with a score of 45.03 Garrett points. 'Not available in local stores' was ranked as a fifth factor with a score of 44.03 Garrett points. 'Additional Discounts/Offers' was ranked as a sixth factor with a score of 40.21 Garrett points.

### PROBLEMS FACED BY THE RESPONDENTS

To analyze the problems faced by the respondents, the Henry Garrett ranking method has been applied and the details of Garrett points and mean are presented below.

**Table-4: Problems Faced By The Respondents– Garrett Scores And Rank**

S.No	Problems	Total Score	Average	Rank
1	Pages took too long to load that I gave up	19689	40.01	V
2	Not possible to see/touch the product in person	27588	56.07	I
3	Delay in Delivery	22673	46.08	IV
4	Wrong product arrived & couldn't return it	25957	52.75	III
5	Got a defective product	26109	53.06	II

Source: Compiled from Primary Data

Table 4 shows that 'Not possible to see/touch the product in person' was ranked as a first problem with a score of 56.07 Garrett points. 'Got a defective product' was ranked as a second problem with a score of 53.06 Garrett points. 'Wrong product arrived & couldn't return it' was ranked as a third problem with a score of 52.75 Garrett points. 'Delay in Delivery' was ranked as a fourth problem with a score of 46.08 Garrett points. 'Pages took too long to load that I gave up' was ranked as a fifth problem with a score of 40.01 Garrett points.

### CORRELATION ANALYSIS

Correlation Analysis attempts to study the relationship that exists between two variables. The correlation co-efficient of the selected independent variables with the determinants of level of awareness towards online shopping in Bengaluru city have been worked out in order to identify the most important variable that has relationship with the dependent variable.



**Table-5: Customer Awareness Towards Online Shopping– Inter Correlation Matrix**

	Y <sub>1</sub>	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>
Y <sub>1</sub>	1								
X <sub>1</sub>	-.093**	1							
X <sub>2</sub>	.098**	-.199**	1						
X <sub>3</sub>	-.101**	-0.019	0.027	1					
X <sub>4</sub>	-0.005	-0.025	.062*	.238**	1				
X <sub>5</sub>	.137**	-.356**	.267**	0.006	.096**	1			
X <sub>6</sub>	0.042	-0.002	-.226**	0.009	0.06	-.123**	1		
X <sub>7</sub>	-.085**	.164**	-0.028	0.002	-0.03	0.019	.099**	1	
X <sub>8</sub>	-0.015	-.132**	0.038	.102**	.119**	.062*	-0.006	-.448**	1

**\*\*.**Correlation is significant at the 0.01 level (2-tailed).

**\***. Correlation is significant at the 0.05 level (2-tailed).

Y<sub>1</sub> = Level of Awareness

X<sub>1</sub> = Gender

X<sub>2</sub> = Age

X<sub>3</sub> = Educational Qualification

X<sub>4</sub> = Occupation

X<sub>5</sub> = Monthly Income

X<sub>6</sub> = Marital Status

X<sub>7</sub> = Family Type

X<sub>8</sub> = Family Size

Table 5 reveals that the level of awareness towards online shopping in Bengaluru city. It is understood from the table that there is significant negative correlation between Y<sub>1</sub> (Level of Awareness) and X<sub>1</sub> and X<sub>3</sub> and X<sub>7</sub> at 1% level and X<sub>2</sub> and X<sub>5</sub> is positively correlated at 1% level. There exists a negative correlation between X<sub>1</sub>(Gender) and X<sub>2</sub> and X<sub>5</sub> and X<sub>8</sub> at 1% level and X<sub>7</sub> is positively correlated at 1% level. There is close association between X<sub>2</sub>(Age) and X<sub>4</sub> is positively correlated at 5% level and X<sub>5</sub> is positively correlated at 1% level and X<sub>6</sub> is negatively correlated at 1% level. There exists a significant and close relationship between X<sub>3</sub> (Educational Qualification) and X<sub>4</sub> and X<sub>8</sub> is positively correlated at 1% level. There exists a positive correlation between X<sub>4</sub> (Occupation) and X<sub>5</sub> and X<sub>8</sub> at 1% level. A close observation of the table states that there is a close relationship between X<sub>5</sub> (Monthly Income) and X<sub>8</sub> is positively correlated at 5% level and X<sub>6</sub> is negatively correlated at 1% level. There is close association between X<sub>6</sub> (Marital Status) and X<sub>7</sub> is positively correlated at 1% level. There exists a negative correlation between X<sub>7</sub> (Family Type) and X<sub>8</sub> at 1% level.

## CONCLUSION

The systematic progress of Information technology have transformed the way goods are bought and sold, resulting to the exponential growth in the number of online shoppers. It is concluded that the reason for preferring online shopping is the 'Convenience' whose average is 59.92 Garrett points, the websites which have been used normally by the respondents for shopping online is 'Flipkart.com' whose average is 61.55 Garrett points, the factor which influence the respondents' decision making in the final selection of the product is 'Convenience & Time Saving' whose average is 64.25 Garrett points and the main problem faced by the respondents is 'Not possible to see/touch the product in person' whose average is 56.07 Garrett points. There is significant positive correlation between Y<sub>1</sub> (Level of Awareness) and X<sub>2</sub> and X<sub>5</sub> at 1% level. There is close association between X<sub>2</sub>(Age) and X<sub>4</sub> is positively correlated at 5% level and X<sub>5</sub> is positively correlated at 1% level. There exists a significant and close relationship between X<sub>3</sub> (Educational Qualification) and X<sub>4</sub> and X<sub>8</sub> is positively correlated at 1% level. There exists a positive correlation between X<sub>4</sub> (Occupation) and X<sub>5</sub> and X<sub>8</sub> at 1% level. A close observation of the table states that there is a close relationship between X<sub>5</sub> (Monthly Income) and X<sub>8</sub> is positively correlated at 5% level and also there is close association between X<sub>6</sub> (Marital Status) and X<sub>7</sub> is positively correlated at 1% level.

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## A STUDY ON THE REASONS FOR THE DECLINE OF THE INDIAN TEA INDUSTRY

Prof. Jethina James

Assistant Professor, Kristu Jayanti College (Autonomous), Bengaluru

## ABSTRACT

*This paper attempts to study the reasons behind the decline of the Indian tea industry. It focuses on the cost, branding, investments, prospects and the government policies that play a vital role in determining various factors. The paper is based on secondary data and studies the wage trends and its impact on labour productivity and employment ratio in the sector. The paper also observes the prospects for the industry and the investment opportunities it possesses from both within and abroad. Government policies also play a very important role in a particular sector as evident from the study made in the following research.*

## INTRODUCTION

The main areas that India, the 2<sup>nd</sup> largest producer of tea faces challenges in are safety and quality, agricultural and social issues and increase of costs of production. The tea industry is a major source of foreign revenue for our nation but it is affected by a few challenges.

**Reduction in quality:** The use of pesticides excessively in tea plantations have led to decline in its quality. **Labor issues:** Continuous labor issues plague the industry for better working conditions and pay. The 2015 FTP has reduced the concessions for exports to 3% from 5% which has affected its competitiveness. Price shocks of global nature and civil issues in the middle-east have placed a barrier on our exports. Reduction in soil productivity, poor implementation of technology and aging tea bushes are another issue. The industry is heavily dependent on monsoons and its fluctuations affect its productivity. The plantations of North East face constraints in the areas of labor, infrastructure, issues of health and poor housing and lacking in social mobility avenues. Many plantations have shut down in recent years because of these various causes. No real reinvestment occurred to improve tea as profits were just siphoned off.

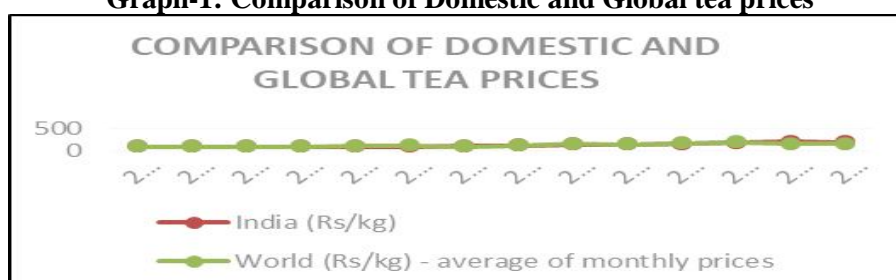
**Decline in tea prices:** The auction price of tea has declined steadily in the recent past, almost 44% (World Bank).

Table-1: Comparison of India's tea export prices with the world

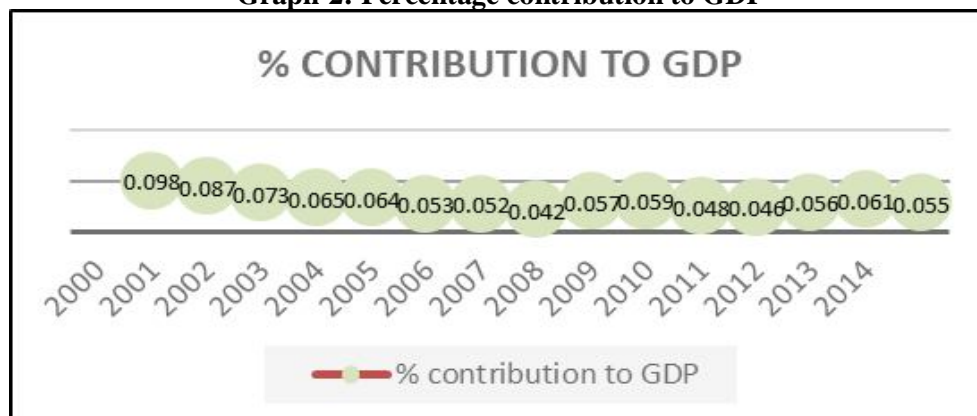
Year	India (Rs/kg)	World (Rs/kg) - average of monthly prices
2001	92.13	90.35
2002	87.23	87.07
2003	91.56	90.48
2004	93.14	89.85
2005	91.99	95.37
2006	91.73	109.51
2007	101.26	87.69
2008	117.81	117.28
2009	140.77	151.56
2010	137.75	144.65
2011	152.82	161.56
2012	180.12	186.41
2013	198.81	154.51
2014	195.43	153.07

Source: indexmundi

Graph-1: Comparison of Domestic and Global tea prices



Graph-2: Percentage contribution to GDP



The world price average of tea is less than the Indian average. This reduces the competitiveness of Indian tea in the global as well as the domestic market. About 60-75% of the price of tea is composed of the wage price and the remaining from the Cost of production and other aspects like interest of capital etc. Most of the factor prices underlying the tea price have gone up.

Table-2: Tea Sales in Indian Auction (Domestic) [1 Rupee=0.15 Dollars]

Year	Qty. (Th Kg)	Avg.Price (Rs/Kg)	Value In US Dollars (millions)	Nominal GDP In US Dollars (millions)	% contribution to GDP
2000	507527	61.71	469.7923676	476636	0.098
2001	463688	61.66	428.8650312	493934	0.087
2002	456549	55.96	383.2272306	523768	0.073
2003	477771	56.03	401.542637	618369	0.065
2004	474354	64.54	459.2221074	721589	0.064
2005	510234	58.05	444.2862555	834218	0.053
2006	499072	66.01	494.1561408	949118	0.052
2007	514404	67.27	519.0593562	1238700	0.042
2008	530020	87.78	697.877334	1224096	0.057
2009	501479	106.70	802.6171395	1365373	0.059
2010	512301	106.32	817.0176348	1708460	0.048
2011	534310	106.07	850.1139255	1843018	0.046
2012	548017	125.25	1029.586939	1835821	0.056
2013	572683	132.23	1135.888096	1875157	0.061
2014	568751	130.91	1116.827901	2049501	0.055

Source: indiatea.org

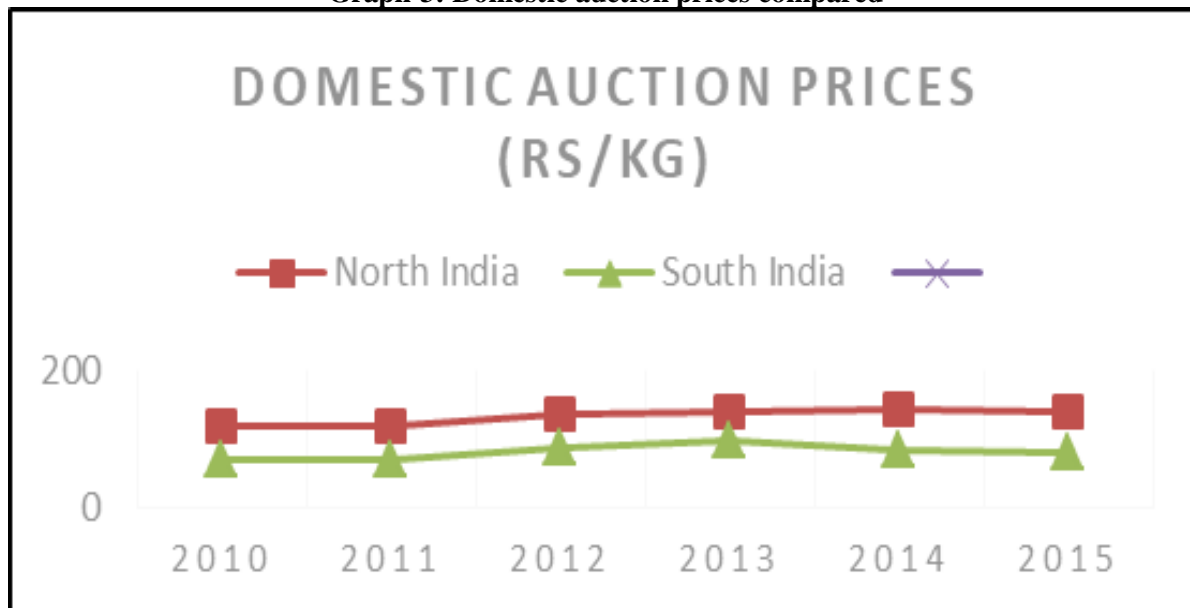
The percentage contribution of Indian tea proceeds from domestic auction sales to the GDP of our country has been showing a declining trend in the past decade. The profits of the tea industry has gone down because of very little price realization, increase in production and factor costs, and sales average going down because of increase in competition and decline in the quality of Indian tea. These are a few of the reasons which contribute to the decline in the percent share of Indian tea sector to the GDP.

Table-3: Domestic Auction Prices

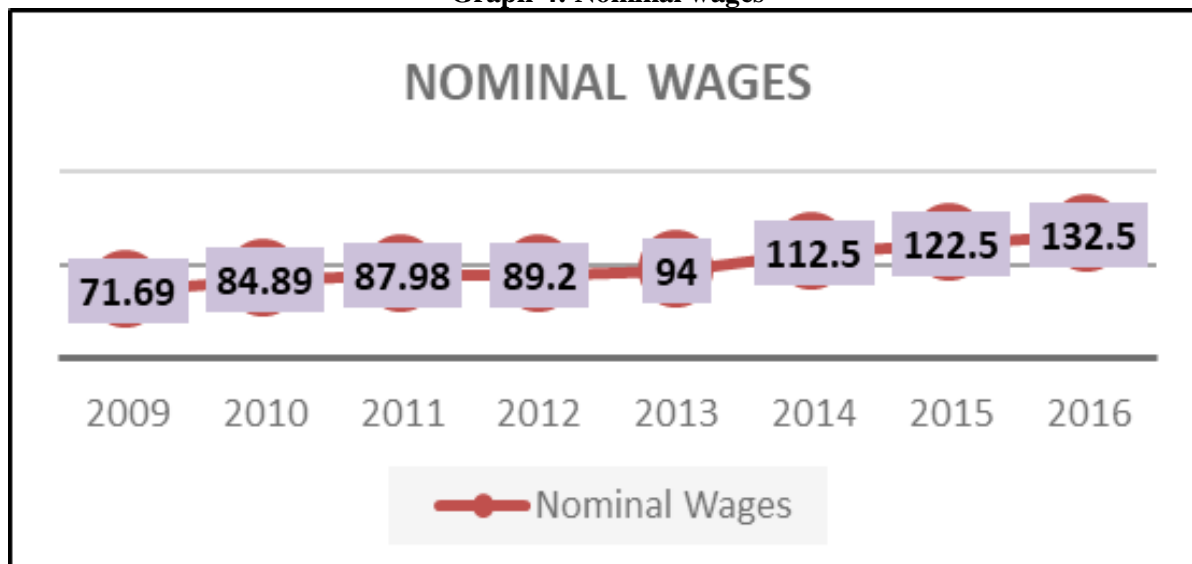
Year	North India		South India		All India	
	Qty (M.kgs)	Price (Rs/Kg)	Qty (M.kgs)	Price (Rs/Kg)	Qty (M.kgs)	Price (Rs/Kg)
2010	378.21	119.51	151.85	67.69	530.06	104.66
2011	390.72	117.19	151.44	70.17	542.16	104.06
2012	367.81	135.59	147.18	87.39	514.99	121.81
2013	383.88	139.95	148.52	98.75	532.40	128.46
2014	395.95	143.07	145.78	82.89	541.73	126.88
2015	414.63	139.79	147.36	81.40	561.99	124.48

Source: teaboard.gov.in

Graph-3: Domestic auction prices compared



Graph-4: Nominal wages



Less production of tea: The various problems such as less transport subsidy, increased tax revenue for tea gardens, poor labor schemes, power problems, increased pollution fee, inadequate communication systems, finance crisis etc have further contributed to its decline.

The migration of workers in recent years have declined resulting in labor reduction in tea factories and increased labor demand. Also local tea laborers have reduced because of the NREGA's less number of tea laborers. Many tea industries have become sick industries because of poor infrastructure, inefficient management and modernization. No proper storage: Transportation delay and inadequate storage facilities cause the processed tea to gain moisture from the atmosphere and deteriorates its quality.

Pests such as the mosquito bug, bacterial black spot etc affects the plantations. There have been severe consequences of closing down the obsolete tea industries. "Between 2000 and 2015, more than 1400 people have been reported to have died in the closed tea gardens."

The various reasons for these are; No permanent employment: The majorities of the laborers are from the tribal community and locals and are exploited a lot. Low wages: The wages are lowest as compared to other occupation in the organized sector. Sometimes in peak season they are even paid below the actual minimum wage. Poor living conditions: Many workers live in unhygienic and overcrowded residential colonies and most of them are illiterate suffering from many health issues and diseases because of poor sanitation, housing, household and personal hygiene.

Health problems: They suffer from various communicable diseases due to poor tea factory conditions and alcohol and tobacco. Some are under-nourished and underweight and suffer other such inadequate food caused problems. The plantation labor act of 1951 compelled establishing of a health center with proper facilities in every tea garden but this hasn't been completed yet because the tea gardens are remote and the health centers are in distant places to which connectivity is poor. There are no maternity benefit schemes and it is of concern that female laborers sometimes engage in hard jobs even during post natal and pregnancy time. Few other constraints which affect tea productivity, quality and production directly are the age of tea bushes with more than 30% of them being over the age limit of economic threshold, re plantation at the slow rate of less than 0.5% as opposed to the needed 2% level and fall in auction prices.

**Table-4: Wage prices**

Year	Nominal Wages
2009	71.69
2010	84.89
2011	87.98
2012	89.20
2013	94.00
2014	112.50
2015	122.50
2016	132.50

Source: Centre for Development Studies

70% of price of tea is of the wage price. Therefore, an increment in wages increases the price reducing its competitiveness. The remaining 30% includes other factors of production whose costs have gone up too. The wages have been increasing at a rising trend for the past few years which pushes up the prices.

India faces stiff competitions in the world market from other producing and exporting countries such as Kenya, Indonesia, Sri Lanka, China and Vietnam. Export potential of Indian exporters is further affected by various non-tariff measures and tariff measures by tea importing countries. Even though prices and exports are looking up for the nation, the market cannot be entirely protected with changing trends in globalization.

The export duty levied by the government brought the exports from the industry crashing down and fall in earnings.

### PROSPECTS FOR THE INDUSTRY

Global demand for Indian tea has gone up. Almost all major countries consume tea exported from India. India has ventured into new markets such as Kazakhstan and China which has increased its prospects. The depth of markets for Indian tea has increased by the excellent initiative to the recent delegation to Georgia. The reduction in sales because of poor quality due to pesticides is being overcome by the implementation of Plant Protection Code which will remove all doubts about quality of Indian tea. Market promotion domestically and favorable export condition will further benefit the industry. New avenues have opened up with the diversification of tea leaf products. The improvement in supply chains and efficient storage management will help enhance the tea's shelf life. Further ways in which the prospects of Indian tea can be improved are Quality tea by managing soil and water, mechanization of plucking, cooperative tea factories, organic tea, alternative incomes, new tea variant and tea tourism.

### TOP TEA BRANDS IN INDIA

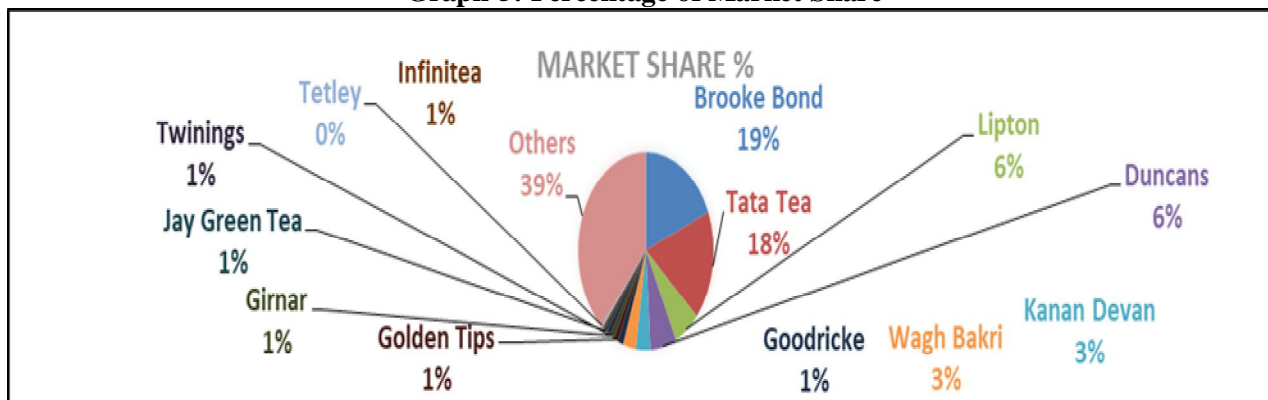
**Table-5: Packaged tea by value (2009)**

Brand	Company	Market Share %
Brooke Bond	Hindustan Unilever Ltd	18.6
Tata Tea	Tata Tea Ltd	17.9
Lipton	Hindustan Unilever Ltd	6.2
Duncans	Duncans Industries Ltd	6.2
Kanan Devan	Tata Tea Ltd	3.5
Wagh Bakri	Wagh Bakri Ltd	3.1
Goodricke	Goodricke Group Ltd	1.3
Golden Tips	Golden Tips Tea Co Pvt Ltd	1.1
Girnar	Girnar Food & Beverages	1
Twinings	Twinings Pvt Ltd	0.9

Jay Green Tea	Jay Shree tea and industries Ltd	0.7
Infinitea	Gopaldhara Tea Co Pvt Ltd	0.5
Tetley	Tata Tea Ltd	0.4
Others		38.6

Source: Top 10 tea brands in India (2015)

**Graph-5: Percentage of Market Share**



## INVESTMENTS

To give boost to the Indian tea industry for its faster development, FDI up to 100% is approved in this sector. It also includes foreign ownership in the industry which will be subject to approvals case by case. Those companies that choose this path will have to divest 26% in favor of public or an Indian partner within 5 years period. It means that that they can begin with a 100% ownership but at the end of 5 years, they have to give 26% equity in favor of Indians. Also approval has to be taken from the government if there will be any change in the current land use.

**Table-6: FDI to tea and coffee industry**

Year	In Rs crore	In US \$ million	% of total inflows
2000 – 2015	498.33	108.50	0.04
2000 – 2014	489.46	107.07	0.05
2000 – 2013	476.96	105.02	0.05
2000 – 2012	451.11	100.26	0.06

Source: RBI database

## GOVERNMENT POLICIES

### 1. Special Purpose Tea Fund Scheme (SPTF)

The scheme encourages owners of tea gardens to undertake uprooting and replanting old tea bushes in large scale to improve the production as well as the productivity of tea. Training will be imparted to the tea managers through online application submission under the scheme.

### 2. Tea Plantation Development Scheme (TPDS)

This scheme extends support financially to tea plantations to take over activities that are field oriented to aim at reducing the production costs like drainage, irrigation, purchases of weighing scales, fertilizers, leaf carry bags etc and to increases productivity of field.

### 3. Quality Up-gradation and Product Diversification Scheme (QUPDS)

The scheme extends financial assistance by subsidies to modernize the processing factories by replacing worn out and old machinery, setting up new factories, procuring processing machinery, quality assurance certification, product diversification etc.

### 4. Human Resource Development Scheme

The scheme's main objective is improvement of skills at all levels of tea production starting from workers to managers by providing measures of labor welfare and extensive training. It includes educational stipends for the wards, drinking water, sanitation etc.

### 5. Development Grant

This component is mainly used to meet the development needs of small-scale tea planters and includes the set-up of nurseries for tea, study tours organizing, workshops and also maintains a close interface with the small planters especially in non - traditional areas.

**6. Organic Tea Development Project**

This was a 3 year term project initiated in 2008 with the support of International Federation of Organic Agriculture Movements (IFOAM), Intergovernmental Groups (FAO - IGG), Food and Agriculture Organization and Common Fund for Commodities (CFC). Its main aim was to establish a scientific packaging of practices for tea, harmonizing parameters of certification, identifying market potential and developing strategies for marketing of organic tea in global market.

**7. Development of Geographic Information System through remote sensing**

This was a project initiated in 2008 - 09 collaborated with Indian Space Research Organization (ISRO). There has been considerable progress made to map the plantations of tea that is located within the pilot area of study.

**8. Energy Conservation in small tea processing units in South India**

The launching of this project was in 2008 - 09. Its main aim was to remove barriers to conserve energy and energy efficiency that inhibits the realizing of the huge energy - saving potential that the tea sector has. It was a project that was partially funded by the United Nations Development Program – Global Environment Facility (UNDP - GEF).

**Table-7: Darjeeling Tea research and development center receipt and expenditure**

Year	Non - plan and Plan	
	Receipt	Expenditure
2012-13	15180440	14963390
2013-14	10179030	11216900
2014-15	6657100	6591872

Source: Ministry of commerce and industry

**Table-8: Grants and Funds released under different activities (Assam) - In Rs crores**

Component	Sub-component	2012 - 13	2013 - 14	2014 - 15
Plantation Development	Replanting	25.770	22.230	14.210
	Rejuvenation	0.550	0.470	0.230
	Irrigation	0.930	2.380	1.010
	New Planting	4.100	5.410	8.020
	SHG	0.650	1.920	2.300
	Transport	1.660	-	-
	SUB TOTAL	33.660	32.410	25.770
Quality Up-gradation and Product Diversification	Factory Modernization	15.110	0.300	-
	Value Addition	1.760	-	1.150
	Orthodox	5.410	10.720	11.140
	SUB TOTAL	22.280	11.020	12.290
Human Resource Development	Ambulance	0.100	0.280	-
	Medical Equipments	0.080	0.810	0.075
	Disabled person	0.340	0.080	0.010
	Scholarship	0.500	0.110	0.020
	Educational Stipend	0.680	1.030	1.100
	Nehru Award	0.005	0.090	0.040
	Sports	0.010	0.010	-
	Scouts and Guides	0.130	0.060	0.010
	Vocational Training	0.170	0.580	0.200
	Awareness Program	0.180	0.270	-
	Workshop	0.040	-	-
	Capital Grant to Schools	-	-	0.420
	SUB TOTAL	2.235	3.320	1.875
Schedule Caste sub plan		1.480	1.240	3.110
Grand Total		59.655	47.990	43.045

Source: Ministry of commerce and industry

Other activities that have been aimed at development of tea sector are re-opening of closed tea gardens, tea promotion in domestic and international markets through new initiatives to overcome new challenges, quality control, increasing production of exportable quality of tea etc. Various promotional activities for tea have been



carried out by the Tea Board through its offices overseas at London, Dubai and Moscow. Promotion of tea abroad has also been carried out by various tea councils. India is an active member of Germany, UK and US' tea councils. Also various research activities have been performed by the tea board as well as various tea research institutes for the overall industry development and to solve region specific problems.

### CONCLUSION

As the industry is heavily labor intensive and because much of the struggle of the industry is due to high prices caused by rising wage rates, the issue has to be sorted keeping the interests of both the parties in mind. Competition from good quality cheap tea from foreign countries is another major issue that our tea industry faces. The scanty rainfall in Kenya and Sri Lanka has eliminated some of this issue. So for the time being the downward trend of this industry has declined.

Another important point that can be seen is that even though many researchers have been dealing with tea industry, there is a lack of research work that is related to India. Taking into consideration the importance that tea industry holds in India in terms of foreign exchange earnings and income and being a significant provider of employment, it seems a necessity to conduct a detailed research on the subject with regard to India.

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  - Tea Statistics, Tea Boards of India, various issues
  - Tea Directory, Tea Boards of India, various issues

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**HOMESTAYS AS A PRODUCT FOR SUSTAINABLE TOURISM DEVELOPMENT: WITH SPECIAL REFERENCE TO TRIVANDRUM DISTRICT**

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**Ganesh B. Nair and Shilpa Unni**Student, NSS College, Nilamel

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**ABSTRACT**

*Tourism and holiday making on global as well as national scale is a manifestation of prosperity and peace. Home stays are an emerging concept in tourism and hospitality industry which is also considered to be the best alternative to hotel accommodation. Home stays not only provide a solution to the accommodation problem but are also a tourism product by themselves. Home stays gives an opportunity for the community to earn additional income and sustained employment by optimally utilizing the infrastructure they have already developed. The Main objectives of this paper is to study about the current practices in Home stay operation, analyses the gap between the tourist experience and the actual home stay offerings, study the tourist perception towards home stays. The study finds that hospitality for the visitors is provided well by the owners is the success of the home stays and most of Tourists are comfortable with staying at the Home stays. Home stays should be properly advertised or marketed through Online by the service providers since people travelling from abroad prefer a lot of visual online whilst making decisions on the available options on where to go and what to do.*

*Keywords: Home stays Sustained Employment National Tourism Fund*

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**INTRODUCTION**

Tourism is sensitive to the world's economic and political conditions. It can occur on a large scale where the great majority of people enjoy some prosperity and security. Tourism and holiday making on global as well as national scale is a manifestation of prosperity and peace. As a great number of people in many countries have higher living standards and they can afford to set aside a proportion of their income for holidays and recreation. At the present time, tourism encompasses travel for pleasure and holiday, wonder-trust, health, business & trade, pilgrimage and social purpose, historical and geographical research, educational studies and training, foreign affairs, and other official functions. The perspective of travel spreads over many fields of human activity – cultural, religious and sociological. Today, tourism has become an export-oriented business for travel agents, transporters, hoteliers, retail dealers and for many others connected with tourism.

India being a vast and diverse country has something to offer to everyone. The beauty of its ancient monuments, the beat and rhythm of its folk and classical dances that have come down through the ages almost unchanged, its colorful crowded bazaars contrasting with the peace and grandeur of the snowcapped mountain tops, the quiet backwaters of Kerala and the beautiful beaches, and above all its well-meaning, charming people-these are a few of the countless facts of India which are timeless in their appeal. All these go to make India a paradise for tourists. The development of tourism in India is a fascinating subject. What makes it so fascinating is the history of the country. India's glorious tradition and rich cultural heritage are linked with the development of tourism. Now tourism in India is a way of life.

Tourism development in India has passed through many stages. The Government of India took note of this new phenomenon of tourism and its economic implications soon after achieving independence. The Govt. of India has declared tourism as an industry and has been extending a number of monetary and tax incentives to the promoters of those establishments like hotels, trade links, travel agencies etc. which serve the building up of tourism industry. The Govt. has recognized tourism as a national priority and is now giving a thrust to tap its vast potential. The Govt.'s attitude towards the development of tourism has reflected in its tourism policies and budget allocations. The Central Ministry of Tourism decided recently to launch a National Tourism Fund, which will be used for its infrastructure development. For a country like India, endowed both with huge natural wealth and human resource, tourism has a special significance for it can help largely in the economic development, particularly of backward areas. The significance of Tourism as a foreign exchange earner has become all the more important in the context of the country's trade deficits.

Homestays are an emerging concept in tourism and hospitality industry which is also considered to be the best alternative to hotel accommodation. Homestays in Kerala is the unsurpassed option to explore the beauty of the land universally called "God's own country" around the world. It helps to come across land, people, culture and cuisine of any place in its perfect aspects unlike hotel accommodation kerallites are literally open their doors to tourists converting portions of their houses into "Home stays" like heritage home like 'mana', 'nalukettu',

'illam' etc. to give visitors an authentic experience of life and a pleasant stay away from the busy towns and cities but near to the places of attraction in this lovely states.

The main advantage of staying at the homestay is the special care and personal attention that one can enjoy throughout their holiday. Here everything is personal no artificial gimmicks or even timings. Home stays and these special places also give ample opportunity to roam around at will in the rural ambience among truly welcoming people of the villagers enjoying their company, mingling with them in celebrating their festivals and even joining them at their daily chores like farming! And in addition to this home cooked meats are a big draw to the tourists. Traditional home cooked Kerala foods are the main attraction of the Kerala home stay. What is more attractive is that guest will get more opportunity to join the hosts in the family kitchen to try their hand in cooking and taking away many family 'secrets' coming down generations. Till ten years back, even Indians from other states didn't have any idea about what exactly the food of the region was like .but with tourism having become a major industry; Kerala's cuisine has experienced resurgence

This study focuses on the relevance and importance of homestay in Kerala.

### **STATEMENT OF THE PROBLEM**

It is the quality of accommodation available at a tourist destination that contributes to the overall satisfaction and pleasure of a traveler. Home-stays are turning out to be of much help to the burgeoning tourism industry, which is facing severe shortage of hotel rooms with Kerala emerging as a major tourist destination. Home Stays are considered to be far more economical and exciting than staying in hotels. Kerala has large numbers of well constructed houses in which there are unused rooms for converting into tourist accommodation with minimal improvements including estate bungalows, heritage homes, farm houses, vacant houses owned by NRIs and residents, etc. Already many families are coming forward to share their homes with tourists as home stays and there are some excellent home stays offered to the tourists in the state. They present a bright, affordable and secure accommodation option for today's enlightened tourists. Not only will Home-stays bridge the gap of quality accommodation in the State, it also paves the way for a unique cultural exchange and penetration of the benefits of tourism directly to the common man. The dramatic increase of tourists seeking to touch the heart of the destination and unveil its soul, reveling in the simplest of pleasures like enjoying a traditional lunch on a banana leaf, has given rise to the concept of Home-stays in Kerala.

Though home-stays encourage visitors to know about the culture and lifestyle of the hosts, sometimes the contrary can happen. A clash of cultures might occur with visitors not being able to accept the kind of lifestyle that the host family is involved in. So, a general contract is signed with visitors stating the basic rules to be followed while staying with the host. In the same way, the host family should make sure that the visitor sticks to the agreement and does not indulge in cheating while involving financial transactions for the intended period of stay with the host. In such a context, a study about the current practices in home-stays and the perception of the tourists on home-stay owners and vice versa is considered to be the need of the hour.

### **SCOPE OF THE STUDY**

Home stays not only provide a solution to the accommodation problem but are also a tourism product by themselves. It will keep the place alive and of course brings additional income. Home stays gives an opportunity for the community to earn additional income and sustained employment by optimally utilizing the infrastructure they have already developed. It will also give the tourist to experience the culture and nature of the state and to mingle with the local people and to share their ideas. The study is conducting in Kovalam and Varkala.

### **OBJECTIVES OF THE STUDY**

- To study about the current practices in Home stay operation in Trivandrum District
- To analyses the gap between the tourist experience and the actual home stay offerings.
- To study the tourist perception towards Home stays
- To study the views of Home stay owners.

### **METHODOLOGY**

#### **Nature and source of data**

Primary data was a major source of data .it was collected through interview schedules both from tourists and Home stay owners. Secondary data was collected from books , journals such as stark world Kerala, Kerala Tourism-A perfect portrait of God's own country, Kerala Tourism Hand Book, Brochures of various institutions, websites etc.

**Data Instruments**

The required data for the study were collected through personal interviews. An Interview schedule was developed for the collection of data from the tourists. A pilot study was conducted among tourists and Homestay owners and the interview-schedule was finalized on the basis of pilot study.

**DATA ANALYSIS**

The collected data were tabulated and analyzed manually. The arithmetical techniques were used for the interpretation of the data.

**SUMMARY OF FINDINGS AND SUGGESTIONS****FINDINGS**

- Source of information about the Home stays are mainly from electronic media.
- Homely Atmosphere is the main the reason for choosing the home stays
- Most (50 per cent) of the tourists book their accommodation through Tour operators.
- Majority (75 per cent) of tourists is familiar with home stays in Kerala
- It has been found that most (76 per cent) of the respondents have a wonderful experiences in home stays and are really satisfied with facilities
- Majority (60 per cent) of the tourist opined that the communication skill of the house owner is good and they don't face any problem with to language.
- Majority (80 per cent) of the tourist not experienced difficulties during their stay.
- Most(50 per cent) of the tourist opined that Kerala Home stays are the Value For money
- Majority of the respondents (70 per cent) studied are satisfied with the home-made foods.
- Majority (80 per cent) of Tourists are comfort with staying at the Home stays.
- Majority (95 per cent) of the Home stays are owned by the Individuals.
- Most (80 per cent) of the Home stays are owned by males.
- Half of the Home stay owners are familiar in English.
- Majority (60 per cent) of the Home stay owners were motivated by Agents/Tour operators.
- Sightseeing and Internet facilities are provided most of the Home stay owners..
- Majority of the Home stays (50 per cent) provide Indian Cuisine.
- All the Home stays have Sanitation Facility.
- All the Home stays offers Mineral Water to their guests for drinking purpose..
- Waste is managed through Recycling in 70 per cent of home stays..
- Most (50 per cent) of the owners were the beginners in Home stay tourism.
- Maximum employees working in home stays are 5.
- Majority (75 per cent) of the home stays were promoted through Websites. .
- Forty five percent of Booking is done through Internet.
- Customers provide maximum support to owners.
- Majority (75 per cent) of the visitors in the home stay were International Tourists.
- 75 per cent of the tourists visited along with their Family Members.
- Most (85 per cent) of the Tourist has a friendly attitude towards local people.
- Forty Five per cent of the tourists faced the Problem of Plastic while staying.
- Majority (65 per cent) of owners are satisfied with the performance of Homestays.

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**SUGGESTIONS**

- Home stays should be properly advertised or marketed through Online by the service providers since people travelling from abroad prefer a lot of visuals online whilst making decisions on the available options on where to go and what to do. Detailed description also help draw tourist to Kerala
- Government should provide Financial and other necessary assistance for marketing home stays like advertisements in Magazines, Tourism Broachers and all possible ways
- The surroundings and nearby attractions of home stays should be cleaned and maintained Pollution Free
- Government should provide Financial and other necessary assistance in the form of Investment Subsidies, Tax Benefits, and Reduction in Electricity tariff etc.

**CONCLUSION**

Home stays play an integral part of promoting our culture and nature to the external world. People are invited to experience the unique hospitality of Kerala home stay. Home stay is one such tourism product of Kerala that over the years has significantly added value to the hospitality sector. Home stay in Kerala facilitates visitors to experience the local culture and lifestyle. These are traditional households of Kerala, where people have shaped their lives according to socio-religious and environmental factors. The joint family system, which once prevailed in Kerala, too had a role to play in the functioning of such households. Kerala has in recent times become the most enchanting holding destination for families, tourists and individual travelers. The number of tourists visiting India has increased manifold during the past few decades. Not only the foreign tourists even many local tourists also prefer to stay in the comfort of a homely environment where one is not bounded by the so called protocols and free mingle with the local people, enjoy home mode food and relax in the cozy comfort of a house; away from the hustle and bustle of the city life. The desire for such holidays has given rise to a new concept; Home stay i.e. a home away from home. It has enabled tourists enjoy their stay in these Home stays and a scope to learn local culture and traditions. One can clearly say that these Home stays definitely offer a home away from home well.

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## ENTERPRISE RISK MANAGEMENT

Prof. Antony R<sup>1</sup> and Dr. Srikantamurthy M. R.<sup>2</sup>HOD<sup>1</sup>, BBA & B. ComAssistant Professor<sup>2</sup>, BBA & B. Com**ABSTRACT**

*Risking is way of life. Enterprise Risk Management (ERM) helps to take risk. Enterprise Risk Management cannot dislodge risk. Enterprise Risk Management is making arrangements to face risk. In fact, each enterprise is a bunch of risk-and-return. Sailors of businesses are negotiating with externalities using internal resources to make a net forward. Indecipherable is of risk, but with some exceptions. Capitalising on those exceptions in an integrated fashion is Enterprise Risk Management. The risked make additions though risk is radically averted. Encountering agreements with an upcoming stream of uncertainties is becoming core business. Experts in some business operations are evolving life solutions. It means that those experts are having that expertise to handle only relevant risks for compensations. If any risk in-lie, that has to be outsourced to those who are experts of capitalising that risk on. Thus, business houses, indeed, are specialising in risks and adopting division of risk.*

*The Enterprise Risk Management should lift itself out of segregationally silos. Preparation to face all inherent risks with minimal cost is the Enterprise Risk Management. However, residual risks are always in existence at fat tails. Extreme losses with less frequency happen to pose adversities to business houses. These extreme losses have collectively to be absorbed to disperse risk concentration. However, risk is breeding and evolving at 360-degrees in the wake of mushrooming needs, wants and desires of people at multi-fold. In research, Enterprise Risk Management is in an embryonic stage. There is no categorised method to engage risks in organisations. There is no a formal anatomy for Enterprise Risk Management. No single prescriptive methodology exists to transact risk. But the business world acknowledges Enterprise Risk Management. Taking couple of industries into consideration like Steel Authority of India Limited (SAIL) and Tata Steel which come from the same platform have different tone and fibre. Plucking the odd card from the pack of risk calls for special manoeuvrability. Inherent risks are myriad. One out of unexpected has to be forecasted and brought to fine print, if those risks are subjecting the companies' assets get adversely exposed. Accelerating market share, upgrading technologies, multiplying productivities, mollifying costs, leveraging profits, capitalising on competitions etc. are agendas of the companies. How various corners of Enterprise Risk Management have been accounted for? and How these risks are addressed to? are, of course, the questions of this research on Enterprise Risk Management.*

*Keywords: Enterprise Risk, ERM Tools, Division of risk, residual risk.*

**INTRODUCTION**

Risk is, probability or threat of damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through preventive action. When considered damage occurred is predictable, but the amount of damage caused is not certain or can be foreseeable. It is extremely important managing risks to contain the loss of "business amenity". What we need to understand is that the right way to identify, measure and understand risk. Risk can be defined based on the two key aspects that is involved in business or Enterprise is Quantitative and Qualitative risks. Qualitative risks can be read as a upside risk (Considering in an organisation a "uncertain possibility of gain") or the downside risk (a risk that involves actual return which is below the expected return or also can be considered as the uncertainty about the magnitude or scale of that difference. In the terms of quantitative ones the risk is identified as a unit of measurement in terms of loss expectation or quantification. Risk management is usually seen as an expensive and complex undertaking that can be implemented or applicable by only by large organisations. This research argues the opposite. Organizations like large or small ones need risk management. In this paper it is being discussed as to how to evaluate and apply an Enterprise Risk Management (ERM) application to Small, Medium or micro organizations from the level of incubation to the entire business development phase up to a justifiable business has been taken care off. Enterprise Risk Management is a very flexible concept that requires exploring of one's background knowledge and forward thinking rather than money and resources. Considering today's scenario and challenges that is involved in Global economy, risks and business prospects are constantly changing. These constantly changing business prospects has to be thoroughly assessed, managed and monitored along with business opportunities and risks that is involved in it. Enterprise is always being understood as risk rather than reward. while improving returns, it is was possible to reduce risk. Risk and reward also have an opposite relationship which conflicts to the view that reward is in proportion to the assumed measurement of

risk. To empower the exploitation of opportunities (upside risk) the risk management plan should not always think only on interventions and de-risking responses. Risk management should always involve in managing an appropriate balance between minimizing the losses through realising the opportunities for organizational gains. This leads to a good managerial practice and becomes essential element for a good corporate governance. Many organizations are struggling to implement, embed and sustain a pragmatic enterprise risk management model that is robust, adds value and creates an equilibrium between cost and reward. According to the various agencies failure rates of organizations in South Africa range from 70 to 80 percent (Approximated), as a result millions of brands are lost by business. It is understood that organizational failures happen because the need for risk management (RM) is not being fully understood before the company is started up or where it has the response would have been inappropriate or inefficient. Let us understand as to why do businesses fail? (it is not only the businesses that fail but also non-profit organizations, government initiatives and any other small ventures can also fail) this happens because of inadequate, insufficient knowledge or attention to one of more of the variables in which the company or organizations is susceptible. There should be a clear need for any of the organizations to assimilate risk management with the business or strategic planning during the incubation of the business through understanding where to embed these risk processes activities that pose a potential threat to the enterprise.

An Enterprise Risk Management Programme (ERMP) is a systematic way of collecting and managing risks, also known as uncertainties, in an organisation. Risks are classified into various categories, such as strategic, systems and processes, compliance, financial, political, and project risks. All of these categories can be affected by internal and external events and each risk usually comes with its own unique level of probability and impact.

The integration and arrangement of the risk functions across enterprises helps to ensure the best possible risk mitigation strategies and coverage to manoeuvre against duplications and 'blind-spots'. ERM enables companies to manage their risks more effectively, completely through focusing on the significant ones and to analyse core risk management competencies and evaluating how to best utilise the limited resources whilst achieving their business objectives without neglecting completely the trivial ones. Once the risks are under control it gives the company a rigid control through providing flexibility and agility to stay in the market and survive competitively. Enterprise Risk Management allows organizations to sustain things like avoiding resource shortages, productivity objectives and meet efficiency in the production of goods. Apart it also allows the organization to provide beneficial reporting and adhering to the legal guidelines. It also helps the organizations to attain expected objectives through avoiding dangers and surprises. Enterprise Risk Management provides the organizations or enterprises with a speculated framework towards managing risks this includes things such as

- Recognition of certain specific events or instances which are particular to the various objective that the organization has pertaining to the risks and opportunities.
- It also helps in evaluating various risks and its degree of impact on the organization
- A stubborn foundation for response tactics
- Constant progress through monitoring risks

Enterprises or organizations can safeguard their customers as well as build a respectable value for their stakeholders, clients and regulators, staff or employees and entrepreneurs through recognising and properly handling risks and opportunities.

### **NEED FOR THE STUDY**

This research sets a direction out in the evolutionary process of transition, wherein traditional risk management dims out and ERM as an off shoot of culmination comes out, so that longevity of business ventures is strengthened. Risk management are those which is mostly associated or related with various attempts to manage the risks which are involved in the possibility of economic harm. Considering financial view-point the term "harm" is the one where the economic value of the firm is reduced. Which can also be expressed as the today's value of the firm's and expected future cash flows, including its present assets. The term value of the firm is considered through taking the present value ie discounted and of the difference between the future cash inflows and outflows. Thus, when Enterprise Risk Management is taken into consideration it is to contribute to the maximisation of the economic value of the firm where the term value is defined as the discounted value of the expected future cash flow. Risk Management contributes its major share by contributing to economic value through reducing economic harm. Economic harm can arise in four different ways such as

- The value of the existing wealth can be reduction



- An increase in future expenditures
- A reduction in future income
- An increase in discount rate

When it comes to managing a firm, the manager should have the ability to identify all Threats, opportunities, quantify and prioritize them with respect to the potential economic benefits or harm and also find various means to manage them effectively and collectively through improving the value of the firm. The manager should use indifferent in various risk situations such as financial, strategic or operational risks. This collective management approach is a departure from the individual opportunity or risk specific approach commonly used in the past (and still used by many) in the corporate world. This expansion of risk scope meant corporate risk management activity moved away from a silo approach to a full integration approach. This approach of full integration approach indicates that senior management is more involved in risk management activity. The premises of ERM stands on the foundation of risk optimisation. The DLF fine of Rs.630 crores, Satyam mishap etc. are a few examples where companies faltering in managing risks in an integrated fashion. Chances are aplenty in companies like SAIL and Tata Steel for such linked risk management. Hence, it is necessary and highly beneficial to the corporate world, in the current business scenario, to evolve an analytical multicriteria risk optimisation methodology where profit and risk are optimally traded off for enterprise objectives

### **REVIEW OF LITERATURE**

The seemingly impossible task is managing the untiring and never-ending issues and challenges of enterprise risk to the business organisations. This is apparent from various researches. Evidently, researchers who are involved in Customer Relationship Management indicate that 60 to 80 percent of the CRM projects end up in failures. Other than researchers, consultants have also involved in research aspects and have nearly indicated that 70 percent of the Customer Relationship Management implications have failed to bring forth as promised. Apart from business challenges, managers should also tie over the tides of big-ticket aberrations once in a while but having deeper and far-lasting impact. Examples include: "The biggest typhoon so far has caused losses in the order of US \$ 17 billion; the biggest death toll of any natural catastrophe was caused by the Hanshin earthquake in Kobe, Japan, which claimed about 6,000 lives". Risk has now become the essential part of a business. Corporations, worldwide have increased their risk management processes by increasing their regulatory standards and private analysis. It is understood that if managers analyse the risk properly, the organizations can thrive towards its growth and yield better opportunity. It is also a common factor that executives always struggle with business pressure, where it can be a dealt with partly or completely beyond their immediate control. These includes Procurements and reformations, distressed financial markets, mergers, geopolitical instabilities, constant price raise of energy and many more things.

Enterprise Risk Management has taken a far-away-deviation from the concept of risk management. When the risk management refers to a risk solution philosophy of silo approach, Enterprise Risk Management refers to a risk solution philosophy of an integrated risk management system to handle the overall risk of the firm as a whole. It is fascinating and the whole research is heading towards this: "Return and risk are inseparable in most of the investments, and it is important to determine how much risk is appropriate to attain the required rate of return" "In fact, the first year of the third millennium has opened the discussion of the real impact which both insurance and risk management could have in creating a more sustainable world. As we paid a high price for this insight, it would be foolish not to draw the obvious conclusions from it". "Most organisations today recognise that managing risk involves complicated mathematical models. The nature of loss, the volume and frequency of such losses, and the uncertainty involved in the losses make the measurement of risk a very complex task. However, if the risk could be measured with sufficient accuracy, its management would not pose a big threat" A diminutive volume of literature on Enterprise Risk Management and its nascent stage as well, make the passage of Literature Review a very rough and daunting one. Though risk management has its own long history, the Enterprise Risk Management is of very recent origin only. Organisations have started recognising the need for Enterprise Risk Management and acknowledging the ERM to be ingrained in their culture as a whole. With the limited availability of materials on Enterprise Risk Management, the following segment of the research attempts to unfold a literature review and capture the intangible insights of ERM. The richness of literature and multitudinous conceptual revelations of Enterprise Risk Management have flocked to form the following part of the research. At the outset, the meanings of risk and risk management have been reviewed to make progress. Before recording about the Enterprise Risk Management, the relationship between uncertainty and risk has been reviewed. In addition, the concepts of 'consequence' and 'reversibility' of risk management is studied. The very important concept of components of Enterprise Risk Management is, at last,

examined. It is evident that the optimising premise of critical risk factors in the Enterprise Risk Management arena is still to be evolved which is what the present study attempts to address. Risk describes a situation where a range of outcomes is possible and it is not known in advance what the actual outcome will be. But risk is not directly referring to any threat or menace. It is very difficult to reconcile the meanings and purports of risk from the varied domains.

### RISKS AND THEIR NATURE

In business risks can be defined as unexpected or uncertainties set of events which goes beyond the control of the business. Taking it in a simpler way business risk can also be stated as chance of incurring losses in business or less profit margin got than expected. These profit and loss cannot be controlled by the businessmen due to the ups and down of the market, customers and the product which results in downsize of profit or also can lead to loss in business. The rules and behaviour of business in an uncertain and ruthless world cannot be covered by the managers if the economic survival is taken for granted. Risk managers regulate and manage risk today within all the constraints of a useful but nonetheless a provocative convention. Usually risk is equated with instability. Instability has important attractions as a substitution for risk, but, at the same time, an imperative question is 'what is meant by risk?' Very important step every finance manager has to sail the business shunned away from losses. This is one of the ways for risk mitigation. In this process, "the balance sheet and the profit and loss statement and their supporting records provide the risk manager with important sources of information about the loss exposures of his business.... A systematic study of each of the asset items on a balance sheet helps the risk manager to locate loss exposures". The finance manager after getting the list of loss exposures perused shall be making all the relevant strategies for better Enterprise Risk Management. Hence the basic step to manage the claim is that the organizations need to purchase insurance competitive risk markets provide enough opportunity to diversified corporate risk. However, it is not avoiding insurance from the Enterprise Risk Management framework, but this research study just confines itself exclusively to speculative risk in manufacturing organisations. In the process of enterprise risk management, from the financial management view point, source and application of resources would be manoeuvred so that the stakeholders would be better off. Therefore, rebalancing the financial settings to embed the Enterprise Risk Management objectives along necessitate the consideration of stakeholders' flourishing. Once the industry or organization has obtained debt financial support, the corporation will increase the value of its equity at the expenses of its shares and bond holders by switching from safe investment to a riskier one. Thus, the model (analysis) shows how insurance may be used to eliminate this agency cost" The importance of financial risk management has grown considerably since 1970s, following the deregulation of financial markets in many countries. "Leveraged firms may under-invest in positive NPV projects, since the benefits might go to the debt-holders"

### ANALYSIS OF RISK

"Enterprise Risk Management is the process whereby an organisation optimises the manner in which it manages risks. Although some of the observed differences can be attributed to the specifics of an industry, the attitude of the risk manager, and such factors as tie-in sales, it appears that the process of making insurance purchasing decisions lacks systematic analysis. Based on experience with various risk managers, three reasons emerged that help explain this lack of systematic analysis. They are the difficulty of handling uncertainty in problems involving risk; the problem of determining an appropriate criterion for making the best decision; and the complexity of the situation, which requires consideration of various pieces of information, subjective judgements, and the interaction of the many variables" Quite clearly the answer lies on whether the companies need to develop and apply an integrated risk management framework that can literally gain the confidence of the shareholders by stabilising the earnings or by lowering the cost of the capital. Therefore, Enterprise Risk Management is a continuous functional vertical and "a key managerial activity to make decisions in light of future uncertainties and existing complexities... the core skill that the companies or organizations need to emphasise or focus on the financial aspects, just like the more emphasise that is given on knowledge management in a software company. Risk management has been strongly related with forex and selection management. This is being hijacked by investment bankers, insurers and corporate treasurers.

Milliken's **classification of uncertainty** is at three levels as follows;

- a) **State Uncertainty:** This refers to the unpredictability of the environment. Causes of state uncertainty are:  
(i) Volatility in the environment, (ii) Complexity in the environment, and (iii) Heterogeneity in the environment.
- b) **Effect uncertainty:** This is the uncertainty about the impact of external events on the organisation.
- c) **Response uncertainty:** This refers to the unpredictability of the organisation's responses to external developments.

The dividing line between risk and uncertainty is inestimably thin but academically important. Considering fluctuations in the exchange rates currency risk is determined as the uncertainty about the value of the foreign currency assets liabilities and operating incomes. For example, take a Indian importer who has to do a American Dollar payment within few weeks from now. During this buffer period if the American Dollar rate increases (appreciates) then the importer will experience a loss. "Because of informational inefficiencies, exchange rate risk should be managed at the corporate rather than the shareholder level. Logue and Old field and others suggest that hedging should be focused on cash flow rather than financial statement exposure. Multinational firms may be better off by employing currency futures options in portfolio insurance applications for foreign exchange risk management". Another important dimension is volatility. According to Markowitz he emphasised that volatility is the most important part determined by the co-variance among the assets in the portfolio. Markowitz work focused on everybody's attention on the diversification and how best to put diversification in good use during portfolio selection. Diversification does not simply talk only about the technique of Risk Management, it is the central part concept that is pawned to intricate business Risk management is known today. Diversification helps in creation of synergies associated with revenue enhancement or cost reduction. Having discussed as above, therefore, volatility is incomplete as a measure of risk or as a target of risk management. Taking volatility reaching deeply into our personal sense of what is risk about, the process of decision making in an unknown or uncertain future aggravates concern even more profound than those inspired by volatility. For organisations, both profit and non-profit, a new need has arisen for an internal function that continually asks the three questions, "what can go wrong?" "what can we do about it?" and "how can one pay for it?" and acts on the answers. A discipline for living with the possibility that future events may end up causing harm taking risk management into consideration. Risk Management is all about Consequences. Research indicates that in the case of related-party offences, legal sanctions fail to fully explain the shareholder wealth losses experienced by firms accused of misconduct. The managerial reactions are cause and its effects are consequences. The various extents of a given risk is an characteristic future of the asset involved. During the determination of the objective process the solution remains the same come what as to who owns the asset and who is being evaluated. The consequences which arise from the given risk are the attributes of the owner or decision maker or from the manager, but not from the instrument. These consequences in process is subjective and clearly depends on the manager is being allotted to consider the matter.

### **LIQUIDITY RISK**

"When there is an inconsistency in assets and liabilities, liquidity problems arise". Commonly, this liquidity risk arises because of weak synchronisation between (the terms of) assets and liabilities of firms. Liquidity risk arises from the effort of selling an asset. It is considered as the difference between the "True value" of the asset and as well as the less commissions. When an enterprise, for example, holds lumpy and heavy long-term assets to face skewed and discrete short-term liabilities, the firm is said to be faltering in liquidity perspective. Even though it is profitable in the long run, it runs the risk which fails to meet its liabilities. Most often, they have their reserves being blocked in receivables and will be unable to pay to their suppliers. The working capital gets squeezed and leads to closure. Borge in his study stated that liquidity is the least understood and as well as the most dangerous financial risk. This indicates that if a trader has the effort in finding buyers where he wants to sell his product, or a borrower has his own difficulty in finding a lender then the liquidity risk is encountered. These types of risks arise because markets are not stable and perfect, as it is commonly assumed that large number of buyers and sellers are operating on the same platform. Some markets are very unstable while others are not. Liquidity risk is very dangerous because it decreases the control of existing risks and forces a company to imagine that other risks which generally no one would like to hold.

### **POTENTIAL RISK**

"Risk is all about vulnerability and taking steps to reduce it. Several factors contribute to this vulnerability, not just fluctuations in financial parameters" Having understood about the risk management, it is appropriate to address the updated trends in defining the Enterprise Risk Management. "ERM is the process of planning, organising, leading, and controlling the activities of an organisation, in order to reduce the effects of risk on an organisation's principal and incomes. .... A key objective of ERM is to ingrain risk management into the organisation's culture by making it a core value of the organisation and building it into day-to-day practices. The ERM tries to develop the integrated risk management system to handle the overall risk of the firm as a whole. To get the best results from ERM system, companies have to integrate it with the planning process, build support for the concept across the organisation and appoint the right champions. The important obstacles to the implementation of ERM are lack of alignment between risk management and planning processes, lack of role clarity and distortions in information flows".

**MANAGING RISK**

The two fundamental ways to manage risks that can be chosen by a firm are as follows; either the firm can manage only one risk at a time after completion can opt the other risk, or it can manage all the risks that occurs historically. Managing the risk historically is often derived as Enterprise Risk management. Liquidity risk is encountered if a trader has to sell the product or has difficulty in finding a buyer or a borrower or also in finding a lender. Liquidity risk is very dangerous since it reduces the risk that the managers control over the existing risks through forcing him/her to takeover the other risks that is normally not in hold of that respective manager or the manager is not interested to undertake that risk. Few companies like Global trust bank, Sathym etc. have demonstrated the consequences of the liquidity risk. Risk management is that risk in which a logical process is involved by the business organizations and individuals for dealing with their exposures to loss. It can also be said that it is a pre-loss planning process or post loss resources. Risk management can also be understood or indicates that it is an ongoing process for dealing with possibility of loss. Enterprise risk management is an approach or method for managing risks by taking a combined opinion of various uncertainties involved in the entire organization. Risk management is the process in which an organization or firm optimises and manages the risk. Now a days many companies are literally moving to business process Risk from ad hoc transaction driven Financial Risk Management. Management, which considers the inter-connectivity of risks and the way risks affect important business decisions and processes A holistic risk management program would not separate pure risks, which can only result in loss or no change, from speculative risks, which can result in gains, losses or no change. In other words, Enterprise Risk Management programme combines traditional and financial risk management programmes. In an organization top level management or managers fail to understand the sensitiveness of different types of risk. This is because the technology for identifying risk exposures in non-financial firms is as yet fairly primitive, but more fundamentally because managers and boards too often regard risk management as a matter for financial experts in the corporate treasury department rather than as an integral part of corporate strategy (Economist). The process used is to systematically manage pure risk exposures". The organization is being exposed to financial risk when the elements like assets, operating incomes, liabilities and cash flow gets affected by the changes that occur in the financial parameters indicating interest rate, exchange rates and stock values indices etc.

**RESEARCH QUESTIONS BEING RAISED**

The following research questions are playing a great deal. The entire research is centered around the following fundamental queries. A detailed enquiry on the issues constitutes the grains of the research. Each challenge has its own way of investigation and thereupon, the inferences.

- What is the role of risk in internal and external environment of business?
- What are the relative positions of various companies for example SAIL and Tata Steel with respect to risk they assume?
- How can risks be prioritised in different businesses, companies or firms?
- What are those risks which downplay the enterprise?
- What is the appropriate risk solution in the given environment?

**OBJECTIVES**

The objective of risk management tools is to assist a project team / manager in defining risks, assessing their impact and probability, and tracking risks throughout a project or the overall process of an organization. As discussed earlier and taking the examples of SAIL and Tata Steel these companies are frenemies, the following are the classified objectives that are set out on the perspectives of the above research questions:

- To study the internal and external environments of companies like, for example SAIL and Tata Steel.
- To study the operational risk, financial risk and strategic risk in the above said companies.
- To find out potential risk in the operational, financial and strategic risks.
- To study and compare the risks in these two companies.
- To suggest appropriate measures to overcome the risks.

**HYPOTHESIS**

Though this hypothesis test is very ambulatory over the other objectives, this test pertains to the first objective of this research, to study the internal and external environments of Steel Authority of India Limited and Tata Steel since these companies are very similar in their business and has the same market value, keeping both companies on the same platform. Hence, considering the Steel Authority of India Limited and Tata Steel as two

different populations to be compared as to whether both are belonging to the same category. This comparative verification entails to decide about administration of common analytical tools upon Steel Authority of India Limited and Tata Steel equally. There is a significant underlying linear dimension of variables out of a structure of six set of variables viz., Composite Leverage, Total Productivity, Sales, Earnings Before Income and Tax (EBIT), Raw Material and Direct Labour. This test is executed to decide whether the three Components of Risk in Steel Authority of India Limited and Tata Steel, namely, Operational Risk, Financial Risk and Strategic Risk are underlying helps in understanding second point in the objective, there is a significant linear relationship between Raw Material and other Variable Cost together, and Total Productivity. It is essential to understand whether the Variable Costs are having influence on Total Productivity, because, Operational Risk is being influenced by Total Productivity which in turn is being influenced by Variable Costs. This test is useful to assist the execution of third objective of the study.

### **SCOPE OF THE STUDY**

The current enterprise risk management covers the relevant risks that the enterprise exposed to. The Operations Risk plays a great deal. As Steel Authority of India Limited and Tata Steel are marketing its products to industrial customers, operations and contractual risk predominates in the risk scape. However, a deep analysis is focussed on Operational Risk, Financial Risk and Strategic Risk. Further, the interrelationship among risks also covers the study of other risks which targets value of the enterprise. This focussed selection of risk-set is sought considering the nature and future plans of the organisation. In view of the current resource availability and the future challenges that both companies are going to face while implementing its plans, the research is designed so that the enterprise wide risk management would be arrived at. In addition to this, some risks are unrelated to the building of the enterprise value. Those risks would automatically be removed in the Risk Profile of Steel Authority of India Limited and Tata Steel. In this way, those risks which are falling outside the risk profile have been kept out of focus. The research and study findings assume, naturally, applicability only during the study period. Obviously, as the businesses of Steel Authority of India Limited and Tata Steel expand, its risk environment also changes. This most crucial view point has to be overlaid all over the study since the environment of the businesses of Steel Authority of India Limited and Tata Steel is highly turbulent. This study relates only to the data related to the research period. However, some forecasting has been applied to get scientific results, keeping susceptibility extremely low, to examine some prevalent. The study chiefly concentrates on Enterprise Risk Management, oriented on a comparative basis and on evolving an enterprise-wide solution. As the Hazard Risk is not meant for mitigation through risk reduction, it is kept outside the ambit of this research. It is to be emphasised that the focus has been exercised only on the Enterprise Risk Management in contrast to the risk management upon the Steel Authority of India Limited and Tata Steel. This emphasis has a great deal of interpretational value because an interpretation in Enterprise Risk Management need not be identical in risk management. The foundation of the ERM is managing the risks rather than risk; ERM does simultaneously consider all sources of loss in one-go. A desegregation approach towards loss exposure is ERM which runs counter to the risk management. The whole study on ERM is configured on a comparative mould. A steady comparative is being done throughout this research by holding Steel Authority of India Limited in one hand and Tata Steel on the other hand.

### **LIMITATIONS**

In identifying variables which influence enterprises risk profile, the factor analysis has been used. The inferences derived from the factor analysis are subjected to fluctuations. "The identification of high loadings and negligible loadings is really quite subjective" Though the interpretation of factor loadings is largely subjective, there is no way to calculate the meanings of factors; they are what one sees in them. Furthermore, the factor analysis inherently falls short in various counts in this study such as:

- The sample in this study may not be large enough and any attempt at replication might produce a different pattern of factor loadings.
- From the same data, another number of factors rather than three can result in different patterns.
- Even if the findings are replicated, the differences may be due to the varying influence of experts or the way they interpret numbers rather than to the subject content.
- Importantly, "the labels may not truly reflect the latent construct that underlies any factors one extract"

The Hazardous Risk is not covered under this study as that will be managed through insurance. Throughout this study, credit risk related with non-financial enterprises or firms is dealt with and not of the financial institutions, banks and suchlike. This research does not include hazard risk and catastrophe risk. As research in these risks are covered by insurance analysts and actuaries. This research also excludes non-economic risk such as loss due

to distressed relationship, loss due to psychological overtures, etc. Only the economic loss has been observed as loss in this research exclusively.

### **METHODS OF THE STUDY**

The materials constitute the fibre of the research. It is behind the screen which springs many services out to the society and particularly academic community. Here, with respect to the source, the materials have been carefully selected and recorded. In fact, though many secondary data sources exist, they do not always endorse data accuracy. All due care has been exercised to the data be efficient and sufficient. Books, articles, periodicals, journals- national as well as international were picked up for the study. Besides, newspapers, periodicals, various websites and unpublished scholarly writings were also be taken into consideration. This research sourced the required information primarily through secondary data. Data collection design commands the highest tone in any research. For the collection of secondary data of Steel Authority of India Limited and Tata Steel companies, company web-sites, websites of professional-bodies, corporate Annual Reports published in internet, annual financial statements etc. were put into service for data requirement. Primarily [www.moneycontrol.com](http://www.moneycontrol.com) site has been accessed to get the relevant data. In order to ensure the data authenticity and accuracy, cross check has been observed using 'Capital Market' and 'Dalal Street' magazines. The collected data have been tabulated and used for research.

### **CONCEPTS AND DEFINITIONS**

Concepts along with their definitions are arranged consonant with array of objectives scheduled earlier. Operational definitions following the meanings of concepts are schematically laid down in the lines to come. Also, some incidental concepts are put ahead for gaining completeness to accomplish the purpose. Firms could not look ahead only the profit without considering the risk associated with that profit. But when accomplishing the objective of profit or market share or anything else, if anything destabilises the objectives of the enterprise to accomplish, it is called risk. Hence risk opens a door which compels to experience a chance of loss or loss itself. Uncertainty, on the other hand, refers to fluid tendency with respect to the events and outcomes of companies' plans. If the expected future outcomes assume less solidity than required, it signifies uncertainty creeps into the outcomes. But uncertainty is ever-present in every turn of business activity. Of course, all the uncertainties are not posing adversities to the mission. If any uncertainty poses an adversity, then it is, in terms of uncertainty, called risk. Next, the risk management refers to those managerial process which aims to reduce the loss exposure in order to achieve the predetermined organisational objectives. Therefore, risk management is part and parcel of the profit planning of any firm. Also, to be noted down here is that the risk management involves some cost and hence, it calls for a scientific approach. However, Enterprise Risk Management overlays a higher order of solutions for risk management for the same loss exposure but with lower cost. Considering cost, it refers to the resource utilized or foregone to achieve a specific objective in an organization. At the same time, cost driver indicates as a variable such as the height of activity or the volume that normally effects costs over a given period of time.

### **SCOPE FOR FURTHER RESEARCH**

Emphasising the same research orientation in the Enterprise Risk Management, a greater number of risk factors may be brought into brackets of risk components. This may include a greater number of stakeholders, a greater number of assets and a wide spectrum of alternate prospective events. Risk factors will include like terrorism risk, catastrophe risk, information risk etc. In addition to routine risk mitigation strategies, Business Continuity Planning, Risk Data Base Management System, Risk Management Information System may also be incorporated in the Enterprise Risk Management study. To embed a highly innovative Enterprise Risk Management, the corporate world may conduct a research collaborating with academicians to evolve 'Risk Balance Sheet' wherein the offshoot of risk and its mitigation have to be captured. In addition to this, industry level or sector level 'Pool' mechanism may be investigated to check its suitability. As the implementation of the Enterprise Risk Management always pose a serious risk, ERM oriented Human Resource Management has to be evolved so that the Risk Team will productively collude with the rest of the functional management.

### **CONCLUSION**

During the recent years, the importance of risk management within companies has grown. Businesses have begun to understand that adequate business risk management can provide the company with added value. At the basis of this reasoning there is a new way of understanding the risks. This line of thought is based on the idea that risk should not be considered only as a negative element but also as a positive element to be explored to grow. Through a careful identification and risk selection process, companies today are able to understand and determine the appropriate level of risk they can incur to grow and become competitive, paralleling their business objectives with the level of risk that they choose. Risk management in today's World is no longer just

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a spectacle reserved for companies that are listed that are operating in the financial sector, characterized by strong volatility and strong pressure from external, market and financial risks. In fact, today's risk management becomes an integral part of business processes even for other businesses that face each day various kinds of risks. Despite the growing importance that ERM is gaining in recent years, many businesses are still not convinced of the many benefits of implementing this process. For example, in Italy, small and medium-sized businesses are still reluctant to adopt such models. At the basis of this choice, however, there are also purely economic and organizational reasons. To implement a proper ERM process requires proper investment of relevant resources, both financially and in terms of those involved, with the know-how needed

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**PERSONALISATION AND ITS IMPORTANCE ON ONLINE PLATFORM**

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**Annie John<sup>1</sup> and R Rathidevi<sup>2</sup>**Research Scholar<sup>1</sup> and Assistant Professor<sup>2</sup>, Mother Teresa Women's University, Kodaikanal

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**ABSTRACT**

*Technology is constantly changing and every day seems to be a daunting task for the managerial decision makers. Technology affects every industry practically and is the latest trends which make every stakeholder keep abreast and update with current scenario to sell and buy better. Advancement of technology has led every user to interact with the online interface and this concept itself of interaction acts as the concept of personalisation. This phenomena can be achieved well when readily available tools are provided to enhance personalisation. The aim of this paper is to identify factors affecting the online and offline personalisation and different digital tools used in personalisation on the online platform. Personalization is stated to be the process through which business organisations collect data of customers on a real-time platform and search for meaningful information to cater to customer needs (Herbig and Kramer, 1994). Personalization is said to be the process of catering to the customised information, presentation and structure of the website based on the need of the user. Personalisation becomes essential in increasing brand loyalty and retention of customers. Therefore, enhancing personalisation will lead to the development of better services which have become the need of the hour (Liang et al., 2012).*

*Keywords: Personalisation, Offline, Online, Technology, Digital Tools*

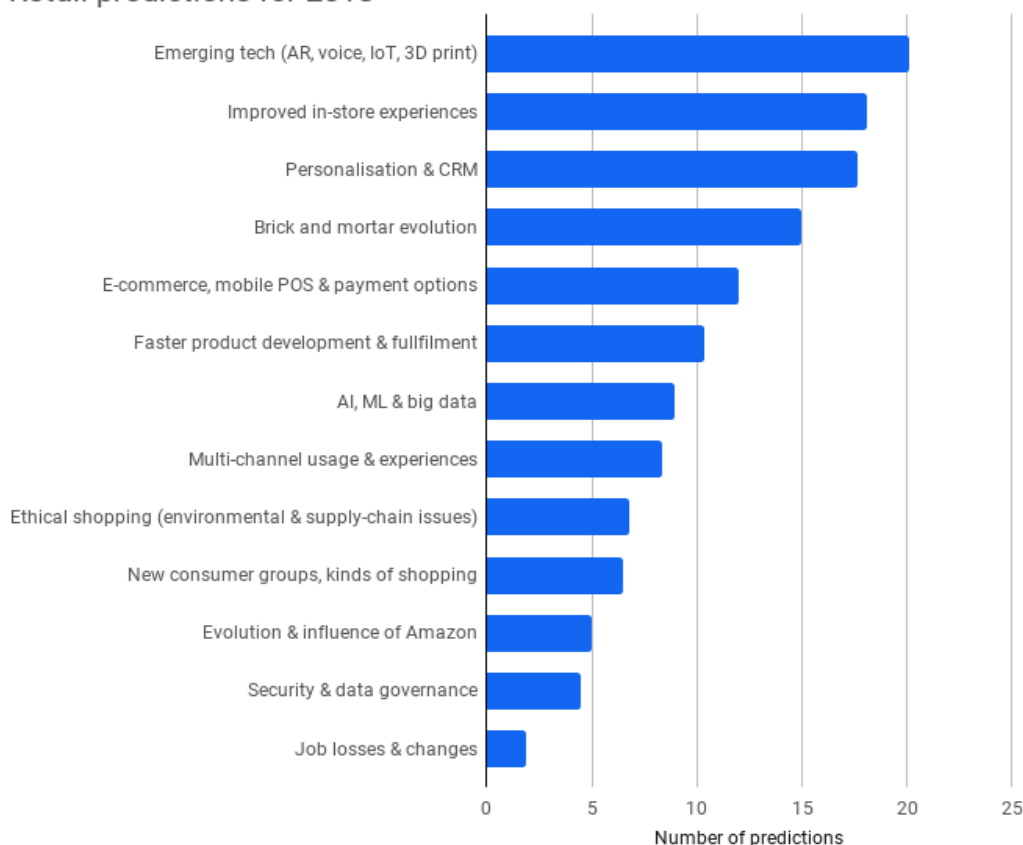
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**INTRODUCTION**

In a dynamic and competitive market companies adjust their activities to changes occurring in consumer behaviour. In order to serve its customers better in comparison with its competitors, marketers indulge in personalised marketing. The concept of personalisation is rooted in interactive marketing definition is "The ability to address an individual once more in a way that takes in to account his or her unique response". Surprenant and Solomon (1987) appear to be the pioneers of the concept of personalisation. They define personalisation mainly in service industry as "any behaviour occurring in the interaction intended to contribute to the individuation of customer". Ross (1992) traced back the origin of the personalized concept to 1870. At present, the objective of direct marketing has changed from mass- one- size fits all to a one- to- one basis. Personalization helps the marketing experts to improve the performances of their marketing activities. Peppers and Rogers (1997) define personalization as the process of using customer information to serve the customers efficiently. Personalisation can be beneficial for the customers through better service, better products, better experience and better communication (Alen et al 1991; Coner 2003). Personalisation creates value to the marketer as well as to the customer. Personalisation creates value to the customer when the benefits exceed costs (Simonson, 2005). The market is not ready to adopt personalisation if the cost of the customer exceeds benefit. The author suggest that when the concept of personlisation is used through interactive marketing it can sell better on the online platform (Pappas, Kourouthanassis, Giannakos and Chrissikopoulos, 2014). The results of various studies show that there is a direct positive association between personalisation and buying intentions. The factors personalisation, customer service and personal interaction will lead to better sales. Standardisation, efficiency in operating , mass production and the idea of one size fitting all have been addressed in the past research (Lampel and Mintzberg, 1996).The concept of personalisation according to (Hof, 1998) on the websites was initially recognised when the user had a login provided with a unique customer identification. The end results of personalisation have contributed in sales and generating profit to firms that integrate the concept. Studies have identified that personalised services increase customers' levels of interaction and eventually, this will lead to increase the satisfaction and loyalty amongst customers (McMillan and Hwang, 2002). "Personalisation in marketing is about 'the right message, to the right person, at the right time'." (Dangi and Malik, 2017).



## Retail predictions for 2018



Source: Analysis & chart: ZDNet (2018)

From the above source we clearly notice that in the year 2018 the third important challenge that every retailer has faced is personalisation.

Online personalisation is called as 'web personalisation' (Desai, 2016). Another terminology 'customization/Adaptation' is also used interchangeably with personalisation. Some researchers use these two terms to discuss the same concept. Meanwhile, other researchers view personalisation in a broad sense and see customization as a sub-concept of personalisation. We also believe that customization is a sub-concept of personalisation. Customer relationship is managed better by bigger organisations where personalisation is aimed to be provided to its customers. It involves tailor made services as per the customer needs (Montgomery and Smith, 2009). Personalisation is often mentioned as customisation refers to the capability of an electronic retailer on the website to provide products, services, and transactions suitable to preferences of customers by recognizing the very need of the customer (Srinivasan, Anderson and Ponnayolu, 2002). Personalisation incessantly pulls customers towards the websites and enhances a positive attitude towards them (Holland and Baker, 2001).

## RESEARCH OBJECTIVES

1. To identify the factors affecting the online personalisation aspects.
2. To understand the different digital tools used in marketing for personalisation on the online platform.

## REVIEW OF LITERATURE

### PERSONALISATION OFFLINE

The Economist (2001) observed that in many industries like automobiles and appliances, the principle of mass customization has been introduced slowly. Subramanian and Marquardt (1999) studied personalisation and consumer behavior and described the personalizing shopper as one who considers shopping as an interpersonal activity and the customer who patronises stores based on the personal services he gets from the store. Huffman and Kahn (1998) observed that customer satisfaction can be increased when customers are asked to choose items from wide assortment. They found that complexity of choice can decrease customer satisfaction. Marketing is successful if personalization can improve customer satisfaction that results in increased sales and profits. Customising the products is not a new idea. Customers were able to buy apparels for decades. But what is new is the ability to tailor make a product to the desire of the consumer and this idea is spread to many

businesses. The customers of this generation seek personalized products. Information technologies have transformed the consumer behaviour. The consumers demand variety of products. This has led to the challenges for consumers and retail stores. Store environment is the most important factor in the success of retail marketing. Store environment affects consumer's purchasing decisions (Abraham and Littrell 1995). The stimuli in the store, such as shelf displays, colour, smell, noise and temperature affect consumer's buying decisions (Evans et al, 1996). Second being Sales force: when consumers engage in shopping in a retail store, it is helpful for them to get the assistance of a knowledgeable sales man to assist them. The service of sales force is more valuable when they purchase durable goods like major appliances infrequently than they purchase groceries and apparels. Women take more help of sales personnel than men in retail shopping. Third, visual appearance: when the customers are shopping the products like furniture, apparel, lighting etc. visual appearance of the product is critical. Fourth, frequent shopper programme where customers are rewarded with price discounts for repeated purchases. The customers have to produce a loyalty card at the time of purchase. Fifth, mainly Amenities: Shoppers for apparels require fitting rooms and other amenities. They demand stores with areas for serving food and drink and provide place for children to play. Sixth important aspect being Standardization: Big chains like Tesco, McDonalds and Walmart have followed the strategies of standardisation. The role of standardization in diversifying demand is noticed (Anderson 2006) and the last trend of Localisation in the retail market is to offer their products to the local customer base (Ribby and Vishwanath 2006).

### **PERSONALISATION ONLINE**

According to (Jackson, 2007) there are many types and levels of online personalisation that can be utilised to sell better. There are six specific characteristics that are necessary for a site to be considered as 'personalised' which include: Identification, optimisation, delivery and merge, data capture, match and analysis and refinement. The era of internet has different programs which are highly specialised not only to gather customer information but also allowing the customer to customise (Sandberg, 1998). The study by (Desai, 2016) shows that presentation and navigation personalisation creates positive hedonic experience which leads to higher user satisfaction determining users intention to revisit the e-commerce website. Gorgoglione, Palmisano and Tuzhilin, (2006) have identified that content, service provided, recommendations and communication are the main aspects of personalisation online. Fan and Poole (2006) have suggested that interface, functionality, content, information access and distinctiveness form the main factors which act as important bolster to personalisation and create relevance for individuals and category of individuals. It is also found that navigational content and content relevance are important aspects of web personalisation (Tam and Ho 2006). ("Ecommerce Personalization & Conversion Optimization", 2019) suggest that the highest way to achieve personalisation is through product recommendations which are suggested based on the customers 'purchase patterns, example "you might also like". Here the users desires are tracked and similar products are suggested. It also acts as an abet to marketing strategies for cross selling and up selling. Doherty, (2019) in her recent work has pointed out that personalised mail which have catch words psychologically termed "Here's what you missed", "Don't forget about this" as another important aspect considered for personalisation. These statements also become motives or incentives for returning back to make another purchase.

The revolution in information technology has led to competition for retail stores. Since online store like Amazon.com has its influence on retail stores the retailers have to gather information on the variety of goods they keep in the shelf. The factors leading to information overload are the opening of malls with stores (Ernst & Young 2003, 2005) globalization and Information technology that empowered consumer decision making (Walter et.al, 2008). The recommender system is helpful for retailers to create personalized experience for each customer. This system allows the customers to identify the products according to their preferences. The recommender system helps to increase sales. Recommender system can also improve cross selling. Cinicioglu et.al (2007) proposed radio frequency ID to provide additional information to customers of a retail store. Personal digital assistant computers are useful to personalize the experience of consumers in retail store.

### **RESEARCH METHODOLOGY**

Articles on personalisation related to the perspective of marketing online and offline have been chosen. In order to understand the concept, review of literature has been carried out. Research articles published on personalisation with online and offline perspectives have been considered. Academic literature has been collected from sources such as Jstor, Proquest, Emerald and google scholar. Technical related aspects have been gathered from websites, articles and blogs. Research papers retrieved from these databases were screened on the basis of their research focus, and themes of research, and finally 38 papers were found suitable for further inclusion.

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**FINDINGS AND DISCUSSION****FINDINGS FROM PERSPECTIVE OF ONLINE FACTORS**

- Personalisation of navigation and presentation can lead to better purchase and intention to revisit website.
- Product recommendation is the most worked out way which is useful for companies like amazon to strategize the aspect for cross selling.
- Content of the website, service provided and product recommendation help in personalisation.
- Interface, functionality, content, information access and distinctiveness of the website also play vital roles in personalisation.
- Personalised mail provided by organisation having promotional message attract customers.

**DIGITAL TOOLS USED IN PERSONALISATION ON THE ONLINE PLATFORM**

Personalisation is the concept of construction of a customized website familiarity for each visitor who visits a web page. In fact, recent surveys show that 42% of consumers get annoyed when their content is not personalized and 66% of consumers will not purchase from a site when they feel that the content does not speak to their specific interests. Digital tools for personalisation are used by marketers for greater visibility in marketing different types of products.

1. Certona-is a platform used by major brands in the west and retailers abroad to provide a personalized shopping experiences across different touchpoints ("Omnichannel Personalisation Platform | Certona", 2019).
2. Personyze: This particular tool helps in three customised services for its clients to reach the target audience in a better manner. Two most prominent clients who use these tools are Kaplan and homeaway: ("Website Personalisation | Product & Content recommendations Behavioral Targeting", 2019).
3. Barilliance: mainly acts as an e-commerce platform for personalisation from when the purchase journey starts. Major brands such as LG use this tool for emails and as a product recommendations.
4. Pure360 is a UK-based company that offers email marketing, website personalisation, and email personalisation tools for clients in E-commerce, Retail, Travel and Hospitality.
5. Reflektion: acts as a Unified Customer Engagement Platform. They use machine learning to help create unique landing pages, provide recommendations, customize site search.
6. Rich Relevance: provide personalised recommendations, personalized search, personalized content and personalization as an important service.
7. Segmentify is an e-commerce personalisation platform. They provide four personalisation solutions: personalised product recommendations, personalised emails, personalised push notifications and real-time analytics.

**IMPLICATIONS OF THE STUDY**

The marketers need to create segments and target the markets using technology to identify the levels and needs of personalisation. Personalisation acts as an important role for marketers who can incorporate the similar digital tools to fit in to the context of Indian shopper's behaviour. Personalisation acts as a unique selling proposition for firms who want to identify different strategy online to create sales.

From customer perspective it paves way for those who look for niche and want personalised services. It also brings down the monotony of unhappy customers who do not prefer mass produced goods served to all.

Different Personalization strategies are used with the motive of high return on investment for designing e-commerce websites, but little research is done on the effect of different strategies on the user. The marketers have to explore how best to design the e-commerce website catering the important behavioural and technical aspects and identify its impact on users' satisfaction and decision to revisit the website.

**CONCLUSION**

The concept of personlisation has been studied in various academic fields and is interdisciplinary in nature. "Personalisation has drawn increasing research attention from both academia and industry (Fan and Poole, 2006)". This research endeavour aims at providing practical implications to e-commerce website makers and the designers. Personalization has emerged as a strategy to attract users and manage relationship with customers when competition is keen in the market. The current retail industry has implemented the concept of personalisation. Companies such as amazon, yahoo, e-bay have customisation recommendation tools for

personalisation. Previous studies have focus on technicality aspect of web personalization and very little research has been done on behavioural aspects of different personalization dimensions. Personalisation brings about a richer experience for the audience and selecting the kind of content they can interact with and make a purchase enhances the buying experience even more. Transformation of internet and advancement of technology have changed the way contemporary business is dealing with its customers. Creating the relationship with the customers through personalisation shall be given maximum importance rather than just collecting information.

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## IMPACT OF MAJOR STOCK INDICES ON THE CRYPTO CURRENCY INDEX

YVS Vinay<sup>1</sup> and Mahesh E<sup>2</sup>Student<sup>1</sup> and Assistant Professor<sup>2</sup>, Department of Economics, CHRIST (Deemed to be University), Bangalore**ABSTRACT**

*This paper intends to check the Impact of Major Stock Exchanges around the world such as Bombay Stock Exchange, London Stock Exchange, Dow Jones, New York Stock Exchange and Tokyo Stock Exchange on Crypto currency trading/index. After reviewing the existing literature it is found out that the present study is important in the light of the Debacle of Bitcoin (2018) as no further studies analysed the linkages between bitcoin and other major stock indices. Accordingly the objective of this study is to find out whether there exist any linkages between Crypto currency Index and Major Stock indices. The Methodology used in this study was Simple Linear Regression, Co-integration and Vector Error Correction Model (VECM). The data used in this study comprises of closing values of all the stock indices mentioned and also the closing value of the Cryptocurrency index (cci30) for the period starting from 1 Jan 2018 to 31 Jan 2018. The Empirical results of the simple linear regression model suggested that there is no impact on Crypto currency index 'cci30' by the stock indices. It is also found that there exists an impact on crypto currency index 'cci30' by the stock indices in long run, this is evident through the Co integration results. Vector Error Correction (VECM) model suggested that only London stock exchange impacts crypto currency index 'cci30'. It is also found that Stock indices impact each other in long run.*

*Keywords: Crypto Currency Index, Stock Markets, Exchanges, Indices*

**1. INTRODUCTION**

Evolution is important to any system or economy. In the ancient times when there was no money, transactions were done in Barter System. Later on coins were introduced around 1000 BC by the Chinese people to Exchange goods and Currencies. The first currency notes were introduced in the 17<sup>th</sup> century. Now the payments are made through online portals and e-wallets etc., one such modern advancement to make payments is Crypto currencies. The underlying technology on which cryptocurrencies work is Block chain. Although Block chain technology was discussed in 1990's it became more prominent in the year 2008 due to a paper published by an anonymous person/group of persons namely Satoshi Nakamoto. This paper lead to the emergence of the First Cryptocurrency 'Bitcoin' later on the growth of Bitcoin lead to the development of various Crypto currencies namely Ripple, Ethereum etc.,

Since then the Block chain sector started growing phenomenally, in order to assess the daily and long term movements as well as growth in the block chain industry a rules based index 'cci30' was designed and launched on 1<sup>st</sup> Jan 2017 but arbitrary value of 100 was taken as on 1<sup>st</sup> Jan 2015. cci30 consists of the 30 largest Crypto currencies by Market Capitalization. To calculate cci30 the Adjusted Market Capitalization of the 30 Crypto currencies as well as their weights are to be considered.

The cci30 is calculated using the following equation

$$I_t = \sum_{j=1}^{30} w_j \frac{p_j(t)}{p_j(0)}$$

Where  $I_t$  = Value of index,

$w_j$  = Weight of the jth name in the Index.,

$P_j(t)$  = Price of the jth name in the index as a function of time.

Stock Exchanges are those where the shares of the companies which are listed are traded. These stock Exchanges help people to find various companies to invest and also they help companies to mobilise the capital from the public by issuing shares. Some of the prominent stock exchanges are considered in this study which includes Bombay Stock Exchange from India, Dow Jones and New York Stock Exchange from US, London Stock Exchange from UK and Tokyo Stock Exchange from Japan. Their selection is justified as they all constitute a significant place among the Global markets in terms of Market Capitalisation and the Volume of trade.

## 2. REVIEW OF THE LITERATURE

Interconnectedness of the Stock Exchanges became possible due to the Globalisation. Some of the studies even proved that some of the Stock indices have an impact on the other.

One such study had been done by Reena Aggarwal and pietraRivoli(1989) in their research paper “The Relationship between US and Four Asian Stock Markets”. This Study is a break through to the assumption that the Stock markets of the different countries will tend to be independent. This Study considered the daily closing prices of the Asian stock exchanges and the US markets for the Analysis. The tool that is used in this study for the analysis is Correlation. Two important factors that boosted the study are the increasing trends of Globalisation among the Economies around the time period at which the study is conducted and other factor is the 1987 Market Crash. One of the major finding of this study is that if the opening Monday is not a profitable one in US markets it influenced the Asian Markets which resulted in a non profitable Tuesdays among their stock Exchanges. This investigation concluded that the degree of dependence on the US markets is strongest in Malaysia and it is lowest but significant in the Philippines.

There is another study named “Linkages among Eastern European Stock Markets and the Major Stock Exchanges” done by AsyeYuce and Can Simga-Mugan(2000) which investigated interconnectedness of the East European Stock Exchanges such as Budapest, Frankfurt, Istambul. Prague, Warsaw , New York, London and Tokyo Stock Exchange’s. This study considered the logged values of closing prices of the Stock Exchanges from the time period 20 September 1994 to 31<sup>st</sup> December 1999 with a total of 294 observations. This investigation used Co- Integration test and VAR model to check the long run linkages and short run dynamic interactions. The Augmented Dickey Fuller Test is used to bring back the Non-stationary time series data to the Stationary at I(1) i.e., at first difference. The empirical test tells that there is no cointegration among the Stock Markets investigated. This essentially means that there is no Long run linkage among the markets. This study acted as one of the good source for the investors as it concluded that there is no arbitrage opportunities for the foreign investors in these markets but stocks of these markets can be utilised to diversify the international portfolios.

The study named “Integration between the Baltic and International Stock markets” conducted by Per-Ola Maneschiold (2006) aimed at analysing the Co-integration between the Baltic Stock markets and some of the international stock markets such as US, UK, Germany , Japan and France. In this paper Johanson cointegration technique was used to examine the amount of co-integration in Short run and Long run perspectives between the Baltic nations and International markets. The Empirical results in this paper show that in long term investment horizon an investor can attain diversification benefits as the degree of co-integration between the Baltic nations and the international markets are low.

A research paper done by Daniele Bianchi (2017) named “Cryptocurrencies as an Asset class? An Empirical Assessment” used the VAR model to investigate the relationship between the cryptocurrencies and the standard asset class and the main driving factors behind the market activity. This was done by considering the various cryptocurrency prices, Market Capitalisation, traded volumes at a weekly frequency. The results of this investigation suggested that impulse-response functions from a panel Vector Auto Regressive (VAR) model show that the macroeconomic factors do not significantly drive trading activity in Cryptocurrency Markets.

### 2.2 Research Gap

Till date a lot of studies was done on the relationship /impact of one stock market on the other or impact of one country’s stock markets on the global markets. Cryptocurrency trading has become more prominent in the recent times .At the same time many researches are done on the Cryptocurrency characteristics such as Volatility etc., but a very few researchers had done on the Crypto Currency indices.

## 3. METHODOLOGY AND DATA

To investigate the relationship between the Cryptocurrency index cci30 and the other major stock indices around the world the closing prices of the indices are considered for a period starting from 01 Jan 2018 to 31 Jan 2018

In this paper the following techniques are used:

- Simple Linear Regression model, to test the impact on cci30 by the stock indices
- Co integration test, to investigate the impact on cci30 by the stock indices
- Vector Error Correction model / Vector Auto Regressive Model (based on the Co integration test).



**DATA**

The closing prices of cci30 and other stock exchanges are taken for the period starting from 01 Jan 2018 to 31 Jan 2018. Data is collected from the official website of cci30 and the data of stock exchanges are collected from Yahoo Finance.

Since the data considered in the series the problem of **HetroSkedasticity** is completely ignored.

Since all the data is related to various Stock Exchanges logged values of the variables are considered in order to normalise the data. After considering the log values of the closing prices the variables look as follows:

DEPENDENT VARIABLE -  $\lncci30 = \log(cci30)$

INDEPENDENT VARIABLE –  $\lnbse = \log(bse)$ ,  $\ln dow = \log(dow)$ ,  $\lnlse = \log(lse)$ ,  $\lnnyse = \log(nyse)$ ,  $\ln tok = \log(tok)$

**3.2 Objectives of the Study**

- To find whether Stock indices impact Crypto currency index 'cci30'.
- To find whether there exist any linkages among the stock indices.

**4. ANALYSIS OF DATA**

The data investigated in the study is Time series and hence it has a higher probability of having Stationarity problem. So, it is necessary to do the Augmented Dicky Fuller test in order to check the stationarity. On analysing the data at level it is found that data is non-stationary but after checking for the stationarity at first difference it is found that data is stationary. Hence in order to apply any Econometric tool first difference of all the variables are considered since all the variables are stationarity at first difference.

Now for the further reference the variables will look as follows:

$dlncci30$ ,  $dlnbse$ ,  $dln dow$ ,  $dlnlse$ ,  $dlnnyse$  and  $dln tok$

To analyse the short run impact of the stock Exchanges on the Cryptocurrency index the following simple linear regression is considered

$$dlncci30 = \alpha + \beta \ln bse + \gamma \ln dow + \delta \ln lse + \lambda \ln nyse + \nu \ln tok + \mu$$

where  $\mu$  is the white noise error term,  $\alpha$  is constant

On running a simple linear regression the results are as follows:

Dependent Variable: DLNCCI30				
Method: Least Squares				
Included observations: 245 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.005531	0.003640	-1.519690	0.1299
DLNBSE	-0.133579	0.455939	-0.292975	0.7698
DLNDOW	0.636698	1.293188	0.492348	0.6229
DLNLSE	-0.125865	0.287635	-0.437587	0.6621
DLNNYSE	-1.375928	1.572453	-0.875020	0.3824
DLNTOK	-0.000276	0.001299	-0.212363	0.8320
R-squared	0.012083	Mean dependent var		-0.004998
Adjusted R-squared	-0.008585	S.D. dependent var		0.056112
S.E. of regression	0.056352	Akaike info criterion		-2.890216
Sum squared resid	0.758954	Schwarz criterion		-2.804471
Log likelihood	360.0514	Hannan-Quinn criter.		-2.855686
F-statistic	0.584638	Durbin-Watson stat		2.145263
Prob(F-statistic)	0.711758			

**4.1. Regression Analysis**

The interpretation of the result will be done in the next part, in order to test the long run impact of stock exchanges on the cryptocurrency index by the Stock indices the Johanson's Co- integration test is used. The result of the Co integration test could be interpreted with the help of two Statistics namely Trace Statistic and Maximum Eigen Statistic. The result sheet looks as follows:

<b>Included observations: 243 after adjustments</b>				
<b>Trend assumption: Linear deterministic trend</b>				
<b>Series: DLNBSE DLNCCI30 DLNDOW DLNLSE DLNNYSE DLNTOK</b>				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. Of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.648051	750.9543	95.75366	0.0001
At most 1 *	0.474967	497.1971	69.81889	0.0001
At most 2 *	0.350447	340.6336	47.85613	0.0001
At most 3 *	0.312027	235.7861	29.79707	0.0001
At most 4 *	0.272245	144.9026	15.49471	0.0001
At most 5 *	0.243094	67.67957	3.841466	0.0000
Trace test indicates 6 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

#### 4.2 Trace statistic Co integration test result

This is the result sheet with Trace Statistic which will be explained in the Interpretations chapter.

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. Of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.648051	253.7572	40.07757	0.0001
At most 1 *	0.474967	156.5635	33.87687	0.0001
At most 2 *	0.350447	104.8475	27.58434	0.0000
At most 3 *	0.312027	90.88345	21.13162	0.0000
At most 4 *	0.272245	77.22307	14.26460	0.0000
At most 5 *	0.243094	67.67957	3.841466	0.0000
Max-eigenvalue test indicates 6 co integrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

#### 4.3 Maximum Eigen Statistic Co integration result This is the result sheet with Maximum Eigen Statistic, this also will be explained in the interpretations chapter of this paper.

Another tool used in this study is the Vector Error Correction model and the estimated model after considering the ideal lag length looks as follows:

Vector Error Correction Estimates				
Sample (adjusted): 1/05/2018 12/31/2018				
Included observations: 242 after adjustments				
Standard errors in ( ) & t-statistics in [ ]				
Cointegrating Eq:	CointEq1			
DLNCCI30(-1)	1.000000			
DLNBSE(-1)	10.41424			
	(7.24186)			
	[ 1.43806]			
DLNDOW(-1)	-1.113680			
	(21.5709)			
	[-0.05163]			
DLNLSE(-1)	-0.114841			
	(4.93390)			
	[-0.02328]			
DLNNYSE(-1)	0.902706			
	(25.3849)			
	[ 0.03556]			
DLNTOK(-1)	-0.614398			
	(0.03750)			
	[-16.3818]			
C	0.028496			

Error Correction:	D(DLNCCI30)	D(DLNBSE)	D(DLNDOW)	D(DLNLSE)	D(DLNNYSE)	D(DLNTOK)
CointEq1	-0.003742	-0.001989	8.93E-05	0.000614	0.000348	4.003302
	(0.00728)	(0.00102)	(0.00139)	(0.00162)	(0.00113)	(0.24717)
	[-0.51422]	[-1.94975]	[ 0.06419]	[ 0.38023]	[ 0.30805]	[ 16.1967]
D(DLNCCI30(-1))	-0.758450	0.006138	0.000664	-0.035263	-0.001921	1.449892
	(0.06179)	(0.00866)	(0.01181)	(0.01372)	(0.00958)	(2.09850)
	[-12.2745]	[ 0.70861]	[ 0.05622]	[-2.57018]	[-0.20046]	[ 0.69092]
D(DLNCCI30(-2))	-0.339305	0.008445	0.004337	-0.019933	0.000962	2.446302
	(0.06168)	(0.00865)	(0.01179)	(0.01370)	(0.00957)	(2.09468)
	[-5.50121]	[ 0.97676]	[ 0.36785]	[-1.45544]	[ 0.10059]	[ 1.16786]
D(DLNBSE(-1))	0.108826	-0.670715	-0.061201	-0.243238	-0.048517	-62.74570
	(0.45721)	(0.06409)	(0.08740)	(0.10152)	(0.07092)	(15.5274)
	[ 0.23802]	[-10.4648]	[-0.70026]	[-2.39597]	[-0.68415]	[-4.04096]
D(DLNBSE(-2))	0.684879	-0.260404	-0.234011	-0.082851	-0.189488	-30.34933
	(0.45601)	(0.06392)	(0.08717)	(0.10125)	(0.07073)	(15.4866)
	[ 1.50191]	[-4.07365]	[-2.68461]	[-0.81826]	[-2.67905]	[-1.95972]
D(DLNDOW(-1))	1.231389	-0.015331	-0.481934	-0.392738	0.163340	15.82177
	(1.20518)	(0.16894)	(0.23038)	(0.26760)	(0.18693)	(40.9296)
	[ 1.02175]	[-0.09074]	[-2.09195]	[-1.46763]	[ 0.87380]	[ 0.38656]
D(DLNDOW(-2))	1.467122	0.120030	-0.601078	0.444155	-0.252519	12.85410
	(1.22935)	(0.17233)	(0.23500)	(0.27297)	(0.19068)	(41.7505)
	[ 1.19341]	[ 0.69650]	[-2.55782]	[ 1.62713]	[-1.32431]	[ 0.30788]
D(DLNLSE(-1))	0.598256	0.030967	-0.035066	-0.662196	-0.037921	-5.273438
	(0.27676)	(0.03880)	(0.05290)	(0.06145)	(0.04293)	(9.39918)
	[ 2.16164]	[ 0.79819]	[-0.66282]	[-10.7757]	[-0.88338]	[-0.56105]
D(DLNLSE(-2))	0.199012	0.022572	0.110619	-0.323877	0.074426	-19.65518
	(0.26947)	(0.03778)	(0.05151)	(0.05983)	(0.04180)	(9.15174)
	[ 0.73852]	[ 0.59752]	[ 2.14747]	[-5.41284]	[ 1.78064]	[-2.14770]
D(DLNNYSE(-1))	-2.051947	0.150048	-0.154872	0.543053	-0.820361	-0.554140
	(1.50234)	(0.21060)	(0.28718)	(0.33358)	(0.23302)	(51.0216)
	[-1.36583]	[ 0.71247]	[-0.53929]	[ 1.62793]	[-3.52051]	[-0.01086]
D(DLNNYSE(-2))	-2.277703	-0.096294	0.275014	-0.375882	-0.062580	5.934842
	(1.53396)	(0.21503)	(0.29322)	(0.34061)	(0.23793)	(52.0955)
	[-1.48485]	[-0.44781]	[ 0.93790]	[-1.10357]	[-0.26302]	[ 0.11392]
D(DLNTOK(-1))	-0.002419	-0.001126	0.000193	6.41E-05	0.000275	0.763175
	(0.00324)	(0.00045)	(0.00062)	(0.00072)	(0.00050)	(0.11013)
	[-0.74581]	[-2.47731]	[ 0.31089]	[ 0.08900]	[ 0.54683]	[ 6.92973]
D(DLNTOK(-2))	-5.74E-05	-0.000274	3.90E-05	0.000237	0.000106	0.227142
	(0.00179)	(0.00025)	(0.00034)	(0.00040)	(0.00028)	(0.06085)
	[-0.03202]	[-1.09259]	[ 0.11388]	[ 0.59694]	[ 0.38184]	[ 3.73281]
C	-0.000559	2.23E-05	-0.000199	-2.81E-05	-0.000159	-0.035030
	(0.00406)	(0.00057)	(0.00078)	(0.00090)	(0.00063)	(0.13775)
	[-0.13787]	[ 0.03918]	[-0.25651]	[-0.03119]	[-0.25212]	[-0.25431]

#### 4.4 Vector Error Correction Model result

### 5. INTERPRETATION AND FINDINGS

The Simple Regression in Table 4.1 considers first difference of logged values of the crypto currency index cci30 as dependent variable and the first difference of lagged values of Bombay stock exchange, Dowjones , London stock exchange, New York stock exchange and Tokyo Stock exchange . The result of the regression analysis signifies that there is no impact of stock exchanges on the crypto currency index as the probability values are insignificant i.e., greater than 0.05 confidence level. Another finding in this Regression is R- square value is less than the Durbin Watson Statistic which implies that the Regression is a 'spurious' one, a regression is said to be a spurious one when R-square value is less than Durbin Watson statistic . Another finding from this test is that there is no problem of Auto Correlation because the Durbin Watson statistic value is within the range of 1.5 and 2.5. On considering all the results it is clear that Regression Analysis doesn't hold good in this case. So, it is suggested to run a Co integration test in order to find out whether variables are moving together.

Data has a problem of **Multicollinearity** but it is ignored since dropping a variable is not possible (all variables are essential for the study).

Table 4.2 and 4.3 shows the result of the Johansen's Co integration test, which tells that the variables are moving together. This is because of the significant probability values. Both the Trace Statistic and Maximum Eigen test demonstrates that there are 6 co integrating equation in total. So, the hypothesis of not having a Co integration is to be rejected.

Since it is evident from the empirical tests that there exists co integration among the variables VAR model cannot be estimated instead of VAR model VECM has to be used in order to get the proper result .

Table 4.4 is the result of the VECM model, only the variables with T-statistic greater than 2 is significant. On analysing the T values, it is evident that only 1 lag of  $dlnci30$  i.e., first lag of the crypto currency index, 2 lag of  $dlnci30$  i.e., second lag of crypto currency index and 1 lag of  $dlnlse$  i.e., first lag of London Stock Exchange have an impact on the crypto currencyindex.

On analysis of the data it is also found that Bombay Stock Exchange,Dowjones , London Stock Exchange , Tokyo Stock Exchange are dependent on 1 and 2 lags of their respective indices . It can also be said that 1 and 2 lag of Bombay Stock Exchange impact the Bombay Stock exchange indices. In the other words these stock exchanges depend on their past prices. This kind of relation is not there in the New York Stock Exchange, their indices are not dependent on their past prices.

Other than the above results there exist some relationship among the variables such as 1 lag of Tokyo Stock Exchange impacts Bombay Stock Exchange, 2 lags of Bombay Stock Exchange impacts Dowjones, 1 lag of cryptocurrency index impacts London Stock Exchange, 1 lag of Bombay Stock Exchange impacts London Stock Exchange, 2 lags of Bombay Stock Exchange impacts London Stock Exchange, 1 lag of New York Stock Exchange impacts London Stock Exchange, 1 lag of Bombay Stock Exchange impacts Tokyo Stock Exchanges, 2 lags of London Stock Exchange impacts Tokyo Stock Exchange.

## 6. CONCLUSION

This paper is intended to find whether the Stock indices impact the Cryptocurrency index. This intention is because of the fact that if there are any fluctuations (huge ups and downs) in any of the investment avenues investors tend to switch from one investment avenue to another .Since,crypto currency being a growing investment avenue it is to be analysed whether the stock market trading impacts the crypto currency trading . By Analysing the Data results prove that apart from the 1 and 2 lags of  $cci30$  only 1 lag of London Stock Exchange impacts the Crypto Currency index ' $cci30$ '.

One of the findings of the study is that all the markets are in weak form of market Efficiency except New York Stock Exchange. Weak form of Market Efficiency is a situation where the future prices are predicted only based on the Historical prices or previous prices. One of the reasons why weak form of market efficiency is not there in New York Stock Exchange is the 2008 market crash. After the crash the institutions in the US economy made sure that their markets are Efficient enough so that there will not be any such economic repercussions in the near future.

Another interesting finding from the study is that London Stock Exchange is impacted by almost all the prominent stock Exchanges considered in the investigation. It is known that in order to protect their nation integrity and culture and so on UK quit the European Union but the investor's investment pattern in London Stock Exchange is not independent. They tend to follow the investment pattern of the other nations. It is not a bad thing to imitate the investment pattern of others but what makes this outcomeinteresting is, the fact that no other Stock Exchanges show as many linkages / Relationships as the London Stock Exchange does. It need not be the essential case in each and every Stock Exchange situated in UK . Since London Stock Exchange being the largest one it will have impact on the others as well. The question why LSE has a lot linkages when compared to other stock Exchanges is an unanswered one.

From the entire analysis it can be concluded that only London Stock Exchange has an impact on the Crypto currency index ' $cci30$ '. This makes Crypto currencyan unique investment Avenue.

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## SMART CITY MISSION – AN URBAN LANDSCAPE

Harshita G Jadwani<sup>1</sup>, Rashitha R Gowda<sup>2</sup> and Dr. Mahua Biswas<sup>3</sup>Student<sup>1,2</sup> and Assistant Professor<sup>3</sup>, Dayananda Sagar College of Arts, Science and Commerce, Bengaluru**ABSTRACT**

*Smart City Mission is an urban renewal and retrofitting program<sup>[23]</sup> by the Government of India with the mission to develop 100 cities across the country. The Urban Development Ministry has taken up the responsibility in collaboration with the state governments of the respective cities to give quality life to citizens, clean and sustainable environment, and core infrastructure with the use of technology. Even though there are lot of advantages to come up with smart cities, it is facing lot of hindrances in its implementation and there are many cities which have not taken any action to start with its operations after selection. The present study has thrown light on the present status of smart cities in India which will help policy makers to take corrective actions.*

*Keywords: Smart City, Urban Development, ICT JEL code: A13, O18*

**1. INTRODUCTION**

Smart City Mission is a retrofitting & urban renewal program<sup>[23]</sup> by the Government of India with the mission to develop 100 cities across the country. The Urban Development Ministry has taken up the responsibility in collaboration with the state governments of the respective cities to give quality life to citizens, clean and sustainable environment, and core infrastructure with the use of technology. In India, cities are selected based on the Smart Cities challenge, where cities have to compete in a countrywide competition to obtain the benefits from this mission. As of January 2018, 99 cities have been shortlisted to be upgraded as part of the Smart Cities Mission after they defeated other cities in the challenge. Financial aid would be given by the central and state governments from 2017 to 2022 to those cities, and it is expected that the mission would start showing results from 2022 onwards. Each city will be provided with Special Purpose Vehicles (SPV) and a full time CEO to implement the mission. Projects would be done through joint ventures, subsidiaries, Public-Private Partnership (PPP), turnkey contracts, etc.

**2. CONCEPTUAL FRAMEWORK**

The conceptualization of smart city varies from city to country. Digital Cities, Intelligent Cities and Smart cities are used to name “willingness to change or reform”. All concepts are involving the information and communication technology (ICT)-enabled transformation of the city, city management, as well as city inhabitants. Smart city according to Giffinger et al. (2007) is “A city that is in a progressive way in people, governance, economy, mobility, living, and environment. It is built on the combination of activities with self-decisive independent and aware citizens”. This definition is based on the Traditional, regional, and neoclassical theories of urban growth and development. It is also based on theories of competitiveness, natural resources, transport and ICT economics, human and social capital, quality of life, and participation of societies in cities<sup>[5]</sup>. The essence of Smart city concepts is the centrality of people or the welfare of its residents.

**Similarity of Smart City concept to Intelligent and Digital City Concepts**

Similarities	Smart City	Intelligent City	Digital City
Emphasis	Emphasizes on ICT enabled urban innovation	High Emphasizes on urban innovation using ICT	digital cities are characterized by: urban ICT adoption and usage
Purpose	Focus on the urban sustainability	Focus on the impact on different aspects of urban life	Socioeconomic development and other aspects of urban life
Components	Involve ICT infrastructure development	Involve creativity and social capital development	Involve ICT infrastructure development

**Difference between Smart City Concept and Digital and Intelligent City Concepts**

Difference	Smart City	Intelligent city	Digital city
Focus	Smart Cities are conceptualized as “real cities”, focuses on human aspect of urbanism.	Focuses more on the technical supporting infrastructure and services	Digital cities appear to be virtual extensions of the real cities
Scope	Scope of Smart cities initiative is much larger than Digital and/or Intelligent cities.	The scope of intelligent cities is narrower than that of the smart Cities	The scope of digital cities’ initiatives is even more limited when

			compared with smart cities
Integration among Elements	Smart cities involve activities in all major aspects of the city development and emphasize integration among elements	Elements of intelligent cities are more specialized and standalone	Digital cities are characterized largely by ICT infrastructure and services only.

### 3. SMART CITIES - INDIAN SCENARIO

In India, Prime Minister Narendra Modi has launched “Smart Cities Mission” on 25 June 2015 also known as “Mission 2022”. All states and Union territories of India have nominated at least one of their respective cities for this program with the lone exception of Bengal. 100 cities will fight for 100 slots. 99 Cities are selected in batch wise in five rounds. “20 Lighthouse Cities” were in the first round of All India City Challenge competition. Cities were provided with central assistance of Rs.200 crore each during first financial year (beginning 2017) of selection followed by Rs.100 crores per year during the next three years. The remaining money came from the states, urban bodies and the consortium they form with corporate entities.<sup>[22]</sup> The rate of success of the entire program will be mapped from 2022 onwards. So far, Rs.48,000 crore has been approved by the Indian Government for the development of 100 smart cities and Rs.2.04 lac crore has been allocated towards the Smart Cities program in Union Budget 2018.

‘Smart Cities’ and ‘Pradhan Mantri Awas Yojana’ work on a ‘bottom-up model’ of city development, meaning that planning and development begins from grass root levels and moves up. With India’s urban population set to rise by more than 400 million people and touch approximately 814 million by 2050, ‘Smart Cities’ initiative comes as a breath of fresh air to the urban landscape. This concept emerged to better the infrastructure and new generation services with the help of technology. To minimize the communication gap between citizens and government and to better manage the urban flows<sup>[20]</sup>.

#### Process of Selection of Smart Cities in India

Selection process of smart cities is divided into 2 stages of “city challenge”: 1st stage is the intra-state where the cities will have to compete preceding to some conditions and the scoring criteria being laid out. Short listed cities will be eligible for stage 2 evaluation takes place by state mission director. The shortlisted cities in the first stage will be sent to Ministry of urban development. In the 2nd stage each city has to propose their model for city challenge. It include redevelopment or green field development. It should also include the revenue model. In this stage, ‘Professional advice’ is given by Ministry of Urban development to the participating cities.<sup>[19]</sup>

In January 2016, 20 cities were selected, In May 2016 13 cities were added, In September 2016 27 more cities were added, In June 2017 30 more cities were added and In 2018, with the selection of 9 cities, the total of 99 cities are included under the Smart City Mission. Shillong is the 100th city which is yet to submit its plan due to which it is not yet added in the list. Technology companies like CISCO, IBM, and SAP play a big role in the Information & Communications Technology journey of smart cities. However, activists & analysts have sought details of how the smart city tech infrastructure will be implemented. Questions like security of digital infrastructure, and data privacy are some of the key terms that are being debated about in a scenario where everything is connected<sup>[30]</sup>.

### 4. LITERATURE REVIEW

#### Dimension of Smart Cities

In India the urbanization growth is expected to raise by 70% by 2050. So smart city as the international phenomena which includes integration of technology and strategic approach is a must for India. Other than the three important dimensions of smart cities viz., Environment, Economy and Society, infrastructures, mobility, people, living and governance are to be given more importance. Adaption and innovation also play a great role in framing smart city Tiwari and Dr. Kamal<sup>[2]</sup> Recognition of skills, creativity and knowledge are suggested by Sejal, Palak and Manoj<sup>[14]</sup>. Adegboyega Ojotalks about the emerging concepts of smart cities and also gives a comparison on digital and intelligent cities. Their main was to synthesize, understand and remove the gaps in their search<sup>[1]</sup>. Charbel Aoun believes in following a 5 step approach which includes vision-Technology-integration-Innovation-collaboration and says every city can become smarter and the cities should concentrate on reducing the energy wastage and should start working on backward sectors<sup>[3]</sup>. Hafedh adds few more factors like management & organization, policy context, communities as the dimensions of smart cities. He also suggested that this can help the government professional to outline the practical implications<sup>[6]</sup>. On the other hand talking about Technology and innovation Nam & Theresa says social factors are also to be considered as an important aspect in smart city<sup>[16]</sup>. Leonidas while on the one hand emphasized on the importance and inter-

relationship between smart cities and urban planning, on the other added capacity, quality, timeline, history and landscape as the dimensions of smart cities<sup>[9]</sup>. Kehua Su et al. studied about the relationship between smart city and digital city which includes of concepts like Smart home, tourism, public service, transportation, wireless and green city, smart urban management and smart medical treatment<sup>[8]</sup>. Focusing on digital space, the infrastructure networks for smart cities were identified in Vasseur and Dunkels. Some of the networks were related to transport, public safety and security, public services, utilities, and social networking. In the physical space, skills and human capitals and considered to be the most important elements<sup>[18]</sup>.

### **Significance of Smart Cities**

Smart city today is an emerging concept it is a city which is well planned, provides cost efficient services environmental and technological services to the citizens and also help in controlling the population<sup>[11]</sup>. Talking about the connectivity that is transport and giving better access to public for information the cities can be managed efficiently and solving problems could be cost effective. The concept of a Smart City is not limited but is beyond the transactional relationships between citizen and service provider. Smart City should enable citizens to engage with the services on offer, public as well as private, in a way best suited to his or her needs. It is a shift from specific services to citizen centric approach<sup>[15]</sup>. Papa et.al. say with the help of smart devices and smart concepts urban planning will be easier. This will make the city more sustainable and efficient<sup>[13]</sup>. With the rapid urbanization comes increased demand for resources like energy, water, and sanitation along with these are services that are education and health care. This emphasizes the necessity to use the resources in an efficient or in a 'smart' way and states there is a need to develop 'smart' cities to meet the needs of city residents. A smart city contributes towards improved governance & efficient management of infrastructure such as transportation, According to some of the researchers concept of smart city had started 20years ago and it shows the possible approaches to understand the technological factors and can help measure the sustainability.(Ojo et al. 2014) finds Smart cities as urban innovation and transformation initiatives that aim to harness physical infrastructures, ICT, knowledge resources, and social infrastructure for economic regeneration, social cohesion, better city administration, and infrastructure management A main feature of the smart city concept is the centrality of people or the welfare of its residents in its essence [10]. In 2011, Nam and Pardo introduce a model which included Three Dimensions - technology, people, and institutions the way by which smart cities strategize. The authors view this smart city as a model for improving the city services and economic development by local governments. Final conclusions highlight a recurring concept which is found in all smart city models: that is of a variable social components and their importance within outcomes of smart city planning and their interdependence with the technologies which also have power to transform environment, economy and community [17].

### **Research Gap and Problem Statement**

Smart city mission is one of the major initiatives of Niti Aayog of India. Numerous studies have been undertaken on to understand the dimension, significance and components of smart cities at national and international level. No studies have so far been undertaken to analyze the present status of smart cities in India and to identify the problem in policy implementation of smart cities. Present study will help policymakers to take corrective actions.

Water and housing and to a better quality of life. Smart infrastructure development should therefore follow a "people-centric" approach which responds to the sustainable development needs of people and should avoid a "technology-centric" approach<sup>[7]</sup>.

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**5. RESEARCH DESIGN**

The research design of the present study is of descriptive in nature. The data is collected from various Articles, Newspapers, and Journals. Based on the existing literature, the following Components are considered for the study.

**Smart Economy**

- Regional/global competitiveness
- Entrepreneurship & Innovation Momentum
- Broadband access will be provided for all citizens and businesses for business opportunities
- Independent of location, helping maintain population in rural and urban areas.
- Electronic business processes (e.g., e-banking, e-shopping, e-auction)

Projects – Wi-Fi or Li-fi connections, Video management

**Smart People**

- Social & Human Capital
- Qualified, Creative and Educated Citizenry
- Able to utilize the ICT (Information-communication Technology) based smart services
- Delivering a consistent educational experience to both urban and rural areas

Projects – Connected charging

**Smart Environment**

- Pollution Monitoring
- Use of Sustainable Technologies
- Environmental/ sustainable /Energy consumption
- Reducing energy consumption through novel technology innovations while promoting energy conservation and material re-use [4]

Projects – Connected waste containers, Environment stations

**Smart Mobility**

- Improved Accessibility
- Safe Transportation
- More efficient and intelligent transportation systems
- Social' attitudes like car sharing, carpooling, and car-bike

Projects – Transport and mobility, Equipment accessibility

**Smart Living**

- Better Quality of Life
- Social Aspects like Education, healthcare, Public Safety, Housing
- Home automation, smart home and smart building services

Projects - Public Toilets, Smart lighting, Park assistance, Remote watering

**Smart Governance**

- Participatory Decision Making
- Public & Social Services

- Transparency
- Interconnecting governmental organizations and administrations
- Improving community access to services

Projects – Dynamic information, Automatic watering

## 6. PRESENT STATUS OF SMART CITIES IN INDIA - DISCUSSION

Under smart cities 1333 projects have been completed amounting Rs.50626 crores, out of which 11 cities have installed Wi-Fi, 18 cities with charging stations, 12 cities with waste management, 8 cities with traffic management, 4 cities with solar panels being installed and few of the cities have adopted communication center, smart public toilets, weather sensors, regular water supply, widening of roads and parking stations. 40 Water ATMs and 3 mini STP (Sewage treatment plant) installed.

Nagpur and Indore have occupied 1st and 2nd place in implementation of smart cities. Cities of MP, UP, Bihar and Chhattisgarh are found performing well under smart city mission, while cities in Himachal Pradesh, Punjab, Maharashtra, TamilNadu and Karnataka need to speed up the implementation process. Surat is awarded with 'city award' for showing phenomenal progress in smart city implementation. A detailed note on the progress of smart cities in India is given in Annexure 1

### Smart Economy

Mumbai is first Wi-Fi city in India, gets 500 hotspots. 10 Public Places in India Where You Can Get Free Wi-Fi. Coffee shops-While Starbucks is clearly people's favorite when it comes to visiting for free Wi-Fi, other brands like Barista and our very own CCD also offer free Wi-Fi. Metro train stations in India offer free Wi-Fi albeit for only a limited time. However, one can continue using the Wi-Fi services after shelling out a few pennies. Bus stations in Bangalore-The first Indian city to offer Wi-Fi, a lot of bus stations in Bangalore like Shanti Nagar, Yeshwantpur, Kormangala etc. have free Wi-Fi connections<sup>[27]</sup>. In port Blair, Convenient Wi-Fi connections are provided in few places like hotels, restaurants, cafes some are chargeable as well. EESI (Environmental and Energy Study Institute) is retrofitting conventional lights with led street light. In Pasighat, eight charging stations have been installed. In Guwahati Nearly 100 Charging stations have set up those mainly are Maa. K. Electrical and Ace Distributors, they have also come with Electric Auto rickshaws. Wi-Fi connections are the given to the people of Guwahati at free of cost with anywhere between 1.2 to 1.4 Mbps at Mumbai and Guwahati. Wi-Fi connections are majorly given at railway stations.

### Smart People

In Muzaffarpur Charging stations are been established in Nova E-Rickshaw, The Crane Master. In Bhagalpur Electric Rickshaw have been started, free Wi-Fi connections are also given in places like Manasari, Animesh Kumar, Shadab in Bihar. It has also set up few websites to inform the needy about the weather underground conditions. In Biharsharif Charging stations are setup in Nawada. Free Wi-Fi connections are at stationed at Ajeet Roy 4G at Nalanda, Connect India at Garhpar. In Chandigarh Charging stations are stationed at Dell Service center, Electric scooter and electric bike in Chandigarh. Free Wi-Fi connections are at CGC Rooftop Beach, CII Sector 31. In Raipur, Free Wi-Fi connections are stationed in SSID3 & SSID4 at sadar bazar, Raipur, Chhattisgarh; Electric charging stations are located at SIYA RAM ELECTRIC MOTORS and Mangalam switch gears

### Smart Environment

Environmental stations inform about the changing weather conditions and climatic changes with the installation of sensors which provides updates on Air pollution, Noise pollution and try to control those. These sensors also control the water level of the rivers and hence controls the flood. 'Smart poles' have been installed by GVMC around the city. These smart poles are developed in such a way to withstand wind speeds up to 225 kilometers per hour, so that they can work efficiently during uncertainties such as cyclones. The CCC (command and communication center), which basically operates as an e-governance center, would also increase its capacity to double up as a disaster management center. "Internet of things devices" would also help enable leveraging GVMC commissioner. M. Hari Narayanan, GVMC Commissioner, said that the smart disaster management system is a need for majority of residents that is the reason for emergence of CCC project. A single pole is enough to provide the services without taking more space. CCTV and GPS enabled buses have been tracked online. In Kakinada, for automatic weather monitoring environment sensors have been deployed which will also be helpful for air quality monitoring, and lightning detection. Superficial Waste management is been adopted. For facilitating EV in the premises of Udyog Bhavan.

In Bilaspura 4 km cycling track, Kayaking, Burma Bridge and a 2 kms skating track are some of the facilities already functional in the new capital city, officials informed. The Jungle Safari consists of four Safaris which are Herbivore Safari, Bear Safari, Tiger and lion Safari. There are some of the facilities which are already functioning like 4 km cycling track, Kayaking officials informed. Boating facility has been made available from January 1 2018 to the visitors at Jungle Safari.

Diu has come up with a two-methodologies like a 9 MW solar park spread over 50 hectares rocky barren land has been developed along with installing solar panels on the rooftops which are generating 1.3 MW annually which would be on 79 government buildings. 100% renewable energy during daytime concept has been implemented by Diu Smart City and it has become the first city in India to run on this concept hence it is encouraging other cities to become clean and green.

The Jabalpur Municipal Corporation has introduced J Cards — plastic money cards to be used in public transports, at kirana stores, chemists, milk booths, cafes and eateries. The JMC has also launched an app 'J 311' to educate public services. In karavatti, installation of roof top solar panels and solar charging stations, working on setting up of high speed internet connectivity

### **Smart Mobility**

The first charging station in the Bangalore City was started at the Bescom main office on K.R. Road. Next Vidhana Soudha and Vikasa Soudha in Bangalore will also have these stations. The main aim is to ensure that the public and officials start using electric vehicles which would help in reducing the air pollution and a better environment. BESCOM is one of the four electricity supply companies in the state of Karnataka, and is responsible for supply for electricity in eight districts, covering 41,092 square kilometers and population of over 207 lakh people. An electric vehicle user can easily find the charging station's location with the help of internet [29]. In Surat, charging stations are set up for electric vehicles.

Remote metering refers to an electronic device which records how much electric energy has been consumed by the specific meter and transmits the information to the supplier of electricity for supervising and billing. Consumption figures will be available in Real time [26]. In Vadodara, Electric charging stations are setup, Free Wi-Fi connections are given, Smart metering – smart oil flow metering is also installed, they have come up with E-waste collection.

### **Smart Living**

Digestion seat (in which the excreta of human gets decomposed) is filled with anaerobic bacteria in advance, this bacteria actually eats up all the excreta of human. Once the bacteria eats up the waste it gets transformed in the form of water and methane gas [28]. In Kochi, with a mission of "Zero discharge zone" first phase of the smart city project an IT tower was inaugurated in September 2018. It has also installed STP (sewage treatment plants) and making use of water for landscaping and flushing Bhopal has seen an increase in its property tax collections and is also able to track its transport services online. In Indore, under the Amrit scheme funds have been utilized for widening of roads and improving the sewerage system. The Indore Municipal Corporation (IMC) has come up with an integrated waste management system and an integrated traffic management system. The state government and the Union government are to invest in proposed metro projects with equal contribution of 40% - SATNA, Ujjain, Sagar, GWALIOR. In Pune, Emergency callboxes have been set up at 120 locations to contact the nearest police station with just the press of a button Smart lights can gather and send the information to the respective departments. Two-wheeler riders or Car riders can know the parking space available in particular area or city in which they want to park their vehicles. Foundation stone for Smart Park in Sector 21B and in Santh Nagar of roads, water supply, sewerage and other amenities is laid on 5 august 2018- Faridabad. In this scheme there are 259 works have been undertaken under the purview of city corporation limits pertaining to first phase of proposals worth Rs.100 crore, he stated. Out of 259, 257 works have been completed, while one is in process while the other project has been shelved, - Mangalore

### **Smart Governance**

In Lucknow, Metro train corridor is well developed to change the way Lucknow used to travel and plan such as Dial 100, 108 ambulances and 1090 Power line for safety of women have already been implemented. LED-based energy-efficient street lighting to reduce energy consumption is being set up. About 40% sodium street lights have been replaced with LED lights which save energy to greater extent. 20 square kilometers has been selected along the Buckle Canal for redevelopment in Thoothukudi. Vaigai River Restoration project which costs up to ₹ 93.15 crore, work on the Periyar bus stand redevelopment worth ₹ 137.47 crore and the multi-level parking lot worth ₹ 28.97 crores has already started in Madurai. The roads have been constructed in a way it furnishes not a public transport but also the cyclists, pedestrians with necessary administrative services in

Coimbatore. At the vantage points CCTV cameras have been installed by the corporation by taking help from the transport department and police. In order to help the travelling public the urban civic body has decided to install digital display. There are various helpline numbers linked to make calls and response swift if in case of fire, child helpline, and police helpline in Tirunelveli. Tiruchy has started with 6 projects initially, this would also include works on chatram bus stand, Gandhi market in Tiruchirappalli. Electric vehicle charging stations are set up, smart metering system are also set up by having 7000 smart meters in Kota, smart solid waste management system are also initiated in Kota. Smart parking stations have set up and also assistance is provided. Smart -toilets are also constructed. As the part of smart city mission open air gyms at public places have been opened in Udaipur. In the second anniversary of smart city mission 23 out of 40 projects were proposed to be completed but the progress is in snail's pace even though key importance is given only for six projects in Jaipur. In Shivamoga, conservancy lane was converted to parking lot. The work has started in 12 wards. In Tumukuru the construction of smart city is started with solar rooftop panels on Government buildings, smart park, redevelopment of multi-specialty hospital with medical college, smart lounge, smart bus shelters, PU college precinct revitalization, Aamanikere lake revival and rejuvenation, PU college precinct revitalization, lake revival pan-city, , rooftop rain water harvesting, afforestation plan, etc.- In Devanagari, Construction of smart city is started with solar rooftop panels on government buildings, Smart Park, smart lounge, and smart bus shelters. Smart city plan is same for both Tumakuru and Devanagari. In New Delhi municipal corporation Electric Vehicle Charging Stations have been started, it is getting free Wi-Fi connections, smart toilets are also constructed, recently smart parking assistance are also given, Delhi has already installed smart poles. Smart Toilets have been constructed with sanitary napkin vending machine. In Gandhinagar, Wi-Fi connectivity to smart sensor-enabled traffic lights that brighten or dim, depending on vehicular traffic density, in the capital city of Gujarat the first phase of the smart city project has been ascended. The Gandhinagar smart city project also includes services like internet protocol-based surveillance like Wi-Fi, Hi-Fi, environmental sensors, digital display, speed and face detection, traffic management system, automatic number plate recognition, public address system (PAS), citizens' helpdesk mobile application and to monitor there is a centralized command center, installed five digital signage cubes that will be displaying public information. Four projects are shortlisted these projects include a solid waste management system, pond beautification, city buses for the town and signboards at three entries into the town and at public places (July 27)-DAHOD

## 7. CONCLUSION

Smart cities are the combination of novel technology which aims to provide quality of living to urban community by retrofitting the infrastructure and experience the cutting-edge technology. By embracing smart cities there are significant pros which leads to track and measure resource usage, production, consumption and also managing of waste superficially. Even though there are lot of advantages to come up with smart cities, it is facing lot of hindrances in its implementation and also there are many cities which have not taken any action to start with its operations after selection. Union Ministry of Urban Development has not taken any strict actions on the non-performing cities. It is been 2.5 years for now, not many cities have completed at least 5% of the total identified projects. Smart cities are phenomenal in nature which gives quality of life for people and also rank India in Index of top 50 countries in concept of ease of doing business. Smart technologies will provide solutions to cities by helping them save money, reduce carbon emissions and manage traffic flows and many such benefits for the citizens and the society. We hope to see each city developing and a country as a whole to be in a better form by 2022.

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## INFLUENCE OF CAUSE-RELATED MARKETING ON PURCHASE INTENT

Indu Acharya<sup>1</sup> and Dr. Adaina K. C.<sup>2</sup>Student<sup>1</sup> and Assistant Professor<sup>2</sup>, Christ (Deemed to be University), Bangalore**ABSTRACT**

*Cause-related marketing (CRM) has become a popular trend as a tool of marketing in the recent few years be it print advertisements or advertisements on TVs. But the important question that arises here is how this specific phenomenon of marketing influences the consumer attitude. Moreover, the motive is to see how different elements of a CRM campaign can influence the consumer attitude and hence the buying intention of the sample taken into consideration. Further, the study aims to see the association or correlation of the general consumer attitude towards CRM and the purchase intent. The main elements of a CRM campaign that have been brought into the picture are size of the donation to the charity and the cause associated with the CRM campaign. Further the motive is to look at the demographic variation associated with the purchasing intention of the consumers. Thus, the tool of research adopted are questionnaires to map the attitude of the consumers who are the corporate professionals in this study. The findings of the study suggest that general attitudes of consumers toward CRM have a high positive influence on the purchase intent. Moreover, the results depict that donation size (element of CRM) and income (socio-demographic factor) influence the purchase intent positively. The results of this study can serve marketers or firms to focus on certain elements like increasing the donation size to charity per product and to target higher income groups so as to increase the purchasing intention of the consumers. The implications are to make companies design a strategy of a CRM campaign that will influence the buying intention of the consumers in the best possible way so as to increase the wellbeing of company, consumers as well as the society.*

**Keywords:** Corporate social responsibility, Cause-related marketing, Consumer attitude, purchase intent, cause of the CRM and size of the donation.

**1. INTRODUCTION****1.1 Cause-related marketing: An overview**

Cause-related marketing (CRM) is a way of channelizing funds from the prospective buyers of the product to the services offered to the less privileged masses of population. A part of the revenue earned by the company producing the particular product is donated to a social cause. Usually through various forms of advertisements companies claim to donate some part of the revenue as a charity. Cause-related marketing has recently become a very popular form of marketing which can incentivize people to buy the product. the causes linked to product can be of varied nature ranging from poverty to education to the rehabilitation of the victims of a natural disaster.

Nowadays consumers are increasingly becoming more concerned towards socially responsible consumption. This is the reason why companies are developing methods to attract consumers by the process of donating a portion of the revenue to a cause. Therefore, linking a brand to charity or a social cause is an advantage for the firms as well as for the betterment of the society.

Thus, tracing back the advent of the concept of Cause-related marketing (CRM) by the American Express in the year 1983 developed for the restoration of the Statue of Liberty, it was further defined by other researchers through their studies (Adkins, 1999, Varadarajan and Menon, 1988). Association of enterprises with non-profit organizations were seen towards the end of the nineteenth-century. The formal definition of the CRM was brought about by Varadarajan and Menon which led to further studies by different researchers in this area. Existence of the CRM was also significant during the seventies of the twentieth century (Husted and Whitehouse, 2002). As defined earlier it is “the process of formulating and implementing marketing activities that are characterized by an offer from firm to contribute a specified amount to a designated cause when customers engage in revenue-providing exchanges that satisfy organizational and individual objectives” (Varadarajan & Menon, 1988).

Similarly, transaction-based CRMs are donations from the revenue earned by the firm from each product sold (Liu and Ko, 2003). Thus, this method of marketing lets consumers donate to a social cause through the act of purchasing certain commodities. Several goals can be achieved using the very marketing tool of CRM by the firm or the industry which aims to donate to a cause (Webb and Mohr, 1998).

It was further shown in studies that these strategies are based on the notion that association of companies with philanthropic activities will induce the consumers purchase the commodity (Cone, 2005). In fact, consumers

after the growing trend of the CRM after 1983 found ways of justifying their philanthropic activities through the purchase of CRM-linked products.

CRM can be achieved at varieties of stage and levels. Different types of strategic alliances are possible between the profit and non-profit organizations described as brand-cause fit are also shown through various empirical studies (Varadarajan and Menon, 1988). Whereas other studies depict the various kinds of initiatives connected to product, the campaign and the cause. Daw (2006) came up with three different types of initiatives possible. Webb and Mohr (1998) bring out the different types of individuals from sceptics to socially concerned on the basis of their perception towards the CRM campaigns.

### 1.2 CRM in India

CRM as a marketing tool has made a successful existence in India as there was a visibly growing pattern of brands getting associated to a social cause or charity. Many of the popular companies like ITC, Idea, P&G, Toyota, Aircel, Nokia have effectively collaborated with Non-profit organizations to support and hence fund a cause (Aggarwal and Singh, 2016). Marketing managers are incorporating this unique and genuine strategy of marketing in India but still it is currently in a developing stage (Ferle et al., 2013). Consumers in India apart from appreciating the efforts of the companies associated with the CRM campaigns also have shown tendencies to actively participate in the CRM campaigns. Thus, Indians want to make a difference by contributing to the social cause through the purchase of products linked to charitable causes (Soni and Soni, 2013).

## 2. LITERATURE REVIEW

### 2.1 Consumer attitude, purchase intent and CRM

This study mainly focuses on the linkage of the key constructs which are CRM campaigns, general attitude consumers toward CRM campaigns and purchase intent of the consumers. The mid- nineties of the 20th century saw the advent of research to measure the influence of the cause-related marketing as a strategy on the attitude of the consumers and hence its impact on the buying behavior of the consumers (Webb and Mohr, 1998). It is not only the campaign which affects the attitude but also several elements which can have possible impacts on the consumer attitude and the purchase intent. These elements which have been brought into the picture are the cause-proximity, donation size or the amount donated to the charitable cause, product type are included in the larger picture of influence of CRM on the consumer behavior (Grau and Folse, 2007).

Many researchers have conducted empirical studies to see the impact of CRM campaigns on attitude and hence the purchasing intention of the consumers (Hajjat, 2003). Researches have further highlighted how with the linkage of a particular brand to a cause can alter the attitude and the purchasing intention of the consumers (Schiffman and Kanuk, 2004). Other researches have shown that the evaluation of CRM by the consumers is mostly favorable (Farache et al., 2008). The insignificant role of the sex in distinguishing the consumer attitude toward CRM was put forth by Fuljahn (2010). This implied that consumer attitude was independent of gender. Whereas certain studies have come up with the results that consumers in general have a favorable attitude towards CRM campaigns and it was also found that women have more positive attitude toward CRM than men (Ross et al, 1992, Hou et al, 2008). Other studies have suggested a direct influence of the consumer attitude on the post-purchase satisfaction of the consumers (Galan-Ladero et al., 2013). Further this post-purchase satisfaction positively affects the brand loyalty.

Adkins (1999), Drumwright (1996, in Farache et al., 2008), Hajjat (2003), Kotler and Lee (2009) and Vanhamme et al. (2012) found in their studies that cause-related marketing has a positive influence on the company's reputation, loyalty towards the brand and thus can create favorable attitude of consumers toward CRM. This marketing tool further has also led to significant increase in the sales of the company and its market share. Dacin and Brown (1997) came up with the study which showed the importance of the effective implementation of CRM campaigns. This paper further described how it can have a favorable impact on the consumer attitude. Strahilevitz (1999) through his study concluded that more the harmony between the cause and the brand more is the purchase intent of the consumers towards CRM. Another study presented the findings that nature of the causes do affect the consumers' purchase decisions. People mostly prefer local causes to nation-wide or global causes (Hou et al., 2008). With greater involvement with the cause, people prefer local causes over national and global causes as brought about by Grau and Folse (2007).

Global hunger, homelessness, poverty are the causes which are difficult to get involved personally in most of the consumers' case (Grau and Folse, 2007). If the perception towards the alliance are favorable by the consumers it helps in achieving high favorableness toward both the brand image and the social cause involved in the CRM (Lafferty et al., 2004). Consumers' response and general attitude toward CRM is also hugely impacted by the personal and emotional involvement of the consumers (Broderick et al., 2003, Grau et al.,

2007). Donation size involved is a key factor in determining the wellbeing arising out of a CRM campaign (Landreth Grau and Garretson Folse, 2007; Polonsky and Speed, 2001).

A study performed on the consumers of Croatia showed importance of the cause and the size of the donation as elements of the CRM campaign. The results showed that the cause is more important than the donation size in determining the purchase intention of the consumers (Čorić and Živadinović, 2009). Therefore, this study aims to analyze the same including several other socio-demographic factors, with respect to corporate professionals in Bangalore, India.

### 3. THEORETICAL FRAMEWORK

This study brings out the relationship of general attitude and purchase intent pertaining to the Theory of planned behavior and Theory of reasoned action. Apart from this relationship socio- demographic factors and elements of CRM have also been included in the framework. Schiffman and Kanuk (2004, p. 200) define attitudes as “a learned predisposition to act in a rationally favorable or unfavorable way toward the object”. “Psychological personal drift to a rationally positive or negative response and behavior due to stimulants and as a result of an attitude toward it”, is how Page and Luding (2003) define attitude. Conative aspect of the theory given by Schiffman and Kanuk (2004) is expressed often as the consumers’ intention to buy. The theory of reasoned action (Summers et al., 2006; Matos et al., 2007) was modified by Fishben et al. which specific to the consumer attitude and the consumer intention to purchase a commodity. This theory further considered the relationship of behavior and the attitude and also predicted the buying activities of the consumers. Thus, this theory caters to the highly positive relationship of general consumer attitude and the purchase intent. Purchasing intention is developed as a variable which is the determinant of the consumer’s actual buying behavior. Therefore, purchase intent can speak a lot indirectly about whether the consumer will purchase a particular good or not. The theory of reasoned action states that behavior of a consumer can be predicted if the attitudes are known (Page and Luding, 2003). A more positive attitude towards the brand leads to a positive influence on the purchase intent of the consumers (Pratkanis et al., 1994). The theory of planned behavior as given by Ajzen is a modification over the theory of reasoned action which suggests that intention to purchase is influenced by attitude, subjective norms and perceived behavioral control. Consumer behavior gets directly affected by the attitudes, consumers develop towards certain products and brands and the strategies of marketing associated with any commodity (Engel et al., 1995).

Pro-social consumer behavior is the act of favoring the strategy of cause-related marketing. By this we mean the simple existence of the consumers conscious to the society and want to make way to their philanthropic nature through their buying decisions. Therefore, the success of a CRM campaign hugely depends on the existence of these pro-social consumers (Youn and Kim, 2008).

### 4. RESEARCH OBJECTIVES

This study mainly aims at analyzing the influence of cause-related marketing (CRM) on the general consumer attitude. Further, the motive is to connect the purchase intent of a consumer with the general attitude. The aim is to measure the level of association of purchase intent of consumer with their general attitude toward CRM. The study further focuses on what factors could possibly affect the purchase intent of the consumer. To carry on with this objective two elements of CRM namely, donation size and cause, are taken into consideration. The study also aims at seeing the influence of socio-demographic factors on the purchase intent. The socio-demographic features included in the study are income, age, sex and education.

#### INDEPENDENT VARIABLES

#### DEPENDENT VARIABLE

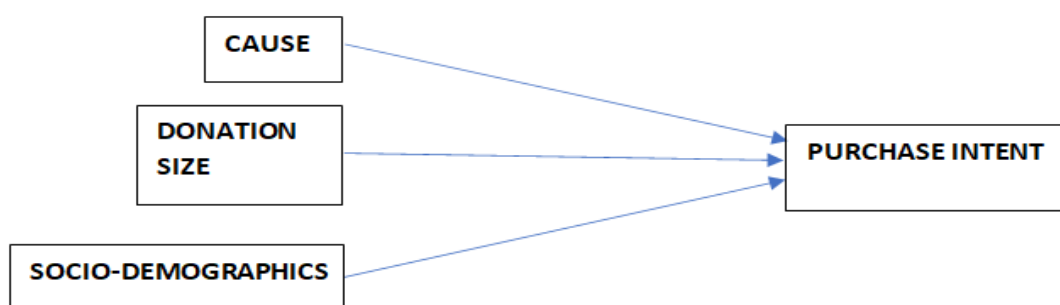


Fig-1: Conceptual framework of the study

Based on these research objectives we can form the hypotheses for the study as mentioned below.

H01: There is no significant association of general attitude and purchase intent. H02: There is no significant influence of donation size on purchase intent.



H03: There is no significant influence of cause on purchase intent. H04: There is no significant influence of income on purchase intent.

H05: There is no significant influence of educational qualification on purchase intent. H06: There is no significant influence of sex on purchase intent.

H07: There is no significant influence of age on purchase intent.

The general attitude CRM can be defined as the level of favorableness of consumers toward CRM campaigns and to what extent do they support these strategies of marketing. Similarly, purchase intent can be defined as their intention to purchase a commodity which indicates their buying behavior.

## 5. RESEARCH METHODOLOGY

### 5.1 Study site and sample

The sample taken for this study are corporate professionals working in the city of Bengaluru, Karnataka. The purpose behind considering this sample size was to mainly capture 3 different income groups. As the major working population in Bengaluru is comprised of corporate professionals they were selected as the sample. The sampling technique used in the study is purposive sampling. As most of the studies on CRM have been mainly focused on the students and the younger generation, this study aimed at a different population altogether. The sample size aimed by the study was 60-70. The final sample size was 63 as per the questionnaires circulated.

### 5.2 Research instrument

Primary data was used in this study which was generated from the respondents or the sample using questionnaires. The questionnaires were designed adopting certain questions from Ćorić and Živadinović (2009) and Lavack and Kropp (2003) and certain self-designed questions. 6 items were included under the factor of general consumer attitude whereas 2 items under purchase intent.

These questions were corresponding to a 5-point likert scale where respondents were asked to show their level of agreement on a scale of 1 to 5 (strongly disagree=1/ strongly agree=5). Few of the questions captured the socio-demographic factors of each of the respondents. And the rest of the questions were about the most preferred cause for CRM and regarding the minimum size of donation per product purchased to the social cause and whether the purchase intent is affected by the donation size (yes/no). the list of causes included in the questionnaire were :-

- Education of under-privileged children in India
- Poverty alleviation
- Relief for disaster victims
- Removing child labor and protecting children's rights
- Improve the lives of farmers in India

### 5.3 Data analysis technique

The data analysis software used in this study is SPSS. The technique used to measure the association of general attitude and the purchase intent of the consumers is the spearman rank correlation as the data is purely qualitative and may not be a normally distributed. The technique used to check the influence of the elements of CRM (cause and size of donation), general attitude and the socio-demographic factors (age, sex, education and income) on the purchase intent, was multiple linear regression using SPSS.

## 6. RESULTS AND FINDINGS

Using SPSS as a software for analysis the descriptive statistics of all the variables were found out. The table below explains the results of such an analysis.

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ATTITUDE	63	3.33	5.00	4.1376	.43538
PURCHASE_INTENT	63	1.50	5.00	3.8254	.74681
GENDER	63	.00	1.00	.5714	.49885
EDUCATION	63	.00	1.00	.3651	.48532
DONATION_SIZE	63	1.00	4.00	2.6190	.99074
CAUSE	63	1.00	5.00	2.1746	1.61185
INCOME	63	1.00	3.00	2.0159	.70693
AGE	63	1.00	3.00	1.4444	.77829
Valid N (listwise)	63				

Table-2: Descriptive statistics

From the above table it can be clearly observed that attitude on an average has a measure of 4.137. Similarly, the purchase intent of the sample on an average is 3.83. The educational qualifications of the sample comprised of graduates and post graduates where graduates were coded as 0 and post graduates as 1. The average value of the variable Education is 0.3651. The average value of the age came out to be 1.44 (20-25 years=1, 25-30=2, 30 and 30 above=3).

Comparing the purchase intent scores of males and females we found out no significant difference they are almost the same (female= 3.847222, male = 3.851852).

#### 6.1 Correlation between attitude and purchase intent

After running a correlation between the general attitude and purchase intent for spearman's rho we get the following result. 37 people prefer "education of underprivileged children" as the most important cause to be linked to CRM.

##### Correlations

		PURCHASE_ INTENT	ATTITUDE
Spearman's rho	PURCHASE_INTENT Correlation	1.000	.623**
	Coefficient	.63	.000
	Sig. (2-tailed) N		63
	ATTITUDE Correlation	.623**	1.000
	Coefficient	.000	.63
	Sig. (2-tailed) N		

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table-3 Spearman's rank correlation table

The spearman's rho as calculated by SPSS comes out to be 0.623 at the significance level of 1%. The p-value is 0.000 for a sample size of 63. This measures the level of association between purchase intent and the general consumer attitude.

H01 proposed that there is no significant relationship between purchase intent and the consumer attitude toward CRM. As the p-value is statistically significant as p-value is  $0.000 < 0.01$  (significance value) we do not accept the hypothesis H01. This means that there is significant relationship between the variables general attitude and purchase intent.

#### 6.2 Elements influencing the consumers' intention to buy

Similarly, by running a multiple linear regression of purchase intent on cause, donation size and socio-demographic factors using SPSS we get the following results.

##### Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.662	.694		.953	.345
	ATTITUDE	.401	.184	.235	2.181	.034
	GENDER	-.024	.134	-.016	-.178	.860
	INCOME	.460	.115	.432	4.006	.000
	DONATION_SIZE	.225	.082	.300	2.760	.008
	EDUCATION	.110	.131	.072	.837	.406
	CAUSE	.000	.041	-.001	-.006	.995
	AGE	-.029	.087	-.030	-.335	.739

a. Dependent Variable: PURCHASE\_INTENT

Table-4 Regression Analysis

From the above table it can be noticed that general attitude, income and donation size are significant variables as their p-values are less than 0.05 (5% significance level).

H02 proposed that there is no significant influence of donation size on purchase intent. According to the p-value of  $0.008 < 0.05$ , we cannot accept H02.

Similarly, looking at income as an independent variable we can clearly observe the p-value as

0.000 which is less than 0.05. Hence, we don't accept H04 (there's no significant influence of income on the purchase intent). Rest of the hypotheses are accepted as the p-values were not less than 0.05.

### 6.3 Discussions of the findings

6.3.1 Correlation of attitude and purchase intent The spearman correlation analysis with a significant p-value suggests that general attitude of the consumers toward CRM is positively associated with purchase intent of the consumers by a value of 0.623. as this value is greater than 0.5, we can clearly say there is a high positive correlation between these variables. This means that attitude and purchase intent go hand in hand. As the attitude of consumers is more and more favorable towards CRM we can say that it also leads to an increase in the purchasing intention of the consumers.

6.3.2 Regression of purchase intent on elements of CRM and socio-demographic factors From the above table 4 we can figure out that donation size (element of CRM) and income (socio- demographic factor) are significant depicting that we reject H02 and H04. Therefore, we can form the functional relationship as Purchase intent = f (general attitude, donation size, income)

Rest of the variables were not included in the functional form as their p-values were not significant and the hypotheses were accepted (H03, H05, H06). Precisely taking the  $\beta$ -values we can also determine the exact influence of these variables on purchase intent.

$$\text{Purchase intent} = 0.662 + 0.401 \text{ general attitude} + 0.225 \text{ donation size} + 0.46 \text{ income} + e_i \quad (0.184) \quad (0.082) \quad (0.115)$$

This equation describes the exact relationship of the variables using multiple linear regression. Interpreting the above equation, we can say that as general attitude increases by one unit, purchase intent increases by 0.401. Similarly, as the donation size per product purchase increases by Re.1 purchase intent increases by 0.225. Moreover, when income of the consumer increases by 1 unit, purchase intent increases by 0.46.

## 7. CONCLUSION

Companies have developed several innovative and creative strategies of marketing so as to develop an effective corporate image among the consumers. For this firstly, they need to develop or cultivate a favorable attitude or purchase intention among these consumers. But if the correct bunch of people are not targeted by the company it would definitely not lead to increase in sales. Therefore, it's really important to go for those customers who have a favorable attitude towards CRM.

From the spearman's rank correlation we can easily figure out the positive association of the attitude and the purchase intent. Technically, people with a favorable attitude towards CRM also exhibit favorable buying behavior towards the products linked to CRM.

Similarly, this study focused mainly on the elements of the CRM and their possible influence on the purchasing intention. Hence, it is important to know how consumers perceive of these elements of CRM. Thus, the mapping of the buying behavior and the general attitude would help the company strategize the right type of CRM campaign which would be a way of corporate philanthropy as well as a way of consumers getting involved in charity through their purchasing of certain commodities.

The multiple linear regression brought about results which showed that donation size is significant, and it influences the purchase intent of the consumers. From the above table 4 we can say that cause as an element of CRM is not significant enough to affect the purchase intention of the consumers considering the sample taken. Cause as an element of CRM might be the consumer's individual preference due to personal reasons. Therefore, donation size affects the intention to buy the product linked to CRM whereas the cause does not. Similarly, income as a socio-demographic factor turned out to be a significant variable affecting the intention to buy. Therefore, expressed in another way when income increases the purchasing intention of the consumers increases too.

## 8. IMPLICATIONS OF THE STUDY

The study mainly focuses on certain elements and socio-demographic factors which possibly can have some effect on the consumers' intention to buy. The findings of the study let the companies and the marketing managers shift their attention to certain factors which would definitely lead to an increase in the intention to buy. The basic step that the companies need to take is to develop a marketing strategy which would focus only on those elements which influence the purchase intent of the consumers. From the findings it can be concluded that people with favorable attitude toward CRM should be targeted in order to generate sales for the company

and raise funds toward the charitable cause. The reasons behind the favorable attitude can be many like previous experience of CRM, brand loyalty, brand image etc.

From the findings of the study it can be suggested that as the companies focus on increasing the donation size per commodity sold, they can make the consumers buy more of their products which would mean more amount of funds for the cause. Similarly, they can target high income groups which would lead to buying of more products. Had there been a significant effect of gender on purchase intent, companies would have focused mainly on products used by women like sanitary napkins, cosmetics etc.

## LIMITATIONS

The sample size taken for the study was not too large to see the actual behavior of the entire population of consumer. Further, the study was confined to only corporate professionals which was perhaps the reason for not showing any difference in the purchase intent between males and females.

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## A STUDY ON IMPORTANCE OF DIGITAL PAYMENTS IN INDIA

**Dr. Prachi Beriwal**

Assistant Professor, Department of Commerce & Management, Presidency College, Bengaluru

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### ABSTRACT

*With usage of coupon filled digital wallets and offers the present period is entering into a new pace in payment system. Government of India's flagship program "Digital India" was launched with an idea to convert India into a digitally stimulated society and knowledgeable economy. According to the Government of India the digital payment will increase the employment, reduces risk related to cash like corruption, robbery, and carrying or storage of large amount of cash and made all transactions to be done cashless or digitalised which helps the people to transfer the money with security and safety at high speed. The major role played by this program would be Faceless, Paperless, and cashless Country. With so many advantages of going digital, there are lot of obstacles attached to it like slow internet connectivity and additional charges for making digital payments. This paper focuses on importance of digital payment in India.*

*Keywords: Digital payment, internet, cashless, digital wallets, Digital India*

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### INTRODUCTION

Commerce symbolises trading which means buying and selling of goods or services. From the very beginning of civilisation, humans were engaged in trading animal skins and meat for other services and goods which has been indicated through ancient wall paintings and manuscripts. Gradually, when the awareness regarding requirement of currency appeared; primitive societies started using beads or shells as money. In Mesopotamia and Egypt where people had started using gold bars as currency, started to face problem of measuring it each time they traded. Sometime between 700 and 500 B.C metallurgy was developed and coins could then be tallied, making exchanges more convenient and less demanding. Around 500 B.C. Gold and silver became regular for coins, which led to business between countries. Over the period a lot of development has happened in payment system, right from barter system to credit cards or debit cards and now digital wallets. Payment is a crucial step in buyer seller interaction. It completes transaction and defines successful customer adaptation. Payment system plays a significant part in driving the economic and social development of the country.

Indian Prime Minister Shri Narendra Modi, Launched "Digital India" scheme on 1 July 2015 with an aim of ensuring the provision of Government's services electronically to citizens by improvising online infrastructure and by increasing connectivity of internet as well as by creating the digital empowerment in the country in the field of technology. It is both enabler and give more boost to other key Government of India schemes, such as Bharat Net, Make in India, StartupIndia and StandupIndia, industrialcorridors, Bharatmala, Sagarmala, dedicated freight corridors, UDAN-RCS and E-Kranti. As of 31 December 2018, India had a population of 130 crore people (1.3 billion), 123 crore (1.23 billion) Aadhaar digital biometric identity cards, 121 crore (1.21 billion) mobile phones, 44.6 crore (4460 million) smartphones, 56 crore (560 million) internet users up from 481 million people (35% of the country's total population) in December 2017, and 51 per cent growth in e-commerce. The Government of India entity Bharat Broadband Network Limited (BBNL) which executes the Bharat Net project is the custodian of Digital India (DI) project. Bharat Net was to connect all the 625,000 villages of India by December 2018. The ratio of male to female Internet users is 64:36.

To reduce the burden of printing more currency and dependency of people on paper currency demonetisation of Rupees five hundred and Rupees one thousand was done on 8th November 2016. Apart from this in order to indoctrinate the habit of using digital currency government unveiled two schemes namely Lucky Grahak Yojana for customers and Digi Dhan Vyapaar Yojana for traders. The Indian government and Reserve Bank of India is trying very hard to promote mobile banking and e-payments. **Pradhan Mantri Gramin Digital Saksharta Abhiyan** is being executed with an outlay of Rs 2,351.38 crore with the purpose of making six crore rural households digitally literate by March 2019. Pradhan Mantri Gramin Digital Saksharta Abhiyan (abbreviated as PMGDisha) is a scheme under Digital India program, approved by the Union Cabinet chaired by the PM Narendra Modi. The main purpose of the scheme Pradhan Mantri Gramin Digital Saksharta Abhiyan is to convert six crore people in village areas in India digitally literate, reaching around 40% of village households by covering one member from every eligible household.

### THE TOP FIVE MOBILE PAYMENT WALLET OF INDIA

- **Paytm:** This mobile payment wallet helps in crediting money immediately to the bank from Paytm account. An app password feature for Paytm Wallet has been launched by Paytm to make sure the money is safe even if the customer lose his/her phone. Paytm can be used by a customer even without a Smartphone.

- **Mobikwik:** This app was introduced as mobile wallet which allows easy storing of money and also eases money transaction. It can be recharged instantly without signing-up. It also allows highly secured and encrypted transactions. It is a very user friendly mobile app.
- **Pay U money:** This app allows auto read of One Time Password. It also picks up the transaction where it was left incomplete. This app also helps monitoring of risks.
- **Citrus:** Amongst all the digital wallets launched recently, this one is the fastest. It also allows offers and discounts to its subscribers and users.
- **Oxigen:** This digital wallet is also very useful as it allows the user to transfer money to various mobile phones. To keep a track on the transactions made through this app, it shows history of all the transaction made using it.

### STATEMENT OF THE PROBLEM

Majority of the population is still outside the scope of Net banking like use of credit or debit cards, making transactions using mobile phones, and using the internet to pay bills they are not in a position to reduce its dependence on cash. Since cashless economy helps in fighting against terrorism, corruption and money laundering, which are the biggest challenge for all in the country, Most of the people appreciate the idea of digital economy initiated by the Government of India. The only challenge for converting economy into digital economy in India is cybercrime and illegal access to primary data.

### REVIEW OF LITERATURE

Review of literature concretes a way for a strong understanding of the various zones of research already done and throws a light on the possible areas which have not been covered yet. Keeping the same concept in mind, an effort has been taken to create a brief study of the work already done in the field of Cashless economy. The reviews of some of the important studies are presented below:

Sl. No.	AUTHORS	YEAR	TITLE OF STUDY	OBJECTIVE	CONCLUSION
1	Prof.Mamta , Prof. Hariom Tyagi and Dr. Abhishek Shukla	2016	The Study of Electronic Payment Systems	To create awareness about various methods and frauds of online payments, offer solution for the same.	The successful applications of electronic payment systems rest on the way the privacy and security dimensions have been perceived by consumers as well as traders. If the same has been managed well then in turn it would improve the confidence in the system in the market
2	Sujith T S, Julie C D	2017	Opportunities and Challenges of E- Payment System in India	This study intended to recognise the issues and encounters of electronic payment systems and provide some resolutions to improvise the e-payment system	The study found that, the reach of mobile network, Internet and electricity is also expanding digital payments to remote areas. This will surely increase the number of digital payments
3	Preeti Garg & Manvi Panchal	2017	Study on Introduction of Cashless Economy in India 2016: Benefits & Challenge's	To study the benefits of cashless economy and to assess the preparedness for the implementation of the cashless economy by Indian Government.	The study found that by introducing cashless economy in India, will surely be seen as a step in right track. It helps in growth and development of Indian economy. Major challenges that can hinder the implementation of the policy are cyber fraud, high illiteracy rate, attitude of people, lack of transparency and efficiency in digital payment system.

**OBJECTIVE OF THE STUDY**

Following are the objectives of the study

1. To know the important schemes adopted to enhance digital literacy.
2. To study the benefits of cashless economy.
3. To understand the impact and consequences of digital payments in India.

**RESEARCH METHODOLOGY**

In order to study the impact of digitalization secondary data from different research papers, reports & government data has been studied and analysed.

**HISTORY OF DIGITAL PAYMENT IN INDIA**

The evolution of India's financial infrastructure can be divided into three phases:

FIRST PHASE	SECOND PHASE	THIRD PHASE
1984: Introduction of Magnetic Ink Character Recognition (MICR) technology	2001: Internet banking	2010: Immediate Payment Service (IMPS)
1987: First ATM installed in Kolkata	2004: National Financial Switch (NFS)	2012: Adoption of ISO 20022 messaging standard in the Next Generation RTGS (NG-RTGS) system
1988: Computerized settlement operations at clearing houses of RBI	2004–2005: Real Time Gross Settlement (RTGS), National Electronic Funds Transfer (NEFT)	2014: Jan Dhan Yojana, National Unified USSD Platform, RuPay Card, Bharat Bill Payment System (BBPS)
1998–2000: Core banking software	2007 : Mobile banking	2016: Unified Payment Interface (UPI), payment banks, mobile wallets
	2008: Cheque truncation systems	2017: Bharat Interface for Money (BHIM) app

Source: ASSOCHAM report 2017

**BENEFITS OF DIGITAL PAYMENT METHODS**

- **No additional cost of printing cash** – The major advantage of Digital payment is cost reduction, as during the demonetization phase RBI had to spend around INR seven thousand crores to print the newly designed currency.
- **Saves money and time**-Physical cash may lead to conflicts of tax evasion, hoarding of black money and circulation of fake currency. At the same time digital money has its own limitations of data leaks and identity theft online. For instance, India saw its biggest such data breach that put at risk 3.2 million debit cards. For India, the costs associated with data breaches are at rise.
- **Economic growth** is measured by increasing in the level of spending -Whereas hoarding of physical cash leads to resistance of tax evasion, black money and fake currency. Data leaks and identity theft online is the biggest challenge for Digital money. Last month, for example, India has experienced its biggest data breach that had put 3.2 million debit cards at risk. Data breaches are increasing the costs of connections in the country.
- **Individual growth:** By using digital mode of payment, a person tends to become tech savvy. Their financial knowledge related to interest rates, online payments, usage of smart phones and debit or credit card develops. It also reaps health benefits as less usage of currency note means less transmission of germs.

**CHALLENGES OF DIGITAL PAYMENTS IN INDIA:**

It is not easy to get a transformation easily in an over populated country like India. There are a lot of challenges or hindrances to it at a macro level like from the perspective of consumers and the business, the major barriers being:

**Unbanked population:** The government along with Reserve Bank of India (RBI) initiated and implemented a number of schemes like PMJDY, digital India payments limited etc., to facilitate financial inclusion in rural India. In spite of so many efforts being taken by the Government, still one fifth of the Indian population doesn't



have own bank accounts. According to a joint study conducted by Ernest & Young and ASSOCHAM, using the data provided by the government and other sources, refuse the claim that declared 99% of households to be in possession of bank accounts. In such circumstances digital payments methods like E-wallets United Payment Interface and BHIM etc. which are dependent on bank accounts cannot be used by all.

**Cyber security:** There have been a number of events occurring of hacking of email accounts, bank database, and other details etc. globally. The main challenge in front of public, financial institutions and government is the increasing digital transactions pose cyber security. Mobile Banking Malware is refined virus infecting banks mobile apps user to steal password details and even hinders the two factor authentication, by presenting victims with a fake version of the login screen when they access their legitimate banking application. Jailbreak or Rooted Devices, this is a practice to gain unrestricted or administrative access to the device's entire file system, by breaking its inherent security model and limitations, allowing mobile malware and rogue apps to infect the device and control critical functions. Out-dated OSs and No Secure Network Connections Factors such as out dated operating system versions, use of no secure or public WIFI network in mobile devices allow cyber criminals to exploit an existing online banking session to steal funds and credentials.

**Cash dependent economy:** 92% of the Indian economy is made up of informal workers, who contribute around 50% of the GDP; 80-90% of these workers are paid in cash which are often undeclared assets. These figures spell out the importance of cash in the Indian economy Mediums like smartphones and internet connectivity are still unaffordable to a sizeable population thus denying them access to digital forms of transaction. As per the reports, till December 2016 out of 1.324 billion populations the smartphone users are 350 million. Awareness about using the digital solutions like smartphone based transactions, feature phone based transactions, and use of credit/debit cards at PoS solutions etc is still a persistent issue. A survey conducted by Bill and Melinda Gates Foundation shows that till January 2017 only 8 percent of the users are aware of the mobile money. The other key issue is lack of bandwidth and reach of technology to various locations. Though, it is being sounded that every corner of India shall have ICT (information and communication) services in place, still in many of the locations services are not available for the customers. Gaining the trust of consumers is one of the key challenges facing the mobile wallets, digital transaction service providers like banks, fin-tech companies etc.

## CONCLUSION

There are lot of studies conducted which reveals that cashless payments or digital payment has its own bright as well as dark side. On one hand people are getting comfortable with digital payments, on the other there is some kind of negativity which holds back many from adopting the new system. These negative perceptions can be viewed as security issues, poor mobile network, and lack of interest on part of merchant, high transactional costs, lack of technology knowledge on part of user, dysfunctional POS machines, delayed reimbursement in case of wrong or failed transactions. One of the major reasons which restrict people from using digital wallets is financial limits.

There are numerous positive signs for the progress of cashless payments in India which are convenience in use of cashless transactions and incentive system (cash back policy). Finally the paper concludes that unless the perception of the people is rightly addressed by various organisations dealing with digital payments, Government and Banking institutions, India may not become a cashless economy. They should overlay the path for safe and secured means to cashless transactions.

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## MAKE IN INDIA, SKILL INDIA, DIGITAL INDIA, SMART CITIES INITIATIVES

Rohini Yathish<sup>1</sup>, Shubham Sinha<sup>2</sup> and Suhas Lokesh<sup>3</sup>Assistant Professor<sup>1</sup> and Student<sup>2,3</sup>, Dayananda Sagar Institutions, Bengaluru**ABSTRACT**

Considering “Make in India” as an economic stream, India is the fastest growing economy in the World. It is a developing mixed economy. Since 2014, India’s economy has been the world’s fastest growing major economy after China. The main industries that are helping India to grow are textiles, chemicals, steel, cement, mining, machinery, software, food processing etc. India is exporting 12.8% of its agricultural products, 13.8% of its mining, 70.8% of its manufactures and 2.9% other goods every year to different countries. With the primary aim of making India a global manufacturing platform, the government is encouraging both foreign and domestic companies to manufacture their products and provide their services in the country. “Make in India” has wholly introduced new initiatives promoting Foreign Direct Investment and bringing into action the intellectual property rights and developing the production sector.

Skills are one of the major qualities that any person must possess, but unfortunately, the present systems are lacking to address the academic needs of many young people. For these reasons, “Skill India” campaign was launched in the year 2015. “Skill India” is a program that builds a strong bridge between the world of education and the world of work. This program aims to train over more than a 40 crore people in India to increase their technical skills and mental abilities and grow in their respective field of profession. In the current era, India is one of the top countries which are moving towards a smart economy. Today, the Indian market is ruled by technology. The “Digital India” campaign ensures that necessary services are made available to the general public electronically by improved online infrastructure and making the country digitally empowered in the field of information and technology by providing them with high speed internet connectivity. The “Smart City” mission was launched to improve the quality of people’s life and bring in economic change. This mission targets to develop the local areas of the country and promote projects that lead the development of the core infrastructure of the city. Their focus is on sustainable and inclusive development and their idea is to look at different areas and create a replica which will act as the role model to other aspiring cities.

This research will attempt and study the objectives and the efforts that are being made by the Indian government. This study will also assess the initiatives, bottlenecks and effectiveness of “Make in India”, “Skill India”, “Digital India” and the “Smart City” Campaign.

**Keywords:** Make in India, Digital India, Technological up gradation, business growth, employment generation, Smart city, Green Technologies

**INTRODUCTION**

25<sup>th</sup> September 2014, a proud day for all Indians, the day when the campaign “Make in India” was launched. This Swadeshi movement focuses on a total of 25 sectors of the Country’s economy. “Make in India” initiative encourages companies to produce their goods and provide services to Indians. India is getting prepped up to challenge the world with its own manufacturing technologies and class. This one of a kind Swadeshi Campaign is making India stronger day by day and making it ready for worldwide challenges. Because of the fact that 100% Foreign Direct Investment is allowed in many of these sectors, India became the best place globally and received investments worth US \$230 billion in commitments and US \$ 21 billion in commitment between September 2014 and February 2016. This initiative is helping in job creation and skill enhancement of the citizens of India.

Today, our country faces a dual challenge, the first being, the scarcity of highly trained workers and the second being unemployment of a very large section of the workers who have either very scarce or no knowledge and job skills. To enhance the skills of this majority and also to provide employment to more than 12 million youths who attains the age of earning annually, the government came out with the “Skill India” initiative. This Swadeshi program aims to provide different skill development courses depending on the need of the people. This entire mission can be broken down into two segments, namely Education and Vocational Training. To enhance the skills of the people, the country also must develop in the field of technology.

To make our country move forward in the field of technology and make it capable to be digitally empowered the government launched another mission on July 3<sup>rd</sup>, 2015 called the “Digital India” mission. With a clear vision to empower each and every person digitally, this initiative was launched and had an initial investment of 1.13 lakh crore. The aim of this mission is to provide all the necessary and government services made available

to the masses electronically which will help to reduce the paper work. It also focuses on providing high speed internet connectivity to the citizens of the country. The focus of the entire campaign can be summed up as:

$$\text{IT (Indian Talent)} + \text{IT (Information Technology)} = \text{IT (India Tomorrow)}$$

Combining all the concepts mentioned above, we get the concept of a place where there is a very less unemployment rate, skilled personnel and high speed internet connectivity, we arrive at the other major initiative by the government, the “*Smart city*” initiative, which majorly concentrates on making the Indian cities develop and meet the international standards.

Our research mainly concentrates on the above mentioned four initiatives. We will also discuss the advantages and disadvantages of each of these initiatives. We will also try highlighting the various scope and objectives of these missions.

## RESEARCH METHODOLOGY

**Geographical Area:** City of **Bengaluru, Gulbarga and Mysore** was chosen for the study as these cities are the hub of education and has different types of organizations and entrepreneurs. The companies were into different categories right from manufacturing, service based to Software development companies. Apart from us reaching out only the service, manufacturing and industrial sectors, we also wanted the opinion of various Management and educational sectors since they are the one's who help people sprout out as entrepreneurs. It was ensured that the data provided by them would be utilized only for research work and not for any other purposes. Apart from questionnaire, we also used Information Technology such as Google forms for forwarding the questionnaire with a brief about the purpose of the study we also collected the data through group discussions.

**Sampling Plan:** Purposive and cross-sectional sampling method was adopted for the study. Purposive or non-probability sampling method is purposive selection of a sample from the universe. Here, researcher approaches the respondent purposively based on researcher's judgment to select the sample. In the present study, samples were chosen based on their involvement in business and marketing sectors. Based on the respondent's mention, further samples were selected. Cross-sectional sampling was used as the samples were collected across different types of Organizations, start-ups and other small companies and across disciplines.

**Sample Size:** A sample of 60 respondents being business jargons and a sample of 190, out of which 145 respondents had answered thoroughly understanding the questionnaire, being students from various stream administered the questionnaire. Final questionnaire was administered focusing on all valid areas of social responsibility and community engagement. First, respondents who are currently involved in social activities were approached. Based on their inputs, other respondents who were involved in past or who were/are in supportive roles were also spoken to. For both students and the employees questionnaires were personally administered, their consent was taken and they were requested to fill the questionnaire fully. The questions that business men or employees and students asked were addressed which helped us get the fully filled up questionnaires.

## DATA ANALYSIS

Quantitative data was collected from the business personals who were also involved in social responsibility and community engagement in various fields and students who are engaged and as well who have perspectives about social responsibility in higher education and who chose to respond to the questionnaire. Various Statistical tools that we used were Percentage and Analysis & Graphical Representation to analyze the limitations and the strategies as suggested by faculty respondents and students.

**Descriptive Statistics:** To describe the characteristics of the Business men and Student data.

**Chi Square Test:** To perform test of dependency of variables of Collaborations, pedagogy and strategies across demographic factors of both Business men and Student data.

**Structural Equation Modeling:** To develop a model based on output and outcomes of community engagement activities from both faculty and student data.

**Factor Analysis:** To identify the factors influencing current levels of community engagement in HEIs. It was also done to identify the output and outcomes of community engagement from both Business men and post graduate students.

### OBJECTIVES OF THE STUDY

Objectives of the study refers to what the study is envisaging about and how can it be done. It refers to the goals which are yet to be achieved. They are clear, exact and all set to be performed. It states the things that need to be accomplished in order to reach the desired destination. It also gives a description about the study and helps to understand them in an easier way.

In simpler words, it shows a way to accomplish particular goals with different set of points. An objective help a researcher to find out how these topics are useful and also prepares what scope these topics study about.

- ♦ To study about various government schemes, programs and their implementation.
- ♦ To study the pillars of *Make In India*, *Skill India*, *Digital India* and *Smart City* initiatives for its implementations in India.
- ♦ To study the vision of our government and verify its implementation in the missions such as *Make in India*, *Skill India*, *Digital India* and *Smart City* initiative.
- ♦ To study how the initiatives can be taken on skill enhancements and job creations in the required field.
- ♦ To study about how the Foreign Direct Investments attracts and boosts the quality standards of products and services available.

### REVIEW OF LITERATURE

The review comprises the literature highlighting the theoretical understanding of *Make in India*, *Skill India*, *Digital India* and *Smart city* initiative. It also includes direct and indirect conclusions of its impact on the society. The literature also highlights as to what can be done for the society to practice and make use of these skills implied by the governmental organizations. This also includes the theoretical background of case studies or the past studies and the review of development of the society done by the various scholars including both national and international scholars. According to the study, made through NGO's and charitable trusts it is found that 75% of the societal people have almost acquired jobs through *Skill India* scheme. It is also known that *Digital India* has boosted the technological areas in various aspects. Smart cities have begun through establishing a historical starting point of various cities facing economic and population change. The cities have gained their characteristics such as smart economy, smart environment, smart governance, smart mobility, smart living and smart human level through which they have gained popularity often and now. People casually move to cities in order to gain jobs, to fulfill their needs, build good relationship and through enjoying modern life they get accustomed to the urbanization phenomenon. Smart cities provide opportunities for people to create, invent, test and experience new things in order to optimize their quality of life. When considering India as the world's most economic sector, our honorable Prime Minister has introduced *Make in India* as the hub, for manufacturing products small or big in India. Over 1 million jobs have been created through *Make in India* policies. It has also boosted country's economy to increase its GDP from approximately 16% to 25% and also planned to increase up to 35% by 2022 through creating more and more jobs. This has led to the development of young new researchers who wants to fulfill their dreams to research through *Make in India* manufacturing hub. These researchers are being easily identified through their real challenges and opportunities are provided to both men and women who intend to start up their own business under Start up India policy.

**Make in India Campaign:** *Make in India* an initiative taken up by Government of India to encourage domestic as well as foreign company's involvement in the manufacturing of products in the country. This initiative was launched by Mr. Narendra Modi on the 25<sup>th</sup> of September, 2014. Creation of employment as well as skill enhancement in 25 sectors is the basic objective of this campaign. Setting high quality standards and producing high end products within the boundary of the country is what the program wants to achieve.

### AIMS OF MAKE IN INDIA CAMPAIGN

12 – 14 % growth per year in the manufacturing sector over a period of few years, Increase in the share of manufacturing from 16% to 25% by 2022 in Gross Domestic Product, Creation of about 100 million jobs by 2022, Skill development of rural uneducated people, Increase in the knowledge in the field of manufacturing in India Making the Country self-dependent in the field of high of technology, Enhancing the global competitiveness of the country, Ensuring sustainable growth towards the environment, Increase in the FDI in the country.

**Sectors where Make in India initiative focuses** Automobiles, Automobile Component, Aviation, Biotechnology, Chemicals, Construction, Defense Manufacturing, Electrical Machinery, Electronic Systems, Food Processing, Information Technology And Business Process Management, Leather, Media &

Entertainment and 12 other sectors. As per the new and updated policy, 100% FDI is allowed in the above sectors, except for Space industry where 74% FDI is allowed, defense industry where 49% is allowed and Mass Media where only 26% is allowed.

### Major initiatives made under Make in India

Invest India Cell, Faster and consolidated security clearance services, dedicated business query portals Companies (amendment) Act, 2015, Investor Facilitation cell, Protection of minority investors.

### Major bottlenecks in Make In India

Land Acquisition, Labor law, Multiple taxation, Companies Act 2013, Poor governance and Political Raj

### Advantages of Make In India initiative

Development of Job Opportunities, Improvement in Technology, GDP expansion, Fortification of Indian Rupees, Increase in the Brand Value of Indian Products, Ease of Business, Availability of young Minds, Development of rural areas and Flow of Capital.

### Disadvantages of Make in India Initiative

Negligence of Agriculture, Depletion of natural Resources, Loss of small Entrepreneurs, Disruption of land, Manufacturing based economy, Interest in International brands, Increase in Pollution, Increase in tension and Bad relation with China.


**Skill India Initiative:** This initiative was launched on 16<sup>th</sup> July, 2015, by Our Honorable Prime Minister, Mr. Narendra Modi. The clear aim of this campaign is to train various sections of the society in different fields and make them eligible for some kind of job. By 2022, this initiative wants to train almost 40 crore people in the country. In a country where 54% of the population is below the age of 30 this type of initiative is really required. Contributing to the economy requires a broad range of skills so versatility in the course is the other key factor of this Swadeshi initiative. The *Skill India* Initiative is like a carrier that is helping in the harnessing of the Demographic Dividend (DD) of the country.


**Objectives of “Skill India”:** Creation of opportunities, Scope & Development of Talents, Skill development, Job opportunity, Better understanding of the concepts among masses, Development of rural areas.


### Features of “Skill India”


Train Indian citizen of all ages, especially the youth, Provide training, technical and financial support to various traders, Focuses also on the sectors like construction, banking, tourism etc., Provides training as per the International Standards, Partnership with various Multi-National companies for skill development, Helps to fulfill the demand of skilled labor, Development of rural areas.

### Skills covered by Skill India


 Agriculture & Automotive


 Beauty and wellness

 Banking, Finance, Stock and Insurance

 Capital goods & Construction

 Electronics


 Gems and Jewelry


 Healthcare & Plumbing

 IT and ITES

 Leather

 Media & Entertainment

 Retailing & Rubber

 Security & Telecom

**Advantages of Skill India:** Increased employment of Youth, Rise in confidence, Improve in the productivity and knowledge, Increase in Blue-collar jobs, Development of skills by starting at a very basic level, Balanced growth and development in every field of life be it in the field of technology or education, Equal importance to every skilled employees according to their knowledge, Mandatory soft skill training for every job aspirant and also to touch the base with rural and remote India development.

**Disadvantages of Skill India:** Mainly focused on short term skill development resulting in low placements, High investment resulting to unsatisfactory results, non-achievements of the set targets, could not reach all the desired targets.

**Digital India Campaign:** In the field of technology, India is one of largest growing countries in the world. India has always been upgrading itself in the field of technology. In an era where technology changes each passing day, the government has come up with a solution of digitalizing every necessary piece of information available. In a decade where people want everything within split second the government is now planning to provide high speed internet connectivity to each and every citizen of the country. It was almost 3 years ago when the concept of “*Digital India*” came to the lime light. The main aim of this massive campaign is to make India digitally empowered in the field of technology. The ultimate aim of this campaign is to provide all the government services provided to each and every citizen via electronic means.

## THE VISION AREAS OF DIGITAL INDIA

### 1. Infrastructure as an Utility to Every Citizen

- High speed internet connection to all
- Digital identity - unique, lifelong, online and authenticable.
- Mobile phone and online Bank account
- Safe and secure Cyber-space in the country.

### 2. Governance and Services on Demand

- Provides easy and a single window access to all persons.
- Government services available in real time through online and mobile platforms.
- Ease of Doing Business and Cashless transactions

### 3. Digital Empowerment of Citizens:

- Universal digital library.
- Universally accessible.
- All Government documents/ certificates to be available online.
- Availability of digital resources / services in different languages.
- Collaborative digital platforms.

### The nine pillars of growth aided by “Digital India”

Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, Information for all, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes e-Governance, Reforming Government through Technology and e-Kranti.

### Advantages of “Digital India” campaign:

Removal of Black Economy, Increase in revenue, Empowerment to people, E-Governance, Creation of New jobs and opportunities

**Disadvantages of “Digital India” campaign:** Online Fraud & cyber bullying, Identity Theft, Fake news etc.

**Smart City mission:** It was 3 years ago, when a word of Smart City started spreading in the ears of people. Yes, we are talking about ‘*Smart City*’ mission launched by the Honorable Prime Minister of India on July 2015. This mission aims to make many of the cities smart by 2022. It aims to develop around 100 cities across India to make them sustainable and citizen friendly. Today this mission is working under ‘Ministry of Urban Development’ and it envisages towards development and renewal of existing cities in India. The program is working under the union government by collaborating with the state governments of respective cities. Meanwhile, Smart cities means cities having excellent infrastructural facilities such as 24/7 electricity, water connection, well planned drainage systems, good transport facilities with more connectivity, better road conditions, neat and cleanly maintained environment, smart security (police) facilities by installing CCTV’s around the city and many more. The time period set for this mission is five years.

All the states and union territories are participating except West Bengal by nominating at least one city from their respective states and union territories. The financial aid for the project is being shared by both central and

the respective state government where the majority of the fund will be allocated by the central government. The selection of cities for the mission is unique here. Cities here in the state compete with other cities within the states. Then the winner in the state level competes at the national level 'Smart City' challenge. During the time of implementation and maintenance, if the municipality head of selected cities do not show interest or any progress in the work as committed, then that will/may be replaced by any other city of the same state.

With the introduction of the Smart City concept, our country is also progressing in the field of environmental friendly green technologies. Green technology in simple terms refers to the facilities that are Eco-friendly and doesn't deplete the quality of the environment. This type of technology doesn't deplete the natural resources and thus helps in the development of the country. This type of technology uses the available environmental resources like Sunlight, water power and other renewable energy sources to generate power. Many Indian airports have taken up various initiatives so as to make the maximum use of this type of technology.

#### **Advantages of "Smart City Mission"**

- The utilization of public infrastructure will be more.
- As the city gets developed, each and every process gets automated, which in turn makes a human life easier. Ex: Online Cash transactions, Fast Tag etc.
- Better government facilities will be made available such as good transportation, 24/7 electricity, hospitals, banks –ATM's etc.
- The security inside the city gets modernized. The whole city will be fully under CCTV surveillance, by which there is a track of all things and also helpful to reduce in the crime rates.
- The education sector in smart cities gets well developed. Students can get hi-fi system of education with digitalized teaching. This increase literacy rate which is a boon to our nation and for our growing economy.
- Green technology is helping the country minimize the pollution as well as it's dependency on natural resources.

#### **Disadvantages of "Smart City mission"**

- There are number of issues on personal privacy and security.
- The modernization in job field to work in smart cities requires lot of skilled people, which we are lacking behind in country and training them in relevant field requires huge financial aids.
- Business models which use smart technologies in the country are still under developed.
- Our Indian cities are still lacking in technology, which forms a major part in this issue.

#### **FINDINGS**

It was found out in our research that a lot more trust is required from the governmental organizations for promotion and inclusive growth of the campaigns so as to cover-up the electronic services and products. It has been understood that government has to increase its strengths in various sectors like manufacturing, trade and technicality teaching. Ease of doing business India has to be emphasized for various business opportunities. Promotion of e-governance has to be centralized and initiative has to be extended to facilitate to every citizen and should be centralized so that it can reach every individual.

#### **SUGGESTIONS**

The Government apart from launching the different campaigns must also focus on bringing them to implementation. During our research, we found that some of the people are unaware of the different initiatives that have been launched in the recent years. We also found out that there are people who want to help the government but because of their unawareness they are not able to do so. Our only suggestion to the government is: "Please make sure that the general masses are properly aware of the different initiatives that are being implemented in the country."

#### **CONCLUSION**

In a matter of few years, our country would be seen as the most powerful and digitally connected country in the world and would also lead to a good platform for electronic delivery and service. Going ahead *Digital India* project had provided various opportunities to make use of the latest technology and to redefine and set various examples on service delivery. Digitally connected India can serve in improvising social and economic conditions of people living in rural areas through various developments of non-agricultural activities with respect to the various aspects of providing education, health and other financial services. It is also very

important to understand that information and communication technology alone cannot directly lead to the overall development of the nation. The overall development can be understood through supporting and enhancing the elements such as providing education, providing basic infrastructure for business environment, providing regulated environment and many more. To understand the aspects of *Make in India*, the objective and the focus was to create jobs through skill enhancement in various sectors. It aimed at achieving very high qualities standards of goods and also emphasized on minimizing the impact of these productions on the environment. *Make in India* campaign mainly focused on various industries such as automobiles, oil and gas, aviation, chemicals, Railways and other industries. Almost all the states except West Bengal took up the initiative with the main objective to increase the ease of doing business in India and also enhancing the skills sets of the people through providing them jobs.

Summing up our entire study we come to the conclusion that our Country is really developing because of these initiatives. The masses are getting world class training to enhance their skills, high speed internet connection, smart transportation services, digital connectivity, cleaner cities etc. which is also contributing to their all-round development. The country is also moving towards a green economy. Seeing the current trend we can easily say that India is progressing at a very rapid rate and it is not far when our country will be in the list of the most developed countries of the World.

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**ARTIFICIAL INTELLIGENCE IN BUSINESS**

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**Sreenandana M V, Agnes Mathew and Ananthu R Krishnan**  
Student, NSS College, Nilamel

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**ABSTRACT**

*The present era is possibly the most exciting period of human history because various technological innovations are taking place. Robots working in industries, self driving cars, and ARTIFICIAL INTELLIGENCE (AI) playing games better than world champions are some of the technological innovations under ARTIFICIAL INTELLIGENCE. Internet today is full of Artificial Intelligence-related articles, its recent advances and its impact on society and business. This paper gives a glimpse on how Artificial Intelligence has made its impact on all spheres of business practices such that there is not even a single field left where its impact cannot be seen. It also outlines the business benefits of artificial intelligence and finally, point out some of the risks in artificial intelligence in business and how to overcome them.*

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**1. INTRODUCTION**

Capability of computers to perform various activities went on rapidly. Humans developed the power of computer systems in terms of their working activity to increase speed and to reduce size with respect to time. Computer science developed a new branch named ARTIFICIAL INTELLIGENCE (AI), it creates the computers as intelligent as human beings. According to the father of AI JOHN Mc CARTHY, it is "The Science and Engineering of making Intelligent Machines, especially intelligent computer programs".

In the business world, ARTIFICIAL INTELLIGENCE makes business to perform elegantly. Most of the business firms adopt AI to reduce operational cost, develop efficiency, higher revenue and improve customer experience. Implementing Artificial Intelligence in organization increases the efficiency and reduces human errors, it leads to better outputs. AI is used already for practical decision making. The application of Artificial Intelligence business gain ability to:

- Avoid human error and build a smart system.
- Identifies customer preferences and creates good relationship with them.
- Save time and money by automating routine process and task.
- Increases profit by identifying and maximizing sales opportunities.

**2. APPLICATION OF AI IN BUSINESS**

There are many Artificial Intelligence applications that support business. It helps to increase the efficiency of the organization and it creates a bench mark itself.

**1. CUSTOMER CENTRIC**

Most of the websites now provide 'chat' options. In this option customers can chat with the representatives. These Artificial Intelligence chat box are able to understand human language. So they can give information to customers. The representative can also collect information from the customer about their needs and wants.

**2. SECURE FROM CYBER ATTACKS**

Top companies around the world provide huge investment in cyber security to protect their data from cyber-attacks. Artificial Intelligence provides security strategy that is strong and advanced. A business needs real time threat detection, mitigation and ideal prevention from cyber-attacks. Using machine learning algorithms and feeding those algorithms Information Technology and security experts can develop solutions to monitor behaviour, detect abnormalities and respond to threats.

**3. FRAUD DETECTION IN BANKS**

Banks are also now using AI to discover fraudulent activities. The AI softwares are proficient to detect fraudulent transactions based on past datas. Beyond this application banks apply AI technology for bringing more ability to their back-office, bring smarter chat-box for customer service and personalized services for individuals.

**4. COMMUNICATION**

Artificial Intelligence in business has the capability to understand spoken and written language. AI provides real time translation of spoken and written language, real time transcription, intelligent assistants, and voice control.

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**5. EFFECTIVE PLANNING**

Artificial Intelligence helps to plan future goals through inventory optimization, forecasting of demand, predictive maintenance, physical and digital network optimisation, navigation, scheduling and logistics.

**6. RECRUITING AUTOMATION**

Recruitment of qualified workers is one of the most difficult tasks. Now employers are using Artificial Intelligence powered sourcing tools to find employees who are well qualified and pragmatic.

**7. MARKET PREDICTION**

Artificial Intelligence helps business for market prediction to perceive penchant of customers. It can be applied in places like personalization, initiate work flows, enhanced searching and product recommendations. AI avoids unnecessary time and refines quality for customers.

**8. PROPOSAL REVIEW**

When a company receives a proposal from contractor, Artificial Intelligence analyses the scope, pricing and the contractor's historical performance to determine if the proposal is of right cost and will be done at the right quality level.

**9. ARTIFICIAL INTELLIGENCE IN E-COMMERCE**

AI ensures competitive extremity to e-commerce businesses. AI software automatically organizes and visually searches contents by labelling features of the image or video. The software helps the customers in finding the products they desire. E-commerce retailers have already become experienced with AI capabilities.

**10. ARTIFICIAL INTELLIGENCE IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT**

AI equips businesses to act on consumer data to drive improvements throughout many areas of supply chain operations. Consumers demand shorter delivery waits from retailers and retailers will expect the same from manufacturers and distribution centres. Autonomous heavy goods vehicle and robotic picking systems allow supply chain to make deliveries seven days a week.

**3. RISKS IN ARTIFICIAL INTELLIGENCE**

A super intelligent Artificial Intelligence doesn't have human emotions like love or hate. AI becomes risky because it is programmed to do something destructive. Self-governing weapons are AI systems that are programmed to kill. If these systems are in the hands of the wrong person, they can easily cause huge casualties. The AI is programmed to do something beneficial, but it develops a destructive method for achieving its objectives.

**4. DRAWBACK OF ARTIFICIAL INTELLIGENCE**

- **Not Recreating Humans**

Machines do not have any feelings and moral values like humans. Because they are programmed. Machines cannot take decisions if a situation is unfamiliar to them.

- **No Original Creativity**

Human beings are highly diplomatic and have creative minds. Their thoughts are guided by feelings which are not in machines. Machines help to design and create, but do not match for the power of thinking that human brain has.

- **High Cost**

Artificial Intelligence needs huge cost because they are very complex machines. Their repair and maintenance also require huge cost. The software programs installed in AI systems need periodic upgradation to the needs of the changing environment and need for the machines to be smarter by the day.

- **Unemployment**

Replacing humans with machines leads to large scale unemployment. If machines are more than humans they become more inactive. They start to think in a destructive way and create havoc with these machines.

- **Lack Of Experience**

Artificial Intelligence cannot be improved with experience. It leads to wear and tear. It stores data but the way it collects and uses those data is different from humans.

- **Risk of Cyber Attacks**

Hackers who want to steal secret information about a company are likely to target Artificial Intelligence systems.

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- **Legal Risk**

Now there is little legislation to regulate Artificial Intelligence, but that is not enough. Systems that analyse large volumes of consumer data may not comply with existing and imminent data privacy regulations..

### **5. HOW TO OVERCOME THE RISKS ASSOCIATED TO AI IN BUSINESS**

If we take a step back and think about how to use Artificial Intelligence rationally to help businesses it has to be understood and used as a technology which helps to solve business problems. There has to be a proper plan and operating model to use AI and it has to be properly implemented after thorough due diligence. AI needs training and interventions after that humans remain involved in setting and maintaining proper governance and control.

Soon AI will become an integral part of everything that we do because it helps to remove human errors and create more predictable outcomes so businesses should treat Artificial Intelligence as they do with any other new technology. They should analyse its benefits, risks and put proper control and governance to increase its benefits while minimizing its limitations

Artificial Intelligence has created anxiety amongst our work force. Firms can also try to implement a leader which helps the work force to understand the technology and how both can co-exist. Employees have been re-trained, re-deployed and re-focused to exist symbolically.

### **6. CONCLUSION**

Business functions can be automated but the most important element is still the humans. Now the level of technology we are not able to create a fully automated business. Some business functions, such as accountancy and information management can be fully automated. Some other functions such as sales and marketing can be computerized to a very high level. But other functions such as general management cannot be automated.

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**A STUDY ON THE CAUSE AND CONSEQUENCES OF MERGERS AND ACQUISITION ON FINANCIAL PERFORMANCE A SPECIAL REFERENCE TO TATA STEEL AND CORUS: AN EMPIRICAL STUDY**

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**Lourdunathan F<sup>1</sup> and Xavier P<sup>2</sup>**

Associate Professor<sup>1</sup>, Department of Commerce & Management, Kristu Jayanti College Autonomous, Bangalore  
Associate Professor<sup>2</sup>, HOD, Department of Commerce and Management, Jindal First Grade College for Women

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**ABSTRACT**

*This research paper examined the cause and consequences of merger and acquisitions on the financial performance of Tata Steel and Corus. The particular paper seeks purpose of effect of merger upon profitability and liquidity position. It analyzes the pre and post-merger financial performance of the company. Sample size of this research consists Tata Steel and Corus Company which undergone merger and acquisitions during 2007-08. To achieve the study's objective secondary data of sixteen years prior and post-merger collected from annual audited financial statements from period 2002-2017. Various financial ratios applied to assess the profitability and liquidity position. The analysis is conducted with the help of statistical tool paired t test used on accounting ratios by SPSS to test the significance of the study. The finding of this study shows that there is improvement in financial performance of acquirer companies after merger. Post - merger profitability and liquidity indicators of selected sample deteriorated.*

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**INTRODUCTION**

The number of corporate mergers and acquisitions around the world has increased dramatically the last two decades, both in number of transactions and in total value. The global M&A market demonstrated its ability to recover quickly to its originality in 2016, posting volumes of \$3.9 trillion, in line with the third best year on record. The reasons behind mergers and acquisitions (M&As) are several, among them to reduce costs, capture new technology, Expand the business, enter new markets or to create synergies with existing business functions and to recover the business from the current financial and non – financial risk. Companies proudly announce M&A's as Mergers and Acquisitions will take the businesses to a next level. Hence an empirical study on – the impact of mergers and acquisition on financial performance is taken by the researcher to analyse whether the mergers and acquisitions helped the companies to mitigate the profitability and liquidity position to create an impact on the functioning the growth of the business enterprises once mergers and acquisitions takes place.

**REVIEW OF RELATED STUDIES**

Researchers have attempted to explain the inability of M&A, on average, to add value to the acquiring firms in a number of different ways. Roll (1986), for example, argues that the loss of value subsequent to mergers might be a manifestation of hubris on the part of the managers of the acquiring companies, who over-estimate their ability to generate value from the mergers. Haunschild, Davis-Blake and Fichman (1994) have suggested that, for a variety of reasons, managers of acquiring firms may become committed to the acquisition of a target firm, irrespective of the final outcome. Other management scholars have emphasised the impact of organizational differences between the target and acquiring firms in determining the post-M&A performance (Datta, 1991). However, the dominant view among economists is that the loss of value subsequent to M&A is an outcome of the agency conflict between managers and shareholders of the acquiring companies, whereby the managers take decisions that are consistent with their own interests even if they are unlikely to maximise shareholder returns (Shleifer and Vishny, 1988). Mayer (1997) argues that the principal-agent structure underlying the Shleifer and Vishny (1988) view is not relevant in countries and contexts where companies are largely family owned such that there is less separation between management and ownership, if any. This view finds support from Anderson and Deeb (2003a, 2003b) who conclude that the absence of this form of agency conflict has benefited minority shareholders in family-owned firms in the United States. Firms with insider CEOs perform better, on average, than firms with outsider CEOs, while there is no difference between the debt and risk profiles of the family-owned and outsider-owned companies. Similarly, Thomsen and Pedersen (2000) found, broadly speaking, a positive correlation between ownership concentration and both shareholder value and profitability in the European context. The impact of concentrated ownership on the quality of governance has arguably been positive also in the context of Japan (Berglof and Perotti, 1994).

**RESEARCH GAP**

Many researches have been undertaken the study on mergers and acquisition, but all the researchers have focused on the negative sides of the mergers and acquisition and risk involved due to mergers and acquisitions, no researchers have under taken study on the positive sides. Hence the researcher have under taken an imitative

to the topic “An Empirical Study on – the impact of mergers and acquisition on financial performance. a special reference to Tata steel and Corus”, to analyze how for mergers and acquisitions helped the company to mitigate the profitability and liquidity exist in the business.

### METHODOLOGY

The present study is an attempt to analyse the impact of mergers and acquisitions on the functioning and growth of business. For this purpose the researcher has undertaken TATA Steel which absorbed the business of Corus. The financial statements of TATA Steel were collected both for the Pre-merger and post-merger periods. And the financial statements were analysed with the help of statistical tools like percentage and index number.

### ANALYSIS AND INTERPRETATION

#### Analysis of Fixed Assets

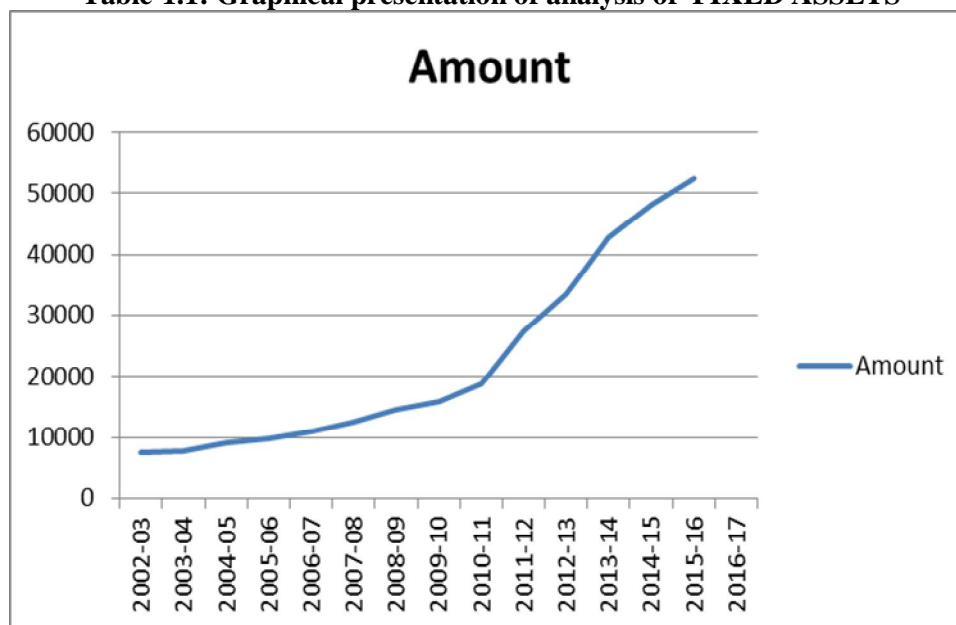
The below table reveals the growth of Fixed assets after depreciation of Tata Steels over a period of time. The table compares the fixed assets position of Tata steels before and after mergers with Corus.

**Table-1.1**

S.No	Year	Amount	Growth
1	2002-03	7543.80	59.75969
2	2003-04	7857.85	62.2475
3	2004-05	9112.24	72.18439
4	2005-06	9865.05	78.14792
5	2006-07	11040.56	87.45996
6	2007-08	12,623.56	100
7	2008-09	14,482.22	114.7237
8	2009-10	16,006.03	126.7949
9	2010-11	18,774.48	148.7257
10	2011-12	27,424	217.2446
11	2012-13	33,597.34	266.1479
12	2013-14	42,775.15	338.8517
13	2014-15	48,285.19	382.500
14	2015-16	52410.96	415.183
15	2016-17		
16	2017-18		

Source: Annual Report of Tata Steel

**Table-1.1: Graphical presentation of analysis of FIXED ASSETS**



The table shows TATA steel is allocated (Invested more funds) on Fixed assets, it has been analyzed prior to and post M&A the investment in fixed assets are increasing at an alarming rate. Comparing to the base year 2007-08 where the merger took place the overall increase in the total fixed assets of Tata steel has been more than 300%.

### ANALYSIS OF NET CURRENT ASSETS (WORKING CAPITAL)

The below table shows the growth of Net current assets of Tata Steels over a period of time. The table compares the working capital position of Tata steels prior to and post mergers with Corus.

**Table-1.2**

S.No	Year	Amount	Growth
1	2002-03	957.52	3.171262
2	2003-04	3808.82	12.61463
3	2004-05	3699.99	12.2542
4	2005-06	428.88	1.420431
5	2006-07	8248.23	27.31775
6	2007-08	30,193.66	100
7	2008-09	1,311.04	4.342104
8	2009-10	3,247.08	10.75418
9	2010-11	13,216.49	43.7724
10	2011-12	-4,039.64	-13.3791
11	2012-13	-4,983.80	-16.5061
12	2013-14	-7,317.18	-24.2342
13	2014-15	-4774.62	-25419.04
14	2015-16	-4585,04	-25608,62
15	2016-17		
16	2017-18		

Source: Annual Report of Tata Steel

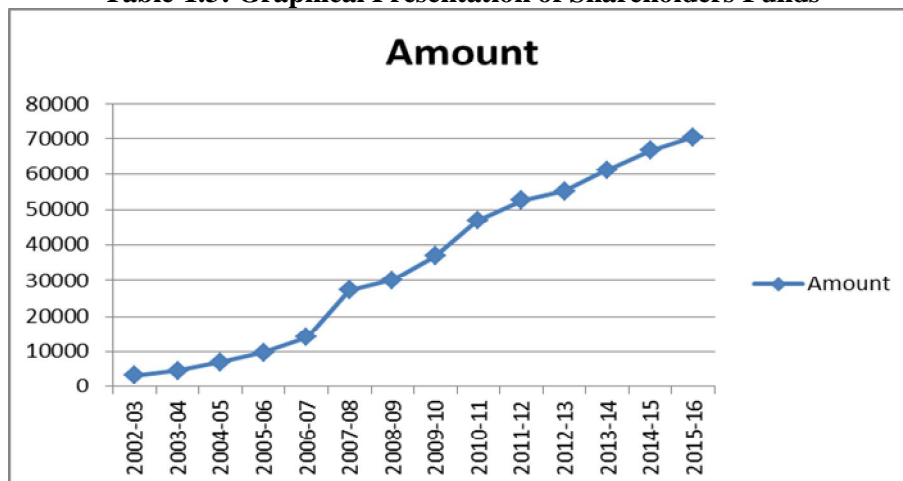
The total Net Current assets of the Company prior to Merger was positive and it shows the working capital of the company was manageable, but post-Merger was not so effective since the analysis of table shows negative Net current assets(Negative Working capital performance)

### ANALYSIS OF SHARE HOLDERS FUNDS

**Table-1.3**

S.No	Year	Amount	Growth
1	2002-03	3186.02	11.67009
2	2003-04	4515.86	16.54117
3	2004-05	7059.92	25.85982
4	2005-06	9755.30	35.73274
5	2006-07	14096.15	51.63287
6	2007-08	27,300.73	100
7	2008-09	30,176.26	110.5328
8	2009-10	36,961.80	135.3876
9	2010-11	46,944.63	171.9538
10	2011-12	52,621.36	192.7471
11	2012-13	55,209.68	202.2279
12	2013-14	61,147.99	223.9793
13	2014-15	66,663.89	244.18
14	2015-16	70,476.72	258.149
15	2016-17		
16	2017-18		

Source: Annual Report of Tata Steel

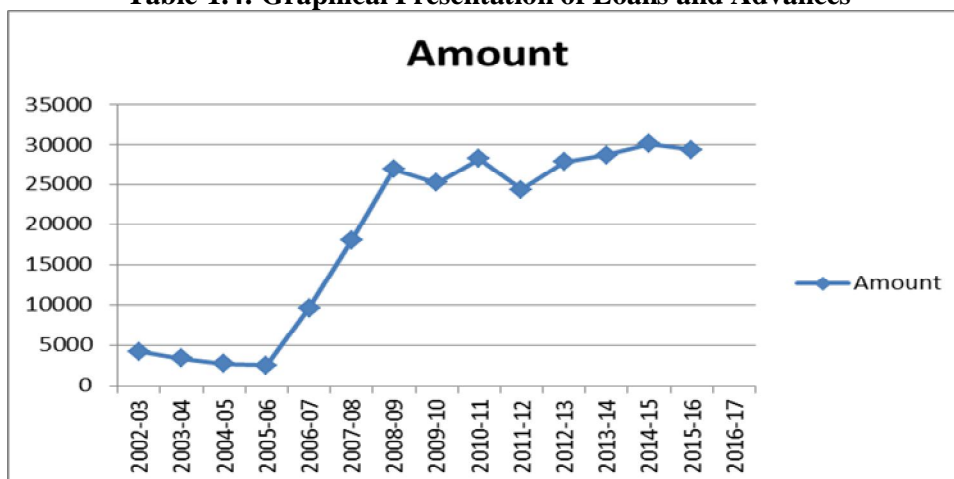
**Table-1.3: Graphical Presentation of Shareholders Funds**


The above table shows the growth of owner's capital of Tata Steels over a period of time. Regarding the shareholders' funds it is always in the increasing trend during both the periods. Comparing to the base year the total funds has been increased more than 200% .

**Table-1.4: Analysis of Loans and Advances**

S.No	Year	Amount	Growth
1	2002-03	4225.61	23.44736
2	2003-04	3373.28	18.71789
3	2004-05	2739.70	15.20224
4	2005-06	2516.15	13.96179
5	2006-07	9645.33	53.52067
6	2007-08	18,021.69	100
7	2008-09	26,946.18	149.5208
8	2009-10	25,239.20	140.049
9	2010-11	28,301.14	157.0393
10	2011-12	24,391.06	135.3428
11	2012-13	27,903.60	154.8334
12	2013-14	28,735.64	159.4503
13	2014-15	30,114.44	167.10
14.	2015-16	29368.44	162.96
15	2016-17		
16.	2017-18		

Source: Annual Report of Tata Steel

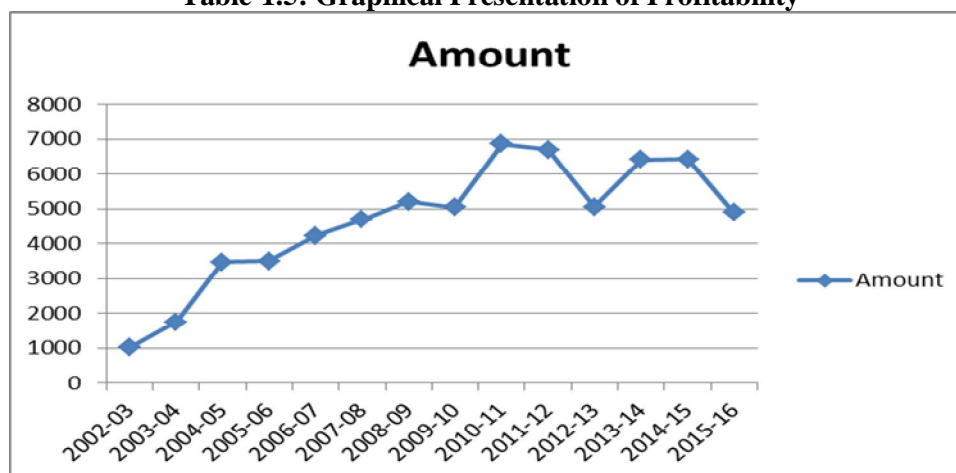
**Table-1.4: Graphical Presentation of Loans and Advances**


The total loans and advances of Tata steel is increasing year by year but comparing to the pre-merger period the total loans and advances of this company is not increasing in the post-merger period.

**Table-1.5: Analysis of Profitability**

S.No	Year	Amount	Growth
1	2002-03	1012.31	21.59811
2	2003-04	1746.22	37.25643
3	2004-05	3474.16	74.12285
4	2005-06	3506.38	74.81027
5	2006-07	4222.15	90.08157
6	2007-08	4,687.03	100
7	2008-09	5,201.74	110.9816
8	2009-10	5,046.80	107.6759
9	2010-11	6,865.69	146.4827
10	2011-12	6,696.42	142.8713
11	2012-13	5,062.97	108.0209
12	2013-14	6,412.19	136.8071
13	2014-15	6439.12	137.38
14	2015-16	4900.95	104.56
15	2016-17		
16	2017-18		

Source: Annual Report of Tata Steel

**Table-1.5: Graphical Presentation of Profitability**

The net profit of Tata steel is increasing at constant level even after the merger with Corus.. In the year 2007-08 the net profit of the business was 4687.03 Crores it is increased to 6412.19 Crores in the year 2013-14.

### MAJOR FINDINGS

During the Financial Year 2015-16, the Company recorded a profit after tax of ₹ 4,901 crore as compared to ₹ 6,439 crore in Financial Year 2014-15. The decline is primarily due to lower realizations owing to availability of cheaper steel imports. For the year, there was also an exceptional loss of ₹ 1,583 crore (Profit of ₹ 1,891 crore during the previous year). The basic and diluted earnings per share were at ₹ 48.67 (previous year: ₹ 64.49).

- Decrease in Loans and Advances is primarily on account of reduction in derivative assets owing to repayment of US\$ 335 Mn loan in the Financial Year 2015-16.
- The allocation of fund to total fixed asset of Tata Steels has increased at alarming rate as compared to the pre-merger periods.
- The current assets of Tata steels are less than the current liabilities in the post-merger period.
- The profitability of Tata steel is increasing in the post-merger period.

### CONCLUSION

The M&A performance measures are diverse owing to heterogeneous views on what constitutes M&A performance and organization performance. They are categorized under Accounting Measures, Market Measures and administrative Measures, including subjective assessments. The explanatory variables found in



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the studies are extensive and can be categorized under Deal Characteristics, Managerial Effects, Firm Characteristics and Environmental Factors.

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- 2 Indian journal of Marketing
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- 4 Management Accountant
- 5 International journal of Management Accounting and Technology

**PERIODICALS**

- Indian Express
- 2 Economic Times
  - 3 Deccan herold
- Business Line

**MAGAZINES**

- 1 Business India
2. Business world
- 3 Dalal Street

**REPORTS**

- 1 RBI monthly Journal
- 2 Annual Report of TATA STEEL

## EVOLUTION FROM CONSERVATIVE BRAND RELIABILITY TO CONTEMPORARY: E-FIDELITY

Prof. Madhumathi and Prof. Reena R

Kristu Jayanti College, Bangalore

## ABSTRACT

*The dominant way for a market to advance a competitive edge over other markets is through Brand Fidelity. The traditional way of gaining Brand fidelity is through enhancements in quality of the product, customer satisfaction, usage of various promotional strategies, ensuring product involvement and building up on the trust factor. However, in the modern contemporary scenario, with and increasing digitisation which is becoming ubiquitous, there is a transition and emphasis on E- Fidelity . The present study is an attempt to understand this transition or change from Brand Fidelity to E- Fidelity. The various factors which affect the fidelity amongst the present customers in a market are effective web designing, connecting with the customers by keeping them informed about various pre and post sales services and ensuring good service quality.*

*Keywords: Brand Fidelity , E- Fidelity , Brand Association, Web design, Customer retention, Customer service, Promotional strategies.*

## INTRODUCTION

Accentuating on brand fidelity is one of the critical factor in marketing as it helps in achieving dominant position over different markets across the globe. In the outmoded market environment, brand fidelity has been unspoken as the tendency of consumers to commit themselves towards a particular brand. The consumer fidelity towards the brand is exaggerated by several factors which includes product quality, trustworthiness, promotional strategies used and product involvement. With the advanced E-commerce, it has also become pertinent to build E-fidelity . E-fidelity has been one of the modern concept in the marketing environment which is built over Brand Fidelity . The main focus of brand fidelity is to deliver quality product and enhance the customer satisfaction. Owing to the transforming of the overall marketing environment and the rise of E-commerce, the products and services are provided more suitably to consumers. This is where building an target or need among the consumers to purchase a particular product or service frequently from an E-vendor comes into existence. E-fidelity focuses on providing superiority service for the supply of the product which in turn increases the fidelity towards the website despite of several factors which may cause swapping behaviour. In the present study we have made an attempt to appreciate the transition from Brand Fidelity to E-fidelity with the help of factors which affects the consumers repurchase behaviour.

## REVIEW OF LITERATURE

(Wernerfelt, 2001) Brand fidelity has a greater impact on the market equilibrium. The relationship between the brand fidelity and market equilibrium are assessed and stated that more loyal consumers towards the brand results in higher equilibrium of prices and also it acts as an entry barrier for the entry of other firms. Hence, brand fidelity is one of the main indicator of the market equilibrium as it increases the tendency of consumer to buy the same brand instead of purchasing other competing brands which results in higher market share. (Khawaja A. Saeed, Winter 2002/2003) There are many factors where the customers to improve customer retention. The customer interface and advertising strategy is the first step towards it. The article examined how the website interface and advertising creates customer value and affects the firm's performance in an electronic commerce context. The researcher states that advertising increases the visitors to a web page and the features of website which provides a convenient platform for sale, presale and post-sale also increases the value of the firm. The results show that spending only on advertisement will have a lesser amount of impact on the performance of the firm as advertising can only be an external stimuli to increase the number of visitors to the website but if both website interface and advertising are utilized with good website features which meets the purchase requirements of customers' can improve the performance of a Business to Consumer Firms because website interface can be used as a primary source to interact with the consumers.

(Lepkowska-White, Summer, 2004) There are still many consumers who prefer physical market. The study was carried out in order to ascertain the consumer perceptions towards the consumers who purchase online and the people who just browse the content of the product and purchase it in the physical market. The study proved that online browsers have a negative perceptions towards online shopping than online buyers because most of the online stores does not improve the design and security of the websites. It was concluded that to enhance these perceptions positively, companies should design the navigation of websites in a secured and easy way for attract the consumers in the competitive market. (Jagmohan S. Raju, 2008) Promotion, the important element of marketing mix is having higher importance in customer retention. The paper focus is to analyse the role of

brand fidelity in determining the promotional techniques used by the firms in a competitive field. It also investigates if the loyalties of consumers towards competitive brands enhances the firms to use price promotions in the product categories. The results states that use of price promotions in the brand's likelihood increases with an increase in the competitive brands in a particular product category also, brand fidelity plays an important role on the pricing strategies of the firms.

**(Cuestas, 2008 December)** Examined the approach and the perception of consumers' towards the ethics of online market by using four dimensions which includes privacy, non-deception, security and fulfilment. The researcher suggests that the ethics plays a major role in maintenance and formation of relationships with customers. In order to carry out the function of the website in an ethical manner online retailers need to know how consumers' ethical opinions are formed. Focusing on the four dimensions of ethical factors, security and the fulfilment factors seem to be more important than privacy and non-deception. The results indicates that these aspects appear to be relevant both in case of online purchase and browsing on the internet. **(J. Joško Brakus, May 2009)** Examined how the brand experience of the consumers affects the attitude, fidelity, judgement and other aspects of the consumer behaviour towards the product. The researcher developed a four factor model which measures the brand experience of the consumers (feelings, cognitions and behavioural aspects) as they are subjective in nature. The factors include Sensory, Intellectual, Affective and Behavioural. With the help of these factors the results stated that if the consumer has good brand experience it will have a positive impact of the fidelity.

**(Jooyoung Kim, Summer 2012)** Developed a theoretical framework between Brand Persuasion and Brand Reputation. It was stated that increase in the brand persuasion lead to higher reputation of brand in the market because attitude strength, fidelity and commitment depends on the cognitive conviction of consumers. Also, it was suggested that in order to have a positive perception towards the product category the marketers should identify the cognitive brand conviction (Brand Persuasion) as it acts as a major driver of brand fidelity among consumers.

**(Morgan, July 2014)** Pricing also hold an equal role as of brand. Both brand and price advertising is an important element in the marketing strategy of an online market. Brand creates a loyal consumers and Price advertising attracts the shoppers. The researchers argue that if only brand advertising is used to increase the fidelity of consumers then it would be optimum for the firm to create a monopoly and the dispersion of price would be vanished. The result summarized that with the increase in the price among different sellers the fidelity of consumers towards the brand decreases.

**(Lawrence X. Tarpey, May 2014)** A good brand experience will always give loyal customers. The article analysed the difference between repeated purchase behaviour and brand fidelity based on the commitment that the consumer have towards the brand. It was identified that commitment of consumers towards the brand depends on two things i.e., product consumption and the marketing strategy of the firm which includes pricing strategy, product manufacturing, personal selling and distribution strategy.

**(Castañeda, September 2015)** The study intends to develop a model since customer fidelity is one of the important aspect in the competitive environment. A four-way categorization of the perceptions of consumers towards fidelity on the internet was developed which includes Satisfaction, Fidelity E-Commerce and Trust where the strengths among these variables were also analysed. The conclusion of the study was that the consumers with high involvement towards product will tend to have more satisfaction which in turn acts as a good predictor to determine the customer fidelity. Therefore, satisfaction-fidelity relationship on the internet is resolved by the involvement and trust.

## RESEARCH GAP

Though numerous studies have taken place explaining the meaning of Brand fidelity and E- Fidelity, however very few research studies have emphasized the transition or change from traditional form of fidelity to contemporary form of fidelity. This research study is an attempt to bridge this gap where we have tried to explain the various proportions of Brand fidelity and E- Fidelity and established a theoretical analysis that further verifies this change between the two types of fidelity.

## OBJECTIVES

1. To recognize the various aspects persuading Out-dated Fidelity in marketing
2. To know the factors influencing contemporary marketing practices.
3. To suggest a abstract prototypical screening the evolution from Brand fidelity to E- Fidelity.

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**FACTORS INFLUENCING CONVENTIONAL BRAND FIDELITY****The various factors of Brand Fidelity are**

**Brand awareness:** It is considered to be one of the key indicator of the market performance of a brand. In the process of purchase decision making the ability to recall or recognise a particular brand has a lot of importance. This is what brand awareness deals all about. Unless and until a consumer is not aware about the product and a brand in that category the purchasing process cannot be proceeded. Basically there are two types of brand awareness the brand recall and brand recognition. Brand recall is all about the ability of the customer to elicit a brand name when a range of product category is provided. While brand recognition deals all about the ability of consumer to differentiate the brand when they physically come in contact to the product.

**Brand Association:** It is something like images, symbols, product labelling etc. which is inherited in the minds of the customer related to the brand. It actually speaks about the positive attributes which lasts in the minds of the customers when they recollect about a particular brand. So this brand association should be different from the competitive brands and thereby has a unique reason to purchase the products related to the brand. While introducing some new products to the existing brand it will act as a base for customer retention because it already has the inherited positive elements.

**Perceived Quality:** It is actually considered as overall perception of the customer regarding the quality of a product or service. The alternative products are also considered under this study. It's actually an intangible feeling of the customer regarding the product. The perceived Quality depends on different factors like corporate image, the experience of consumer with the other products of the brand, consumer peer groups etc. Every consumer is having a level of expectation from his particular brand. His or her perception should be fulfilled by the brand.

**Supply Chain:** It is a system of connection between the manufacturers and the consumers. It represents the sequence of distribution from the producers to consumers which includes various middle men like wholesaler, retailer and other middlemen. This supply chain affects the brand reputation of the company as customer expects the delivery of the product at time. If the product is delivered at the right time in the right place as and when demanded by the consumers it will enhance the fidelity towards the product because consumers pays money to satisfy their needs to receive the product on time without any delay.

**FACTORS INFLUENCING CONTEMPORARY E-FIDELITY****The various factors which influences E- Fidelity are:**

**Service Quality:** Customer satisfaction is derived from the service rendered. Poor customer relationship can lead to low profit generation and damage the brand. Since customer is one of the major component in a retail enterprise the business has to attract the customers by providing good service quality which can be done through faster response to customer enquiry, fast delivery, easy payment system, after sale service and other attractive offers in the website will improve the customer fidelity and help in maintaining long term retention of customers.

**Promotional Factors:** To get a proper attention in market promotional factors are used widely in the beginning. Later the role of promotional factors shifts to the position of creating awareness, retaining the customers, increasing sales, motivation and finally creating e -fidelity . While increasing the selling expenses through the promotional factors the firm must be in the position to overcome this in their business. The major thing to be noted under this case is that the promotional offers should not be the substitute of quality of the products.

**Web design:** The quality of the website speaks a lot about you and your business. It can make or break the sales. Creating a good website is actually an art. Customer convenience and accessibility are important elements which needed to be considered during the creation. Attractive web design always played a crucial role in successful sales and marketing.it easily presents your idea and communicate to your target audience. Always try to make the idea in a very simple manner. Highlight the core ideas along with it. This will give an internal push to all the customers at least to try for once.

**Customer Retention:** Long term success is impossible without customer retention. All the above discussed factors are focusing indirectly to the customer retention. It's almost 7 times harder to retain the customer compared to getting a new customer. So for retaining the customers there should be always a constant touch with them. Informing them about the latest products, offers, prices are necessary. Resolving their issues by offering pre and post sales services helps take advantage of the customer's fidelity.

## CONCLUSION

In today's modest environment, it is domineering for markets to provide a satisfying and nourishing experience to their customers and bring about a revolutionary change in the overall purchase experience by implementing the radical and dynamic changes happening pervasively. One such ubiquitous change is the transition from traditional form of fidelity to the modern form of fidelity. Fidelity paves the way for customer retention and brand patronage to a huge extent and it's about time that marketers learn to adopt the changes by providing their customers with top most quality, after sale services, attractive promotional offers as all this will help in Customer retention.

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**MEASUREMENT OF MOTIVES IN INFLUENCING OF CELEBRITY ADVERTISEMENT  
TOWARDS JEWELLERY PURCHASING IN VELLORE DIST**

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**Dr. M. Mathiyarasan<sup>1</sup> and Dr. M. Krishnamoorthi<sup>2</sup>**Assistant Professors<sup>1,2</sup>, Department of Commerce, Kristu Jayanti College (Autonomous), Bangalore

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**ABSTRACT**

*In modern business, companies are ready to spend huge sum of funds by means of celebrity in advertisement to encourage their brands. The celebrity advertisement plays vital role in quick attractiveness of prospective customer and also builds a brand of product in very strong and constant manner. The association of celebrity endorsement with brand leads to easy recognize and remembrance of products. The present study aims to attempt to find the motives in influencing of celebrity advertisement in purchase of jewelry and how it create impact on purchase decision of the customer. Finally it conclude, Celebrity endorsement has positive impact on the purchasing Jewellery by customers from Vellore District.*

*Keywords: Celebrity endorsement, consumers, Brand, Advertising, Products, marketing.*

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**INTRODUCTION**

The jewelry business in India is one of the most precious in India, the Indians always belief that the jewelry is best investment option among the various investment avenues. The south in Indian people are feel pride when they wear jewelry products, now it's become a part of life. People frequently purchasing jewels as savings and investment, it can be used for family functions, especially in marriage. The precious Jewels also the major assets of individual.

To change the brands future forever, it is imperative to create a face for the brand. It is more than a marketing strategy which is used to increase sales or gain market share. The association of celebrity endorsement with brand leads to easy recognize and remembrance of products. There is opportunity to companies to make familiarities in many aspects like popularity, appearances and remembrance of endorsed brand. The advertising strategy helps in gaining competitive advantage. The company has to select right celebrity brand their product in effective manner among the competitive.

When the celebrities endorse a particular product which build confident among the people towards delivery of the intend effect, trust and promise and also the celebrity advertisement will bring some benefits to an organization and brand , so the firms has to provide sufficient fund towards building a brand a very strong.

Commercial endorsement by celebrities will leads to public welfare by providing good massage and add a new dimension in the product development cycle. The celebrities' advertisement brings the wide range of scope in order to achieve firm's sales target and also helps to reach holistic vision. The celebrity endorsement will not give guarantee for a product or brand but it will bring the familiarity and awareness among the customer. It is designed for in a strategic manner to target the target loyal market customer and good intermediaries.

Celebrity advertisement should be design and made clear execution properly, its noticeable by all stake holders of company because this bridge customer with company brand. Customer will remember the brand or product and become loyal to company by advertisement. Celebrity endorsement will be perceived in different manner which is differing from economic, social and culture status of customer, and also customer response accordingly.

**LITERATURE REVIEW**

Choi and Rifon (2007) customers are Consumers very aggressive to know about how the product will give self-identify and personnel image to be a uniqueness among the public, and also they should feel to be proud of using a specific product, these may bring the celebrity advertisement with a many factors to attract a customer in right time and right manner. The firms should concentrate more on celebrity endorsement to have good market.

Seno and tankard (2001) found that the celebrity endorsement is a most effective method when compare to other type of endorser and also its not fortune to the business but it's a part of marketing programme of the company.

Du plessis et al (2003) describe about the attitude of the customer and celebrity endorsement are interlinked , the purchase decision of the consumer will be decided on the basis of effective advertisement and proper selection of endorsement in this case the celebrity endorsement will create the major impact on customer attraction and also leads to customer decision on purchase.

Lukas (2005) and Meenaghan (1998), they stated that celebrity endorsement helps to company and consumer to have a positive perception on product and brand offered by firm, it will help to recall the brand, more attention on product and purchase attitude.

### OBJECTIVE OF THE STUDY

1. To measure various factors that influencing in celebrity advertisement towards jewellery purchasing in Vellore Dist.

### RESEARCH METHODOLOGY

The present study based on descriptive nature, the relevant data are collected from primary and secondary sources. The analysis made on primary data sources which is collected through structured questionnaire. The convenience sampling methods used to determine sample size as 100. The study area is Vellore dist, Tamilnadu,

### ANALYSIS AND DISCUSSION

#### Factor Analysis

Factor analysis is used to minimization of mass data into smaller data in order to manage and understand in easy way. It will help to identify the hidden pattern of sequence and finding overlap of multiple pattern. Factor analysis is a way to take a mass of data and shrinking it to a smaller data set that is more manageable and more understandable. It's a way to find hidden patterns. The factor analysis will set the similar variable in a separate segment into associated variable listed, loaded and to be found variation on it.

**TABLE-1: KMO AND BARLETT'S TEST**

Measuring sampling adequacy -Kaiser-Meyer-Olkin.		.675
Bartlett's Test of Sphericity	256.151 91 .000	2352.94
	.675	325
	256.151 91 .000	.000

KMO stands for Keyser-Mayer-Olkin Criteria, this can be used to find the correlation among the variables and also it measure adequacy of sampling for extraction of various factors used in the study. From the Table 1, it can be found that KMO value is 0.675 considerable to factor analysis in highly desirable and also acceptable. The data not produce significant differ with significance value of  $p = 0.00$

The communalities for the 14 items were derived. Table 2 shows that the major 14 variable with communalities values as greater than 0.5, these are relatively very large, so, the set of data is appropriate to further analysis.

**TABLE-2: COMMUNALITIES OF THE 14 ITEMS**

Communalities		
	Initial	Extraction
Celebrities help you recognize the brand	1.000	.759
Products endorsed by celebrity than non celebrity endorsement	1.000	.799
Influence of purchase decision	1.000	.755
Expertise celebrity may have an influential	1.000	.788
Trustworthiness as influential	1.000	.670
Similarity between yourself and the celebrity endorser	1.000	.753
Familiarity of the celebrity influence	1.000	.710
Likeability of the celebrity as an influential factor	1.000	.607
Relevance of the celebrity to the product is influential	1.000	.719
Favorite star in the advertisement influence	1.000	.750
Quality assured when celebrity uses the brand	1.000	.876
Strong control on trust about brand	1.000	.734
Motivates to buy the product	1.000	.579
Creates belief about a particular product	1.000	.461
Extraction method:- principle components analysis		

Communalities values greater than 0.5, all items are acceptable for further analysis (Stewart, 1981)

With Principal Component analysis four factors were retained depending on Eigen values and variance explained. The total variance explained by each factor based on Eigen value. The one or more factors extracted in normal standard practice with the help of eigen value. In other words, four factors comprising fourteen items, all having Eigen values of unity and above were extracted (a factor must explain at least as much of the variance if not more, than a single original variable) and the results are shown in Table 3

**TABLE-3: FACTOR STRUCTURE EXTRACTED FROM EXPLORATORY FACTOR ANALYSIS WITH EIGEN VALUES AND VARIANCE EXPLAINED**

Component	Total Variance Explained								
	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	4.498	32.126	32.126	4.498	32.126	32.126	2.755	19.680	19.680
2	1.779	12.704	44.830	1.779	12.704	44.830	2.580	18.431	38.111
3	1.406	10.044	54.875	1.406	10.044	54.875	1.919	13.710	51.820
4	1.200	8.574	63.449	1.200	8.574	63.449	1.510	10.789	62.610
5	1.079	7.706	71.155	1.079	7.706	71.155	1.196	8.545	71.155
6	.875	6.251	77.406						
7	.713	5.095	82.502						
8	.602	4.300	86.801						
9	.519	3.710	90.511						
10	.383	2.738	93.249						
11	.306	2.183	95.432						
12	.277	1.980	97.412						
13	.234	1.672	99.084						
14	.128	.916	100.000						
Extraction method:- principle components analysis									

The four factor solution accounted for **71.155** percent of the variance. Total variance explained 65.902percent) by these nine components exceeds the 64 percent threshold commonly used in social sciences to establish satisfaction with the solution

Rotated Component Matrix shows the loading of each variable on each of the extracted factors to find the variables which have high close to 1 and low between 0 and 1 as loading factors, it's as similar to correlation. High loadings signify that the variable can be assigned to that particular factor. Further, Nunnally (1978) posits that items with loadings higher than 0.50 on one factor are retained for further analysis.

**TABLE-4: FACTOR EXTRACTION RESULTS - ROTATED COMPONENT MATRIX (Varimax with Kaiser Normalization)**

	Component				
	1	2	3	4	5
Celebrities help you recognize the brand	.194	-.168	.553	.620	.053
Products endorsed by celebrity than non celebrity endorsement	.573	.265	.510	-.274	-.255
Influence of purchase decision	.588	-.419	-.187	.168	.414
Expertise celebrity may have an influential	.669	.557	.069	.156	.025
Trustworthiness as influential	.705	-.402	.044	.044	.083
Similarity between yourself and the celebrity endorser	.543	.639	-.215	.058	-.032
Familiarity of the celebrity influence	.547	-.104	.231	-.451	-.379
Likeability of the celebrity as an influential factor	.559	.434	-.283	.001	.162
Relevance of the celebrity to the product is influential	.524	-.536	-.073	-.359	.154
Favourite star in the advertisement influence	.599	-.042	-.613	.099	-.067
Quality assured when celebrity uses the brand	.419	.174	.288	-.424	.639
Strong control on trust about brand	.680	-.215	-.253	.088	-.392
Motivates to buy the product	.648	-.234	.187	.123	-.236
Creates belief about a particular product	.495	.072	.238	.372	.127



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**CONCLUSION**

The celebrity endorsement in advertising is more effective than other advertisement techniques, which is more attractive and it became necessary trends to promote product and building brand. The jewelry business in India is one of the most precious businesses which have wide range of customer, the celebrity characteristic can be used by companies to establish and occupy market, and building a uniqueness of brand in the competitive world. The present study conclude that the celebrity advertisement create more impact on purchasing decision of customer, the trustworthiness, likeability, relevance of the celebrity as an influential factor major factors that creates belief about a particular product and leads to motivates to buy the product.

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**STUDY ON MEASURING BRAND AWARENESS OF OPPO SMART PHONE**

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**Dr. S. Christuraja<sup>1</sup> and Dr. M.Mathiyarasan<sup>2</sup>**Associate Professor and Research Advisor<sup>1</sup>, Assistant Professor<sup>2</sup>, Department of Commerce, Kristu Jayanti College (Autonomous), Bengaluru

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**ABSTRACT**

*Customer is the king. And thus, brands strive to make them established among the mind of the customers in every possible way they can. The term “Brand Awareness” has so much importance nowadays that without establishing it, one can’t think of being established in the competitive world also as a separate entity. In this report, it has been tried to find how the consumers perceive about the Brand “OPPO”. And to find this out, a research has been conducted in several stages and based on that research, some recommendations have been to reduce the loopholes.*

*OPPO is a leading smart phone brand who has started their journey in Bangalore from the year 2014. Currently, they are ranked as the 4th smart phone brand globally. They always thrive to bring newer technology for their consumers. That’s why their slogan says, “Let the extraordinary hearts enjoy the beauty of technology”.*

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**INTRODUCTION**

The introductory part of this research states the overall introduction and product features of OPPO in Bangalore. This includes the organizational overview, history, vision, mission, values, innovations and Brand positioning strategy of OPPO.

As OPPO has completed almost three and half years in Bangalore, it is prime time to do a research and find out the journey they have made till now. A good image for the brand is very important for existence. So, to check how much the people of Bangalore are actually aware of the brand OPPO, the research is very important. A research is made with a sample size of 200 to make the results more efficient and authentic.

The first phase of this research includes the rationale, objective, data collection method etc. Here all the details about the sample size and sampling techniques have been described thoroughly.

Branding is always important for any brand to promote itself. Every brand follows a branding strategy that may differ from their competitors in the market. The branding concept is evolving with time. With newer technological changes, branding types are also changing.

OPPO Electronics Corporation, commonly known as OPPO, is a Chinese consumer electronics brand. The OPPO industrial park is based in the Guangdong province. The industrial park stands on a massive area with its production as well as research & development units.

BBK Corporation is the parent company of OPPO. BBK got established in the year 1995. This multinational specialized company is specialized in electronics with their vast range of products such as television, mp3 players, digital cameras and more. The other subsidiaries of BBK apart from OPPO are VIVO and One Plus. The headquarter and production base of BBK is established in Chang’ an, Dongguan. BBK is a giant organization in China, who is one of the biggest tax payers to the government of the people’s republic of China.

**STATEMENT OF THE PROBLEMS**

This research attempts to find the awareness of the brand OPPO among the local consumers. The basic seeking’s of this research are:

- Understanding the concept of Brand among consumers.
- The brand image of overall smartphones among consumers.
- Familiarity and acceptability of the brand OPPO among consumers.
- The means of reach of OPPO.
- The definition of OPPO among consumers.
- Brand awareness of OPPO.

**OBJECTIVES OF THE REPORT**

The primary objective of this research is to measure the brand awareness for the brand OPPO in Bangalore. The following points would be addressed throughout the research:

- How the brand OPPO is recognized among the customers?
- Popularity among the customers.
- Mode of effective communication of OPPO among the customers.

The secondary objective of this research is to know the brand positioning for the brand OPPO with its other competitors in the market. The following points would be addressed throughout the research:

- Comparison of OPPO with competitor brands.
- Position of OPPO among all brands from customers point of view.
- Current market share of OPPO users.

## LITERATURE REVIEW

Identity is the most valuable thing to anyone. A man without a name is unrecognizable in this modern world. His name, his qualities, his attitudes are all that makes him a dignified figure to stand out from others.

In today's competitive market, it has also become an important aspect to stay alive. And to stay alive, their names should be in the hearts of the consumers. This might be an identity for them to express who they really are, but to the consumers, they are a "BRAND".

Now comes the point what brand is. According to the American Marketing Association, brand stands for "A name, term, design, or any other feature that identifies one seller's good or service as distinct from those of other sellers. The legal term of brand is trademark. A brand may identify one item, a family of items, or aa items of that seller. If used for the firm as a whole, the preferred term is trade name." According to Ann Handley, author of Marketing Profs, "Brand is the image people have of your company or products. Its who people think you are."

Phillip Kotler, author of Marketing Management, explains "A brand is a name, term, symbol, or design or a combination of them, intended to identify the goods and services of one seller or group of sellers and to differentiate them from those of the competitor."

For the brand to be alive, it has to be present in the mind of their customers. Once a brand is established, it becomes more important to maintain the goodwill and be in the hearts of their customers. For this constant presence in mind, different brands take different initiatives. The brands believe in the saying "Out of sight, out of mind". Their activities are for their customers to make them aware of their existence. This series of activities is what we call "Brand Awareness".

According to Phillip Kotler, "Extent to which a brand is recognized by potential customers and is correctly associated with a particular product. Expressed usually as a percentage of target market, brand awareness is the primary goal of advertising in the early months or years of product's introduction."

The branding and marketing concept has been changing over time over years. The strategies of different brands are evolving with time. Whatever was the strategy in the 19<sup>th</sup> century has totally changed in this 21<sup>st</sup> century. Still, there are certain important components of branding that plays the most vital roles in establishing the brand.

**TABLE-01: BRAND COMES TO THEIR MIND WHEN THEY THINK OF SMARTPHONES- WISE CLASSIFICATION OF THE RESPONDENTS**

BRANDS	NO OF RESPONDENTS	PERCENTAGE
Xiaomi	22	14.67
Samsung	26	17.33
Oppo	31	20.67
Apple	27	18
Vivo	20	13.33
Nokia	12	8
HTC	7	4.67
Motorola	5	3.33
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Field Data

It could be found from the *table-01*, 22 respondents (14.67 per cent) opted xiaomi based on the level of brand comes to mind when they think of smartphones , 26 respondents (17.33 per cent) opted Samsung based on the

level of brand comes to mind when they think of smartphones, 31 respondents (20.67 per cent) opted oppo based on the level of brand comes to mind when they think of smartphones, 27 respondents (18 per cent) opted Apple based on the level of brand comes to mind when they think of smartphones, 20 respondents (13.33 per cent) opted vivo based on the level of brand comes to mind when they think of smartphones, 12 respondents (8 per cent) opted Nokia based on the level of brand comes to mind when they think of smartphones, 7 respondents (4.67 per cent) opted HTC based on the level of brand comes to mind when they think of smartphones, 5 respondents (3.33 per cent) opted motorola based on the level of brand comes to mind when they think of smartphones.

Hence it could be inferred that though 31 respondents (20.67 per cent) opted oppo based on the level of brand comes to mind when they think of smartphones.

**TABLE-02: THE QUALITY OF OPPO SMARTPHONES – WISE CLASSIFICATION OF THE RESPONDENTS**

OPTIONS	NO OF RESPONDENTS	PERSENTAGE
Very low	10	6.67
Low	22	14.67
Average	35	23.33
High	71	47.33
very high	12	8
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source:Field Data

It could be inferred from the *table-02*, 10 respondents (6.67 per cent) opted Very low based on the level of the quality of oppo smartphones, 22 respondents (14.67 per cent) opted low based on the level of the quality of oppo smartphones, 35 respondents (23.33 per cent) opted Average based on the level of the quality of oppo smartphones, 71 respondents (47.33 per cent) opted High based on the level of the quality of oppo smartphones, 12 respondents (8 per cent) opted Very high based on the level of the quality of oppo smartphones.

Hence it could be inferred that though 71 respondents (47.33 per cent) opted high based on the level of the quality of oppo smartphones.

**TABLE-03: THE FOLLOWING, ACCORDING TO YOU, HELPS TO BUILD A GOOD BRAND IMAGE – WISE CLASSIFICATION OF THE RESPONDENTS**

INFLUENCED OTHER OPINION	NO OF RESPONDENTS	PERCENTAGE
Quality	14	9.33
Communication	16	10.67
Competitive pricing	20	13.33
Good value	18	12
Added service	15	10
Free trials and discounts	13	8.67
High end specifications in lower price	26	17.33
Good look	11	7.33
Design like iphone X	17	11.33
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Field Data

It could be inferred from the *table-03*, 14 respondents (9.33 per cent) opted quality based on the level of the following, according to you, helps to build a good brand image, 16 respondents (10.67 per cent) opted communication based on the level of the following, according to you, helps to build a good brand image, 20 respondents (13.33 per cent) opted competitive pricing based on the level of the following, according to you, helps to build a good brand image, 18 respondents (12 per cent) opted good value based on the level of the following, according to you, helps to build a good brand image, 15 respondents (10 per cent) opted added service based on the level of the following, according to you, helps to build a good brand image, 13 respondents (8.67 per cent) opted free trials and discount based on the level of the following, according to you, helps to build a good brand image, 26 respondents (17.33 per cent) opted High end specifications in lower price based on the level of the following, according to you, helps to build a good brand image, 11 respondents (7.33 per cent) opted good look based on the level of the following, according to you, helps to build a good

brand image, 17 respondents (11.33per cent) opted design like iphone X based on the level of the following, according to you, helps to build a good brand image.

**TABLE-04: THE WELL –KNOWN BRAND NAME OF THE PRODUCT THE DEGREE OF INFLUENCE OF THE FACTORS ON THEIR PURCHASE OF A SMARTPHONE – WISE CLASSIFICATION OF THE RESPONDENTS**

OPTIONS	NO OF RESPONDENTS	PERCENTAGE
Strongly non –influential	19	12.67
Non –influential	32	21.33
Neutral influential	26	17.33
Influential	44	29.34
Strongly influential	29	19.33
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Field Data

It could be inferred from the *table-04*, 19 respondent(12.67 per cent) opted strongly non-influential based on the level of the well-known brand name of the product the degree of influence of the factors on their purchase of a smartphone, 32 respondents (21.33 per cent) opted Non- influential based on the level of the well-known brand name of the product the degree of influence of the factors on their purchase of a smartphone, 26 respondents (17.33 per cent) opted Neutral influential based on the level of the well-known brand name of the product the degree of influence of the factors on their purchase of a smartphone, 44 respondents (29.34per cent) opted Influential based on the level of the well-known brand name of the product the degree of influence of the factors on their purchase of a smartphone, 29 respondents (19.33 per cent) opted strongly influential based on the level of the well-known brand name of the product the degree of influence of the factors on their purchase of a smartphone.

Hence it could be inferred that though 44 respondents (29.34 per cent) opted influential based on the level of the well-known brand name of the product the degree of influence of the factors on their purchase of a smartphone.

**TABLE-05: THE QUALITY OF THE PRODUCT THE DEGREE OF INFLUENCE OF THE FACTORS ON THEIR PURCHASE OF A SMARTPHONE – WISE CLASSIFICATION OF THE RESPONDENTS**

OPTIONS	NO OF RESPONDENTS	PERCENTAGE
Strongly non –influential	31	20.67
Non –influential	26	17.33
Neutral influential	23	15.33
Influential	37	24.67
Strongly influential	33	22
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Field Data

It could be inferred from the *table-05*, 31 respondent(20.67 per cent) opted strongly non-influential based on the level the quality of the product the degree of influence of the factors on their purchase of a smartphone, 26 respondents (17.33 per cent) opted Non- influential based on the level the quality of the product the degree of influence of the factors on their purchase of a smartphone, 23 respondents (15.33 per cent) opted Neutral influential based on the level the quality of the product the degree of influence of the factors on their purchase of a smartphone, 37 respondents (24.67per cent) opted Influential based on the level the quality of the product the degree of influence of the factors on their purchase of a smartphone, 33 respondents (22 per cent) opted strongly influential based on the level the quality of the product the degree of influence of the factors on their purchase of a smartphone.

Hence it could be inferred that though 37 respondents (24.67 per cent) opted influential based on the level the quality of the product the degree of influence of the factors on their purchase of a smartphone.

**TABLE-06: PERFORMANCE WHILE PURCHASING A SMARTPHONE–WISE CLASSIFICATION OF THE RESPONDENTS**

OPTIONS	NO OF RESPONDENTS	PERCENTAGE
Strongly disagree	29	19.34
Disagree	24	16
Natural	18	12

Agree	41	27.33
Strongly agree	38	25.33
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Field Data

It could be inferred from the *table-06*, 29 respondent(19.34 per cent) opted strongly disagree based on the level of performance while purchasing a smartphone what are the important factors that help you in deciding, 24 respondents (16 per cent) opted disagree based on the level of performance while purchasing a smartphone what are the important factors that help you in deciding, 18 respondents (12 per cent) opted Natural based on the level of performance while purchasing a smartphone what are the important factors that help you in deciding , 41 respondents (27.33 per cent) opted Agree based on the level of based on the level of performance while purchasing a smart phone what are the important factors that help you in deciding, 38 respondents (25.33 per cent) opted strongly agree based on the level of performance while purchasing a smart phone what are the important factors that help you in deciding.

Hence it could be inferred that though 41 respondents (27.33 per cent) opted Agree based on the level of performance while purchasing a smartphone are the important factors that help you in deciding.

**TABLE-07: OPERATING SYSTEM WHILE PURCHASING A SMARTPHONE–WISE CLASSIFICATION OF THE RESPONDENTS**

OPTIONS	NO OF RESPONDENTS	PERCENTAGE
Strongly disagree	25	16.67
Disagree	33	22
Natural	20	13.33
Agree	27	18
Strongly agree	45	30
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Field Data

It could be inferred from the *table-07*, 25 respondent(16.67 per cent) opted strongly disagree based on the level of operating system while purchasing a smartphone what are the important factors that help you in deciding, 33 respondents (22 per cent) opted disagree based on the level of operating system while purchasing a smartphone what are the important factors that help you in deciding, 20 respondents (13.33 per cent) opted Natural based on the level of operating system while purchasing a smartphone what are the important factors that help you in deciding , 27 respondents (18 per cent) opted Agree based on the level of based on the level of operating system while purchasing a smartphone what are the important factors that help you in deciding, 45 respondents (30 per cent) opted strongly agree based on the level of operating system while purchasing a smartphone what are the important factors that help you in deciding.

Hence it could be inferred that though 45 respondents (30per cent) opted strongly Agree based on the level of operating system while purchasing a smartphone what are the important factors that help you in deciding.

**TABLE-08: REPUTATION WHILE PURCHASING A SMARTPHONE WHAT ARE THE IMPORTANT FACTORS THAT HELP YOU IN DECIDING –WISE CLASSIFICATION OF THE RESPONDENTS**

OPTIONS	NO OF RESPONDENTS	PERCENTAGE
Strongly disagree	23	15.13
Disagree	28	18.67
Natural	17	11.33
Agree	62	41.33
Strongly agree	20	13.34
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Source: Field Data

It could be inferred from the *table-08*, 23 respondent(15.13per cent) opted strongly disagree based on the level of reputation while purchasing a smartphone what are the important factors that help you in deciding, 28 respondents (18.67 per cent) opted disagree based on the level of reputation while purchasing a smartphone what are the important factors that help you in deciding, 17 respondents (11.33per cent) opted Natural based on the level of reputation while purchasing a smartphone what are the important factors that help you in deciding , 62 respondents (41.33 per cent) opted Agree based on the level of based on the level of reputation while

purchasing a smartphone what are the important factors that help you in deciding, 20 respondents (13.34 per cent) opted strongly agree based on the level of reputation while purchasing a smartphone what are the important factors that help you in deciding.

Hence it could be inferred that though 62 respondents (41.33 per cent) opted Agree based on the level of reputation while purchasing a smartphone are the important factors that help you in deciding.

## FINDINGS

1. it could be inferred that though 31 respondents (20.67 per cent) opted oppo based on the level of brand comes to mind when they think of smartphones.
2. it could be inferred that though 71 respondents (47.33 per cent) opted high based on the level of the quality of oppo smartphones .
3. it could be inferred that though 44 respondents (29.34 per cent) opted influential based on the level of the well-known brand name of the product the degree of influence of the factors on their purchase of a smartphone
4. it could be inferred that though 37 respondents (24.67 per cent) opted influential based on the level the quality of the product the degree of influence of the factors on their purchase of a smartphone.
5. it could be inferred that though 41 respondents (27.33 per cent) opted Agree based on the level of performance while purchasing a smartphone are the important factors that help you in deciding.
6. it could be inferred that though 45 respondents (30 per cent) opted strongly Agree based on the level of operating system while purchasing a smartphone what are the important factors that help you in deciding.
7. it could be inferred that though 62 respondents (41.33 per cent) opted Agree based on the level of reputation while purchasing a smartphone are the important factors that help you in deciding.

## RECOMMENDATIONS

The journey from an unknown Chinese brand to be one of the top four most liked smartphone brand in Bangalore, OPPO has done a hectic job. But the market being more competitive day by day, OPPO has to create more awareness and establish their brand. OPPO's preference in providing good quality camera's in their smartness has already established them, but they should change their processor chips from MediaTek to Snapdragon in order to gain more trust among the consumers.

OPPO strictly follows "no discount" policy. This policy is maintained throughout the world to keep their prices same. Bangalore customers feel happy whenever a discount is offered. The "no discount" policy acts as a barrier for these customers. Hence, if OPPO strictly follows this policy, they have to come out with other offers such as gifts for their better promotion.

## CONCLUSION

Doing a research on this topic actually helped me a lot to find and understand the missing links that could help OPPO in creating better awareness. Though a research with this sample size concentrated in only one city gave a small idea about the customer's perception for the brand, it would be more helpful if the perception results could have been collected from the other cities too. That could have given a different overall perception then. Overall, OPPO is quite known to the people of Bangalore , but the use of OPPO smart phones is quite less compared to the other competitive brands. Hence, they should focus on products of all ranges. As the overall smart phone industry is getting more competitive, OPPO should become more aggressive with their advertisement to stand high. Globally OPPO is a well renowned brand but is still struggling in the local market of Bangalore . Hence, quality must be more emphasized into and hopefully the outcome will be more efficient to win the hearts of the local people of Bangalore .

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**ONLINE SHOPPING: EVALUATING THE RELATIONSHIPS AMONG APPARENT VALUE, PLEASURE AND TRUST BASED ON CUSTOMER'S VIEWPOINT**

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**Dr. Christuraja S.<sup>1</sup> and Dr. Arul R<sup>2</sup>**Associate Professor and Research Advisor<sup>1</sup>, Department of Commerce, Kristu Jayanti College (Autonomous) BengaluruAssistant Professor and Research Advisor<sup>2</sup>, PG Department of Commerce Computer Application St. Joseph's College (Autonomous), Tiruchirappalli

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**ABSTRACT**

*According to Swetapadma Mishra " People are online, Emotions are Offline" Online shopping attitude refers to consumer's psychological state in terms of making purchases on the Internet. There have been exhaustive studies of online shopping attitudes and behaviour in recent years. Most of them have attempted to identify factors influencing or contributing to online shopping attitudes and behaviour. The rapid growth in internet usage has brought about a paradigm shift in the way things are done and perceived. The Internet and worldwide web have dramatically changed the way consumers seek and use information. The Internet, which was earlier conceptualized as a tool for enchasing information, has become an important place of business these days. For businesses, the key to survival in the future depends on how well they can integrate this medium with their business model today. The customers' preferences, attitudes and perceptions need to be taken care of by the online sellers to flourish their business. Consuming habits have undergone tremendous change over the years after independence. The rising disposable income of the middle class emphasizes more on spending than on saving which is a new concept in Indian culture. A marked increase in the number of consumers who purchase over the Internet, as well as an increase in sales worldwide conducted via electronic commerce. Innovation and electronic commerce relationships have resulted in tremendous changes in market competition among various industries*

*Keywords: online shopping, enchasing information, innovation and so on.*

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**INTRODUCTION**

The motives behind the economic liberalization in 1991 in India were market expansion and augmenting local and foreign investment. The main investigators took the form of import tariff reduction, market deregulation, tax reduction and increase in foreign investment. In 1990 and 2000s the liberalization became an inevitable component of economy because of its ability to contribute significantly to the economic growth. The high economic growth increased the propensity to consume among the customers which was the main motivator of online purchasing of the Indian customers. The significance of liberalization and globalization is a mandatory growth of Indian economy (Pallavi and Pratima 2012). They issued a warning note that unlimited liberalization and globalization will leads to unnecessary muddle but to understand to what extent they are beneficial to the economy, they may have to be practiced. The mentality of customers to buy only in traditional method was replaced with an intention to buy online. This was a result of the influence of lifestyle that improved owing to the economic growth of the country.

**STATEMENT OF THE PROBLEM**

The liberalization and Globalisation of Indian economy invited wide variety of products available in online as well as off line shopping. In this situation of busy world consumers intended to purchase the product from the place of domicile.

The present business environment has made a vast change in the shopping behaviour of all irrespective of age, gender, income, occupation etc. The consumption pattern and buying behaviour of consumers has undergone a drastic change with the rapid change in technology. The present competitive environment and changes in technological development has a greater effect on the lifestyle and attitude of consumers who prefer online shopping.

**NEED OF THE STUDY**

Online shopping has become a major part of everyone's life. Peoples' attitude and lifestyle has brought a lot of change in the online shopping behavior. Everything is possible to be bought online these days. The capacity of people have changed lot in terms of financial strength, knowledge about online buying and internet usage, ease of shopping and many more reasons. However this dynamic change in shopping, demands the need to study about its consequences and outcomes. Online shoppers differ in terms of attitude.

**OBJECTIVES OF THE STUDY**

1. To study the attitudinal changes among the consumers of online shopping.
2. To determine the lifestyle dimensions of online shopping consumers.
3. To find the relationship between the attitude and lifestyle of online shopping consumers.
4. To measure the influence of demographic variables of online shopping consumers on their attitude and lifestyle.

**REVIEW OF LITERATURE**

A brief literature would be of immense help to the researcher in gaining insight into selected problem. The researcher would gain good background knowledge of the problem by reviewing certain studies. A reference to these entire studies will be related in the contest of the shaping the present study. There are very limited studies, which are directly relevant to the study concerned. They have been taken from journals, articles, PhD thesis and unpublished research work.

Weber, K. and Roehl, W. S. (1999)<sup>1</sup>, conducted a study on those who search for or purchase travel products through on-line with the age group of 26 to 55 years. Results on the basis of the study concerns about credit card security, evaluation of product quality, and privacy issues are the main problems faced while on-line purchase of travel products, were made.

Vellido et al. (2000)<sup>2</sup>, pointed out in his research, that there are nine factors associated with user's perception of online shopping. Among those factors the risk perception of users was demonstrated to be the main discriminator between people buying online and people not buying online. Other discriminating factors were control over, and convenience of, the shopping process, affordability of merchandise, customer service and ease of use of the shopping site.

Jarvenpaa et al, Tractinsky & Vitale (2000)<sup>3</sup>, tested a model of consumer attitude towards specific web base stores, in which perceptions of the store's reputation and size were assumed to affect consumer trust of the retailer. The level of trust was positively related to the attitude toward the store, and inversely related to the perception of the risks involved in buying from that store. The study concluded that the attitude and the risk perception affected the consumer's intention to buy from the store.

Bhatnagar, Misra, and Rao (2000)<sup>4</sup>, in their recent study made an attempt to study the risk, convenience and Internet shopping behavior. They found that marital status has no effect on purchase behavior and found mixed results based upon gender (except for specific gender-related products), years on the Internet, and age.

Lohse et al. (2000)<sup>5</sup>, used panel data to explore the predictors of online purchasing behavior. They found that the typical online consumers are characterized by their wired lifestyle, and are time starved. Therefore, they suggested providing customized information for the online shoppers who buy standard or repeat items, which can lead to shoppers gaining a feeling of increased convenience, and allow them to make quick purchase decisions.

Dr.Panicos Georgiades (2000)<sup>6</sup>, carried out in his study that there were no differences found between males and females in all three occupational groupings with regard to security and convenience. In particular respondents' attitudes toward security were found to be in agreement in that "they did not feel confident with the provision of information concerning their personal and financial details and that technology backing the Internet is reliable". This suggests that companies can standardize their communications strategies aiming at alleviating the fears of Internet users with regards to security concerns.

**TABLE-01: OFTEN SHOP ONLINE- WISE CLASSIFICATION OF THE RESPONDENTS.**

SHOPPING ONLINE	NO OF RESPONDENTS	PERCENTAGE
Once a week	18	13.33
At least once a month	36	26.67
Once in 2-4 months	26	19.26
Once in a year	20	14.81
According to the need	35	25.93
<b>TOTAL</b>	<b>135</b>	<b>100</b>

Source: Field Data

It could be ascertained from the *table-01*, 18 respondents (13.33 per cent) opted once a week based on the level of how often do you shop online, 36 respondents (26.67 per cent) opted at least once a month the level of how

often do you shop online, 26 respondents (19.26 per cent) opted once in 2-4 months the level of how often do you shop online, 20 respondents (14.81 per cent) opted once in a year the level of how often do you shop online, 35 respondents (25.93 per cent) opted according to the need based on the level of how often do you shop online.

Hence it could be ascertained that thought, 36 respondents (26.67 per cent) opted at least once a month the level of how often do you shop online.

**TABLE-02: USE FOR GATHERING INFORMATION ABOUT VARIOUS PRODUCTS- WISE CLASSIFICATION OF THE RESPONDENTS.**

GATHERING INFORMATION	NO OF RESPONDENTS	PERCENTAGE
Company Website	16	11.85
Search engines	41	30.37
Friends and family	31	22.96
Online advertisements	36	26.67
Others	11	8.15
<b>TOTAL</b>	<b>135</b>	<b>100</b>

Source: Field Data

It could be found from the *table-02*, 16 respondents (11.85 per cent) opted company website based on the level of use for gathering information about various products, 41 respondents (30.37 per cent) opted search engines based on the level of use for gathering information about various products, 31 respondents (22.96 per cent) opted friends and family based on the level of use for gathering information about various products, 36 respondents (26.67 per cent) opted online advertisements based on the level of use for gathering information about various products, 11 respondents (8.15 per cent) opted others based on the level of use for gathering information about various products.

Hence it could be found that thought 41 respondents (30.37 per cent) opted search engines based on the level of use for gathering information about various products.

**TABLE-03: BUY THROUGH ONLINE- WISE CLASSIFICATION OF THE RESPONDENTS.**

BUY THROUGH ONLINE	NO OF RESPONDENTS	PERCENTAGE
Books	20	14.81
Airlines & Railway ticked booking	61	45.19
Electronic goods	23	17.04
Gifts, Greetings, Flowers	10	7.40
Others	21	15.56
<b>TOTAL</b>	<b>135</b>	<b>100</b>

Source: Field Data

It could be inferred from the *table-03*, 20 respondents (14.81 per cent) opted books based on the level of what do you buy through online, 61 respondents (45.19 per cent) opted Airlines & Railway ticked booking based on the level of what do you buy through online, 23 respondents (17.04 per cent) opted electronic goods based on the level of what do you buy through online, 10 respondents (7.40 per cent) opted Gifts, Greetings, Flowers based on the level of what do you buy through online, 21 respondents (15.56 per cent) opted others based on the level of what do you buy through online.

Hence it could be inferred that thought 61 respondents (45.19 per cent) opted Airlines & Railway ticked booking based on the level of what do you buy through online.

**TABLE-04: SALES SERVICE IS TIME TAKING AND DIFFICULT FOR ONLINE PURCHASE OPINION TOWARDS THE INFRASTRUCTURE VARIABLES-WISE CLASSIFICATION OF THE RESPONDENTS**

INFRASTRUCTURE VARIABLES	NO OF RESPONDENTS	PERCENTAGE
Strongly Agree	28	20.74
Agree	49	36.30
No opinion	24	17.78
Disagree	12	8.89
Strongly Disagree	22	16.29

Source :Field Data

It could be observed from the *table-04*, 28 respondents (20.74 per cent) opted strongly agree based on the level of sales service is time taking and difficult for online purchase opinion towards the infrastructure variables, 49 respondents (36.30 per cent) opted agree based on the level of sales service Is time taking and difficult for online purchase opinion towards the infrastructure variables, 24 respondents (17.78 per cent) opted no opinion based on the level of sales service is time taking and difficult for online purchase opinion towards the infrastructure variable, 12 respondents (8.89 per cent) opted disagree based on the level of sales service Is time taking and difficult for online purchase opinion towards the infrastructure variables, 22 respondents (16.29 per cent) opted strongly disagree based on the level of sales service is time taking and difficult for online purchase opinion towards the infrastructure variables.

Hence it could be observed that thought 49 respondents (36.30 per cent) opted agree based on the level of sales service Is time taking and difficult for online purchase opinion towards the infrastructure variables.

**TABLE-05: OPINION ABOUT THE PRIVACY PROTECTION REGARDING ON-LINE SHOPPING - WISE CLASSIFICATION OF THE RESPONDENTS.**

PRIVACY PROTECTION	NO OF RESPONDENTS	PERCENTAGE
Not Important	23	17.03
Some What Important	34	25.19
Very Important	78	57.78
<b>TOTAL</b>	<b>135</b>	<b>100</b>

Source: Field Data

It could be ascertained from the *table -05*, 23 respondents (17.03 per cent) opted not important based on the level of impact of opinion about the privacy protection regarding on-line shopping, 34 respondents (25.19 per cent) opted some what important based on the level of impact of opinion about the privacy protection regarding on-line shopping, 78 respondents (57.78 per cent) opted very important based on the level of impact of opinion about the privacy protection regarding on-line shopping.

Hence it could be ascertained that thought 78 respondents (57.78 per cent) opted very important based on the level of impact of opinion about the privacy protection regarding on-line shopping.

**TABLE-06: OPINION ABOUT THE PRODUCT VARIETY REGARDING ON-LINE SHOPPING - WISE CLASSIFICATION OF THE RESPONDENTS.**

PRODUCT VARIETY	NO OF RESPONDENTS	PERCENTAGE
Not Important	34	25.19
Some What Important	76	56.29
Very Important	25	18.52
<b>TOTAL</b>	<b>135</b>	<b>100</b>

Source: Field Data

It could be observed from the *table -06*, 34 respondents (25.19 per cent) opted not important based on the level of opinion about the product variety regarding on-line shopping, 76 respondents (56.29 per cent) opted some what important based on the level of opinion about the product variety regarding on-line shopping, 25 respondents (18.52 per cent) opted very important based on the level of opinion about the product variety regarding on-line shopping.

Hence it could be observed that thought 76 respondents (56.29 per cent) opted some what important based on the level of opinion about the product variety regarding on-line shopping.

**TABLE-07: ONLINE SHOPPING IS AS SECURED AS TRADITIONAL SHOPPING-WISE CLASSIFICATION OF THE RESPONDENTS.**

SECURED AS TRADITIONAL SHOPPING	NO OF RESPONDENTS	PERCENTAGE
Strongly AGREE	55	40.74
Agree	23	17.04
No opinion	17	12.59
Disagree	15	11.11
Strongly Disagree	25	18.52
<b>TOTAL</b>	<b>135</b>	<b>100</b>

Source: Field Data

It could be ascertained from the *table-07*, 55 respondents (40.74 per cent) opted strongly agree based on the level of online shopping is as secured as traditional shopping, 23 respondents (17.04 per cent) opted agree based on the level of online shopping is as secured as traditional shopping, 17 respondents (12.59 per cent) opted no opinion based on the level of online shopping is as secured as traditional shopping, 15 respondents (11.11 per cent) opted disagree based on the level of online shopping is as secured as traditional shopping, 25 respondents (18.52 per cent) opted strongly disagree based on the level of online shopping is as secured as traditional shopping.

Hence it could be ascertained that thought 55 respondents (40.74 per cent) opted strongly agree based on the level of online shopping is as secured as traditional shopping.

**TABLE-08: COMPARISION OF PRODUCT / BRANDS ARE RELATIVELY EASY -WISE CLASSIFICATION OF THE RESPONDENTS.**

COMPARISION OF PRODUCT/ BRANDS	NO OF RESPONDENTS	PERCENTAGE
Strongly Agree	32	23.70
Agree	45	33.33
No opinion	28	20.74
Disagree	14	10.37
Strongly Disagree	16	11.86
<b>TOTAL</b>	<b>135</b>	<b>100</b>

Source: Field Data

It could be understood from the *table-08*, 32 respondents (23.70 per cent) opted strongly agree based on the level of safety for the doing money transaction for shopping, 45 respondents (33.33 per cent) opted agree based on the level of comparison of product / brands are relatively easy, 28 respondents (20.74 per cent) opted no opinion based on the level of comparison of product / brands are relatively easy, 14 respondents (10.37 per cent) opted disagree based on the level of comparison of product / brands are relatively easy, 16 respondents (11.86 per cent) opted strongly disagree based on the level of comparison of product / brands are relatively easy.

Hence it could be understood that thought 45 respondents (33.33 per cent) opted agree based on the level of comparison of product / brands are relatively easy.

**TABLE-09: PRODUCT ARE DELIVERED TO MY DOORSTEPS-WISE CLASSIFICATION OF THE RESPONDENTS.**

DELIVERED TO MY DOORSTEPS	NO OF RESPONDENTS	PERCENTAGE
Strongly Agree	33	24.44
Agree	44	32.59
No opinion	20	14.81
Disagree	16	11.87
Strongly Disagree	22	16.29
<b>TOTAL</b>	<b>135</b>	<b>100</b>

Source: Field Data

It could be inferred from the *table-09*, 33 respondents (24.44 per cent) opted strongly agree based on the level of product are delivered to my doorsteps, 44 respondents (32.59 per cent) opted agree based on the level of product are delivered to my doorsteps, 20 respondents (14.81 per cent) opted no opinion based on the level of product are delivered to my doorsteps, 16 respondents (11.87 per cent) opted disagree based on the level of product are delivered to my doorsteps, 22 respondents (16.29 per cent) opted strongly disagree based on the level of product are delivered to my doorsteps.

Hence it could be inferred that thought 44 respondents (32.59 per cent) opted agree based on the level of product are delivered to my doorsteps.

## FINDINGS

1. It could be ascertained that thought, 36 respondents (26.67 per cent) opted at least once a month the level of how often do you shop online.
2. It could be found that thought 41 respondents (30.37 per cent) opted search engines based on the level of use for gathering information about various products.

3. It could be inferred that thought 61 respondents (45.19 per cent) opted Airlines & Railway ticket booking based on the level of what do you buy through online.
4. It could be observed that thought 49 respondents (36.30 per cent) opted agree based on the level of sales service Is time taking and difficult for online purchase opinion towards the infrastructure variables.
5. It could be ascertained that thought 78 respondents (57.78 per cent) opted very important based on the level of impact of opinion about the privacy protection regarding on-line shopping.
6. It could be observed that thought 76 respondents (56.29 per cent) opted some what important based on the level of opinion about the product variety regarding on-line shopping.
7. It could be ascertained that thought 55 respondents (40.74 per cent) opted strongly agree based on the level of online shopping is as secured as traditional shopping.
8. It could be understood that thought 45 respondents (33.33 per cent) opted agree based on the level of comparison of product / brands are relatively easy.
9. It could be inferred that thought 44 respondents (32.59 per cent) opted agree based on the level of product are delivered to my doorsteps.

### **CONCLUSION**

Considering the possible of online retail in India, the present study examined effect of perceived service quality, supposed product quality and apparent product fairness have on trust and promise mediated by perceived value and approval in an online shopping context. Online shopping attitude refers to consumer's psychological state in terms of making purchases on the Internet. There have been exhaustive studies of online shopping attitudes and behavior in recent years. Most of them have attempted to identify factors influencing or contributing to online shopping attitudes and behavior. The rapid growth in internet usage has brought about a paradigm shift in the way things are done and perceived.

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**E-COMMERCE IN INTERNATIONAL TRADE**

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**Kripa Kamalan and Divya A**  
Student, NSS College, Nilamel, Kollam

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**ABSTRACT**

*The paper is focused on E-commerce on international trade. Electronic commerce offers economy- wide benefit to all countries. E-commerce plays a vital role in the growth of international business. It covers different types of business like banking , sales, distribution etc.. E-commerce opens a channel for global business. E-commerce is vital due to its ability to go beyond and connect individuals in different parts of the world. E-commerce brings powerful momentum in international trade.*

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**INTRODUCTION**

Electronic commerce offers economy wide advantages to all or any countries. E-commerce offers major opportunities to grow international business, particularly for smaller firm those face bigger relative challenges once it involves serving foreign market. Electronic commerce guarantees to be associated existing an innovative change to the way that trade is currently conducted .through E-commerce there are a lot of import and export activities are happening in every year

. E-commerce plays a vital role in the reduction of transaction costs, growing trade opportunities and improving service delivery. Ecommerce is vital due to its ability to go across borders and connect individuals in different parts of the world. If your geographical location is deprived of certain commodities and services..

The most benefits of e-commerce is that web sites are available 24\*7 which means transact business 24 hrs a day 7 days a week .Telecommunication technologies has an important role in the development of international trade.

**IMPORTANCE OF E-COMMERCE IN TODAY'S INTERNATIONAL TRADE**

E-commerce is an important profit driver for business. Most of the things in online store are automatic .E-commerce has become an important part of business in the modern era. E-commerce is very profitable in the present scenario. All kind of businesses are using E-commerce activities to gain huge profit , E-commerce activities are the best platform to bring retailers, manufactures and clients at the same place.

Following are the importance of E-commerce in international trade:

➤ **Way of increasing sales**

Every online business seeks the large number of customers .Customers visit only those sites, which have a good user interface, good shopping tools and better discount offers. Through E-commerce site you can provide easy transaction methods to your customers and improve online shopping experience as well.

➤ **Regular customers**

Every online user loves to shop at a site, where maximum payment options are available. If you do business through an E-commerce website, your online shopping site will provide better payment option. It is a convenient method for shopping a regular customer.

➤ **No time restriction**

E-Commerce website offers 24\*7 shopping facility which is quite benefit for the business owners. There is no restriction on sellers and buyers can conduct transaction at any time at anywhere in the world.

➤ **Easier faster and cheaper**

E-business make it easier, faster and cheaper for business to communicate with their suppliers and customers. Using e-mail and all these online trade transactions such as buying and selling of goods could done in anywhere in the world

➤ **High quality customer services**

E commerce provides better quality services to customers like search for quality products, comparing the price selecting the product, payment, receiving the product can be done by the customers through e commerce

➤ **International co-operations and understanding**

E-commerce provide wide range of relationship between international level. Easier to communicate throughout the boundaries and there by provide a customer relationship.

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**ADVANTAGES OF E-COMMERCE IN INTERNATIONAL TRADE**

- International Reach
- It helps in business for profit maximisation
- Helps to reduce cost
- It helps to eliminate middle men
- Better choice
- Quick transfer of fund
- Provides faster and efficient marketing
- It provides quick delivery and online reservation
- No transportation cost
- Low start up cost
- High quality customer services
- Availability of all type of goods

**DISADVANTAGES OF E-COMMERCE INTERNATIONAL TRADE**

- Face competition from national and international competitors
- Complicated technical procedure
- Non suitability for all type of goods, especially perishable goods
- Lack of qualified personnel
- Adverse effect on economy
- Lack of relationship with customers
- Lack of personal touch
- Less security and privacy
- Time lag
- Not suitable for illiterate people

**LARGEST E-COMMERCE COMPANIES IN THE WORLD**

- Amazon, Inc.
- Jingdong
- Alibaba Group Holding Ltd
- eBay Inc.
- Rakuten, Inc.
- B2W Companhia Digital
- Zalando
- Groupon

**LARGEST E-COMMERCE COMPANIES IN INDIA**

- Flipkart Internet Pvt Ltd
- FSN E-commerce Ventures Pvt Ltd
- India MART InterMESH Ltd
- Jasper infotech Pvt Ltd
- PayU payments Pvt Ltd
- One97 Communications Ltd



➤ MakeMyTrip India Pvt Ltd

### **APPLICATIONS OF E-COMMERCE IN INTERNATIONAL TRADE**

E-commerce is an international trade tool innovation, which has increasingly shown its important role in global production in recent years. Companies involved in the international market, marketing and e-commerce companies have developed ways of global business.

International trade e-commerce is the whole process of using modern communication technology, computer technology and network technology, electronic data transmission from the complete establishment of trade relations, commercial negotiation, an electronic contract to charter, booking, customer declaration and inspection. Due to its significant functional advantage of the huge economic and social role in promoting economic globalisation, International trade e-commerce show strong vitality and is changing the traditional international trade business idea.

### **ESSENCE OF THE COMBINATION OF E-COMMERCE AND INTERNATIONAL TRADE**

One of the main reasons that drive this rapid development of international trade is the emergence of the internet and e-commerce, because through which new mode of operation time, cost and effort are saved. In international trade, importers and exporters have their own independent business purpose. Similarly, the use of the internet and e-commerce international trade process optimisation must also be independent importers and exporters over the internet for commercial purposes, the use of new technology, soft ware, services and supporting processes to be connected to each other, so as to enable both sides reach their goal. In general, importers hope to find the most suitable suppliers through the internet for the procurement of goods, compare and evaluate product features and the ability of the companies different suppliers, get the latest and most timely information of providers.

### **TYPES OF E-COMMERCE IN INTERNATIONAL TRADE**

The word e-commerce refers to a variety of online business activities for product and services. E-commerce can be classified in a number of ways. Based on the nature of the parties involved the following are the types of e-commerce.

#### **1. Business To Business(B2B)**

B2B is the largest form of e-commerce, in which businesses focus on selling to other businesses. In business to business e-commerce, a company conducts its trading and other commercial activity through the internet and the customer is another business itself.

#### **2. Business To Customer(B2C)**

When an individual buys items from a shop using the internet and the entire transaction is carried out electronically, we call it business to customer e-commerce. One of the earliest e-shops is amazon.com started in 1995.

#### **3. Customer To Customer (C2C)**

In C2C e-commerce, consumers sell products or services to other consumers via online to citizen e-commerce. Online auction is a good example. Consumers can post items for sale in the website and other consumer bid to purchase it.

#### **4. Customer To Business(C2B)**

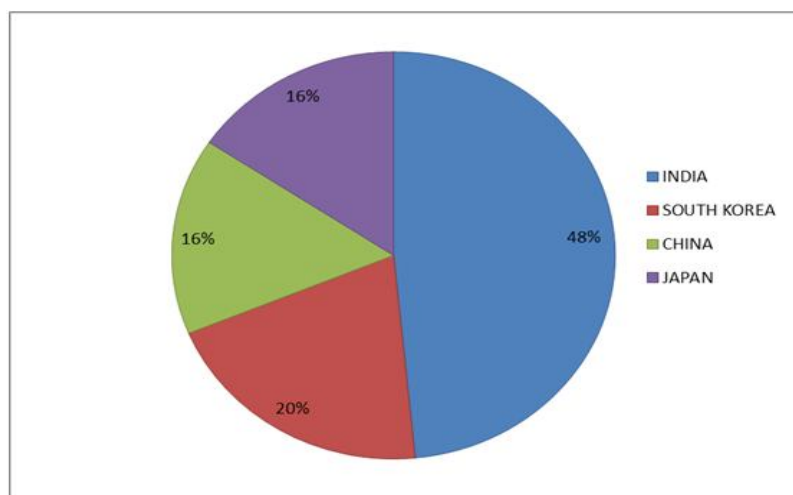
In C2B, Consumers offer products and services to companies. This enables the buyers to name their price for the product. Reverse auction.com, and priceline.com are the example of C2B ecommerce.

#### **5. Business To Employees (B2E)**

This is intra business activities, which allow companies to provide product and services to their employees. The B2E network is used to automate employee related activities like online insurance, online supply request etc.

#### **6. Business To Government (B2G)**

E-commerce between companies and the government is usually referred as business to government e-commerce. In practice it means the use of internet for licensing procedures, public procurement and other government related operations.

**SALE ON E- COMMERCE IN INTERNATIONAL TRADE**
**(2016-2019)**

**OPPORTUNITIES FOR E-COMMERCE IN INTERNATIONAL TRADE**

- Global Sourcing of raw materials
- Out sourcing of services
- Growth of information technology tools, including the internet and electronic commerce make business transaction are faster and more global
- Opportunity to become broad- based . Firms find it easier to manage downturns as they can enter markets in emerging economies.
- It facilitate global reach
- International co-operation and understanding
- Better standard of living
- Easier to communicate throughout the boundaries

**POLICY FOR REGULATIONS OF E-COMMERCE IN INTERNATIONAL TRADE**

E-commerce activities square measure ruled by variety of rules and Acts of the govt. consumer Protection Act, 1986 has been enacted to higher defend the interest of the customers that covers all merchandise and services and every one modes of dealings as well as e-commerce. E-commerce companies have to comply with the Companies Act, 2013 and other applicable laws of the country.

Such companies with Foreign Direct Investment (FDI) can operate only in activities which are specifically permitted. Any violation of FDI rules area unit lined by the penal provisions of the FEMA . Depository financial institution of India administers the FEMA and board of directors of social control below the ministry of finance is that the authority for the social control of FEMA

**CONCLUSION**

E commerce is any kind of business dealings within which the parties act electronically over the web instead of by physical exchange. Electronic commerce offers economy wide benefit to all countries. Electronic commerce is expected to create and destroy jobs.

The volume of international trade will increase through e-commerce. E-commerce plays a significant role on trade service. Number of companies provides several products through the internet. Majority of customers lives in rural areas do not have sufficient knowledge in e-commerce.. International trade on commerce are help in several ways such as improving the trade quality and efficiency, better standard of living, international reach etc.

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- <https://www.americanexpress.com>

## A STUDY ON THE ATTITUDE OF GOODS AND SERVICES TAX AMONGST MSME WITH SPECIAL REFERENCE TO BANGALORE CITY

**Shashi kumar M<sup>1</sup> and Dr. P. Balachandar<sup>2</sup>**

Assistant Professor<sup>1</sup>, Department of Commerce, Kristu Jayanti College, Bangalore

Research Adviser<sup>2</sup>, PG & Research, Department of Commerce, Arignar Anna Government Arts College, Musiri

### ABSTRACT

*The biggest employer after agriculture sector is MSME. The MSME (Micro, small and Medium Enterprise) is one the sector which emerged great growth over many decades in India and contributes to GDP around 6.11% of the manufacturing GDP and 24.63% of the GDP from service sector, 33.4% of India manufacturing output. MSME provides job Opportunities around 120 million people. the sector maintains growth rate of 10% and in rural area around 20%. GST –Goods and Service Tax which was introduced in India on 1<sup>st</sup> July 2017, its tax system were both state and central government administrate with the three type of GSTs i.e., SGCT, CGST, IGST. Which has four type of tax slab 5%,12%,18%, 28% The Tax is the main source of income any country. Hence study is done to undertaken to known the perception of MSME enterprise towards GST in Bangalore. With the sample of 50 units in Bangalore, the collected will be analysed with help of SPSS.*

*Keyword: GST, MSME, GDP, Tax.*

### INTRODUCTION

The Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. It contributes significantly in the economic and social development of the country by fostering entrepreneurship and generating largest employment opportunities at comparatively lower capital cost, next only to agriculture. MSMEs are complementary to large industries as ancillary units and this sector contributes significantly in the inclusive industrial development of the country.

GST was introduced in India on 1<sup>st</sup> July 2017, which has three forms of tax i.e., SGST or UGST, CGST, IGST. SGST is state tax or UGST is union territory, CGST is Central Tax, IGST is tax when the transaction is between the states the IGST comes into picture. GST registration is the done GSTIN for which PAN (Permanent Account Number) is required. GST Return period quarterly once, GST Registration applicable when turnover exceed Rs. 2000000 Lakhs (Rs. 1000000 Lakhs for North eastern States).

### OBJECTIVE

- To understand the attitude of GST amongst MSME Sector.
- To know the Tax ability of MSME sector.

### HYPOTHESIS OF THE STUDY

H1	H <sub>0</sub>	There is no difference in tax payment in VAT and GST
	H <sub>1</sub>	There is a difference in tax payment in VAT and GST

### STATEMENT OF THE PROBLEM

The tax is the one main sources of income for any country, but when we see in the perspective of tax payer the tax is burden especial to the businessman, earlier they used two different tax i.e., direct tax and indirect tax. Direct tax on their income they used pay on flat rate of tax When see the indirect tax the local business is eligible to pay tax when the gross turnover of the companies cross 40 lakhs under VAT but in the present the under GST if a company's turnover exceed 20 lakhs then they eligible to pay tax, payment of tax is through online portal and its compulsory hence this lead to problem towards the business personnel in India hence the study is undertaken.

### REVIEW OF LITERATURE

(Anand Nayyar, February 2018 )A Comprehensive Analysis of Goods and Services Tax (GST) in India, the researchers concluded, all sectors in India - manufacturing, service, telecom, automobile and small SMEs will bear the impact of GST. One of the biggest taxation reform- GST will bind the entire nation under a single taxation system rate. As forecasted by experts, GST will improvise tax collections and boost up India's economic development and break all tax barriers between Central and State Governments. No doubt, GST will give India a clear and transparent taxation system.

(Vidit Mohan, 2018) Assessment of the Implications of GST (Goods and Services Tax) Rollout on Indian MSMEs the researcher concluded The detailed face-to-face semi-structured interviews helped us to identify the

real issues and challenges faced by MSME owners over the adoption of GST. It also pointed out various deficiencies in the system that especially warrants institutional attention. The questionnaire survey that followed indicated the need for government initiatives and training on GST awareness for MSMEs and its subsequent impact on their profitability.

## METHODOLOGY

The study is explorative in nature and is based on both the primary and the secondary data. Secondary data was collected from various sources such as; the websites, books and journals, while primary data is collected through a structured questionnaire from 50 MSMEs units based on Random sampling. The data were analysed and interpreted with the help of SPSS software. Statistical tools are Paired T-test. One way Anova, correlation

## MAJOR FINDINGS

- All the respondents pay the Tax under GST
- Most of the respondents feels that payment of GST in online Portal preferable
- Majority of the respondent feels that the registration limit GST should be increased
- Most respondents pay more penalty in GST compare to VAT.
- Tax payment under GST is more compare to VAT

## DATA ANALYSIS AND INTERPRETATION

TAX paying attitude under VAT and GST

Paired Samples Test							
	Paired Differences				t	df	Sig. (2-tailed)
	Mean	Std. Deviation	95% Confidence Interval of the Difference				
			Lower	Upper			
Tax payment under VAT Tax payment under GST	.26000	.66425	.07122	.44878	2.768	49	.008

The Above table shown explain the paired difference between payment of tax VAT and GST in which it can be seen that theirs difference and paired t test value are 2.768 and degree of freedom is 49 , significance level(5%) is p and p values of this variable 0.008, from which researcher comes to conclusion i.e., reject the null hypothesis and Accept the alternative hypothesis: There is a difference in payment of tax

H1	H <sub>0</sub>	There is no difference in tax payment in VAT and GST	P>.05(Accept) P<.05(Reject)
	H <sub>1</sub>	There is a difference in tax payment in VAT and GST	P>.05(Reject) P<.05(Accept)

Correlation between payment of GST tax payment and Tax Burden

Correlations			
		Do you pay tax under gst	tax burden reduced
Do you pay tax under GST	Pearson Correlation	1	.021
	Sig. (2-tailed)		.883
	N	50	50
Tax burden reduced	Pearson Correlation	.021	1
	Sig. (2-tailed)	.883	
	N	50	50

The correlation between two variables payment of tax and feel of tax is burden , there is low positive correlation the values .021 between GST and Tax Burden and level of significance .883 i.e.,...883>.001 Hence it can been said that theirs enough evidence to suggest that theirs no correlation observed does exit in the population and the GST and Tax burden. Sample feel that it's a burden but they pay GST

**Different Business and Tax Payment**

ANOVA					
Different Business					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.063	1	1.063	2.436	.125
Within Groups	20.938	48	.436		
Total	22.000	49			

Business Type statistical value is 2.436 with significance value  $0.125 > 0.05$ , implies accept the null hypothesis. The researcher concludes that there's no relation in type business and payment of tax which means that all the business type people they pay tax under GST.

**CONCLUSION**

MSME is growing sector in India where the enterprise enter and exit market freely, which contribute to our GDP more than other sector and provide more job oppurnities. The implementation of GST has a major impact on sector in initial stage, it was burden since they have to register online to access the tax provision but at present they are adjusted with the system specially with the online payment option which is easily accessible by the sector but they require more changes. Now they feel proud to be in mission of 'ONE NATION, ONE TAX' – the GST

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**THE IMPACT OF EMOTIONAL FACTORS ON INVESTMENT DECISIONS**

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**Jibu P Joseph<sup>1</sup> and Dr. Suresh. B<sup>2</sup>**Research Scholar<sup>1</sup> and Associate Professor<sup>2</sup>, Department of Management, Christ (Deemed To Be University)**ABSTRACT**

*In a developing economy investment plays a vital role in the development of the economic background and growth of the nation. As a country like India investment plays a crucial role in different avenues. It includes telecommunication, share market, insurance, government investments etc. as an investor he or she looks investment as a profit sector, retirement benefits sector, thrilled, hopeful etc. Through this study the factors that influence the investment decision in addition to emotions are identified. Emotions are the inevitable factors that will create new human being. The investment decision of an individual is influenced directly or indirectly by the emotional factors. The emotional factors includes motivation, encouragement, optimism, greed, hopeful etc. The research lacks to identify the emotional factors that influence the investment decision. In order to fill this gap the study aims to identify the impact of emotional factors on investment decision.*

*Keywords: Emotional factors, Investment, Growth, Buying behaviour*

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**INTRODUCTION**

Human beings are creatures of emotion. We are capable to turn our emotion into a creative and enriching force within us. Emotions are very powerful force of movement in one's life. So emotion is a beautiful aspect of human life, without which human being life become ugly. To be human is to be associated with emotions. But at the same time if it is not controlled then it goes as mad. It is very important to learn how to turn your emotions to creativity for the better life.

When we analyse from the perspective of psychological dimension in the area of investment decision we can see three aspects play an important role. They are: risk taking behaviour, experimental and survivals. Behaviour of consumer plays an important role in the investment decision. Here A B C behaviour of the customer plays a vital role. A- Antecedents or rationalisation, B- behaviour, personality and optimistic approaches of the consumer and C- consequences after the investments. In investment risk plays an important role. Among investors we can find two categories: Risk taking and Risk adverse people. These are based on gain or lose theory.

Generally an investment means to purchase some asset hoping that this would create more value in the future. Any action in the hope of raising capital in the future revenue can be considered as an investment. This kind of buying and selling the shares in the stock market generally will boost the economy of the country. And money will be in circulation and the company can raise their capital through IPO and hence they can expand their business. As a result the investors will be able to draw dividend. The better growth and performance of a particular company definitely would be a motivation for the existing investors and as well as the new ones. Generally behavioural finance tries to understand and explain the reasoning patterns of the investors especially in the areas of emotional process involved in decision making process of an individual. And also it explains the what, why and how of financing investment from the individual.

**REVIEW OF LITERATURE**

(Lascu, Babb & Philips, 1997). The current theory is unclear about the effect of gender influence on investment strategy. Their decision is based on risk, experience, information, former education and not gender. In both genders psychology plays an important role to handle the risk in their investment. Tries to invest in the safer vehicle.

(Daniel & Mark, 1998). The study points out the importance of financial advising to guide the investors in proper direction. In order to advise the investors, one should have accurate knowledge of cognitive and emotional aspect of the investors. He also needs to do proper analysis of the investors' emotions and interest.

(Iyer & Baskar, 2002). The study analyses the mind-set of the investors and identifies psychological factors such as overconfidence, greed, fear, hope, sentimentality etc., which help the investors to make investment decision. While making an investment decision investors need to think in line with psychological factors and rational factors. It would definitely give the investors the best output.

(Deakin, Aitken, Robbins & Sahakian, 2004) Decision making processes is depend mainly on risk factors. Risk tolerance factor is depend on the age. Quality of decision making is how an individual approach towards the risk

and other factors. This study realise that both sex showed similar patterns towards the risk. This study looks into risk tolerance, reflection impulsivity and delay aversion.

(Lawson & Hershey, 2005) The authors examine three effects of psychological variables on retirement savings. The findings of the study reveal that these three variables are more closely associated with aggressive saving profiles. There is a significant relationship between risk tolerance and saving tendencies. Here in the study they found out that the demographic situation also plays an important role in the decision behaviour of the individual.

(A. Charles & R. Kasilingam, 2013). This study tries to find out the sentimental and its influence on investment decision. Normally people are driven by their belief system which is based on their experience. This study finds out that demographic and investment variables which influence the investors' decision. Here optimism and pessimism also play an important role.

(Charles & Kasilingam, 2014) The study focuses on how investor's different frames determine their on investment decisions. Further, it concentrates on investment awareness and factors and their investment personality. Investors' investment personality is determined by psychological factors. The results of the study reveal that decision is based on the awareness and personality of the investors.

(Charles & Kasilingam, 2014) This study states that traditionally people collect information and the investors rationally approach towards the investment decision. Now the psychological factors also play an important role in the decision process. The contribution of this behavioural finance is not rejecting the fundamental principle but rather adding certain internal factors for efficient market decision. Emotions and feelings experienced at the time of decision pulls the behaviour of an investor.

(Ihtesham, Ullah & Rehman, 2017). This study focuses on the overconfidence and optimism level of the investors and how they affect the investment decision. People sacrifice today's money for the good return in the future. Based on the optimism level of the individual one is ready to take risk. Risk and return are related to each other. Emotion towards future tends to take decision by the investors.

(Sashikala & Chitramani, 2017) Investors are in a way bound to be emotional while taking investment decision. Here tries to look upon the relationship between investment behaviour and emotional intelligence. Investment decision is based on different factors which influence during that moment. Individual investors are not always rational but rather look on the return. The factor risk effect on the investment decision.

## OBJECTIVES

- To identify the emotional factors that influence investment choices with regard to risky and risk free instruments.

## ANALYSIS OF DATA

To achieve the objective of the study IBM SPSS was used for analysing the data. Descriptive statistic was used for evaluating demographic factors of the respondents. Exploratory factor analysis was used for finding out the major factors that influence investment decision. For this 150 data was collected through structured questionnaire.

## METHODOLOGY

### Demographic profile of respondents

Out of the data collected from the 150 respondent 97 respondents were male that is 64.7%. It states that majority of respondents belongs to the gender category male. According to survey data female respondents (52) 34.7% and others were only .7%.

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	97	64.7	64.7	64.7
	Female	52	34.7	34.7	99.3
	Others	1	.7	.7	100.0
	Total	150	100.0	100.0	

**Age category of the respondents**

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21- 40	105	70.0	70.0	70.0
	41- 60	44	29.3	29.3	99.3
	Above 60	1	.7	.7	100.0
	Total	150	100.0	100.0	

The figure shows that 70% of the respondents belongs to the age group between 21- 40 years, 29.3% between 41- 60 years of age, .7% above 60 years of age. The age group indicates that a comparatively younger generations.

**Education profile of the respondents**

		Education			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary	1	.7	.7	.7
	Higher Secondary	3	2.0	2.0	2.7
	UG	43	28.7	28.7	31.3
	Post Graduate	97	64.7	64.7	96.0
	Others	6	4.0	4.0	100.0
	Total	150	100.0	100.0	

The above data indicates that more than half of the respondents (97), 64.7% who have post graduate are investing in the stock markets. About (43), 28.7% of them are holders of degree, the people who hold other professions (6), 4% and one person belongs to secondary education with .7% in investment.

**Annual income of the respondents**

		Annual Income			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Up to 200000	36	24.0	24.0	24.0
	200001 to 400000	56	37.3	37.3	61.3
	400001 to 600000	21	14.0	14.0	75.3
	Above 600001	37	24.7	24.7	100.0
	Total	150	100.0	100.0	

When we analysis the income of the respondents 37.3% of them falls under the category from 200001 to 400000. And 24.7% is above 60000, 24% is between up to 200000 and the 14% of the respondents falls between the incomes of 400001 to 600000.

**Factors Identified**

Categories	Variables
Risk Factors	I associate the word risk with idea of opportunity
	I view risk in investment as a situation to be avoided
	I would show my willingness to take risk in financial decision
	I generally look for safer investments, even if that means lower returns
	I prefer to invest in low risk/high return stocks with a steady performance
Emotional Factors:	Motivation
	confidence
	Encouragement
	Regret Aversion
	Greed
	Past Experience
	Information
	Cognitive Dissonance
	Prediction



KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.820
Bartlett's Test of Sphericity	Approx. Chi-Square	825.259
	df	136
	Sig.	.000

Through the factor analysis it has been found out that the significance level is less than 0.05 that is significance level after conducting factor analysis is .000 which states that the data collected was highly significant. The able shows that the sampling adequacy value of .820 falls in the acceptable range that is above .50. So we can conclude by saying that exploratory factor analysis is suitable for analysing the data. The variables are found to be above the value of .50 it indicates that none of the variables are excluded from the analysis and all the variables are retained with corresponding factors.

#### Final Factors Extracted

Factor	Variables	Component
Judgemental Factor	Whether your overconfidence plays a role in investment decision	.813
	Whether your investment decision is based on greed?	.798
	Feelings of Cognitive Dissonance leads to investment decision	.786
	Do you rely upon first piece of information available	.658
	I view risk in investment as a situation to be avoided	.492
Protective Factor	I would show my willingness to take risk in financial decision	.764
	Use of past experience to guide the decision making process.	.634
	I associate the word risk with idea of opportunity	.625
	Whether your prediction plays an important role in investment decision	.613
	Would go for the best possible return even if there is risk involved	.566
Motivational Factors	I intend to put at least half of my investment money into the stock market	.741
	Are you confident in your investment decision?	.602
	Are you encouraging other investors in taking their investment decision?	.548
	How do you react upon on regret aversion in an investment?	.485
	Will you be getting motivated from other investors	.423
Expected Rate of Return	I generally look for safer investments, even if that means lower returns	.849
	I prefer to invest in low risk/high return stocks with a steady performance	.845

The above table points out the final factors that are relevant for the study. It has been found out that judgemental factors have contributed maximum to the investment decision. Judgemental factors includes, whether your overconfidence plays a role in investment decision 81.3%, whether your investment decision is based on greed? 79.8%, Feelings of Cognitive Dissonance leads to investment decision 78.6%, do you rely upon first piece of information available 65.8%, I view risk in investment as a situation to be avoided 49.2%. the protective factors includes the variables like, I would show my willingness to take risk in financial decision 76.4%, Use of past experience to guide the decision making process 63.4%, I associate the word risk with idea of opportunity 62.5%, Whether your prediction plays an important role in investment decision 61.3%, Would go for the best possible return even if there is risk involved 56.6%. The motivational factors also includes certain variables like, I intend to put at least half of my investment money into the stock market 74.1%, Are you confident in your investment decision? 60.2%, Are you encouraging other investors in taking their investment decision? 54.8%, how do you react upon on regret aversion in an investment? 48.5%, Will you be getting motivated from other investors 42.3%. the expected rate of return includes the variables like, I generally look for safer investments, even if that means lower returns 84.9%, I prefer to invest in low risk/high return stocks with a steady performance 84.5%.

**Total Variance Explained**

Component	Factor Name	Eigen Value	% of Variance
1	Judgemental Factor	5.025	29.560
2	Protective Factor	2.090	12.294
3	Motivational Factors	1.496	8.801
4	Expected Rate of Return	1.284	7.551
Total			58.226

From the above table it has been found out that the judgement factors have played a key role in investment decision with 29.560%, followed by the protective factors 12.294% influences on individual for their investment decision. Motivational factors 8.801% and expected rate of return 7.551% plays an important role in the investment decision of an individual. This study reveals that investment decision is influenced by mainly by these four factors. And the study points out that how deep the emotions of human being is related to make investment decisions.

**CONCLUSION**

For a company the concept of investment is an important because through the investment only the company can attain growth. The investment is done by not only the owners but they need to influence other individual and get the investments. There are external and internal factors which attract the investors to deposit their money in the company. Investment plays a pivotal role in the development of our economy. Through this study it has been found out that there are certain emotional factors that influence investors taking the investment decision. The so called emotional factors are grouped into four categories. They are factors like judgemental factors, protective factors, motivational factors and expected return which has been influencing the investment decision of an individual. These factors helps the investors to take right decision and also helps the companies to improve their performance by securing certain number of investments.

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**MOBILE BANKING IN INDIA**

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**Samasthi Bhoopathy and Ruchika Rani**

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**ABSTRACT**

*Mobile usage has seen an explosive growth in most of the Asian economies in the recent past. While many operators, as well as banks has introduced M-Banking applications, it was initially at a very low growth phase as the customers were concerned about the security but then after proper awareness was given to the customers who can avail it, it has seen a tremendous growth than expected. One of the main objectives of the research is to evaluate influence on availing the services of mobile banking based on subjective norms. The research indicates that highly percentage of users are between 20-35 age group and with a popular occupation as salaried employees. The busy schedule of people has upgraded the traditional banking with the modern banking techniques.*

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**INTRODUCTION**

Mobile communication device are revolutionizing banking transaction over wireless networks and the internet. To attract and retain customers, banks need to extend their full range of service to mobile, wireless devices without having an impact on their current infrastructure and the delivery channels it currently supports. Wireless network, mobile gateways, WAP (wireless application protocol) and WML (Wireless Markup Language) all play vital role in bringing mobile banking strategy to the market.

For wired customers and business, the next phase in this evolution is wireless mobile banking that is available anytime anywhere from always –on mobile device like mobile phones and personal digital assistant (PDA's). With the proliferation and cost effectiveness of the mobile delivery channel, banks have full I delivery mechanism that can offer services and 24\*7 accesses regardless of where the customer happens to be.

Mobile banking is of course still dependent on the internet as a delivery network. That said, there are some critical differences between internet and mobile banking services. The most notable of these is the internet user's experiences via mobile interface versus the internet experiences via standard devices like PC and laptops. As mobile devices are limited to a tiny percentage of screen real estate, customers will place less emphasis on surfing / browsing and become transaction focused customers responding to 'push' messages that reflect proximity as well as buying patterns. Pull-based customer interaction, such as those conducted via fixed-network devices like PC, will ultimately decline in usages and push messaging becomes even more sophisticated.

**ORIGIN OF M-BANKING IN INDIA**

ICICI Bank, Mumbai was the first ever bank in India to launch its complete mobile banking services, it is the second largest bank in India which launched IMobile that was a unique mobile banking platform on mobile phones. IMobile was an advanced innovation in banking wherein the entire practical internet banking transactions could be simply done on mobiles phones. Just with the click of a button on their mobiles customers could transfer funds to ICICI and Non ICICI Bank accounts, which in turn was a free facility to its customers (ICICI Bank). The existing customers of ICICI Bank who have already registered for mobile alerts were able to download the application by sending an SMS "IMobile" to 56767661.

Customers who had GPRS connection have received a WAP link for activation, while the other customers had to download IMobile from ICICI Bank.com on their desktops and then it had to be transferred to their handsets using their Bluetooth connection or data cable. Mr. V. Vaidya Nathan, Executive Director, ICICI Bank said, "ICICI Bank has always focused on innovation to improve customer experience. With this application, most features of internet banking will now be available on mobile phones, providing a breakthrough improvement in banking services." IMobile also offered complete security to customers transacting on the mobile phones in addition to easy access and anytime and anywhere banking. Unauthorized use of the mobile banking service was prevented with the help of a 4 digit PIN, which had to be entered by the customers before logging in into the mobile banking service app. In this research, we have evaluated m-banking based on research model developed by ABDOU ILLIA&ZHENTU HUANG, from TAM model in their research paper "A CONCEPTUAL MODEL FOR M-BANKING ADOPTION".

**RESEARCH OBJECTIVES**

- To study the mobile banking services in India.
- To evaluate influence on availing the services of mobile banking based on subjective norms.

## REVIEW OF LITERATURE

Tommi Laukkanen, Suvi Sinkkonen, Marke Kivijärvi, Pekka Laukkanen, 2007 stated in their paper that Mobile banking is a channel through which a customer can interact with bank through device such as mobile and PDA. It was also said that financial institutions were reluctant to make such huge and risky initial investment but SBP insisted on implementation of mobile banking and advised the Financial Institution and Banks to process the work flow of mobile banking or else permit the MNO's (Mobile Network Operators) to start it on their own. In the paper it was also being mentioned that in 2009, Telenor has launched its first ever easy paisa (First Mobile banking Platform) with the help of Tameer Bank (A microfinance bank mostly owned by Telenor).

## RESEARCH METHODOLOGY

This research is based on Exploratory Research. This research is both quantitative and qualitative. This research is based on the data collected through "Questionnaire" with Mobile banking User and Non-user. The data has been analyzed using f-test and frequency test using SPSS.

## RESEARCH DESIGN

The primary data used in this research, is collected through an exploratory research – 801 e-Questionnaire were distributed among the user and non-user of mobile banking, basically Businessmen, servicemen, professionals, and student's etc. secondary data has been collected from articles, reports, and other relevant websites.

## CUSTOMERS PERCEPTION ABOUT M-BANKING

Data was collected for various factors and it was analyzed by using Factor analysis. Factor analysis is used to select relevant factors for the study and remove insignificant items for mobile banking. To reduce dimension and identify relevant factors of mobile banking, factor analysis was conducted. Bartlett's Test of Sphericity was conducted and draws chi-square value of 5910.922 with at significance level of .000, stating that correlation matrix is not an identity matrix.

## INTERPRETATION OF FACTOR ANALYSIS USING SPSS

**Descriptive statistics:** It gives a brief picture of the responses through mean median and standard deviation. From the mean below in the table, we concluded that category (of people who rely mostly on mobile banking) is the most important Variable that influences customers to use the service. It has the highest mean of 3.68.

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
Awareness	2.21	1.013	801
Availing	1.23	.421	801
Reason	.48	.999	801
Problem	.77	1.154	801
Recommend	1.95	.837	801
Influence	2.66	1.000	801
Account balance	2.05	.858	801
Ticket booking	2.84	1.238	801
Operate between accounts	2.32	.861	801
Payment	2.56	1.104	801
Password	2.53	.871	801
Security	2.61	.886	801
Category	3.68	1.486	801
Ease	1.86	1.022	801
Trust	1.70	1.040	801
Satisfaction	1.91	1.062	801
Facing problem	2.24	.558	801
Continuation	1.51	.834	801

**The correlation matrix:** A correlation matrix is a simple rectangular array of numbers which gives the correlation coefficients between a single variable and every other variable in the investigation.

Correlation coefficient between a variable and itself is 1 and the correlation coefficients above and below the principal diagonal are the same which perfectly agrees to the principal diagonal of the correlation matrix.

Correlation Matrix *																			
	Awareness	Availing	Reason	Problem	Recommend	Influence	Accountbalance	Ticketbooking	Operatebetween accounts	Payment	Password	Security	Category	Ease	Trust	Satisfaction	Facingproblem	Continuation	
Correlation	Awareness	1.000	.373	.388	.399	.115	-.136	.233	-.016	.148	.063	.137	.108	.240	.202	.210	.279	.207	
	Availing	.373	1.000	.675	.671	.400	.022	.185	.165	.216	.070	.236	.035	.555	.555	.583	.487	.571	
	Reason	.388	.675	1.000	.670	.327	-.036	.175	.149	.176	.051	.204	.015	.469	.437	.438	.317	.417	
	Problem	.399	.671	.670	1.000	.320	-.041	.207	.131	.218	.036	.247	.100	.477	.409	.505	.332	.413	
	Recommend	.115	.400	.327	.320	1.000	.183	.030	.041	.113	.067	.002	-.082	.355	.294	.380	.078	.289	
	Influence	-.136	.022	-.036	-.041	.183	1.000	.218	.017	.320	.118	.113	.093	-.031	-.077	-.034	-.053	-.070	-.068
	Accountbalance	-.136	.012	-.004	-.027	.030	.218	1.000	.230	.318	.318	.288	.197	-.035	-.109	-.113	-.036	.011	-.039
	Ticketbooking	.233	.185	.175	.210	.041	.017	.230	1.000	.294	.015	.414	.456	.148	.145	.075	.133	.160	.113
	Operatebetween accounts	-.016	.165	.149	.131	.113	.320	.318	.294	1.000	.289	.359	.511	-.031	.155	.206	.173	.022	.086
	Payment	.148	.216	.176	.218	.067	.118	.318	.015	.289	1.000	.177	.211	.067	.060	.026	.074	.157	.083
	Password	.063	.070	.051	.036	.002	.113	.288	.414	.359	.177	1.000	.635	.043	.148	.092	.093	-.066	.033
	Security	.137	.236	.204	.247	.086	.093	.197	.456	.511	.211	.635	1.000	-.004	.209	.204	.214	.034	.092
	Category	.108	.035	.015	.100	-.082	-.091	-.095	.148	-.091	.067	.043	-.004	1.000	.101	-.043	.092	.093	.130
	Ease	.240	.555	.469	.477	.355	-.077	-.109	.145	.155	.060	.148	.209	.101	1.000	.729	.715	.264	.558
	Trust	.202	.555	.437	.409	.294	-.034	-.113	.075	.206	.026	.032	.204	-.043	.729	1.000	.701	.303	.535
	Satisfaction	.210	.583	.438	.505	.380	-.053	-.036	.133	.173	.074	.093	.214	.092	.775	.701	1.000	.300	.588
	Facingproblem	.279	.487	.317	.332	.078	-.070	.011	.160	.022	.157	-.066	.034	.093	.264	.303	.300	1.000	.390
	Continuation	.207	.571	.417	.413	.289	-.068	-.039	.113	.086	.083	.033	.092	.130	.558	.535	.588	.390	1.000

**Kaiser Meyer Olkin (KMO) and Bartlett's Test (measures the strength of relationship among the variables):** The KMO measures the sampling adequacy which helps to determine the responses given with the sample are adequate or not, for which it should be close to 0.5 for a satisfactory factor analysis to proceed. As per Kaiser (1974) the minimum recommend value for KMO is 0.5 and any value between 0.7 - 0.8 is acceptable, and any value above 0.9 is excellent. In the below table, the KMO measure is 0.836 and therefore can be acceptable. As per Bartlett's test, the null hypothesis that is the co- relation matrix is an identity matrix. The significance output of this test is 0.00 that is sig. is less than 0.05, and so the null hypothesis is being rejected and so it means that co-relation matrix is not an identity matrix.

**Communalities:** The table of communalities shows how much of the variance in the variables has been accounted by the extracted factors. Common factor space is well represented by variables with high values, while variables with lower values are not well represented.

Communalities		
	Initial	Extraction
Awareness	1.000	.681
Availing	1.000	.769
Reason	1.000	.682
Problem	1.000	.671
Recommend	1.000	.463
Influence	1.000	.480
Accountbalance	1.000	.571
Ticketbooking	1.000	.578
Operatebetween accounts	1.000	.599
Payment	1.000	.610
Password	1.000	.696
Security	1.000	.746
Category	1.000	.664
Ease	1.000	.786
Trust	1.000	.732
Satisfaction	1.000	.792
Facingproblem	1.000	.491
Continuation	1.000	.627

### Total variance explained

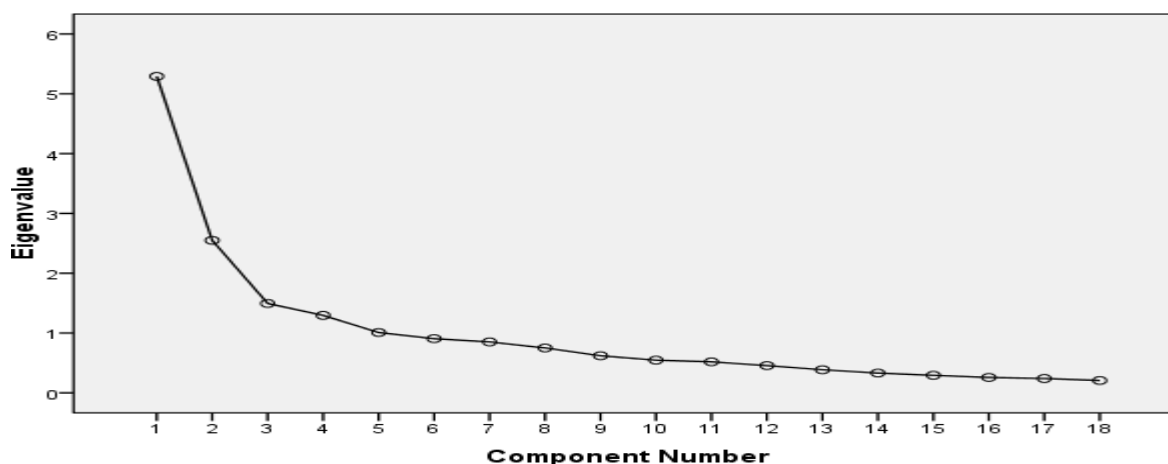
The number of extracted factors whose sum should be equal to number of items which are subjected to factor analysis is reflected by Eigenvalue. The Eigenvalue table has been divided into three sub-sections, i.e. Initial Eigen Values, Extracted Sums of Squared Loadings and Rotation of Sums of Squared Loadings. We have used only the Extracted Sums of Squared Loadings for analysis and interpretation purpose.

It can be noted that the first factor accounts for 29.397% of the variance, the second 14.166%, the third 8.304%, the fourth 7.192% and the fifth 5.605%. While all the remaining factors are not significant.

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
1	5.291	29.397	29.397	5.291	29.397	29.397	4.604
2	2.550	14.166	43.563	2.550	14.166	43.563	2.526
3	1.495	8.304	51.867	1.495	8.304	51.867	3.133
4	1.295	7.192	59.059	1.295	7.192	59.059	1.967
5	1.009	5.605	64.664	1.009	5.605	64.664	1.335
6	.905	5.030	69.694				
7	.851	4.727	74.422				
8	.751	4.170	78.592				
9	.620	3.443	82.035				
10	.547	3.038	85.073				
11	.518	2.877	87.950				
12	.456	2.532	90.482				
13	.386	2.144	92.626				
14	.331	1.840	94.465				
15	.293	1.628	96.094				
16	.257	1.430	97.524				
17	.240	1.332	98.856				
18	.206	1.144	100.000				

**Screen plot:** The screen plot is a graph of the eigenvalues (non negative numbers) against all the factors. The graph shows the no. of factors that have been retained. The curve in the graph begins to flatten between factors 3 and 5 and the graph shows that there is an eigenvalue of less than 1, (which depicts the point of interest) from factor 5 onwards.

Scree Plot



**Component matrix:** The table shows the 18 loadings are factorized into 5 factors. The higher the absolute value of the loading, the more is the factor contributes to that variable (i.e., the extracted 5 variables from the 18 loadings are divided into 5 variables according to most important items which have similar responses in component 1 and simultaneously in component 2,3,4 and 5). The empty spaces in the table represents that the loadings which are less than 0.5 and all other loadings less than 0.5 are suppressed.

Component Matrix*					
	Component				
	1	2	3	4	5
Availing	0.839				
Satisfaction	0.802				
Ease	0.787				
Problem	0.752				
Reason	0.752				
Trust	0.751				
Countinuation	0.694				
Facingproblem					
Recommend					
Password		0.704			
Security		0.681			
Operatebetweenaccounts		0.673			
Accountbalance		0.628			
Ticketbooking					
Influence			-0.529		
Awareness					
Payment				0.598	
Category			0.513		0.620
Extraction Method: Principal Component Analysis.					
a. 5 components extracted.					

**Rotated component matrix:** The purpose of rotation is to reduce the number factors on which the variables under investigation have high loadings. Rotation helps in easier analysis of the interpretation. From the below table we can observe that the availability of mobile banking, satisfaction with the service, ease of using, problem, reason for not using the service, trust, continuation of usage of mobile banking services are on Factor (Component) 1, reason for using mobile banking, facing problem with mobile banking, recommendation to use mobile banking are all under Factor 2. The remaining variables are on Factors 3, 4 and 5 all of which can be used as variables for further analysis.

Rotated Component Matrix <sup>a</sup>					
	1	2	3	4	5
Satisfaction	0.868				
Ease	0.857				
Trust	0.833				
Continuation	0.731				
Availing	0.618	0.598			
Recommend					
Awareness		0.765			
Problem		0.669			
Reason		0.648			
Facing problem					
Security			0.830		
Password			0.819		
Ticket booking			0.705		
Operate between accounts			0.531		
Account balance				0.698	
Payment				0.676	
Influence				0.581	
Category					0.808
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 10 iterations.					

### Component Transformation Matrix

The component matrix shows the correlation between different components of the data that is being used i.e., the correlation between component 1-1 is 0.801, 2-2 is -0.131, 3-3 is .361, 4-4 is 0.590, 5-5 is 0.764, 1-2 is 0.529, 1-3 is 0.260, 1-4 is 0.099, 1-5 is 0.012 and so on.

Component Transformation Matrix					
Component	1	2	3	4	5
1	0.801	0.529	0.260	0.099	0.012
2	-0.232	-0.131	0.770	0.572	-0.099
3	-0.346	0.412	0.361	-0.423	0.634
4	-0.330	0.597	-0.427	0.590	0.069
5	0.274	-0.421	-0.165	0.370	0.764
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					

### Frequency Calculation Using SPSS

LOCATION					
	Frequency	Percent	Valid Percent	Cumulative Percent	
TELANGANA	177	22.1	22.1	22.1	
BIHAR	123	15.4	15.4	37.5	
TAMIL NADU	93	11.6	11.6	49.1	
KERALA	90	11.2	11.2	60.3	
KARNATAKA	34	4.2	4.2	64.5	
DELHI	44	5.5	5.5	70.0	
ANDHRA PRADESH	58	7.2	7.2	77.3	
PUNJAB	20	2.5	2.5	79.8	
GUJARAT	8	1.0	1.0	80.8	
RAJASTHAN	44	5.5	5.5	86.3	
WEST BENGAL	89	11.1	11.1	97.4	
MAHARASTRA	14	1.7	1.7	99.1	
JHARKHAND	4	.5	.5	99.6	
UP	2	.2	.2	99.9	
GOA	1	.1	.1	100.0	
Total	801	100.0	100.0		

AGE					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BELOW 20 YEARS	55	6.9	6.9	6.9
	20 - 35	373	46.6	46.6	53.4
	35-50	202	25.2	25.2	78.7
	ABOVE 50	171	21.3	21.3	100.0
	Total	801	100.0	100.0	

OCCUPATION					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STUDENT	201	25.1	25.1	25.1
	BUSINESS MAN	98	12.2	12.2	37.3
	RETIRED INDIVIDUAL	43	5.4	5.4	42.7
	HOME MAKER	54	6.7	6.7	49.4
	SALARIED EMPLOYEE	405	50.6	50.6	100.0
	Total	801	100.0	100.0	

BANK					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ANDHARA BANK	53	6.6	6.6	6.6
	AXIS BANK	72	9.0	9.0	15.6
	ICICI BANK	38	4.5	4.5	20.1
	KOTAK	31	3.9	3.9	24.0
	BOB	70	8.7	8.7	32.7
	INDIAN OVERSEAS	24	3.0	3.0	35.7
	HDFC	149	18.6	18.6	54.3
	FEDERAL BANK	30	3.7	3.7	58.1
	CENTRAL BANK	21	2.6	2.6	60.7
	SBI	144	18.0	18.0	78.7
	DENA BANK	16	2.0	2.0	80.6
	ALLAHABAD BANK	8	.7	.7	81.4
	CANARA BANK	70	8.7	8.7	90.1
	ORIENTAL BANK OF COMMERCE	2	.2	.2	90.4
	UNION BANK	4	.5	.5	90.9
	CITI BANK	8	1.0	1.0	91.9
	CORPORATION BANK	2	.2	.2	92.1
	UCO BANK	3	.4	.4	92.5
	BANK OF INDIA	33	4.1	4.1	96.6
	PNB	11	1.4	1.4	98.0
	SYNDICATE BANK	4	.5	.5	98.5
	VIJAYA BANK	4	.5	.5	99.0
	UNITED BANK OF INDIA	2	.2	.2	99.3
	SOUTH INDIAN BANK	1	.1	.1	99.4
	BANK OF MAHARASTRA	2	.2	.2	99.6
	YES BANK	2	.2	.2	99.9
	IDBI	1	.1	.1	100.0
	Total	801	100.0	100.0	



The above table contains the basic personal and banking details of the respondents. Based on the above table it can be observed that the student and salaried employee categories are the ones whose frequency of usage of mobile banking services is more when compared to other categories. Out of 27 banks (got from the survey of 801 respondents), HDFC and SBI banks have the highest frequency percentage of 18.6% and 18% in its customers using the mobile banking services. The number of respondents are higher in Telangana followed by Bihar, and other states.

### **CHALLENGES AND ISSUES OF MOBILE BANKING**

- ✓ **Security:** Security here refers to the security of the confidential information about customer bank account. Information leakage should not be there. If the Transaction is done unintentionally due to some reason then, an option is to be provided to undo the foregoing transaction.
- ✓ **Operability:** There are many people who are still not aware how to use the mobile banking services because of lack of knowledge related to its operation. Bankers have to try educating and encouraging its customers as it is highly advantageous to its customers.
- ✓ **Scalability and reliability:** Irrespective of where the customer is from, banks must check the working of their system is perfect and true as expected. Then the customer can rely on mobile banking services and possible. Banks tend to lose their customer confidence when they are not able to meet up to their customers the performance expectations and reliability.

### **FINDINGS**

The majority of users belong to the age group of 20 – 35. Among the mobile banking users a significant percentage i.e. 50.6% of the sample is from salaried employees. HDFC bank customers constitute the majority i.e. 18.6% of the sample in usage of mobile banking. Payment of bills and checking account balances were found to be the primary reasons for using the mobile banking services. Telangana state has high percentage of mobile banking users followed by Bihar and other states.

### **CONCLUSION**

Mobile banking plays vital role in maintaining better customer relationship, increasing customer satisfaction level, improve loyalty. Mobile banking is popular among in all customers. Through this service, customer save's their valuable time, cost and other expenses. To see the growth of mobile banking we can say that in future mobile banking is spread in both rural and urban area and also it becomes a basic need of customer. With the help of this new technology banks can cover all unbanked area. Mobile banking is advantageous for both the service providers and the service beneficiaries (customers).

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**DIGITAL ECONOMY ENHANCES STIFF COMPETITION AND INDUSTRIAL GROWTH****S. Arulazhagan**

Assistant Professor of Economics, Arignar Anna Government Arts and Science College, Karaikal

**ABSTRACT**

*It is indeed the revolution of information technology that took place in 1994 - 95 which paved the way to digitalisation of banks, transport and communication in the first quarter of 21<sup>st</sup> century which finally took to rapid industrial growth of our economy. Since the inception of digital era assessing anything and everything has become easier compared to the good olden days of manual intervention.*

*Digitalisation has touched upon various aspects of our lives. It all started with digitalising our social networks, purchasing goods online and enhancing lifestyle and finances. The study focuses the important role played by digital banks in capital formation, in investment and in production, consumption and distribution patterns pertaining to national income.*

**INTRODUCTION**

Money is what money does. Money is a vitamin - D for boosting any economic growth of our nation. According to Dr. Irving Fisher, a Monetarist, if velocity of circulation of money is increased, it will double or triple the transaction demand for the money. In this way today digitalisation of banks has lead to tremendous and spontaneous increase in the velocity of circulation of the money through various plastic cards like debit and credit cards operated at ATMs and point of sales. Financial inclusion principle along with velocity of circulation of money takes our Indian economy to great heights. It is important to analyse at this moment the significance of the digital banking system that plays in transforming economic and industrial growth of our country.

**EXPANSION OF DIGITAL BANKING SYSTEM**

The nationalised banks established at certain headquarters flourish the business in that area and state and easily record best industrial output rather than at other areas of development. The table - I represents the allocation of banks at various cities that captures the overall development of that region. In Mumbai 7 government banks and 8 Private Banks are established which help in boosting the industrial growth of our economy. The other major banks established at various headquarters also prove that banks play an important role in industrial growth of our economy.

**Table-I: Banks established and digitalised at various headquarters of each state**

State	Headquarters	Name of the bank established	
		Nationalised Banks	Private Banks
Tamilnadu	Chennai	Indian Bank Indian Overseas Bank	City Union Bank Karur Vysya Bank Lakshmi Villas Bank Tamilnadu Mercantile Bank
West Bengal	Kolkata	Allahabad Bank UCO Bank United Bank of India	Bandhan Bank
Andhra Pradesh	Hyderabad	Andhra Bank	-
Delhi	New Delhi	Punjab and Sindh Bank Punjab National Bank	-
Haryana	Gurgaon	Oriented Bank of Commerce	-
Gujarat	Vadodara	Bank of Baroda	-
Jammu and Kashmir	Srinagar	Jammu and Kashmir Bank	-
Uttarkhand	Nainital	Nainital Bank	-
Karnataka	Banglore and Manglore	Canara Bank Karnataka Bank Corporation Bank Syndicate Bank Vijaya Bank	-
Kerala	Tirussur	-	Catholic Syrian Bank Danalakshmi Bank

			South Indian Bank Federal Bank
Maharashtra	Mumbai	Bank of India Central Bank of India Bank of Maharashtra IDBI Bank Dena Bank State Bank of India Union Bank of India	DCB Axis Bank HDFC bank ICICI Bank Indus India Bank RBL Bank Kotak Mahindra Bank Yes Bank

### Various types of banks digitalised

The table II pin points the various digital financial institutions all over India that cater to the needs of economic development and economic growth of our country. All these upgrade the industrial growth of the economy.

**Table-II: Different types of banks digitalised**

Name of the bank	Number of banks
Public Sector bank	21
Private Sector bank	21
State Cooperative banks	34
Urban Cooperative banks	72
Foreign banks in India	44
Foreign banks (Representative Bank)	40
Local area banks	3
Regional rural banks	57
Payment banks	6
Industrial banks	10
Agricultural banks	3
Export and import banks	1
Post office banks	1,55,000

### Structure of digitalisation of banking system

Cash is the most important liquid asset to be transacted for goods that prevail up to year 2000. At present plastic cards like debit and credit cards are considered as the most important liquid asset compared to cash, cheque and DD. It is all due to a massive digitalisation of the banking system. With the help of these plastic cards, goods are transacted all over the world and in India round the clock, every hour and every day. Through various digital services like NEFT, RTGS, online banking, shopping and transaction of goods is under process every moment. So if consumption is increased there is a need for an automatic production and distribution channels to be speeded up.

As in table III it shows that in India public sectors bank with branches of 87290 issued 68 crore of debit cards and 1.9 crore of credit cards. In the same manner, private banks with branches of 58286 have issued 25 crore of debit cards and 1.8 crore of credit cards. There are 225663 ATMs working round the clock to disburse cash in every parts of India. All these digital banking services play an important role in increasing the velocity of circulation of money. In traditional olden days, production led to distribution which in turn led to consumption of goods. In modern 21<sup>st</sup> century it is consumption that leads to production which in turn leads to distribution. Today consumption is increased at a greater velocity due to vast circulation of debit cards and credit cards and usage of ATMs in each area and state.

According to historical evidence, from 1600 to 1947, India was invaded by British and they ruled us. From 1991 to 2020, India invited USA to rule us through International Capital flow and retail outlets. All these changes are made due to vast expansion of digital financial services rendered at a major speed, which is a spark that catches fire in the economy. No one can stop now the prevailing competition and growth of the economy. If one person suffers loss or slow down in development, it is being picked by some other person and he activates the economy. So automatically competition among business promoters leads to economic growth of the country.

**Table-III: Structure of digitalisation of banking system as on May 15<sup>th</sup> 2018**

Name of the bank	No. of major banks	No. of branches in India	No. of ATMs		No. of Point of sales	No. of Credit card Issued	No. of Debit card issued
			On site	Off Site			
Public Sector Bank	21	87290	82360	63029	1200000	1.9 crore	68 crore
Private sector bank	21	58286	43419	36855	2000000	1.8 crore	25 crore
Total	42	145576	125779	99884	3200000	3.7 crore	93 crore

**Coordination between branch expansion and industrial growth**

A study and Table IV outlines the role played by various bank branches in the industrial growth of the economy. There is a coordination and Co-relation between branch expansion and industrial growth. Government and private banks are competing among each other in creation of assets and revenue. From the study it is concluded that state bank of India and private banks like ICICI, HDFC, Axis and Yes banks are exploring in the industrial growth of the economy.

**Table-IV: Coordination between Government bank branch expansion and industrial growth**

Public Sector Bank	Year of Establishment	Branch Expansion	Revenues (in Billions)	Total Assets (in Billions)
Allahabad Bank	1865	3503	187	2364
Punjab National Bank	1894	6937	475	6674
Bank of India	1906	5100	418	6100
Canara Bank	1906	6639	489	5530
Corporation Bank	1906	2440	194	2349
Indian Bank	1907	2896	217	3648
Punjab & Sindh Bank	1908	1554	87	1026
Bank of Baroda	1908	5481	422	6949
Central Bank of India	1911	4715	259	3055
Union Bank of India	1919	4214	322	4047
Andhra Bank	1923	2803	180	2221
Syndicate Bank	1925	3500	69	2990
Vijaya Bank	1931	2031	124	1549
Bank of Maharastra	1935	1897	131	1610
Indian Overseas Bank	1937	3400	235	2745
Dena Bank	1938	1874	107	1335
Oriented Bank of Commerce	1943	1092	201	2375
UCO Bank	1943	4000	186	2449
United Bank of India	1950	2054	99	1230
State Bank of India	1955	17170	2.11 Trillion	34.45 Trillion
IDBI Bank	1964	1994	280	3744

**Table-V: Coordination between Private bank branch expansion and industrial growth**

Private Sector Bank	Year of Establishment	Branch Expansion	Revenues (in Billions)	Total Assets (in Billions)
City Union Bank	1904	545	29	312
Karur Vysya Bank	1916	668	54	577
Catholic Syrian Bank	1920	426	1617	162
Tamilnadu Mercantile Bank	1921	509	38	32
Nainital Bank	1922	135	6	7
Karnataka Bank	1924	807	52	641
Lakshmi Villas Bank	1926	565	26	287
Dana Lakshmi Bank	1927	235	12	123
South Indian Bank	1929	852	66	743
DCB Bank	1930	125	21	241
Federal Bank	1931	1252	98	1.1 Trillion
Jammu & Kashmir Bank	1938	958	72	820
RBL Bank	1943	343	45	486

Axis Bank	1993	3304		6.01 Trillion
HDFC Bank	1994	4715	816	8.6 Trillion
ICICI Bank	1994	4867	736	11.2 Trillion
Indus Indian Bank	1994	1004	185	1.7 Trillion
Kotak Mahindra Bank	2003	1369	211	2.14 Trillion
Yes Bank	2004	1050	205	2.15 Trillion
Bandhan Bank	2014	840	4320 crore	302
IDFC Bank	2015	100	85.27	1.2 Trillion

### Significance of digital banking in the headquarters of Maharashtra (Mumbai region)

In Mumbai, 7 government banks and major 8 private banks are established in the head quarters of Maharashtra which help in the industrial revolution and industrial growth of the Indian Economy. Totally in Mumbai 34800 government bank branches and 16682 private bank branches are established which acts as a turning point in the vast industrial growth of the economy.

**Table-VI: Government and private banks established in the headquarters of Maharashtra - Mumbai Region**

Name of the bank	Date of establishment	Branches	Revenue (in billions)	Total Assets (in billions)
<b>Government Bank</b>				
Bank of India	1906	5100	418	6100
Central Bank of India	1911	4715	259	3055
Bank of Maharashtra	1935	1897	131	1610
IDBI Bank	1964	1994	280	3744
Dena Bank	1938	1874	106	1335
State Bank of India	1955	17170	2.11 Trillion	34.45 Trillion
Union Bank of India	1943	2051	99	1230
<b>Private Bank</b>				
DCB Bank	1930	125	21	240
Axis Bank	1993	3304	41	6.01 Trillion
HDFC Bank	1994	4715	816	8.63 Trillion
ICICI Bank	1994	4897	736	11.2 Trillion
Indus India Bank	1994	1004	185	1.7 Trillion
RBL Bank	1938	343	45	486
Kotak Mahindra Bank	2003	1369	212	2.14 Trillion
Yes Bank	2004	1050	205	2.15 Trillion

### CONCLUSION

The use of machines in transmitting the needed information at the right time is the significance of the digital economy. Today digitalisation of banks have led to vast development and growth since it automatically speeds the transaction demand for money and finally leads to speculative demand for money. Industrial sector and agricultural sector grow simultaneously with help of digital services and in turn the service sector automatically develops very fast. So it is digital economy that plays an active role in shaping the Indian economy.

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**GLOBAL HR STRATEGIES****Thasni Hussain and Anju B Nair**Student, NSS College, Nilamel

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**ABSTRACT**

*Global strategy HRM is a vital – not a critical function of an organization all business needs human resources, people to go ahead with organizational vision, values, and principles. Strategic HR management needs ensure balance between HR departments and functions between the HR department Or HR function and your companies business goals HR strategy is long term and focus on work force planning and workforce development from a forward thinking perspective. It is highly essential for the firm to develop such strategies to compete with rival firms. Good HR management in a multinational company comes down to getting the right people in the right job.*

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**INTRODUCTION**

Now a day's organizations whether it is small or large have caused to be local as a result of emergence of globalization. Which further results in cultural sensitivities and work job diversity. All these leads to development of global human resources management.

**METHODOLOGY**

Present study is descriptive in nature and based on secondary data. Secondary data collected from various websites and online articles.

**HR**

Human resources are the total man power in an organization. Which make an effective factory floor for achieving the organization objective.

**HRM**

It is simply refers to managing total workforce in an organization. HRM is really employee's management with an emphasis of those employees as assets of the business. HRM is the effective utilization workforce to minimizing aisle and maximizing retour.

**DEFINITION**

The national institute of personal management (NIPM) of India has defined human resource personal management is "that part of manage which is connected with people at work and their relationship with an enterprise. HR focused to assemble effective organization of men and women to make up the enterprise more effective. It also give importance to mold individual and their work group to contribute their best for the organization success.

**HR STRATEGY**

Hr strategy means a long term process. Hr strategy is set of activities.HR activates in an organization concerned with when desired goals of an organization cannot be achieved through usual and common HR activities. This demands adopting some strategic approaches. This helps to avoid obstacles on the path of performing HR activities by usual methods.

**GLOBAL HR STRATEGY**

Global HRM defined global HRM sometimes referred to as global HRM, is an umbrella term that includes all aspects of an organization hr, payroll and talent management processes, operating on a global scale.

**DEVELOPING GLOBAL HR STRATEGY**

As firms are expand into various countries across the world which demands the needs of developing and implementation of global HR strategies. It is highly essential for the firm to develop such a strategies to complete with rival firms. When organizations operate in global level, cultural sensitivities, workforce diversity changes in the legal and economic frames etc. are arise. In such a circumstance, the HR managers must be capable of meeting the needs of regional staff at same time, must be able to carting global standards in HR must work at the same time fulfilling the needs of regional staff.

According to Deloitte: global talent management is the second most urgent trends for the large business firm have to develop an integrated global hr operating model that can be customized locally.

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**TEN STEPS TO GLOBAL HR STRATEGIES**

The scarcity of qualified managers has become major constraint on the speed with which global companies can increase their international scale. The growth of knowledge based society along with the pressures of opening up emerging market has led cutting edge global companies to realize that human resources and intellectual capital are as significant as financial assets of an organization.

A well planned HR management in transnational company tries to coordinate right people in the right job in the right place at the right time in cost effective manner. This planning leads the managers easily and quick identification of good ideas around the world. Such an integrated network depends on executive continuity. This in turn requires career management to insure that internal qualified executives are readily available when vacancies occur all over the world and that good managers do not jump ship because they have not been recognized.

Very few companies come close achieving this most multinational. Many of the multinational companies close not have adequate leadership capital to perform efficiently in all their market all over the world. One reason is lack of managerial ability another reason is that HR development policy has a tendency to concentrate on home country. The strategy demands global HR relationship with standard system but local.

The consequent lack of world wise multicultural managerial talent is now biting into companies' bottom lines through high staff turnover high training cost, stagnant market share, failed joint ventures and mergers and the high opportunity costs that inevitably follow bad management selection around the world.

The biggest challenge faced by companies in respect of building a global HR strategy is finding trustworthy managers for their global markets. The pressure on these newly globalizing companies to cut the trial and error time in building a cadre of global managers in order to shorten the leads of their larger established competitors, but they are stymied as to how to do it.

The solutions for the multinationals is find a way to emulate companies that have decades of experience in recruiting, training and retaining good employees across global.

Global HR strategy demands, HR leadership with standard systems but local adaptation. HR strategies develop in such a way that it should ensure full fledged usefulness to companies, at the same time ensure opportunities for career growth of people.

Implementing these ideas can be broken down into 10 steps.

**1. Break all the "local national" glass ceilings**

First step for developing a global HR practice is end up all favoritism towards HR managers who are citizens of the country in which the company operate. Companies needs to treat HR leaders alike, whether they are nationals or foreigners and do not express any soft corner towards headquarters situated in the home country.

**2. Trace your lifeline**

According to the strategies adopted by global firms, they also needs to uphold success factors which are applicable to all over the world.

**3. Framing global human data base**

Global firms needs to develop an efficient global database which provides all information regarding human talents across the world.

**4. Construct a mobility pyramid**

Evaluate your managers in terms of their willingness to move to new locations as well as their ability and experience. Most H.R. departments look at mobility in black-or-white terms: "movable" or "not movable." But in today's global markets this concept should be viewed as a graduated scale and constantly reassessed because of changing circumstances in managers' lives and company opportunities. This will encourage many more managers to opt for overseas assignments and open the thinking of line and H.R. managers to different ways to use available in-house talent.

**5. Identifying leadership capital**

Efficient leaders may scattered all over the world. Companies need to mobilize these scattered human resources to meet global standards. Thereby they can improve their competitiveness.

**6. Assess your bench strength**

Ask each executive to compare his or her skills and character with the ideal requirements defined for the executive's current post and preferred next post. Invite each to propose ways to close any personal skills gaps

**7. Recruit regularly**

Search for new recruits in every important local market as regularly as you do in the headquarters country. Develop a reputation as "the company to join" among graduates of the best universities, as Citibank has in India.

**8. Advertise your posts internally**

Run your own global labor market. In a large company, it is hard to keep track of the best candidates.

**9. Institute succession planning**

Every manager in a lifeline job should be required to nominate up to three candidates who could take over that post within 7 days, in three months or within a year, and their bosses should sign off on the nominations. This should go a long way toward solving succession questions, but it will not solve them completely.

**10. Challenge and retain your talent**

Global networks that transfer knowledge and good practices run on people-to-people contact and continuity. Executive continuity also cuts down on turnover, recruitment and opportunity costs. As international competition for talent intensifies, therefore, it becomes increasingly important for companies to retain their efficient managers. Financial incentives are not sufficient: the package must include challenge, personal development and job satisfaction.

**ISSUES RELATED TO DEVELOPING GLOBAL HR STRATEGY**

With good systems and access to data, it should be possible to plan and execute a global benefits strategy that meets all objectives. But there are still certain questions that are subjective and create ethical, and sometimes legal, challenges.

How do businesses proceed when the government provides latitude in public holidays? For example, in Singapore there are 11 public holidays created by the government through consultation with different religious leaders. However, it's also legal for a business there to provide a day off in place of a pre-selected holiday. In this case, there must be a strategy in place to ensure the decisions individual businesses make are fair, providing equal holidays for the four main cultures of Singapore. Here are a few ways to adroitly navigate these challenges. Use a Centralized Data Hub Global benefits strategy decisions can only be made when finance and HR have access to information. Audit Policies Across Markets HR leaders should invest in the resources needed to regularly audit benefits in each country. It ensures that they are in accordance with local regulations and expectations, are competitive in the market. If there are disparities, HR should quickly work to figure out how and when should they be addressed.

Establishing a global human resources strategy can help an organization streamline administration, control costs and ensure benefits parity. It is necessary to make local accommodations. The right planning helps HR managers create a strategy that fulfills business obligations but still positions them to use benefits as a key lever for attracting top talent around the world.

**BE CAREFUL WITH GLOBAL HR STRATEGIES**

According to an Organization Solutions report titled "Workforce Strategy for High-Growth Markets," which found organizations in these countries rely on global or regional strategies, which can sometimes be irrelevant in local markets.

"Companies can optimize success in these demanding markets by creating workforce strategies and corresponding practices that match local business and market demands," the report said. It also expanded on the reasons behind the preference for adopting global, rather than local strategies. "Last five years, many organizations have standardized their HR practices globally to reduce costs and provide best practices across the world. This approach creates problems in high-growth markets," Dr Alison Eyeing, CEO of Organization Solutions, said.

Elaborating on the importance of creating a tradeoff between local and global HR strategies, the report identified that most of the successful companies in these markets formulate global policies to suit local markets. "For example, successful companies in China tended to focus on key talent strategies to attract, develop and retain great talent. Successful companies in India tended to focus on position planning strategies to ensure they have successors for key roles," the report said.

This created the opportunity to address rapidly altering local needs while still having a global perspective in mind. "Being strategic is about getting off the treadmill. So often in rapidly growing organizations, we are putting processes in place to close gaps," Dr James Eyring, COO of Organisation Solutions, said.



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Global Human Capital Management is a new approach that helps companies achieve sustainable growth by combining technology and services to help companies:

- \* Harmonize payroll and HR administration across disparate systems and tools
- \*Gain wide visibility and control of international HR operations
- \*Achieve compliance with multi-country legislation everywhere in the world
- \*Improve global company productivity and employee engagement.

**CONCLUSION**

Human resources are integral part and precious asset of every organization .Now HR strategies highly essential for proper utilization of organizational resources. As firms entering to global level activities, that reveals the need and relevant of global HR strategies. Organization facing numerous challenges and some sort of issues as a result of adopting global HR strategies. They are highly essential for existence and survival of the organization in the competing global environment. There are certain issues with related to developing global HR strategies. To overcome the issues certain measures need to be taken they are;

1. Conduct an audit
2. use a centralized data hub
3. Create a risk management strategies

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**EMERGING ISSUES OF AGRI VALUE CHAIN IN INDIAN MARKETING – A REVIEW**

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**Dr. Alex Isac<sup>1</sup> and M.Thangeswari<sup>2</sup>**Horticultural Officer<sup>1</sup>, Centre of Excellence, DindigulAssistant Professor<sup>2</sup>, Department of Mgmt Studies, Nadar Saraswathi College of Arts and Science, Theni

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**INTRODUCTION**

A business earns most or all of its revenues from agriculture. An agribusiness tends to be a large-scale business operation and may dabble in farming, processing and manufacturing and the packaging and distribution of product. The business sector is encompassing farming and farming-related commercial activities. Agribusiness involves all the steps required to send an agricultural goods to market: production, processing, and distribution. India has the potential to be the world's largest food producer which is bestowed with one of the best natural resources in the world and several factors like Increasing urbanization, nuclear families, working women, disposable income and changing lifestyles are gearing up the Indian food supply chains for a better future.

Agribusiness treats the different aspects of raising agricultural products as an integrated system. Farmers raise animals and harvest fruits and vegetables with the help of sophisticated harvesting techniques, including the use of to direct harvesting operations. Manufacturers develop more efficient machines that can drive themselves. Processing plants determine the best way to clean and package livestock for shipping. While each subset of the industry is unlikely to interact directly with the consumer, each is focused on operating efficiently in order to keep prices reasonable. Market forces have a significant impact on the agribusiness sector.. Businesses unable to rapidly change in accordance to domestic demand may look to export their product abroad, but if that fails they may not be able to stay in business.

**Important of Agri business**

Dr M.S. Swaminathan has repeatedly said, "If farm ecology and economics go wrong, nothing else will have a chance to go right in agriculture". The shift of focus from 'production only' to 'production as well as efficient marketing' has come after a very long time. Despite several forms of government intervention and a number of marketing development programmes, the marketing system for farm products has continued to suffer from several weaknesses. The farmers have borne the brunt of these weaknesses. The private sector, for long, did not invest or shied away from investment in the agricultural marketing activities. It is only during the past five years or so, i.e. the second phase of liberalization, that the agricultural marketing reforms were initiated. One of the outcomes of these initiatives has been the entry of private sector in agribusiness activities on a substantial scale. A shift from 'agriculture' to 'agribusiness' is being viewed as an essential pathway to revitalize Indian agriculture essentially, entrepreneurs are innovators. Innovation has been the key to success of every entrepreneur, be it a farmer or trader. Entrepreneurs strive to compete with others through innovations. Through innovations small farmers or small enterprises are able to counter the –disadvantages of size and scale. Finding the balance between development potential arising out of investment by the private sector and implications of these developments for employment of a considerable section of society is one of the major challenges of policymakers today.

**Emerging Areas of Agribusiness**

Agribusiness Opportunities as already mentioned, for improving the efficiency of the marketing system, there is a need of substantial investment in marketing infrastructure, both physical and institutional. Value chains may include a wide range of activities, and an agricultural value chain might include: development and dissemination of plant and animal genetic material, input supply, farmer organization, farm production, post-harvest handling, processing, provision of technologies of production and handling, grading criteria and facilities, cooling and packing technologies, post-harvest local processing, industrial processing, storage, transport, finance, and feedback from markets.

Agriculture is evolving towards a modern, extremely competitive system driven by consumer demand for higher value, more processed products, and consistent quality and safety standards. The environment for agricultural finance is always influenced by the growing concentration of control in the agricultural sector. Driven by gains from economies of scale and globalization of the food chain along with access to re-sources, multinational and other interconnected agribusinesses have a greater impact in a sector that is characterized by increasing vertical and horizontal integration. The consequences of tightening integration are profound, especially for smallholders and others who are outside of the interlinked chains. It should be connected all the players in a circle and giving information time to time without break.

**Agricultural value chain concept**

The agricultural value chain concept has been used since the beginning of the millennium, primarily by those working in agricultural development in developing countries. Although there is no universally accepted definition of the term, it normally refers to the whole range of goods and services necessary for an agricultural product to move from the farm to the final customer or consumer. As the population is increasing, the demand for such food is also increasing. To meet such demand and provide a food in proper quality and nutrition, Supply chain plays a very vital role in this sector and becomes even more important because of perishable nature and very short shelf life. It not only helps to cut costs, but also adds to maintain and improve the quality of produce delivered, which are perishable in nature.

**Linking farmers to markets**

A major subset of value chain development work is concerned with ways of linking producers to companies, and hence into the value chains. While there are examples of fully integrated value chains that do not involve smallholders, the great bulk of agricultural value chains involve sales to companies from independent farmers. Such arrangements frequently involve contract farming in which the farmer undertakes to supply agreed quantities of a crop or livestock product, based on the quality standards and delivery requirements of the purchaser, often at a price that is established in advance. Companies often also agree to support the farmer through input supply, land preparation, extension advice and transporting produce to their premises.

**Inclusive value chains**

Work to promote market linkages in developing countries is often based on the concept of “inclusive value chains”, which usually places emphasis on identifying possible ways in which small-scale farmers can be incorporated into existing or new value chains or can extract greater value from the chain, either by increasing efficiency or by also carrying out activities further along the chain. The various publications on the topic the definition of “inclusion” is often imprecise as it is often unclear whether the development aim is to include all farmers or only those best able to take advantage of the opportunities.

**Agricultural value chain finance**

Agricultural value chain finance is concerned with the flows of funds to and within a value chain to meet the needs of chain actors for finance, to secure sales, to buy inputs or produce, or to improve efficiency. Examining the potential for value chain finance involves a holistic approach to analyze the chain, those working in it, and their inter-linkages. These linkages allow financing to flow through the chain. Types of value chain finance include product financing through trader and input supplier credit or credit supplied by a marketing company or a lead firm. Other trade finance instruments include receivables financing where the bank advances funds against an assignment of future receivables from the buyer, and factoring in which a business sells its accounts receivable at a discount. Also falling under value chain finance is asset collateralization, such as on the basis of warehouse receipts, and risk mitigation, such as forward contracting, futures and insurance.

**Two types of modules**

1. Internal value chain finance is that which takes place within the value chain such as when an input supplier provides credit to a farmer, or when a lead firm advances funds to a market intermediary. Finance will be provided like Farmers to input suppliers or input suppliers to ultimate farmers.
2. External value chain finance is that which is made possible by value chain relationships and mechanisms: for example, a bank issues a loan to farmers based on a contract with a trusted buyer or a warehouse receipt from a recognized storage facility. Finance will be provided by many sources from finance limited companies and Agri credit firms which are run by out sources.

Financial products and services for agricultural and rural production have been deficient and not particularly innovative; financial intermediaries still lack much depth in rural areas, and producers, especially smallholders, are still underserved.

**CONCLUSION AND RECOMMENDATIONS**

For many crops, India ranks lowest in terms of yield and for many crops it is largest producer but fails to process, preserve and export them. This is due to structural constraints discussed in the previous section. But it can be rectified if appropriate steps are taken by government various semi- Government agencies and private sector involved in agricultural reduction, marketing and export related activities. The following are specific recommendations to enable and develop a viable agriculture value chain system in India

I. In a large developing countries like India where infrastructure is not developed, tax and other related duties are often too high and total costs are unbearable for small and marginal farmers and new entrepreneurs, it is necessary that tax regime should be made innovator and entrepreneurs – friendly. Recently, government announced several initiatives for “startup IT companies”, such facilities and packages should also be given to agriculture sector. Proper and adequate infrastructure helps farmers and agri businessman to run their business successfully and helps to deliver the goods in the right time with right condition. In India, Infrastructure in the main impediment in the supply chain of agricultural products which leads to high amount of losses.

II. Given the fact that infrastructure is less developed in India and the public investments in it are very limited than it is appropriate to encourage investments by the private sector in agriculture. For example, testing laboratories, certification and inspection mechanism can be developed by either private companies or with their assistance. A coordinated mechanism for connecting infrastructure is also necessary. Governments can support the development and coordination of value chains. Investments that incentivize greater productivity and the ability to capture a higher value include transport infrastructure; energy for processing, chilling, drying, or and packaging commodities. Perhaps the most critical role of governments is establishing systems of laws, regulation and governance, which set rules for fair and competitive markets for farmers, marketing agents and processors.

III. Currently, India does not have famous brand for crops / food products in external markets. This can be done by identifying few products and specific export destinations and by launching an aggressive marketing campaign similar to Indian tourism campaign. Specific attention should also be given to such agricultural export promotion zones (AEPZs) where fruits and vegetables products are included in the list decided under the National Foreign Trade Policy 2015-2020.

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**CONTRIBUTION OF MICRO ORGANISM TO ENHANCE AGRICULTURAL PRODUCTION IN ERODE DISTRICT OF TAMIL NADU**

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**Telu Suvarna<sup>1</sup> and Dr. B. Chithirairajan<sup>2</sup>**Assistant Professor, Department of Economics, VISTAS, Chennai

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**ABSTRACT**

*Organic farming is an alternative solution to increase micro organism on the soil and below the soil. In addition to that the farm as an organism in which including all the components viz., soil minerals, micro-organism, flora and fauna interact to create a congenial ambience for sustainable agriculture. The major objective of the study is that to estimate the respondents' opinion among the role of micro organism in agricultural production in Erode District, Tamil Nadu. Further, the study has facilitated with multi-stage sampling method and 86 household respondents are randomly selected in respective district. As a result of the study is found that micro organism is a backbone of organic farming and it can facilitate with increasing fertility of the soil, improving ground water level, and effectively maintaining eco-friendly manner in agricultural scenario.*

*Keywords: Micro organism, organic farming, soil fertilization, ground water level, eco-friendly*

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The new agricultural technology was introduced in the name of Green Revolution in mid 1960's, it reveals that the adoption of High Yielding Varieties of seeds, using chemical inputs like fertilizers, pesticides and weedicides, and utilizing heavy machinery tools in agricultural sector. In addition to that, the traditional agricultural knowledge and practices are slowly replaced by modern agricultural knowledge and conventional farming practices. It is noticed that the practices of inorganic farming method to increase the volume of agricultural production and productivity has recorded 82 millions in 1960-61 to 272 million tonnes in 2016-17. One may inferred from the results that the usage of chemical fertilizers may reduce micro organism on the soil and under the soil. Further, it involved increasing higher cost of production and finally the farmers are pushed into indebtedness in agricultural scenario. In view of these all issues in agricultural scenario, most of the farmers are believe to shift from inorganic farming practices to organic farming practices. Organic farming is an alternative solution to increase micro organism on the soil and below the soil. In addition to that the farm as an organism in which including all the components viz., soil minerals, micro-organism, flora and fauna interact to create a congenial ambience for sustainable agriculture (Murugan and Chithirairajan, 2015). In India, the impact of climate change is severe on agricultural production. It leads to many adverse consequences in agricultural sector viz., crop failure, decline in agriculture production and productivity, deceleration in soil fertility, and fall in ground water level. Further, it has severely affected the eco-system and the stock of biodiversity on land. From the cost perspective, the cost of inorganic inputs has tremendously escalated, and also the timely availability of modern agricultural inputs is a problem for Indian farmers. Another problem faced by Indian farmers is indebtedness, as a result of the recurrent failure of crops. In order to overcome all these problems, there should be a paradigm shift in Indian agriculture from inorganic farming to organic farming practices. Hence the present study highlights the contribution of micro-organism to enhance the agricultural production in Erode district of Tamil Nadu.

**SIGNIFICANCE OF THE STUDY**

According to Hodgas (1981), organic farming is defined as a system that attempts to provide a balanced environment, in which the maintenance of soil fertility and control of pests and diseases are achieved by the enhancement of natural processes and cycles, with moderate inputs of the energy and resources while maintaining the productivity. According to Lampkin (1990), organic farming is a production system which avoids or largely excludes the use of synthetically compounded fertilizers, growth regulators, and live stock feed additives. To the maximum extent, feasible organic farming system relies on crop rotations, crop residues, animal manures, legumes, green manures, off farm organic wastes, and aspects of biological pest control to maintain soil productivity and tilth to supply plant nutrients and to control insect, pests diseases, and weeds. Among the most stringent definitions of the concept is that of US Department of Agriculture, which has been defined as, "A system that is designed to produce agricultural products by the use of methods and substances that maintain the integrity of organic agricultural products until they reach the consumer." This is accomplished by using, where possible, cultural, biological, and mechanical methods, as opposed to the use of substances to fulfill any specific fluctuations within the system so as to maintain long term biological activity, ensure effective peak management, recycle waste to return nutrients to the land, provide attentive cares for farm animals, and handle the agricultural products without the use of extraneous synthetic additives or processing in

accordance with the act and regulations in this part. According to Funtilana (1990), organic farming is giving back to nature what is taken from it. It is not mere non-chemicalism in agriculture, but it is a system of farming based on integral relationship. Therefore, one should know the relationship among soil, water, plant, and micro flora and the overall relationship between plant and animal kingdom. It is the totality of these relationships, which is the backbone of organic farming.

## REVIEW OF LITERATURE

Nehra and Grewal (2001) observed the influence of organic manures and inorganic fertilizers on soil properties, micro organism, and yield of wheat. It was observed that organic manures increased grain and straw yields of wheat, organic carbon content, and available NPK in soil significantly.

Anusuya (2001) enunciated that control of diseases has traditionally depends upon rotations and soil quality improvement strategies. The primary mode of action of compost is disease suppression which has been shown to be the enhanced microbial biomass and activity, which contributes to increased microbial antagonism to pathogens around plant roots. It has been analyzed in several animal manure based organic approved compost products for suppression of important soil borne pathogens of vegetable crop in the north-east. The compost was analyzed for nutrient composition through the Cornell Nutrient Analyzed Laboratories. By and large, the result showed that the higher nutrient density of this compost, and observed but disease suppression in the field made this product appealing to both organic and conventional vegetable growers.

Wyss (2000) studied the influence of nutrient contents of organic and inorganic inputs on conventional and organic farming practices. It is brought out that the quality and nutrient content of inputs differs between organic and conventional systems and also influences the botanical composition. Therefore, one notes that an organic input has a greater impact on crop yield and soil fertility.

Jayabal and Kuppuswamy (2000) reported the effect of vermicompost and biofertilizers on rice–legume cropping system. The study showed that the integrated application of vermicompost, fertilizer N and biofertilizers viz., *Azospirillum* and phosphobacteria increased rice yield by 15.9% over application with fertilizer N alone. Further, the integrated application of 50% N through vermicompost, 50% via fertilizer N and biofertilizers recorded a grain yield of 6.25 and 0.51 t ha<sup>-1</sup> in the rice and legume, respectively. These yields were 12.2 and 19.9% higher than those obtained with 100% fertilizer N alone in inorganic farming.

Bemwad Geier (1999) is of the opinion that there is no other farming method so clearly regulated by standards and rules as organic agriculture. The organic movement has decades of experience through practicing ecologically sound agriculture, and also in establishing inspection and certification schemes to give the consumers the guarantee and confidence in actuality. Organic farming reduces external inputs, and it is based on a holistic approach to farming. He describes the worldwide success stories of organic farming based on the performance of important countries in the west. The magnitude of world trade in organic farming products is also mentioned. To the question of whether the organic farming can feed the world, he says that neither chemical nor organic farming systems can do it. Finally, he emphasizes that the farmers can feed the world.

Save (1992) found that after three years of switching over to natural cultivation, the soil was still recovering from the after effects of chemical farming. When the soil regained its health, production increased and the use of inputs decreased. The farm, which was yielding 200 to 250 coconuts per tree, gave 350 to 400 per annum after converting into organic farming practice.

Shiva (1992) enlightened that the green revolution technologies created the perception that soil fertility is produced in chemical factories, and agricultural yields are measured only through marketed commodities. Nitrogen fixing crops like pulses were displaced and millets which have high yields from the perspective of returning organic matter to the soil were rejected as marginal crops. Biological products is not sold in the market and also not used as internal inputs for maintaining soil fertility, and in all, they were totally ignored in the cost–benefit equations of the green revolution miracle. In addition to that, the green revolution paradigm substituted the nutrients cycle with linear flows of purchased inputs of chemical fertilizers and focused on the production of chemical marketable agricultural commodities. In this view, the technologies cannot substitute nature and work outside nature's ecological processes without destroying the very basis of production nor can markets provide the only measure of output and yields.

Jacobi *et al.*, (2009) recommended that agricultural bio-diversity is an important form of natural capital in the livelihood of farmers, and it determined the direct economic benefits of farmers. Further, the study showed that cultivating a high diversity of crops in sustainable organic way is wise for the farming.

Cacek *et al.*, (2009) stated that organic bio-diverse farming and food production is the way out for the ecological and livelihood security of millions of small farmers in this country. Moreover, organic farming benefits the society substantially by reducing pollution and conserving energy, soil nutrients, fish, wildlife, and insuring the supply of food for the future generations. However, virtually no creditable data are available to policy makers on the magnitude of these benefits and they are unable to compare organic farming with other policy alternatives. In areas where organic farming is known to be economically feasible, policy makers should come to frame policies to organic farming as an attractive alternative for both farmers and policy makers.

### OBJECTIVES

1. To estimate the respondents opinion among the role of micro organism to enhance agricultural production in Erode District, Tamil Nadu.

### METHODOLOGY

Drawn from the present study is facilitated with multi-stage sampling method and it reveals that the four stages by the field of enquiry in Tamil Nadu. Among the first stage, Erode district has been selected in Tamil Nadu. In view of this second stage, Ammapettai and Anthiyur blocks have been selected in Erode district. In third stage, Vellithiruppur and Patlur villages have been selected in Ammapettai block and Bargur and Nagalur villages have selected in Anthiyur block. Regarding fourth stage, 86 organic farm households are selected in respective area. The selected 86 farm respondents are who have shifted from inorganic farming to organic farming in selected district. Regarding statistical tools, the present study has employed T-test analysis.

### RESULTS AND DISCUSSIONS

**TABLE-1: FARMERS OPINION AMONG ROLE OF MICRO ORGANISM TO ENHANCE AGRICULTURAL PRODUCTION**

SI. No	Details	T-test	Sig
1.	Micro-organism is a way to grow for organic farming in agricultural scenario	12.182	0.045*
2.	Micro-organism can increase flora and fauna	9.207	0.061
3.	Micro-organism can improve the fertility of soil	11.583	0.013*
4.	Micro-organism can improve ground water level	16.418	0.038*
5.	Micro-organism can produce the quality of agricultural products	3.756	0.084
6.	Micro-organism can maintain eco-friendly in agricultural sector	9.187	0.021*
7.	Micro-organism may reduce cost and increase revenue in agricultural sector	5.920	0.361
8.	Micro-organism can create congenial ambience in surrounding places.	10.674	0.028*

\*Significant at 5% level

Sources: Field Survey

Table 1 interprets the farmers' opinion about the role of micro organism in agricultural production in selected district. Micro organism plays a crucial role to grow organic farming with sustainable increase in agricultural production. In addition to that the practice of organic farmers is majorly utilised micro organism is easily put up to improve fertility of the soil, increasing ground water level, maintaining eco-friendly development, and absorb labour utilization in agricultural scenario. It is resulted that, utilization of micro organism can feed organic farming (0.045) is statistically significant and proved through farmers' opinion from the field survey. One more interesting from the results that, micro organism improves fertility of the soil (0.013), increasing ground water level (0.038), maintain eco-friendly management (0.021), congenial ambience in agricultural places (0.028) are statistically proved and significant at 5% level. It is pertinent to note that the farmers are believed and suggested that the utilization of micro organism can improve crop production in agricultural sector.

### POLICY IMPLICATIONS AND SUGGESTIONS

1. It is seen that cattle rearing is one of the components of organic farming and the by-products of cows and goats help the organic farmers to prepare organic inputs. In this context, it is suggested that farmers should be made aware of the important of country cattle rearing in Erode district.
2. It is noticed that many of the organic farmers are lacking knowledge to produce organic inputs such as vermicompost, amirthakaraisal, and panchagavya in Erode district. Hence, Government should provide extension activities in terms of training to prepare organic inputs and it may increase micro organism on the soil and below the soil.

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**HYDROPONIC FARMING: A PATH TOWARDS SUSTAINABLE DEVELOPMENT**

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**Shwetha MK and Precilla Cutinha**Jyoti Nivas Pre University College, Bangalore

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**ABSTRACT**

*At the core of ecological sustainable agriculture, over the last century several of the resources were systematically destroyed due to various reasons. The rapid urbanization and industrialization has led to over exploitation of ground water, soil, natural resources and even the arable land under cultivation is further decreasing. In near future it will become impossible to feed the entire population using open field system of agricultural production only. As the world population grows, the demand and need for different products, especially food products, grow as well. Because of this growing demand, there will be an expected food crisis in the coming years. To prevent these crises from happening, various alternative sustainable agriculture methods should be followed. One such modern method of farming useful for both urban and rural areas is Hydroponic Farming.*

*“HYDROPONICS” is the growing of plants in a liquid nutrient solution with or without the use of artificial media, growing plants without soil in a water solvent.*

*Hydroponics has been recognized as a viable method of producing vegetables (tomatoes, lettuce, cucumbers and peppers) as well as ornamental crops such as herbs, roses, freesia and foliage plants. Hydroponic gardening is fast becoming a popular choice for many growers around the world due to its more sustainable approach to resource usage than the usual growing methods.*

*This paper aims to study the significance of the sustainable development in the field of agriculture through Hydroponic Farming by using the secondary data. The paper studies the impact and importance of Hydroponic Farming through case studies and SWOT analysis.*

*Keywords: Urbanization, Farming solution, Sustainable agriculture, Hydroponic Farming.*

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**HYDROPONIC FARMING: A PATH TOWARDS SUSTAINABLE DEVELOPMENT**

Indian agriculture provides employment to over 110 million farmers and contributes to 26% of the GDP and nearly 1/6<sup>th</sup> of the total export earnings. India has experienced a lot of technological development in the post-independence era, resulting in an annual growth rate of 2.7%. However, the growth in the food production slowed down to 1.8 per cent from 3.7 per cent in 1990's. Further, within the agriculture sector too, the development has been uneven in production and productivity across regions and crops.

**IMPORTANCE OF THE STUDY**

India has high population pressure on land and other resources to meet its food and development needs. The natural resource base of land, water and bio-diversity is under severe pressure. Food demand challenges ahead are formidable considering the non-availability of favorable factors of fast growth, fast declining factor productivity in major cropping systems and rapidly shrinking resource base. . Indian agriculture is facing number of problem and tackling these problems and revitalizing agriculture will take time, money, understanding and political will. To achieve the necessary yield growth without harming the environment is an enormous challenge. This challenge will have to be met largely through agricultural research. Therefore the study proposes to analyze the importance of adopting hydroponic farming in achieving sustainable agriculture.

**OBJECTIVES OF THE STUDY**

- To throw light on present scenario of agricultural sector.
- To study the role of hydroponic towards sustainable agriculture.
- To study the success stories of Hydroponic Farming.
- To conduct SWOT analysis of Hydroponic Farming.
- To explore the future prospects of Hydroponic Farming.

**METHOD OF DATA COLLECTION**

The data used to study the role of Hydroponics towards Sustainable Agriculture is based on the secondary data purely. The journals, article, web links, books have been used as source of information. There is no empirical touch to this paper.

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**SOME FACTS AND FIGURES FIRST**

Despite supporting almost 60 percent of India's total population, the contribution of agriculture to the GDP has been consistently declining. It currently stands at around 15 percent. Agricultural sector provides work to more than half of the country's population contributing less than 1/5th to its GDP indicates a clear imbalance. While India grew by over 7 percent per cent last year, agriculture remained more or less stagnant. India's food grain production which has consistently been abundant over the past several years is showing signs of plateauing, suggesting saturation.

Due to the advanced technologies, mechanization, increased chemical use, government policies and specialization, the agricultural production has increased substantially. Although these changes brought several positive results, there have also been significant negative externalities. Some of these are topsoil depletion, ground water contamination, and fall in the family farms, increasing cost of production.

There has been growing tendencies during the past twenty years to reflect on the role of the agricultural institution in promoting practices which solves the issues of negative externalities of using mechanization in agriculture. Today the concept of sustainable agriculture has gathered a lot of attention and acceptance by the policy makers and the mass. Sustainable agriculture not only solves environmental issues but also helps in using innovative practices in achieving food sufficiency.

**Sustainable agriculture** is one such path towards realizing our dreams. It helps to sustain farmers, resources and the economy through ecofriendly farming practices. Sustainable agriculture is the right solution for modern agriculture. It honors the true values of producers and their products. It considers the long-term viability of agriculture.

Sustainable agriculture contributes in long term crops production without damaging the environment adversely. It helps in building good balance between food production and preserving environment. It helps in conserving water, growing crops using ecofriendly techniques, promoting bio diversity in crops and the eco system. Sustainable agriculture also promotes quality of life if the farm families, increases profitable farm income and increases production for human food and fiber requirements.

Congress has defined sustainable agriculture as an integrated system of plant and animal production practices having a site-specific application that will over the long-term:

- Satisfy human food and fiber needs;
- Enhance environmental quality and the natural resource base upon which the agriculture economy depends;
- Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls;
- Sustain the economic viability of farm operations; and
- Enhance the quality of life for farmers and society as a whole. (U.S. Code Title 7, Section 3103)

The three basic types of soil less growing are:

- 1) Aquaponics - where presence of fish along with cultivation
- 2) Airoponics - growing the crops with air as the primary medium
- 3) Hydroponics- a method of growing plants without soil by using mineral nutrient solutions in a water solvent.

**HYDROPONIC FARMING**

"HYDROPONICS" is the growing of plants in a liquid nutrient solution with or without the use of artificial media. Commonly used mediums include expanded clay, coir, perlite, vermiculite, brick shards, polystyrene packing peanuts and wood fiber.

Crops like tomatoes, lettuce, cucumbers and peppers as well as ornamental crops such as herbs, roses, freesia and foliage plants can be grown using hydroponic farming. The ban on methyl bromide in soil farming has resulted in the increased demand for hydroponic farming.

In hydroponic farming water is enriched with well-balanced nutrients which are essential for plants growth and better yield. Water level will be maintained with the specific range which results in better growth and produce. In this farming plants take the nutrients from water and using sun light and they produce output.

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**THE CASE FOR INDIA**

- India needs to adopt hydroponics as a method of farming for several reasons:
- With sound government policy and handholding of the farmers, hydroponics are economically feasible.
- We can get fresh food without contaminated by pesticides and insecticides.
- By growing plants under controlled conditions hydroponics protects agriculture from climatic changes including unseasonal rain and hail storms.
- Hydroponics can be the best solution for the Indian government for land acquisition. The government can provide the farmers land for land and hydroponics companies can help the farmers in teaching the techniques of hydroponic farming. This helps the farmers to continue farming even if the landholding is small.
- The cost for crop management begins to diminish with controlled supply of nutrients.
- It also reduces the transport cost as the products can be cultivated close to the consumer market. The farmers can be released from the middlemen clutches as the farmers are thought to deal with the consumers directly.
- Hydroponics technology have the power to reduce the germination life of plants from 30 days to just around 11 days. This helps the farmer to rotate the crop more often which in turn helps the farmer to keep up with the costumers taste and earn more.
- Hydroponic farming can attract urban investors as the sale proceeds from the agricultural produce through this techniques invites zero tax.

**SWOT ANALYSIS****THE STRENGTH OF HYDROPONIC FARMING:**

1. Hydroponics use all the mineral nutrients from the water without wastge thus it provides the less pollution farming
2. It consumes less water compare to soil bsed farming
3. As we controle PH level and provide essential nutrients in optimized way, faster growth and high yield can be expected in this system.
4. It is automated and managed easily.
5. Unlike traditional farming methods hydroponics requires less space
6. The quality will be high in hydroponic farming.
7. The techonlogy can be combined with green house effect to get better results.

**WEAKNESSES OF HYDROPONIC SYSTEM:**

1. The only main disadvantage in hydroponic system is its intial set up cost is high.
2. Should be moniterd regularly.
3. Depends on power. Failure of power may create problem.
4. Needs higly effective marketing.
5. Needs more diligence and devotion.
6. Disease in one plant may spread fast to other plants.
7. Failures in the system may result in losing the crop.

**OPPORUNITY IN INDIA FOR HYDROPONIC FARMING**

1. Chance to develop and certify Hydroponics as organic.
2. Hydroponic griwers can form cooperatives to achieve better returns.
3. Ability to brand, pachege and sell produce as clean, healthy and unique.
4. Opportunity abounds in creation of more growth products such as gingers, saffron, turmeric etc which are cash crops.
5. Waste land which have poor soil quality and are adandoned can be brought under hydroponic farming and can be made useful for growing vegetables and on a large scale.

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**TREATS IN HYDROPONIC FARMING**

1. Maintaining a proper PH level of the nutrient solution is of utmost importance because this is the only way plants get their nutrients and any imbalance can cause nutrient lockout.
2. Before starting a hydroponic farm it is advisable to get the water tested because hard water is considered to have large amounts of calcium and magnesium which can be seriously dangerous to plants.
3. The common pests that infect are spider mites, thrips, aphids, whiteflies and fungus.
4. Some consumers have this perception that Hydroponics is unnatural.

**SUCCESS STORIES****Case 1**

Vijay Yelmalle established the Center for Research in Alternative Farming Technologies (CRAFT) in 2014 with four employees and a personal investment of Rs 30 lakh to help the farmers to cultivate in a sustainable way. He spent his initial two years in conducting research in soilless farming such as aquaponics and hydroponics. In the beginning Vijay started to grow vegetables on his terrace in Mumbai and gave the cultivated vegetables through hydroponics to his family and friends. He had to spend a lot of time in educating people. This was the challenging period for Vijay as people with partial knowledge would come to him asking how to how to produce 200-400 tonnes of vegetables in one acre, with no idea of the cost it entailed. Few had wrong notions about hydroponics and aquaponics.

Till date CRAFT has trained almost 1500 people in hydroponics, aquaponics and urban farming. CRAFT provides consultation and training at Kharghar, Navi Mumbai and helps its customers in setting up farms. Vijay tries to solve the problems of the farmers regarding soilless farming through WhatsApp. It had also generated two sustainable business models. One model focuses on the health of urban dwellers by growing vegetables in urban areas and supplying fresh, nutritional products to the customers from nearby areas. The other model, called 'Rural Integrated and Digitalised Economical Aquaponics' relates to the economic sustainability of marginal farmers using aquaponics.

Mr. Yelmalle is also looking at establishing an institute to bring in more educated people into this sector. He plans to collaborate with National Bank for Agriculture and Rural Development to impart these skills to farmers.

**Case2**

Manas Kulkarni, a farmer from Vivare village in Jalgaon district also cultivates wide varieties of vegetables such as colored peppers, tomatoes, exotic leafy vegetables, broccoli and Chinese cabbage using Hydroponics. Mr. Kulkarni has attended the CRAFT workshops. He is of the opinion that with the growing population, land availability for cultivation would be a challenge in the future and he feels that the only solution for the same is hydroponic farming. He has opened a small hydroponics setup in his village and will soon start growing leafy vegetables.

**Case 3**

Pravin Tulpule, an entrepreneur uses hydroponic technique to improve his kitchen gardening skills. He uses cocopeat and clay pots instead of soil. He believes that the advantage of hydroponics is that one can practice it at home or on a commercial scale.

**Case 4**

The recent one to join the bandwagon of hydroponic technology is a start-up in Chennai, Future Farms. Sriram, who was heading a successful IT company has founded Future Farms in 2007. Future Farms achieved a turnover of Rs 2 crore in 2016-17 and seems set to triple its revenue in the current fiscal year. The Future Farms is growing at 300 percent every year. The company has set up quarter acre farms for Adani group in Bhuj, and a farmer in Kotagiri, who cultivates iceberg lettuce for McDonald's. Sriram is hoping on an urban farming revolution where the new-age farmers would be people who would be comfortable handling the computers and sensors that are part of the hydroponic set-up, and rooftops in the cities would be the harvest fields.

**Government promotes hydroponic for growing fodder amid water scarcity**

- In India, the central and state government has subsidized the capital cost for farmers willing to invest in Hydroponics.
- States such as Maharashtra and Andhra Pradesh making efforts to promote hydroponics in a big way.
- Government of Maharashtra is becoming aware of the facts of increasing water scarcity and decline in land availability and is of the opinion that the gap can be bridged to an extent through hydroponic farming.

- Recently Maharastra government has provided 50% subsidy to farmers to adopt hydroponics for growing animal fodder.
- Hydroponic farming is getting thumbs up from government of Andra Pradesh. It is giving 75% of subsidy for green house farming areas ranging between 100 square meters to three acres.

## CONCLUSION

It has been observed that for a growing country like India the practice of sustainable agriculture is of quite importance as it accelerates the productivity, efficiency, employment, and providing guidance to reduce the practices which affect the quality of soil, water resources and degradation of other natural resources. It basically aims at adopting specialization and using environment friendly tools to protect and preserve the environment as well as to enhance the level of production without harming to the environment. Hydroponics is poised to become increasingly relevant due to its inherent advantages combat land, water, labor shortages while being environment and technology friendly. Going forward, many technologies can be integrated into hydroponics making it more accessible to industry and farmers.

It's time we adopted hydroponics on a large scale. Not only for yield or quality improvement, but also where soil quality is depleted or water is scarce, hydroponics can enable profitable and sustainable growth. It's time to dive in.

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**CLOUD ACCOUNTING – A PARADIGM SHIFT IN ENTERPRISE ACCOUNTING**

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**Aneesh A. S.<sup>1</sup> and Vijesh V. A.<sup>2</sup>**Assistant Professor<sup>1</sup>, Department of Commerce, NSS College, Nilamel, KeralaAssistant Professor<sup>2</sup>, Department of Commerce, Dr. Palpu College of Arts and Science, Kerala

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**ABSTRACT**

*The Rapid advancement of Science and Technology, need for big data, increase of internet speed and usage and Standardisation of accounting like introduction of Ind-AS and IFRS has let to the emergence of an innovative concept – Cloud Accounting. As the access to Internet becomes easier, faster and cheaper internet based cloud based systems becomes more and more popular. Even though in India the Cloud is yet to make a change, it has grown rapidly around the World. More and more establishments are moving to Cloud based solutions as the infrastructure and maintenance are getting costlier. Accounting is a vital Component of framework that sustains any enterprise's Activity. This article focus on the importance of Cloud computing paradigm on the accounting domain. An analysis of the risks associated with the adoption of the Cloud accounting and its effect in Indian scenario. This paper analyzes the key aspects that should be considered by any company when deciding to choose the right accounting system. Understanding the specific requirements of the business is essential - be it online or offline.*

*Keywords: cloud computing; accounting model*

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**1. INTRODUCTION**

The world as we know it, is subject to continuous change. The increasing development of technology have forced the need for economic innovation in order to achieve efficiency and progress. Rapid advances in science, demographic change determined by globalization, and the promotion of new business models, will collectively form different expectations and economic values. The increasing complexity of the business environment, along with increased level of competition at an international level and the reduction of the business cycles are demands that would challenge the accounting profession. The continuous need for international accounting standards and practices is also influencing the future of accountants

As nowadays no-one can stay away from the digital world, Companies are rapidly changing their accounts to digital form. As the globalization made the entire world as a single market place, most of firms cannot operate from a single place or currency. In this context cloud computing made its path and created new business exemplary. The impact of cloud computing is presently unopposed and will provide the basis for future change of the economic field. The accounting profession must firstly achieve the focus regarding these forces that will reshape the future of the enterprises they support.

A standardization of accounting procedure is necessary so as to be at par with the Industry standards. Accountants should objectively evaluate the effects of these changes in relation to the entire accounting system: standards, processes and staff. Thus, the impact of future change includes all accounting aspects, from the role of accounting employees, through to the content of financial reporting standards and the reformation of tomorrow's accountant. Rapidly changing laws and regulations, Changing Tax systems and tax rates also made the works of Accountants little harder. Nowadays almost all firms Large or small depends on computerized accounting systems and they mostly depend of the standard packages like tally etc. This paper is mostly based on the knowledge derived from the "technical" angle. Implications that come along with the adoption of cloud accounting solutions, both technical and financial is also discussed.

**2. RESEARCH METHODOLOGY**

The study is based on a review of current literature regarding the aspects of cloud computing on the business process in general and more specific its impact on accounting and financial capabilities by synthesizing the changes brought to the company's operational structure. The data used in this paper was collected from various research articles from the past five years, accounting regulatory body regulations, reports and case studies issued by the leading cloud service providers.

**3. CLOUD ACCOUNTING**

In order to fully understand cloud accounting, it is imperative to realize the potential of cloud computing in the business landscape. Cloud computing is no longer a new paradigm and it generally refers to business performed over the Internet, without the use of computer hardware or software license.

Cloud Computing defined as 'a type of parallel and distributed system consisting of a collection of interconnected and virtualized computers that are dynamically provisioned and presented as one or more unified



computing resources based on service-level agreements' The trend regarding the informational technologies applied in accounting is the "cloud computing", based on which the following informational categories further derived: "e-accounting", "cloud-accounting", "web-accounting", "real-time accounting".

In fact, an official definition for 'cloud accounting' is not yet established, but it is rather explained through its features advantages and functionalities. The main advantage is the use of the accounting service without the necessity to install any software or make investments in computer infrastructure, hence the naming of the service.

Cloud Computing is considered as the next generation of computing. In other words, cloud computing means: offering computer hardware and software applications as services through the Internet. It allows users to store data and use applications through different devices located in several locations.

Currently, there are numerous definitions and interpretations given to the cloud computing concept. Expert Group (2012) believes that the responsibility for the existing confusion regarding the definition of this concept and its characteristics belongs primarily to the great variety of cloud service suppliers offering different capabilities, and secondly to the fact that the terminology used among the cloud's framework interferes with other domains such as Data Centre Clusters, Grids, High Performance Computing, Web Services.

Expert Group (2012) encourage the implementation of a cloud definition that would disconnect the concept and its significant from the other interfering domains. This would generate, on the short term, a good understanding of the concept, and, on the long term, setting of related recommendations and best practices. Existing definitions of the concept mainly focus on the actual context and capabilities of the cloud, without highlighting the essential long term characteristics or the entire utilisation potential of those characteristics in different areas.

At present accounting model implies ease of access, customization, collaboration and ultimately, the use of the Internet through cloud computing. The basic principles that drive cloud computing, combined with the activities carried out by accounting software companies, have driven to the emergence of cloud accounting. This concept, also mean to be 'online accounting', involves the same functionalities as an accounting software installed on the users' computer, but which in fact runs on the CSP's servers. Basically, it provides accounting services by means of cloud computing solutions

The application is accessed through the web browser, over the Internet. The customer's data is securely stored and processed on the provider's servers — 'in the cloud'. Therefore, the ownership of the intellectual property belongs to the CSP, while the client is only able to use the application – he cannot take possession of it. What is needed is an Internet connection and companies can access their financial data from any device and location.

A cloud-based accounting solution ensures a way to address numerous and complex demands and processes through an integrated on-line system, thus lowering the amount of labor needed by the accounting department.

#### **4. BENEFITS OF CLOUD ACCOUNTING**

*Cost Effective:* A company's initial investment can be substantially reduced through cloud accounting offerings because, with this business model, there seems to be no hardware or software licenses to purchase. Especially for small sized entities that cannot afford costly infrastructure and the software implementation process, these solutions allow them to run their internal processes and operations using the same IT systems employed by their more developed competitors. They can access the same high-end technology as large or multinational companies and they only pay for what they use. Users can actually choose the payment method: per each use or by paying a monthly subscription fee, depending on consumption.

*Increased productivity:* The fact that the cloud is available round the clock allows users to work when they want to, not restricting them to office hours only. This develops the business productivity, because the users are not limited to office time, bound to a desk, or limited by any kind of access device they might use. By accessing the application from any mobile or computer, the user is able to check his bank balances or recent transactions. Employees are provided with convenient work schedule like work at home, flexi time etc.

*Security:* As the cloud servers are located at different places and provides state of the art updated security systems the data stored on the cloud will be less vulnerable. The necessity for taking periodical backups are eliminated. The risk of data theft due to loss of devices like mobiles or laptops are limited. As the records are kept in the cloud, the physical damage of servers or Desktops will not affect the data. When selecting an important cloud service provider, the security level is rising. Web-based systems brings in an equal level of security, as well as an equally efficient internal controls when compared to the traditional software. Traditional accounting applications, companies using them will be accountable for user access management as well as for

digital and physical warehousing of documents. These operations are, usually, taking too much time, and more cost. Opting for a cloud computing accounting solution to a great extent reduces both costs related to the above mentioned operations and the time consumed for performing the respective operations.

**Compliances:** The necessity of updating the software are eliminated as the cloud software usually will make necessary changes to adopt the new changes in the accounting laws. Proper reports for filings can be easily generated. The change in these statutes can be implemented easily. For example Implementation of GST in India is a big challenge to several companies. If they are using the cloud accounting platforms the service provider alone will study the details and implement it on their system. Then automatically all the other users will get their necessary changes. They will be able to generate necessary reports as per the regulations and issue invoices/bills as per the law. The cloud accounting also helps in company in following the regulatory requirements and policies. For example when the companies' net worth crosses 250 crores they have to comply the Ind – AS standards and the financial reports are needed to be prepared accordingly. The cloud accounting systems can automatically detect such changes and make the necessary changes in the accounting policies of the company automatically.

**Concerns and risks:** Considering the fact that today's economy is hyper competitive and challenging, each business is very scrupulous when it comes to sharing their financial information. In fact, owning the right information at the right time is a very critical weapon in the business field. Even though a high level of security has already been in use, business owners are still worried about the safety of their financial information. Another aspect that is concerning business owners is the risk of losing the connectivity, calamities like the flood in Chennai and Mumbai affected the internet connectivity and also some internet based services.

**Unlimited Access:** users of this module are connected to this pool of information all the time they are free to access from anywhere anytime without any limit. Users all over the world can access and update their financial information from any location, at any time without having to install any other software on their device. Actually, this is the cause why cloud computing can be treated as a form of 'ubiquitous computing'.

**Eased management–** the accounting application can be without any hassle accessed through a browser, with no requirement of compatibility check to be done between the computation system put in place and the accounting software application. Moreover, every user is using the same version of the accounting program, thus doing away with the potential problems posed by different versions incompatibilities.

## 5. TRADITIONAL ACCOUNTING VS. CLOUD ACCOUNTING

Acumatica, 2011 and C. Christauskas and R. Miseviciene, 2012 point out the differences between the traditional accounting programs and the cloud computing based accounting solutions.

**Table-1: Traditional accounting software vs. cloud accounting software**

	<b>Traditional software</b>	<b>Cloud computing based accounting solutions</b>
Accounting software license	The company is the owner	The company is the tenant
System location	Chosen by the company	Cloud
Hardware	Provided by the company	Included
Windows & SQL Server	Provided by the company	Included
Maintenance costs	Separate	Included
IT resources	Provided by the company or outsourced	Not necessary
Technical support	Provided by a third party	Provided by a third party
Number of users	Licence limited	Limitless

(Source: Christauskas C. and Miseviciene R., 2012:17)

## 6. CLOUD ACCOUNTING IN INDIA

**Development:** In India cloud as a whole gained momentum only recently. The increase in the Internet speed and connectivity made the Indian business to think about cloud services. The increase in server costs, its maintenance etc, has forced several SME's to move to cloud servers. As these servers operate on a subscription based model, newer Companies don't have to shell large sums for IT infrastructure.

As the overheads in India is getting higher, Companies are trying to reduce their cost by bringing down the employee cost. Lack of properly trained persons is also a problem. The rapidly changing statutes also make the accounting of Companies a costly affair. This has led to the development of a lot of accounting firms, who take care of the accounting needs of a firm. Usually they work on a retainer fee. This amount will be considerable

lower as compared to employing an expert accountant. However most of these Companies have to procure the accounting software and other related hardware.

This has led to the development of cloud based accounting systems, which enables the companies to take a subscription on a web based application and pay monthly or annual license fee. As they are accessible from any place the accounting firms and auditors of the Companies can verify these accounts from their office itself. This also helps in the companies auditors or tax consultants to file periodic returns etc.

#### ***Cloud Accounting Service providers in India***

Some of the preferred cloud accounting providers are discussed below.

1. Zoho books – provides access to accounting platform through their website [www.zoho.in](http://www.zoho.in). They provides GST reports etc. They offers customization to suite the business needs. Their pricing starts from 2499/- per year.
2. Zip books – has several addon features including payment gateway system that supports the receipt of online payments. They also provides an integrated CRM software also. The website [www.zipbooks.in](http://www.zipbooks.in) offers the service for Rs. 4,999/- per year.
3. Real books – <https://realbooks.in/> offers complete erp solution online. Their cloud package offers different pricings for professionals, businesses and enterprises ranging from Rs. 2,500 per year to Rs. 20,000 per year.
4. Profit books – <https://profitbooks.net>. This cloud accounting service provider offers to manage your money without accounting knowledge. They have plans ranging from Rs. 6,000 to Rs. 9000 per year.

All these websites allows the users to try their license before buying the same.

#### **CONCLUSION**

The last decade has seen enormous development in the field of information technology. Society has started exploring more and more utilities of information technology it is made possible through it tools and gadgets which are abundantly available in our society. The development of information technology has in fact changed the world people think, act and communicate. Similarly in the business sphere also IT has changed the way people do business. The cloud concept is becoming widely accepted IT solution in the business world as business men has realized that cloud based software can improve their efficiency .The cloud accounting model makes possible all business stake holders like owners , clients , accountants and auditors to closely associate by accessing up to date information at the same time through internet .

If the accounts personnel let technology to prove its ability, the entire accounting profession may become a worldwide standardized entity and take organizations to a new paradigm of efficiency

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**A STUDY ON PROSPECTS AND THE CHALLENGES OF MOBILE BANKING IN INDIA**

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**Santhosh V and Raghavendra Babu**Assistant Professor, Department of Commerce, KJC, Bangalore

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**ABSTRACT**

*Banking is playing a dynamic role in affecting field of industry; funding is one of affecting largest service provider's forms several decades. Today the banking industry welcomes a wireless and mobile knowledge in to the boardroom to offer their customer for making payments, balance checking and then fund transfer. Here are both positive and negative factors effect while acceptance of mobile banking. Nowadays new automation is increasing rapidly which is also promoting the funding industry. In India there are 1.012 billion active mobile connections in January 2018 out of 460 million internet users are there... by 2021 there will be more than 635.8 million internet users in India. This is a major increase from previous years. The global report found that mobile banking adopts by new users and largest in emerging countries. It ensures that customer in clearing and settlement of transaction through nationwide and real fund transfer in any bank account and operates of any operator. The present study has been focused to identify the usage of mobile funding in a selected area. It does not involve cash transaction, so customer visits an ATM of a branch of the bank to deposit or withdrawal.*

*Keywords: Mobile banking, Internet banking, Innovation and Technology.*

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**INTRODUCTION**

The mobile phone is one of the types of communication automation to have more users in emerging countries like India. Nowadays mobile banking is common in developed and emergent countries, mobile banking is also called M-banking and SMS banking in terms of a Balance check, money transfer, payment of bills, Donations. The lending industry in India as found automation innovation. Mobile banking is regularly available on 24/7 hours all the days. Some banks and some fiscal organizations limit the amount for the transaction.

This study has been conducted to identify the usage factor of mobile banking in the some part of region selected. Mobile banking is the largest banking transaction accepted worldwide including India. Some consumer is hesitated to adopt mobile banking due to unaware of it. Mobile banking is giving some facility by a bank to their customer to make financial transactions. India is present one of the fastest emerging countries in terms of mobile using country. Mobile phones are not only a medium of voice communication it provides services at anywhere any time. Now a day's mobile banking services create a social effect happening, the area of education, agriculture, healthcare, and governance. Mobile banking people are appreciating various m-services' such as M-shopping, M-agriculture, M-banking, and M- education.

**PROBLEMS OF MOBILE BANKING****Mobile Banking Apps Sound Great But ...**

The WWW and financial industry have made great steps over the last period, but have kind of become stuck in no man's land. Financial institutions want more people to try mobile banking apps, but the primary problems have not been decided. Without customers, banking firms have no reason to invest in the research & development needed to fix the problems.

**1. Questionable Security**

Security is a concern for most online bankers. In fact, one experienced estimates that 90% of all mobile banking apps have security issues. Ariel Sanchez of IO Active Labs tested out 50 of the top 50 banking apps on his iPhone and found that nine out of ten failed. The apps could not even protect against hackers.

Solution: The Bankers need to employ ex-hackers to nurture their apps

**2. Dropped Calls, Crashes & Bad Connections**

Have you ever taken a bad Internet connection? Imagine if you were right in the middle of financial operation. Weather, traffic flow, and who-knows-what can interrupt your online banking transfer. Bill Shipley of Accenture Mobility Services admits that smashes for utmost mobile banking sites are about 5%.

Solution: More security to improve uptime rates for mobile banking websites.

**3. Won't Read Paper Deposits**

When Microsoft upgrades its Windows, it needs to have diffident compatibility with older types. This is a normal scientific rule. Inappropriately, mobile banking applications cannot smooth read a paper checked or

physical signature. The financial segment is gathered – it promises to go paperless when most people still use paper for the financial transactions.

Solution: Improve a scanner to mobile devices.

#### **4. Bankers Don't Understand Apps**

Utmost bankers are traditionally conformist. Most application developers are fairly independent and open-minded. Many financial organizations do not web well with the cell phone application improvement culture. Combining cultures has been very difficult. Some software design languages are open source; banks require privacy.

Solution: Banks must create their own group of an industrial computer programmer.

#### **5. Very Little Standardization**

What policy should you develop in your banking app on – Blackberry, Apple or Google Android? The investment in mobile banking applications is very expensive with questionable returns. One expert claims Android payment apps are risky. Banks have a tough time making their rules upon a world with different languages, technologies, and rules. The global village is becoming more narrow-minded.

#### **MOBILE BANKING – ADVANTAGES**

Here's a list of 08 most promising advantages of mobile banking for both banks and their customers:

##### **Be accessible when and where your customers want you to be**

Mobile banking does not limit your business to set times/localities. Be available 24/7 – anytime, everywhere!

##### **Empower your customers**

Your users will be able to transfer sum of money, investor exchange currency without intermissions/suggestions from anyone, waiting time and quick improvement on requests.

##### **Go green, and go paperless**

Bring paperless declarations directly into customers' email addresses, while saving the cost of production, paper, and transfer. The less wastage of paper makes this clarification and environment-friendly.

##### **Have a single vision of customers**

Linking your mobile banking application by the present central banking solution to KYC better. Study the customer's profile and account data to understand their financial performances for offering modified products/services.

##### **Provide best & fast services to customers**

With a smart feature of smartphones like the camera, allow your customers to simply click pictures and initiate requests. For example: Open a new account by indicating and submitting KYC documents accessible instantly.

##### **Enable location-based services**

Track a user's location, push notices for recent offers proximate and ensure greater safety against scams for transactions started from amateurish locations etc.

##### **Reward your customers**

Give loyalty prizes to customers in the usage of mobile transactions giving points or discount vouchers for handling via using the mobile banking application.

##### **Safeguard customer details**

Bit real-time updates on relations accomplished; configure multi-level security types like OTP to registered mobile for validation via the banking application.

#### **DISADVANTAGES OF MOBILE BANKING**

Many consumers use mobile banking on their cell phones or another portable device because it allows them to quickly access information such as account balance and transaction history. The benefits of this convention are indisputable, but there are a number of disadvantages that mobile banking users should be aware of. The technology's cost, compatibility problems, and security problems may cause you to think twice about using its mobile banking lets you access your account information anywhere.

In **Bank Invention's State of Banking Innovation in 2016** analysis, we asked the review's 171 respondents — the majority of whom self-identified as bankers — what they thought banking will be like in 2020.

Here are ten different ways they answered:

**1. Mobile is Everything, But Same Old Banking methods**

Several respondents supported the futures of mobile: "Everything you need will be done on your own mobile phone," one defendant wrote. "Mobile payments will totally reposition real wallets." Another added this could lead to the significant cashless ideal: "More innovation but on mobile, innovations to handle micropayments—extensive cash out."

**2. Banks Absorbs the Fintech Startups**

One defendant was unconvinced that current startup culture would still be everywhere, noting that there will be "very few large scale startups. Most will be acquired and integrated into the greater system." He didn't intricate as to why, but we strength suggest capital drying up, regulations increasing, or greater collaborations developing between fintech firms and innovative banks.

**3. All Processes Go Digital**

Before we get to mobile we have to eliminate irritating, irritating paper and other remnants of the Dark Ages, which is why some respondents claimed we will have moved entirely on to electronics in the next few years.

**4. "Banks" Disappear**

Some participants declared the failure of the entire banking world, like one respondent who transcribed, "It will be in rags after the next banking crisis and we will see a completely new financial organization in its making." Another was less dramatic and wrote that in the future one could expect to see, Some of the same and some that are new. Many of the larger banks will be well on their way to a continuous integrated channel involvement. Customers will have one (or many) financial partners. They will have access to all of their relevant financial information in real time to help them make the right financial conclusions in their day-to-day activities. Whether this is to be delivered by banks or troublemaking startups is yet to be seen." Lastly, another respondent predicted chaos, writing, "total alteration; occupants who adapt will survive—[there will be] significant automation and even AI. Many jobs and old practices will be gone."

**5. Public Banks Will Still Be a Thing for Communities...**

Some respondents thought communal banks would succeed by serving, well, communities. (See Kasasa Chief Innovation Officer John Waugh's upcoming book *Bankrupting* for more on this theme.) One respondent wrote the banks' survival will "depend on geographic location — small communities will continue to be primarily assisted by community banks. Large cities will see a continued shift to a operative banking model." A junction of banking between a branch and digital based on geography? Interesting.

**6. Staff Shrinks, and Shifts to IT**

Some bankers predicted that the rise of technology would be led to less staff in finance — unless they happen to do a particular job, like this one respondent who wrote, "Only 20% of current staff levels [will remain], but [banks will employment] twice the number of IT operate. Traditional banks will lose their direct channels to professional channel providers."

**7. The rise of the Robots (and AIs)**

I would use this for #9: "More automation and personalization. Banking as a platform," one respondent wrote. This might mean more chatbots and artificial intelligence fast-tracking the onboarding procedure, but it also states to API ecosystems being built on top of bank systems. To many in banking, this implies giving away the customer involvement to fintech startups and the tech giants, but maybe it will just mean attractive the customer understanding by securing in one's finances to services and systems that are already used and loved. Plus chatbots. Lots and lots of chatty little chatbots.

**CHALLENGES FOR A MOBILE BANKING SOLUTION**

Key challenges in emerging a cultured mobile banking application are :

**Handset accessibility**

There are a big number of different mobile phone devices and it is an immense challenge for banks to offer a mobile banking solution on any type of device. Some of these devices running Java ME and others support SIM Application Toolkit, a WAP browser, or only SMS.

First interoperability issues, but, have been local, with countries like India using portals like "R-World" to enable the limitations of low-end Java-based phones, while a focus on areas such as South Africa has defaulted to the USSD as a basis of communication achievable with any phone.

The need for interoperability is largely in need of on the banks themselves, where connected applications (Java based or native) provide better safety, are easier to use and allow development of more multifaceted capabilities

similar to those of internet banking while SMS can provide the basics but becomes difficult to operate with more multipart connections.

### **Security**

By way of with most internet-connected devices, as well as mobile-telephony devices, cybercrime rates are increasing year-to-year. The types of cyber crimes which may affect mobile-banking might range from unauthorized use while the owner is using mobile banking, to remote-hacking or even blocking or snooping via the internet or telephone network data streams. In the banking world, currency rates may variation by every millisecond.

Security of financial transactions, being executed from some remote location and transmission of financial information over the air, are the most difficult experiments that need to be addressed together by mobile application developers, wireless net service providers and the banks' IT departments.

The following aspects need to be addressed to offer a secure infrastructure for the financial transaction over a wireless network :

1. The physical part of the hand-held device. If the bank is offering smart-card based safety, the physical safety & security of the device is more important.
2. Security of any thick-client application administration on the device. In case the device is stolen, the hacker should require at least an ID/Password to right to use the application.
3. Authentication of the device with the service provider before initiating a transaction. This would safeguard that unauthorized devices are not connected to make financial transactions.
4. User ID / PIN authentication of the bank's customer.
5. Encryption of the data being transferred over the air.
6. Encryption of the data that will be stored in the device for later / off-line analysis by the customer.

One-time password (OTP) is the latest tool used by financial and banking service providers in the fight against cyber fraud.<sup>[7]</sup> Instead of relying on traditional memorized passwords, OTPs are requested by consumers each time they want to perform transactions using the online or mobile banking interface. When the request is received the password is sent to the consumer's phone via SMS. The password is expired once it has been used or once its scheduled life-cycle has expired.

### **Benefits of Mobile Banking**

They are a huge benefits of banking using mobile phones. The obvious is that this is a time saving, no-queue method of banking wherein almost all banking related services can be accessed through the mobile. It also offers services like ATM locating system, remote withdrawals as well as mobile payments to the users. The main increase to this technology is the availability of smartphones that have simply made our lives easier.

- The mobile banking service accessible by almost all banks is free of cost. This means the customer can handle hassle-free transactions without extra charges.
- There are three ways in which the services can be opened from the mobile depending upon the cell phone compatibility and its make. This makes mobile banking available to everyone. The first one is through SMS wherein the balance information and banking passwords are sent to the user via SMS. Secondly, some banks have committed software applications that can be downloaded on the mobile for opening the bank account. Thirdly, the mobiles that have Internet browser competence can access the banking applications easily like a computer.
- The bank servers are encoded for wireless transactions. This means that this mode of a transaction may truly be better secured than transactions through wired networks.
- The account data along with the account number is not displayed on the wireless connection. This helps more towards data security.

### **Risk of Mobile Banking**

As with any new technology, mobile banking to has its disadvantages. Listed below are the major ones.

- The major security risk in mobile banking is the non-encrypted servers of cell phone facility providers. This makes it comparatively very easy for an expert hacker to obtain account information or debit and credit card information of the users.

- The messages that are received from the banks are not encoded. This means that that information could easily have been opened while being transmitted through a mobile carrier.
- If the mobile gets stolen, the information kept in messages can be used easily by another person.
- Mobile phones that use Internet browser but do not have an antivirus are at very high risk of getting hacked for sensitive information.

With the increased usage of smartphones and access to high-speed Internet on the cell phone, mobile banking was noticeable to next technological step. Without any doubt, it provides comfort and hassle-free account convenience. But as far as data security is concerned, it certainly leaves much to be desired.

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**THRUST OF BIOLOGICALLY GENERATED FOOD ITEMS IN INDIA**

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**Thanuja K. A and Ponny Thomas**Assistant Professor, Department of Commerce, Kristu Jayanti College, Bengaluru

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**ABSTRACT**

*Biological food items are generated through Biological gardening. Different types of biologically generated items are available in the market. Among that, Biologically generated food items are more prevalent. Biological items are generated under an organic setting. Biological food items are not using harmful compounds and insecticides. Organic plants are growing naturally. Biological farming takes more time compared to traditional agriculture in which farmers use chemical fertilizers. Now a days there is an increase in the consumption of biologically generated items.*

*Keywords: Biologically generated food items, Organic setting, chemical fertilizers.*

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**INTRODUCTION**

Biologically generated items mainly include Biological Food Items, Biological Clothing Items and Biological Personal Care Items. Biological food items are growing in an organic agricultural system. Organic clothing items are made out of natural stuffs collected from organic farms. Organic personal care items include things like shampoo, soap, oil etc. There are many companies selling biologically generated items in India like Organica, Nature land, Organic India etc. Most of the countries are following a set of standards to certify Biologically generated items. For example, India is following NPOP (National Program for Organic Production) for the official recognition of biologically generated items.

**REVIEW OF LITERATURE**

**Soundari and Sathya (2017)** in their study entitled “A Study on Customer Preference Towards Natural Biologically generated items in Tirupur City” reveals the readiness of consumers to buy biologically generated items. But availability of such items are limited. By increasing the supply of these items in the market number of customers can be increased.

**Sangeetha (2018)** in her study entitled “A Study on Customer Preference Towards Biologically generated items in Tirupur” states that people are aware of the importance of biologically generated items in their diet. Intake of biologically generated items can improve the health of an individual. Consumption of biologically generated items can also protect the environment.

**Abisha and Kannan (2018)** in her study entitled “Consumer Awareness and Satisfaction towards Biologically generated items in Palakkad District-Kerala” shows that many people are aware of the benefits of biologically generated items. Educated people are more aware about the benefits of biologically generated items. But People are not regularly consuming biologically generated items due to some problems like high cost, non-availability in the market etc.

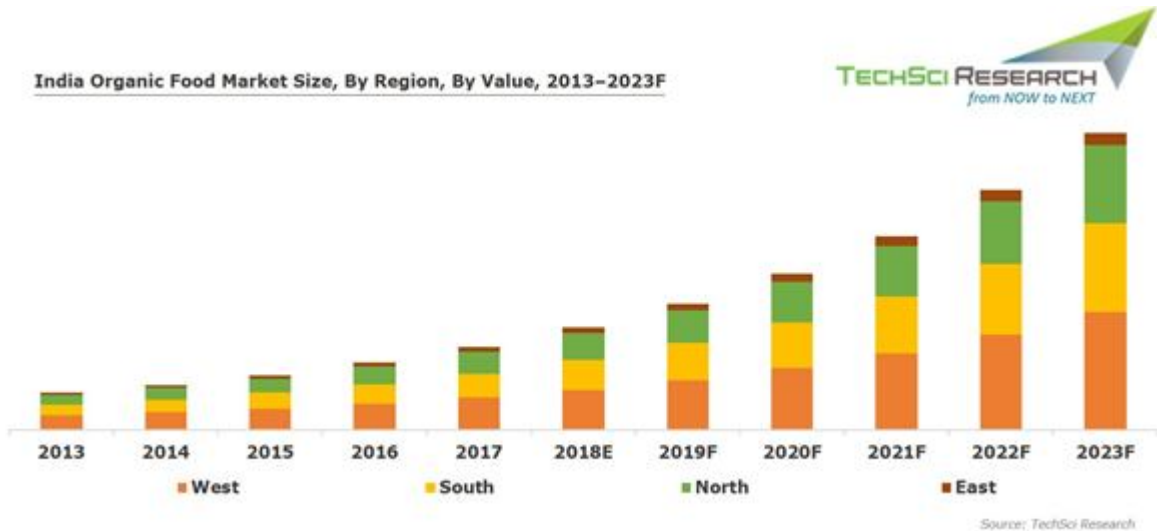
**OBJECTIVE OF THE STUDY**

This study is mainly analyzing the importance of biologically generated food items.

**SIGNIFICANCE OF BIOLOGICALLY GENERATED FOOD ITEMS**

Health is an important asset for every individual. Now-a-days people are finding many health issues due to their food habits and the presence of unhealthy environment. It can be improved with the usage of biologically generated items. Biological food items can be herbal related or animal associated. Biological food items are rich sources of nutrients. Biologically generated items taste better, because its garden-fresh as well as free from insecticides. Indian organic food sector is growing day by day. A reason for the improvement in this sector includes increase in the level of income, better standard of living, health awareness etc. Indian government is also helping the marketing of biologically generated food items at domestic level and international level.

Growth of biologically generated food items in Indian market



Biologically generated food items in India is growing at 25-30% (Secondary data). Government of India provides financial assistance to support the growth of organic food market.

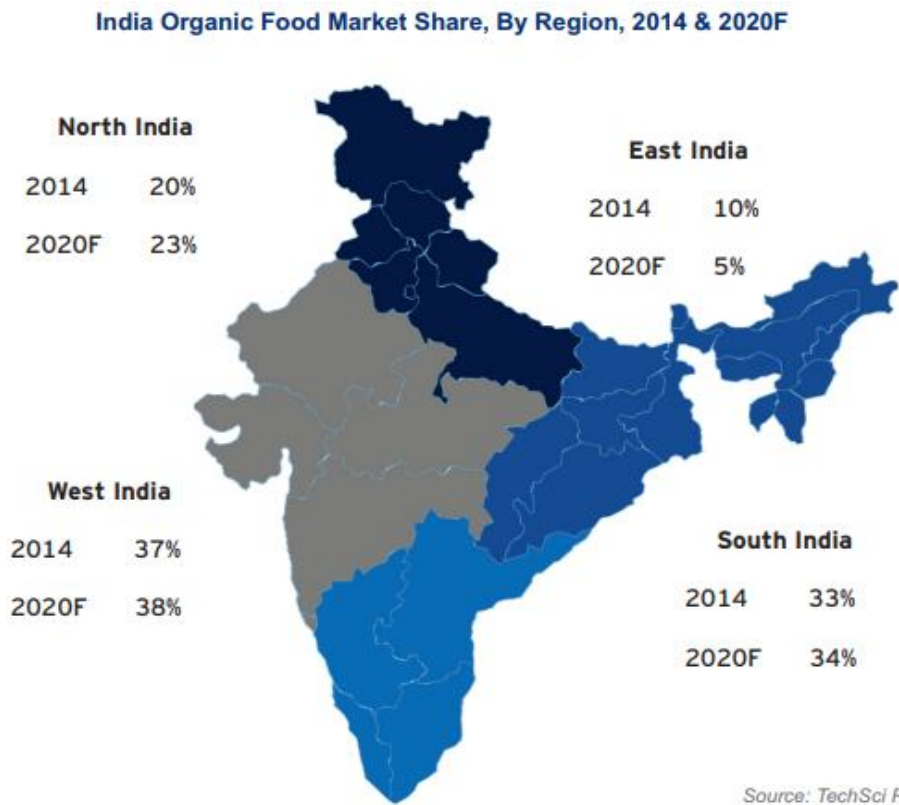
Consumer attitude towards biologically generated food items

Consumers food habits are frequently changing. Many customers are demanding biologically generated items especially food items. This is due to the awareness of customers regarding the importance of organic food in their day to day life. Green customers are preferring more biologically generated items than ordinary customers. Educated people are more aware of biologically generated items and they are ready to spend for it.

Role of government towards biologically generated food items

India’s organic food market is one of the world’s largest. Government of India is supporting this sector by encouraging farmers in organic agriculture and developing organic crops for the nation. Different schemes were introduced by Indian Government to promote this sector. It includes Rastriya Krishi Vikas Yojana, National Programme for Organic production, National Project on organic Agriculture, National Mission for sustainable Agriculture etc.

Indian organic food market an overview



**Problems in connection with biologically generated food industry**

Biologically generated items are very costly in the shops .So it is difficult for a lower income group of customers to buy such items at high price. Only limited number of shops is selling biologically generated items. Only a smaller number of farmers are doing organic agriculture. Due to this reason, many times supply of biologically generated items cannot meet the demand in the market.

**CONCLUSION**

Farmers and the society can be educated about the importance of biologically generated items. Government should take initiative to train farmers in this manner. India has more potential to grow in organic food industry. Climatic conditions of India are very much suitable for the development of organic agriculture. Financial assistance and training for the farmers in connection with organic agriculture can improve the quality and output in this sector.

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