ABOUT THE BOOK

The web has become a place where many of us live, play and work every day. It is the ultimate customer empowering environment where customers are surrounded with myriad choices and organisations are striving to meet customers' expectations in a highly competitive market.

Global economy is transforming into a digital economy thanks to development of cutting-edge technologies in digital space – machine learning, artificial intelligence, Internet of things, 3D printing and the like, Keeping in view dynamic digital environment, Government has introduced many innovations in the economy, notable among them are Digital India, Digital Banking, GST, Bharat Net, NARI, Payment banks, e-governance etc. The Government also proposes to set up 5 lakh wi-fi hotspots which will provide broadband access to 5 crore rural citizens. NITI Aayog has initiated a national programme to direct efforts in the area of artificial intelligence, including research and development of its applications.

The Department of Telecom has initiated establishment of an indigenous 5G Test Bed at IIT, Chennai. Budget 2018 gives recognition to the emerging sectors like Edutech, Agritech and Healthtech in India.

ABOUT THE AUTHOR

Dr. Rajat K. Sant, MA(Economics), MIBA (BHU), M.Phil, P.hd, B.Ed(DU), PGDCA is Presently working as an Associate Professor in Commerce, MAC, University of Delhi, Delhi. He is an alumni of BHU, University of Allahabad, University of Delhi, C.S.J.M. University Kanpur. He is the Member of Board of Studies(BOS) in Several Universities. He is also Life Member of Indian Economic Association, Indian Commerce Association, Indian Society of Labour Economics, Indian Accounting Association etc.

He is an avid reader and Invited Speaker at several conferences and Seminars, Chairing sessions etc. He is a consultant in various reputed organizations. He has authored/Edited Six books e.g. Disinvestment policy in India, Economic and Financial Reforms in India, Human Resource management, Why Does Gender matters, Innovation & Challenges in Indian Economy. He has published more than 30 Research papers/articles in national and International Journals. He is also an Associate Editor of Journal of Applied Economics &Management and Member in Editorial teams. He presented various papers in National and International Conferences, Seminars, Symposiums etc. He recently presented Paper in Conferences at Las Vegas, USA, Lyceum of Philippines University, Manila and Pegasus International College, Vietnam. Dr. Sant is a resource person in various Government and Private Organizations including EDCIL, KVS etc.

Dr. Ritesh Verma is an academician and research advisor with over fourteen years of experiences as a faculty in commerce. Dr. Ritesh Verma holds PhD degree and is having significant exposure to the field of research in digital innovations and banking. He is also widely travelled and has attended many workshops and seminars world over and has published and edited many research papers, books and articles like-Innovation in Payment Systems, Innovation and Challenges in Indian Economy, Profitability of Banks. Published many research papers and research articles in many national and international journals and has organized national and International Conferences. He is presently working as an Assistant Professor, Department of Commerce, Maharaja Agrasen College, University of Delhi. Email- riteshverma4321@gmail.com

KEYSTONE PUBLISHING HOUSE
Delhi-110093 (India)

SOLE DISTRIBUTORS BY
A. K. PUBLICATIONS
B-61/E-1, Gali No.14, Jagatpuri Ext.
Shahdra, Delhi-110093
Ph.: 09868320502, 09999157638
akpubs2008@yahoo.com

₹495/-

ISBN 978-81-928754-6-0

DIGITAL ECONOMY
Innovation and Challenges
Dr. Rajat K. Sant • Dr. Ritesh Verma

DIGITAL ECONOMY

Innovation and Challenges

Dr. Rajat K. Sant
Dr. Ritesh Verma

DIGITAL ECONOMY

Innovation and Challenges

DIGITAL ECONOMY

Innovation and Challenges

Dr. Rajat K. Sant
Dr. Ritesh Verma

Keystone Publishing House
Delhi-110 093 (India)

Published by
KEYSTONE PUBLISHING HOUSE
Delhi-110093 (India)

Sole Distributors by:
A.K. Publications
B-61/E-1, Street No. 14, Jagatpur
Ext. Shahdara, Delhi – 110093
Mob : 9868320502, 9999157638
E-mail : akpubs2008@yahoo.com

Digital Economy: Challenges and Opportunities

Dr. Rajat K. Sant & Dr. Ritesh Verma

Editors

First Edition 2018
ISBN 978-81-928754-6-0

PRINTED IN INDIA

Published by A.K. Publications and Printed at Milan Enterprises, Delhi-110 002

Preface

The web has become a place where many of us live, play and work every day. It is the ultimate customer empowering environment where customers are surrounded with myriad choices and organisations are striving to meet customers' expectations in a highly competitive market.

Global economy is transforming into a digital economy thanks to development of cutting-edge technologies in digital space – machine learning, artificial intelligence, Internet of things, 3D printing and the like, Keeping in view dynamic digital environment, Government has introduced many innovations in the economy, notable among them are Digital India, Digital Banking, GST, Bharat Net, NARI, Payment banks, e-governance etc. The Government also proposes to set up 5 lakh wi-fi hotspots which will provide broadband access to 5 crore rural citizens.NITIAayog has initiated a national programme to direct efforts in the area of artificial intelligence, including research and development of its applications.

The Department of Telecom has initiated establishment of an indigenous 5G Test Bed at IIT, Chennai. Budget 2018 gives recognition to the emerging sectors like Edutech, Agritech and Healthtech in India.

As a serious researcher it becomes our utmost duty to delve deeper on "innovations and challenges in digital economy" and subsequently an International conference on the said topic was held at Maharaja Agrasen College in April 2018.

A large number of scholars, teachers, academicians, innovators and entrepreneurs from different parts of the world and India participated and illuminated the conference with their quality research work. Present book has been compiled out of valuable contributions from these participants

We are thank full to the almighty God and our parents for bestowing us with the capability to produce this work in the present form. We also acknowledge contribution

made by the faculty members of department of Commerce, Maharaja Agrasen College towards the present work.

Words are not enough to express our feeling of gratitude towards Dr.Sunil Sondhi,Principal, Maharaja Agrasen College for his constant support and motivation.

Our sincere thanks to Sh. SiddharthVerma, chairman, MaharajaAgrasen College, for his support and co-operation.

Last but not the least we are thankful to our publisher Keystone Publishing House, Delhi for his efforts and timely print.

We are responsible and pardonable for our mistakes.

Dr. Rajat Kumar Sant

Dr. RiteshVerma

Contents

1

Challenges for Competition Policy in a Digitalised Economy

*Tanu**

ABSTRACT

This study describes the challenges for competition policy in relation to the digital economy. It explores the specific characteristics of digital economy markets and how these characteristics impact competition policy. The study focusses on competition policy and its instruments such as anti-trust laws. Merger regulation, State aid and sector regulation. Neighbouring policy fields such as copyright and data protection are outlined where important but not analysed in detail.

INTRODUCTION

According to OCED, "Digital economy is umbrella term used to describe markets that focus on digital technologies." It refers to the full range of an economic, social and cultural activities supported by the Internet and related informed and communication technologies. "These typically involve the trade of information goods or services through electronic commerce.

Its earlier days, the digital economy was sometimes called the internet economy. The new economy or the web economy due to its reliance internet connectivity. However the digital economy is more advance and complex than the internet economy, The digital economy has changed how we do business, while big corporations have greatly adopted to the changing scenario, small business everywhere are finding it difficult to accept and get us to state that things are not exactly how they supposed to be. The basic idea of digital economy meant benefit for workers in the form of less work, that to from home with digitization allowing them to work on their computer. However, on the contrary, employees to be less confident and secure now and often have to put in more hours. Basically everyone's working even when they are not at work.

Digitalisation is as integration of digital technologies into every day. It is use of technologies and data to create revenue improve business transform the business process and create an environment for digital business it is process of converting information into digital format.

To meet the demands of their customers all the business are trying to accelerate the digitization of their business process. Digitization often requires that old wisdom is combined with new skills.

* Assistant Professor, Satyawati College (Evening), University of Delhi

According to Thomas Mesemboung- Three main components of digital economy -

1. e-business infrastructure (hardware, software, telecoms networks human capital etc.)
2. e-business (how business is conducted any process that and organization conducts over computer-mediated network)
3. e-commerce (transfer of goods, for example when a book is sold online)

ROUTS TO DELIVER DIGITAL SERVICES TO END USERS

A value web can be seen as multiple interlinked value chain that have converged into a web of services and assets. Each service and asset is a node in the web. By using different combinations of nodes there are multiple routes to deliver content or services to end users. End users experience this websites, apps, and social media and they choose where they watch the news (at home or outdoor) and on which device (phone tablet, PC or TV).Service and content providers have even more choice to make when delivering content or services because this involves several successive steps and each step is often followed by multiple alternatives for organising the next step. Most service and content providers choose multiple options simultaneously some companies are notably present of each step and have invested in their own assets other companies have specialised in built assets for only one step. while delivering a service to end users, companies combines their assets (like content brand or apps) with assets of others (like app store, internet access and devices) to create new services.

STRATEGIES AND BUSINESS MODELS

There are three different platform based business models the subscription model in which the end users pays for a service (like netflin) the advertisement model in which the end users provide revenues indirectly by being exposed to advertising (like youtube) and the access model in content or app developers pay to reach end users (like an App store.) A common characteristic of these platform based business models is that they are all based on exploiting network effects which may be direct or indirect.The direct network for consumer if the total number of consumers grows.the indirect network effect means that a platform becomes more attractive for consumers (service/content providers) if the number of service content providers' consumers grows irrespective of the business model used, many end users. as such, they compete with each other for an audience price does not always appear as clearly in the marketing mix of online business models because it is not always profitable to gained from selling access to the audience to advertiser. The ability to compete for attention increases when a company has multiple platforms in different areas and creates synergies by linking platforms through user data. By combining user data from multiple platforms, a multi service/platform operator can optimise the experience for both end users and advertisers.

Objectives and Principles of Competition Policy

Competition policy is primarily a public policy aimed at ensuring that competition in the marketplace is not restricted in a way that is detrimental to society the goals of competition policy are directed at shielding society from harmful competitive behaviour.

One way to assess whether competition is harmful is on the basis of the outcome of the competitive process. For example, some argue that it should primarily be assessed on the basis

of consumer welfare. Others have argued that it should be assessed on the basis of the broader concept of economic efficiencywhich has different dimensions. Recently innovation (or dynamic efficiency) gained in significance in the relevant debates and practices of antitrust enforcement in the USA, especially in the internet-related context.

Competition Policy and Problems Related to the Digitalised Economy

There are some problems that it seems everyone experiences at least once in the course of their digital marketing. The fast developments in the digital economy challenge policy frameworks. This includes competition policy, but also policies with respect to consumer protection, privacy, taxation and intellectual property rights. while current policies are being challenged, the public values they primarily aim to preserve may be of stake, In addition these fast development may result in competition problems the digital monopolies can hamper competition and innovation; In the digitalised economy there is a concern that successful digital firms tend to become giants with considerable market power there is a harm to competition and innovation. A firm may anticipate to future market entry by innovation, which is clearly to the benefit of end-users. Alternatively, a firm may acquire a company with innovative technology/ services. Such acquisition can also benefit end users. There is a risk that an acquisition has the sole purpose of eliminating potential alternative routes to end users.

Digital business models compete by integrating services/platforms and find synergies power into other platforms. Such offensive leveraging strategies are about reaping additional monopoly rents from a second market. One should be careful about qualifying offensive leveraging as an unwelcome attempt to monopolise adjacent markets.

There is another big problem of patents; it can be used to prevent access of technology. The lack of clear licensing terms and a lack of consistent approach to the enforcement of the right of patents holders, lead to potential risks of patent injunction,

The next is the privacy and data protection, Access to digital platforms often seems to be free of charge but by providing the platform operator with personal with personal data consumers do at least pay a price in terms of switching costs. There are further ways for digital firms to capitalise on private information. The consumer are not always aware that digital service providers collect analyse and market private data; nor are consumeraware of the security risks involved when that data falls into the wrong hands, even if consumers are aware it is not clear to them how firms use or protect the information they retrieve via online transactions.

CHALLENGES FOR COMPETITION POLICY IN THE DIGITALISED ECONOMY

Digitalisation of the economy creates many challenges for policy makers. Not all of these challenges require involvement of competition law (see Chapter 3). But when competition law is involved, competition authorities are faced with a different set of challenges that originate from the specific characteristics of digital markets. The problem is that the analytical steps typically follow a one-way procedure starting from the assumption that the market definition is a given concept that can and must be figured out first, and then forms the background for the rest of the analysis. In digital markets in particular this traditional approach does not work because digital firms often compete by developing new business models and, by doing so, continuously redefine the boundaries of a market or create new markets. To clarify this point it is useful to relate the

analytical steps taken by competition authorities to the development of economic insight in the theory of industrial organisation The analytical steps followed in competition law cases start with describing the marketstructure (defining the relevant market, identifying competitors, and establishing if firmshave substantial market power – in that order). The next step is to analyse the behaviourof firms and to judge whether this behaviour is anti-competitive.

The main message in the sections that follow below is that particularly (but not exclusively)in the context of digital markets, the analytical steps taken by competition authorities should treat the relevant market as a dynamic concept that is endogenously defined (i.e. as a function of firm behaviour), rather than as a static given concept serving as a starting point for assessing market power. In order to do that we suggest for competition authorities to start their analysis with a focus on the business case of the firm under investigation and to identify what other companies or business models may steal away its profits.Besides a review of the analytical steps, competition authorities may also need to review their analytical tools. Because of the strong feedback effects in digital markets, market power and dominance are fleeting attributes that depend on the behaviour of the firm and the behaviour of others. As such, market shares or profit margins are less useful for determining market power. It is better to use indicators that inform about contestability, such as the presence of entry barriers, the availability of alternative routes to reach end-users, and the extent to which both incumbents as well as challengers are trying to create new markets by engaging in innovation in unexplored technologies/services.

Implications for Competition in the Sector

Having laid out the basic economic characteristics of new economy industries in the context of online businesses, we now turn to examine whether these features could give rise to any special anti-competitive concerns. As noted by Economides (2004), the aim of competition law is to protect markets from restrictions or impediments to competition that will remain uncorrected by natural market forces. This is especially true for 'winner takes-most' markets, which have a "structural tendency to display extreme market share and profit inequality". Firms are therefore willing to incur short-term losses in the hope of becoming the ultimate winner in the long-run.The extent of losses being incurred by e-commerce firms in India through heavy discounting practices is testimony to the value that these businesses expect to gain from ensuring early control over the market. It is reported that the combined losses of India's top ten e-commerce companies quadrupled in the financial year 2014-15, standing at a total of Rs.51.5 billion. Leading ecommerce marketplaces bore the highest proportion of these losses - Flipkart at Rs.20 billion, Amazon India at Rs.17.2 billion and Snapdeal at Rs.13.28The balance sheets of taxi aggregator Ola, which competes with Uber in India, show a similar trend. In the financial year ending March 2015, Ola's revenue from operations stood at Rs.3.8 billion. In comparison, it had total expenses of Rs.11.2 billion, 82% of which (Rs.9.2 billion) was on 'fleet operator costs'. This reflects the large scale incentives being given by Ola to taxi operators to build scale in the business. During the same period, approximately Rs.998 million was spent by the company on 'advertising and sales promotion' expenses, which accounts for the incentives and benefits paid to attract cab users to the service. Therefore, in effect, Ola paid about Rs.2.5 as incentives for every one Rupee that it earned. Despite increasing revenues, the sharp rise in operating expenses has caused the company's losses to increase manifold in the last three financial years. At the end of March 2013, Ola reported net losses of Rs.228 million, which rose to Rs.342 million in March, 2014 and Rs.7.9 billion in March, 2015. Ola's losses in the next two financial years are likely to be significantly higher as the company pursued an even stronger push towards driver subsidies in those periods.

Uber's worldwide losses are much larger. In the seven years of its existence Uber is reported to have lost at least US$ 4 billion, of which about US$ 1.27 billion (approximately Rs.86.5 billion) was in the first half of 2016.17 In the last two years, it is estimated that the two taxi companies, Uber and Ola, burnt over Rs.130 billion of cash in India.18 This business model of heavy ongoing expenditure on building scale is in fact contrary to one of the key characteristics of new economy industries – that of operating with very low marginal costs. Let us try to map these market developments against the economic principles that drive many online businesses. Very often, the natural equilibrium of a network industry is for the market to be dominated by one or a few firms. Therefore, once the first few firms have gained the benefits of network effects, "the addition of new competitors, even under conditions of free entry, is not likely to change the market structure in any significant way" and may even lead to a reduction in the overall surplus (Economides, 2004). This is also linked to the fact that network industries often involve a 'tipping point' – a point at which a business acquires such a large number of users that it is logical for the market to tip in its favour. Tipping can have a beneficial outcome in situations where two or more firms are competing on the basis of innovation and network effects make it possible for the better firm to emerge as the market leader. In such a case, tipping will maximise the size of the network, hence increasing consumer benefit. However, tipping can also take place for other reasons, sometimes in favour of the player that does not necessarily have the most innovative product or service.20 This is sometimes termed as the problem of 'network failure' – a situation where the technology or network that manages to achieve the highest scale on account of network effects is not the best one, leading consumers to suboptimal choices. The popularity of the QWERTY keyboard and the video home system (VHS) recording format over the Betamax format are often cited as examples of the lock-in effects created on account of network failures

Similarly, the market could also tip in favour of a business that uses financial means, such as, its ability to offer deep discounts, offers, schemes and other incentives, to attract users to its platform in order to build scale, although its product may not necessarily be technologically superior. Increasing returns to scale and network effects will then take their course, setting the firm on its the path of dominance. A number of VC-backed online businesses are choosing to opt for this route. For example, payment wallets like PayTM, Mobikwik and Free charge offer attractive cash-back discounts for almost every transaction carried out on their platform. The goal is to get as many users and merchants on to their networks in the quickest time frame possible. In the absence of interoperability between these services, users would logically gravitate towards the service that connects them to the maximum number of end points.

An early-mover with a reasonably large customer base may therefore be able to restrict the competitiveness of other firms by making sure that rival products are not compatible with its own. To take an example, Google has been questioned by competition authorities in various jurisdictions for making its advertising platform, Google AdWords, incompatible with competing ad platforms. Google imposed contractual conditions that made it difficult for advertisers using AdWords to simultaneously manage advertising campaigns on competing ad platforms, hence giving rise to concerns of abuse of dominance through exclusionary conduct. Similar concerns are also seen in the case of digital payment platforms where the absence of interoperability between players will lead to concentrated networks, thus enhancing monopoly powers and hampering the widespread adoption of digital payments. The imposition of mandatory interconnection regulations on all payment providers (banks and non-banks) is one way to address this issue. This has also been recommended in the recent Report of the Committee on Digital Payments

Present law and CCI's jurisprudence The CCI has the mandate to look into both unilateral anti-competitive conduct, i.e. abuse of dominant position, and concerted action in the form of agreements or combinations (merger, amalgamation or acquisition of control) that cause an appreciable adverse effect on competition in India. Our focus here is mainly on the first category of cases. While CCI's jurisprudence on this subject is still evolving, there have been a few instances where practices of Internet-based businesses have been questioned before the Commission on grounds such as predatory pricing, exclusivity conditions and discriminatory tactics. So far, these cases relate to online e-commerce marketplaces, online taxi aggregation services and online search advertising. In most situations the Commission did not find sufficient merits to refer the matter for detailed investigation under the Act, Ola's services in Bengaluru, a series of cases against Google and now the Uber case referred by COMPAT, being the only notable exceptions. Having said that, we find that an analysis of the cases that have come up so far is still useful for gaining an insight into the Commission's thinking about the application of competition law to network industries generally and Internet-based businesses in particular.

Conclusion

In India, technology companies are generally revered as the source of technological progress. However, the problems of competition policy are universal and cut across all industries. The basic principles do not change. The purpose of competition policy is to stave off situations where a narrow set of firms have market power, and new players are not able to enter. Society gains when firms obtain profits and valuation through innovation, not through the crafty use of financial capital to kick off network effects.

Online markets in India have many examples where players with access to significant capital resources are resorting to deep discounting tactics in order derive the long-term benefits of scale and network effects. Vast amounts of capital, which could otherwise be utilised for innovation and development, is therefore being systematically burned in order to achieve these benefits. In many cases, these practices are not necessarily limited to firms that are in the early stages of their business but have become an integral part of their business model, prompting a race to the bottom. It is therefore an interesting time for the CCI to be looking into the different types of business practices being undertaken by online firms. We highlight that the CCI's approach in dealing with these cases involving new economy businesses must necessarily be informed by the specific economic characteristics that define these sector

REFERENCES

1. Dalal M (2016). "Who's lying about market share: Ola or Uber?"
2. URL http://www.livemint.com/Companies/LRaNYUrBjTD6qAdc3yDolJ/
3. Whos-lying-about-its-market-share-Ola-or-Uber.html.
4. Dalal M, Verma S (2015a). "Does eBay have a sweetheart deal with Snapdeal?"
5. URL http://www.livemint.com/Companies/7sYyArLcfy2CLmluhKDUOL/
6. Does-eBay-have-a-sweetheart-deal-with-Snapdeal.html.OECD (2004)."Glossary of Statistical Terms." URL https://stats.oecd.org/glossary/detail.asp?ID=6267.OECD (2008). "Antitrust Issues Involving Minority Shareholding and Interlocking
7. Directorates." Technical report, Organisation for Economic Co-operation and Development.URL http://www.oecd.org/competition/mergers/41774055.

9. pdf.CEPS EVENT REPORT JUNE 2016
10. Digital India Programme : Importance and Impact .Retrieved from http://iasscore.in/national-issues/digital-indiaprogramme-importance-and-impactDigital India. Unlocking the trillion Dollar Opportunity: ASSOCHAM –Deloitte report, November 2016.Retrieved fromwww.assocham.org.
11. www.digitalindia.gov.in
12. Economides N (2004). "Concepts in the Context of Monopolistic Competition."
13. In DW Jansen (ed.), "Creating Services and Products," Bush Series in the
14. Economics of Public Policy, p. 96 to 121. Edward Elgar Publishing.URL http://www.stern.nyu.edu/networks/Economides_Competition_Policy.pdf.

2

Impact of GST on Cottage Scale Entrepreneurs: A Case Study with Special Concern of their Education

Mr. Suraj Bhan, Dr. Savitri** & Parveen Kumar****

ABSTRACT

The present paper focuses on the impact of GST on cottage scale entrepreneurs. GST Act, 2017 hadaffectedmany cottage scale entrepreneurs such as chemist shops, shoe making factories, jeans factories, general stores, whole sellers, distributers, small scale entrepreneurs etc. It has been observed in different enterprises, that businesses are facing ups and downs and they are not able to manage their business after the introduction of this act. Goods and Services Tax Act, 2017 is an indirect tax for the whole nation. It is the resultant tax after subsuming major Central and State indirect taxes. GST is also a destination-based tax levied on the consumption of goods and services across the nation, thus rendering the country one unified common market. It is a value – added tax levied on most goods and services sold for domestic consumption. The GST is paid by consumers, but it is remitted to the government by the businesses selling goods and services, infect GST provides revenue for the govt. It was introduced as the "Constitution Act 2017" and governed by the GST Council and finance minister of India. It is the biggest reform in the country's tax structures in decades. The aim of GST is to replace the multiple cascading taxes levied by the Central and State governments. This research is descriptive and qualitative in nature. The site of the present research is Delhi. Being a case study method, this research is uses purposive sampling technique for data collection. With the help of structured questionnaire socio demographic profile was developed and in-depth interviews with 20 cottage scale entrepreneurs were conducted from various family businesses set up in Delhi. The research findings from the detailed analysis of the cottage scale entrepreneur's data revealed that the earning capacity is adversely affected. Some entrepreneurs faced the challenges to obtained a Unique Identification Code from the GST authority. It is a 15-digit Goods and Service Tax Identification Number (GSTIN). The detailed analysis leading to many more findings are discussed in detail in the paper.

Keywords : *Entrepreneurs, GST, Cottage Scale.*

Introduction

India, a developing country had seen Industrialization which had aided in the increasing the GDP of the country. In the recent past there had been many changes in the industrial sector

* Assistant Professor, Department of Commerce, Dyal Singh College, University of Delhi.

** Assistant Professor, IASE, Faculty of Education, Jamia Millia Islamia.

*** Research Scholar, Faculty of Education, University of Delhi.

and many laws and bills are introduced by the Finance Ministry, Government of India. In passing many laws and regulations to make the Industries to run smoothly as well as making everything legal and free from any type of legal issues. In line with it, the government of India introduced, **Goods and Service Tax Act 2017.** This is an indirect tax which was introduced in India on 1 July 2017 and was applicable throughout India which replaced multiple cascading taxes levied by the Central and state governments. It was introduced as The Constitution Act 2017, following the passage of the Constitution 122nd Amendment Bill. The GST is governed by GST council and its Chairman is the Finance Minister of India. This had been a most encompassing and newly added indirect tax regime. It had two-fold working by bringing down the number of the documentation process to be maintained by assesses to only two: tax invoice and the E-way Bill. The Digital India Campaign which was introduced in India for the proper documentation and the development of the country. The digital economy is actually related to the Digital India since the Economy in its various facets are tried to be computerized. Therefore, India is trying to get transformed or digitized so that everything is computerized in best possible ways. Don Tapscott was the pioneer to introduce the term Digital Economy in his book *The Digital Economy: Promise and Peril in the Age of Networked Intelligence (2014).* Digital Economy is much more than the Internet Economy. It is more advanced and complex structure, which actually show the development of the 3rd Industrial Revolution to 4th Industrial Revolution. Actually the 3rd Industrial Revolution is actually considered as Digital Revolution refers to the transition from the Analog to digital technologies. To understand the new development in the digital basis there is a need to understand the position of the business personal and their ability to cope up with the digital change. In Indian economic sector the variation of the business is very varied in which the people attached with the economy are from various age and varied literacy level. Many had left education at a very long time and entered the business field. Thus, introduction of the Digital Economy amidst the poor business personal who are from various areas and educational background have to deal with the changes which they might be aware or not is a really a challenge. In India, there is caste system which operates in the trade and job sector. The people belonging to the particular caste from ancient times are involved in the particular job. There was need to mention the issue of the caste since in the business sector caste plays significant role in the selection of business, the skills, their understanding of the markets, their previous knowhow and the domain of the knowledge necessary for this purpose is passed on from one generation to the other. The entrepreneurship is very attractive form of business in the context that it provides self-worth, independence, generates job, can be developed in the family business and much more. This also helps to develop new employment opportunities for the masses in addition to the development of the economy of the country.Thus, there was a need to understand the implication of the new changes in the from of laws and regulations and how the business persons respond to these changes is very important to look on. Thus, as researchers we had tried to explore the issue of GST in relation to the entrepreneurs and their education understanding of the GST Act, 2017.

The research study tried to focus on the single research objective:

To study the impact of the GST on Cottage Scale Entrepreneurs with Special Concern to their education.

Methodology

The study is qualitative in naturewhich adoptscase study method. Purposive Sampling techniques was adopted to select the market in which majority of persons were Cottage Scale entrepreneurs. Therefore, the field of the study were Srinivas Puri and Karol Bagh, New Delhi.

The tools used in the research study were structured questionnaire to collect the Socio-demographic information and then intensive in-depth interviews were conducted with them.

Socio Demographic Profile

S. No.	Case Number	Age	Birth Place	Resident in Delhi(in years)	Educational Qualification	Number of Family Members
1	1	41	Delhi	From Birth	Illiterate	12
2	2	49	Delhi	From Birth	9th	12
3	3	50	Delhi	From Birth	10th	5
4	4	23	Delhi	From Birth	Graduate	-
5	5	21	**Gurgaon**	2.5	12th + Diploma	-
6	6	40	**Kolkata**	30	12th	4
7	7	35	Delhi	From Birth	12th	-
8	8	39	Delhi	From Birth	12th	8
9	9	45	Delhi	30	Graduate	18
10	10	40	Delhi	From Birth	12th	5
11	11	47	Delhi	From birth	Graduate	18
12	12	40	Delhi	From Birth	12th	10
13	13	54	Delhi	From Birth	10th	4
14	14	45	Delhi	From Birth	12th	12
15	15	42	Delhi	From Birth	Graduate	10
16	16	46	Delhi	From Birth	10th	8
17	17	50	Delhi	From Birth	Graduate (B. Com)	12
18	18	50	Delhi	From Birth	Graduate (B. Com)	10
19	19	42	**Himachal Pradesh**	25	10th	4
20	20	60	Delhi	From Birth	Graduate (B.A)	12

Trade Profile

S. No.	Case Number	Cottage Scale Industry	Category of Trade	Resident in Delhi (years)	Years in Business	Family Business/
1	1	Shoe Making	Whole Sale	From Birth	28	Family
2	2	Shoe Making	Whole Sale	From Birth	20	Family
3	3	Shoe Making	Whole Sale	From Birth	20	Family
4	4	Shoe Making	Whole Sale	From Birth	1	No
5	5	Shoe Making	Whole Sale	2.5	2.5	No
6	6	**Jeweller**	**Handmade Jewellery**	30	30	NO
7	7	**General Store**	----------	From Birth	20	No
8	8	**Jeweller**	**Retail**	From Birth	25	Family
9	9	Medical Store	Retailer	30	20	Family
10	10	General Store	Retailer	From Birth	11	No
11	11	General Store	Retailer	From birth	40	Family
12	12	General Store	Whole Sale	From Birth	40	Family
13	13	General Store	----------	From Birth	50	Family

14	14	Jeweller	Retailer	From Birth	30	Family
15	15	Medical Store	Retailer	From Birth	40	Family
16	16	Vegetable Vendor	Whole Sale	From Birth	55	Family
17	17	Electronics Goods	Large Scale Distributer	From Birth	45	Family
18	18	Toy Store	Retailer	From Birth	45	Family
19	19	**Fruit Vendor**	**Retailer**	25	20	No
20	20	Garment	Retailer	From Birth	40	Family

Analysis and Discussion

The socio-demographic profile of the cases pointed out that majority of the cases are:

1. Mostly resident of Delhi (by birth 85%) only 15% (migrated from other states) outside Delhi.
2. 7% are Wholesaler whereas 45 % Retailer and 5% other(self-construction)(others did not responded to this aspect)
3. Only 35% of the cases are Graduate and rest 65% have qualification less than 12th class.
4. The mean age of most of the person in the Business is 23.87 years.
5. Almost 70% of the People are involved in the Family Business.
6. We have observed that almost 99% of the cases affirmed about good business conditions in the past before the GST came in. They also were very happy with the progress of the business.

The major finding of the study in relation of the GST and Challenges the Cottage Scale Entrepreneurs faced after the GST was introduced in India was revealed in the Interviews. It was found that **35% of the cases faced severe problem in getting the GST Number**, understanding the whole process and calculation related to the GST. In the interviews they revealed that:

Case 14 "*I have to give money to C.A.*"

Case 12 "*I had severe problems...Documentation was incomplete...I have to give a large amount of money to C.A.*"

Case 8 "*I faced problem...I hadRs.15000/- to C.A. for the work*"

Case 7 "*I faced much problem... I had requested my brother who is a lawyer.... who helped me.... otherwise I had to close down my business*"

Case 1 "*I faced much of the problem.I had to spend a lot on the C.A. to get the GST Number but.... I had faced loss of money.... In the business...getting the money out as profit when you have workers is very tough job*".

All the 7cases who reported that they suffered a lot in the whole process of getting the GST Number issued are educated upto class XII and below. Case 1 is illiterate and Case 7, 8,12,14 are only 12th passed.

The educational background of the Cases 1,3,7,8,12,13,14 were found to be very less. They had undergone only schooling till 12th and in some cases 10th. The educational background is insufficient to understand the whole The Central Goods Service Tax Act, 2017 and they themselves affirmed that they approached to C.A. for their help in getting the GST Number. This clearly

reveals that the education is very much necessary to understand the legislation, the breakdown of the percentage of the GST, understanding the input tax credit as well as the E-Way Bills. They all had left their education approximately 20 years ago, so there educational understanding in Business is good as compared to their digital literacy which is being introduced in India after the Prime Minister of India initiated the Digital India Campaign for the betterment of the country.

55% of the cases who reported about the decrease in their turn over after the introduction of GST. All the cases who reported for the loss, were actually low in their educational knowhow and reported faced many problems in relation to the computerized formats and technical knowhow.

Conclusion

The whole of the research pointed that there are problems in relation to understand the Act and go for its digitization. Therefore, we suggest that there is a need to provide less literate Business personals with workshops and programs by eminent people who are aware of the legalities of the Act and how to approach the act and the documentation of it. The documentation process and the whole procedure should be explained in simple understandable language so that even the illiterate people are able to get aware of the Act and its functioning.

REFERENCES

1. Basal, K.M. (2018). *GST and custom law*. Delhi: Taxman Publication.
2. Chaudhary, V., Dalmia, A., & Ghirdhawal, S. (2017). *GST A practical approach.* Delhi: Taxman Publication.
3. Datey, V.S. (2018). *GST E-Way*.Delhi: Taxman Publication.
4. Datey, V.S. (2017). *GST law and practice with customs and FTP*. Delhi: Taxman Publication.
5. Jodhka, S. (2010). *Dalits in business: self-employed scheduled caste in North East India.* Working Paper Series, IIDS, Delhi
6. Laddha, V. (2017). *GST for traders*. Delhi: Taxman Publication.
7. Nitya Tax Associate.(2016). *Basic of GST*. Delhi: Taxman Publication.
8. Sardar, R. (2015). Problems and prospects of dalit entrepreneurship. *International Journal of Engineering, Technology & Management and Applied Science*.*3*(1).

3

Banking Digitalization: A Revolution in Service Quality, Issues and Challenges

*Dr. Brijesh Kumar**

ABSTRACT

"Digital" is the new buzz word in the banking sector, with banks all around the globe shifting towards digitalization. Banks of all sizes and across all regions are making huge investments in digital initiatives in order to maintain a competitive edge and deliver the maximum to its customers. Additionally, digitalization leads to robust data analytics and intelligence, which helps banks get closer to customers and close inon competition.Banks will become more digital! As customers, competitors, and even regulatory agencies push in this direction, the promise of anytime, anywhere banking with transparency and convenience will ultimately bring together all the elements of banking in the digital world.Banks need to identify opportunities by looking at theoverall customer life cycle, focus on improving experiencesand enable better customer services. Bankingdoes not guarantee customer loyalty due to customerbehavior. A fluctuation of loyalty has been noticed inthe industry, furthermore loyalty is not thekey answer, but it is experiences. Customerexperience and customer service needs to beenhanced in a coherent way: from cross channeland multichannel to Omni channel. The practice ofdigital marketing and customer service strategiesneed to be engaged to acquire, retain and delightcustomers.This paper aims to demonstrate service quality improvement through digital banking. It highlights the steps taken by RBI and the government's move after demonetization. This paper discusses convergence of technologies through the digital banking for a smooth transition towards a transparent economy. The main target of digitalisation is to push Indians to a less cash economy byfinancial rewiring with emphasis on the new way of life for the country from informal economy to formal economy. It identifies the initiatives, issues and challenges during the initial period of digitalisations.The discussion throughout the paper revolves around the challenges that Indian banks are facing in term of Digital banking opportunity to increase awareness and measures adopted for safe and secure digital banking.

Key Words: *Account Security, Customer Satisfaction, Demonetization, Digital readiness, Digital Banking, Financial Rewiring.*

INTRODUCTION

Indian economy is one of the fast growing economies of the world. Despite of global turbulences of economic conditions, the government of India has been focusing on the digital transactions initiatives since last few years, the actual impact of digital banking payments has taken place in India in significant manner post the demonetization period.Today Indian banking

* Academician, Research Area-Finance & Law

sector is focusingon new banking technological innovations. Banks created to use technology to provide effective quality and services to the customer and get high speed. Banks is spending 'high amounts' on digitizing their business to private and business clients because mostly banks today operate in a highly globalized, liberalized, privatized and a competitive environment.Currently more than 400banks are working in India, in which are public and private banks. Today all the banks started with the different multi-channels, like internet banking, mobile banking apps,ATM, debit cards,credit cards, digital wallets etc. All digital banking channelsare the way of life of such customers who move around without any hard cash in their pockets.But Net Banking made it an easy way for customers to do their banking transaction from various places in all over the world. Emerging technologies will certainly take Indian banking to the next level in near future.In 2020 India's banking sector is a fifth largest banking sector and 2025 the banking system was a third largest banking sector in the world. While the banks and customers completely start relying on technology, will the transactions be 100% secure? As banks adopt artificial intelligence and automation with robotics, will minimal or no human control over transactions ensure security of data?The Indian banking system cannot ignore the new technological challenges and banks are also facing great challenges, that the innovations policy and strategy. This paper examines with all the trends, innovations, and new technological changesin the banking sector.

LITERATURE REVIEW

1. "Digital Banking—a new concept in the area of electronic banking, which aims to enrich standard online and mobile banking services by integrating digital technologies, for examplestrategic analytics tools, social media interactions, innovative payment solutions, mobile technology and a focus on user experience."
2. "Embracing a fully digital strategy requires end to-end modernization of a bank's often outdated infrastructure. Equally important, it requires a transition from an account-based view of banking customers to one that knows them as individuals and enhances the customer experience with relevant, convenient and personalized products and services."
3. "Digital Banking is the application of technology to ensure seamless end-to-end (STP in the 'old'jargon) processing of banking transactions/ operations; initiated by the client, ensuring maximum utility to the client in terms of availability, usefulness and cost; to the bank in terms of reduced operating costs, zero errors and enhanced services."

Objectives of the Study

1. To study the conceptual framework of digital banking.
2. To identify the government and RBI's initiatives on digital banking and financial rewiring made by the bankers by STEP approach.
3. To identify various digital banking services/products adopted by Indian banks.
4. To study and analyze the progress made by Indian banking industry in adoption of digital banking technology.
5. To study the challenges and risk factor involved in digital banking.
6. To suggest alternatives or recommendations to overcome these challenges.
7. To study the opportunity to increase digital banking awareness.
8. To identify various metrics used for enhancing the service quality and offer suggestions for better implementation.

Research Methodology

The present research study uses the most recent available published secondary data. To achieve the above stated objectives, the secondary data collected from the Reserve Bank of India bulletin & annual reports from RBI website, various banks portals, various Government websites, survey report by various magazines on trend & progress of banking in India, newspapers, white papers and, various reputed National and International research journals which are related to commerce, management, marketing and finance etc. The secondary data was also used from various reference books related to E-Banking, E-Commerce, M-Commerce, banking service quality information technology, banking, finance, commerce, management, marketing etc.

DIGITAL BANKINGCONCEPT IN INDIA

Digital Banking isalso known as e-banking oronline baking or electronic banking or virtual banking or internet banking involves combination of electronic technology with the banking sector which enables banking transactions like transfer of funds, payment of loans and EMIs, deposit and withdrawal of cash etc. virtually with the help of internet. It relates to provision of banking products and services through electronic delivery channel. Under this system, the banking services are delivered by way of a computer controlled system. It is one among the extended features which banking institutions provide, in addition to traditional banking. Digital banking is the most used feature by the citizens of India after the effect of demonetization. This feature is assumed to be one of the most flexible, adaptable and secure ways of transacting among the users or customers to bank. However, it depends on the trust that an individual has on the bank he or she is operating with. There are different types or sectors under digital banking services. The major services offered are internet banking, SMS banking, ATMs, mobile banking, e-cheques, and debit/credit cards.The current business priorities for banks in the digital world are to use the new establishment for increasing profitability and revenue. In this innovative business model, it is crucial to ensure regulatory compliance for smooth and long-term execution. The key challenge in the digital era is to ensure all customers are safeguarded from cybercrimes, and the most advanced cyber securities are employed. The shift to digitalization and the continuance of it should cater to reduced cost for the industry, as this will reduce manpower

and make the system automated. With growing popularity and benefits of e-banking, lot of banks have realized the importance, competition and challenges brought forth with this new technology and are adapting to this new-age banking.Customer convenience is the number one advantage of online banking. Like the traditional bank's ATM, online banking is available 24 hours a day, 365 days a year. However, you can do your banking from the comfort of your own home and this improves the time taken to process all the requests. Online banking is accessible everywhere and increases the customer base, online banking is compatible with money management programs and delivers end-to-end value to customers. Digitalization not only helps in getting more customers but also delivering top-notch services, as efficiency counts as well. To facilitate the digitalization of banking industry, the enablers can be grouped mainly into: Digitalize Customer Experience, Digitalize Products & Services, Digitalize Organization and Digitalize Operations.

DIGITAL BANKING PRODUCTS AND SERVICES IN INDIA

Indian Banks offer to their customers following e-banking products and services:

S.N.	Products & Services	S.N.	Products & Services
1	Automated Teller Machines (ATMs)	13	Electronic Payment Services
2	Internet Banking	14	Real Time Gross Settlement (RTGS)
3	Mobile Banking	15	Point of Sale Terminal
4	Phone Banking	16	Electronic Data Interchange (EDI)
5	Telebanking	17	Customer Management
6	Electronic Clearing Services (ECS)	18	Risk Management and Information Security
7	Electronic Clearing Cards	19	Technology in training and e-learning
8	Smart Cards	20	Core Banking
9	Door Step Banking	21	Corporate Banking
10	Electronic Fund Transfer (EFT)	22	Door Step Banking
11	NEFT(National Electronic Funds Transfer)	23	Demat Account and Share Trading Demat Account
12	Debit Cards and Credit Cards (Plastic Money)	24	Others Banking Products & Services

A REVOLUTION IN SERVICE QUALITY OR DIGITALIZE CUSTOMER EXPERIENCE

Digitalization impacts everything, and this impact is transformative. Digitalization is about taking full control of your customer-experience and managing all the needs, existing and new, for your customers and developing a business model accordingly. Customers drive this trend of digitalization, as they are aware of their needs and look for businesses that cater to and fulfill their end-to-end requirements. Customers have readily and effortlessly adapted to the digital world. Customers expect a seamless multichannel experience and a consistent, global service. They judge their experience on three levels: how well companies understand their needs; the simplicity of doing business, and; how delightful it is. There must be an obsession with customer experience and develop ways to steadily improve the experience and learn from every interaction.

Improving Service Quality

1. Service Quality-Service Quality from the user's perspective as consistently meeting or exceeding customer expectation.
2. Improving service quality-it is commonly said that "what is not measured is not managed" and of coursemeasurement is needed to determine whether goals for improvement are met for after changes have beenimplemented.
3. Integrating quality and productivity are twin parts to creating value for both customers and companies.
4. Quality focuses on the benefits created for the customer's side of the equation, and productivity addresses the financial costs incurred by the firm. If not properly integrated, these two factors can be in conflict. Quality and productivity improvement strategies must be considered jointly.

Financial Rewiring

With a unified payment interface (UPI) India has just rolled out the world's most advanced digital payment network.Universal acceptability of UPI (across 26 banks and growing) makes digital payment a compelling option. Unlike the US with 324million credit cards India has fewer legacy issues with just 24 million credit cards and 661 million debit cards (88% used for cash withdrawal). There are easy digital options like e-wallet of paytm and peer to peer payment systems like IMPS by banks.

BENEFITS OF DIGITAL BANKING

Using digital banking is beneficial for both i.e. customers as well as banks. The benefits of adopting internet banking are mentioned below:

1. **Benefits for Customers**
   - ***Convenience:*** e-Banking is a service which is available to anyone and everyone who is a bank account holder. It allows the customers to easily access the bank's website using their username and passwords on internet provide them comfort of home or office without going outside and carry on with the transactions even if the bank is closed. It also enables consumers to keep an eye on their transactions or account activities from their home, office or elsewhere so they can feel satisfied and convenient. Even non transactional facilities like ordering cheqe books online, updating accounts, inquiring about interest rates of various financial products etc. have become much simpler on the internet.
   - ***24x7 Service*****:** A bank online service is provided 24 hours a day, 7 days a week and 52 weeks a year and is just a mouse click away.E-Banking, with its flexible services like 24*7 ATMs and mobile banking is flexible to the customers. It enables the customers withdraw cash using their debit cards, and payment of utility billslike electricity, telephone bills, and mobile recharge.A customer can shop globally without any need for carrying paper currency with him. It eliminates the need to stand in long queues for the purpose of bill payment.
   - ***Time Saver*****:** This is the greatest advantage to our generation as we are not able to spend a lot of time for anything. Time management is one of the greatest challenges in our busy lives. e- Banking enables us to carry on banking transactions within minutes, not disturbing our routine. It means complete your banking at your convenience in the comfort of your home or doorstep servicesbecause it offers less waiting time as compared to the traditional banking system and significantly lowers the cost structure than traditional delivery channels. In the online banking service there are no queues at an online bank.
   - ***Self-serviceChannel:*** Internet banking provides their customer a self-service channel for various banking services they have not to depend on the bank's staff and other depending process to avail their services. Internet banking is one of the most popular self-service banking technologies. Continued use of self-service technology is positively affected by buyers' perceived usefulness.
   - ***Save Time and Money:*** Now customers don't have to go to branch to avail banking services it consist various advantages such as: it will save time, save fuel, do away from traffic, save the environment in term of reducing the use of motor vehicles and reduce waiting time.
   - ***Speed:*** Online bank sites are undoubtedly much faster than manual transaction processing mechanism.
   - ***Effectiveness:*** Banks can offer various kinds of sophisticated tools at their web portal such as account aggregation, stock quotations, and portfolio management programs for effective management of assets.
   - Better efficiency in Customer relationship management


2. **Benefits to Banking Sector**
   - ***Increases operational efficiency and reduces operational expenses:*** The concept of online banking has immensely helped the banks in putting a tab over their specific overheads and operating cost. It increases operational efficiency and reduces operational expenses as the need for handling cash is reduced. Because in the digital banking no long queues in front of cash counters.
   - ***Banks more Competitive:*** The rise of internet banking has made the banks more competitive. It resulted in opening of better prospects and avenues for banking operations. One more product to the banks' bouquet of consumer products and "assured" revenue earner.
   - ***Transparency of Transactions and Documentation:*** The online banking has ensured transparency of transactions and facilitated towards removing the documentation requirements to a major extent, since majority of records under an e-banking set up are maintained electronically. It is a highly secured way of handling voluminous low-value transactions.
   - ***Internet-enabled Banks:*** The reach and delivery capabilities of internet-enabled banks, proves to be significantly better than the network of physical bank branches.

3. **Benefits to Students**
   - No need to carry wads of currency notes – Simple plastic does themagic.
   - Noworry of loss or theft as it cannot be used by anyone as it is biometric-enabled.
   - Avoid long queues to pay for any services by using any of the PoS terminals.
   - Highly secure – Card can be used only by the owner.
   - Above all – No hassle of maintaining a bank account -Nochange problem.

4. **Benefits to Universities/Colleges**
   - Nolong queues at the cash counters.
   - One Card – Multiple uses – Student ID, attendance monitoring and access control.
   - Reduce operational expenses as the need for handling cash is reduced.
   - Ability to provide secure cashless transactions to students across their entire campus.
   - Enhance the college reputation.
   - Daily reconciliation of all transactions and receive funds the same day or the next day.
   - Return on investment in the first six months.

Challenges in Adoption of Digital Banking in india

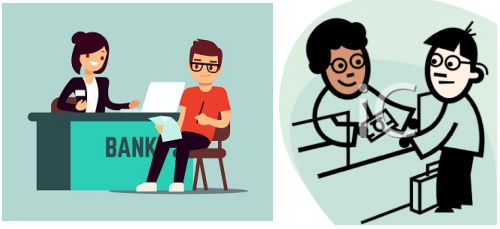
1. ***Automation may lead to Unemployment:*** **A**utomation is the major breaktroughs of today's innovation era. Although the benefits are promising, technology revolution poses a great threat to many of the jobs which will be completely automated and opportunities for job seekers will shrink. Banking is no exception to this fact.
2. ***Security Risk*** – Security risk is the most seriousthreat faced by the banks offering e-banking services. There may be loss of data due to technical defaults and online banking frauds like phishing, spamming, spy ware, internet theft etc. There are still many customers who refuse to opt for e-banking services because they still don't find e-banking or online banking secure& safe all the time. These security problems need to be addressed to win over the confidence of the customers. So it's a big challenge for marketers and makes consumers satisfied regarding their securityconcerns, which may further increase the online banking use.



3. ***Privacy Risk*** – The risk of disclosing the private information of the customer with others & fear of identity theft is one of the major factors that inhibit the consumers while opting for internet banking services. As all the information of the customers is available online, there is always a fear among the customers that their personal information may be shared by the banks with the marketing people for marketing and other secondary purposes without consent of consumers.

4. ***Technical Difficulties:*** As e-banking is all about the use of technology, any technical error can withhold the banking process. The problem of banking websites going down, or jamming problem due to lot of rush on the websites, blocking of the cards , forgetting log-in passwords all these are technical problems which a customer may face in using internet banking.
5. ***Customer Awareness &Education:*** There are lots of users in India who still fear using e-banking services because they are unaware either about their benefits or are unaware about the mode of usage. Banks are not able to disseminate proper information about the use, benefits and facility ofinternet banking.There is lack of preparedness both on part of banks and customers in the adoption of new technologies and their benefits is among one of the most ranked barrier inthe development of e-banking.

6. ***Customers' Preference for Traditional Branches:*** There are thousands of highly active traditional bank branches in India's crowded cities and major towns. Office workers take longer lunch breaks to finish banking activities and transactions at these branches rather than conduct them online. Most customers prefer the personal touch and customized service offered by staff in brick-and-mortar bank branches. Many Indians are also averse to calling call centres and banks' customer contact lines to address issues related to online bank accounts.



7. ***The Trust Factor*:** Trust is the biggest hurdle to online banking for most of the customers. Conventional banking is preferred by the customers because of lack of trust on the online security. They have a perception that online transaction is risky due to which frauds can take place. While using e-banking facilities lot of questions arises in the mind of customers such as: Did transaction go through? Did I push the transfer button once or twice? Trust is among the significant factors which influence the customers' willingness to engage in a transaction with web merchants.
8. ***Customer Satisfaction or Loyalty:*** Today, customers are more value oriented in their services because they have alternative choices in it. Hence, each and every bank has to take care about fulfillment of customers' satisfaction.
9. ***To Provide several personnel services:*** The present times demanded that banks are to provide several services for which they have to expanse in service, social banking with financial possibilities, selective up gradation, computerization and innovative mechanization, better customer services, effective managerial culture, internal supervision and control, adequate profitability, strong organization culture etc. Therefore banks must be able to provide complete personal service to the customers who come with expectations.
10. ***E-banks are facing business challenges:*** For the transactions made through internet, the service charges are very low. Unless a large number of transactions are routed over the Web the e-banks cannot think of profit. There is lack of proper infrastructure for the installation of e-delivery channels.

MEASURES TO BE TAKEN FOR SAFER DIGITAL BANKING

1. ***Password:*** We need to change our passwords at regular intervals in order to keep our accounts safe. One of the best practices is to have a password as a combination of upper case and lower case letters, numbers and special characters.
2. ***Usage of public computers:*** Logging in to bank account from cyber cafes or libraries is not recommended by banking experts. Chances of passwords being traced or seen by others are usually high in such places. One should make sure to clear the cache and browsing history, and delete all the temporary files from the computer. Also, never allow the browser to remember ID and password; this leads to hacking.
3. ***Confidentiality:*** No bank will ask for any confidential information via phone or email. We have to beware of apparent phone call from the bank or an email requesting such details; do not give out login information. Sharing login credentials with friends and family is not advisable either.
4. ***Regular check is must:*** Check your account after making any transaction online. Verify whether the right amount has been deducted from your account. If you see any discrepancies in the amount, inform the bank immediately.
5. ***Anti-virus Software:*** In order to protect your computer from new viruses, ensure that you always use licensed anti-virus software. Pirated versions of anti-virus software may be available for free, but they may fail to protect your computer from new viruses prevalent in the online world. In addition, you will get notifications for updates in the software periodically. Make sure that you keep your anti-virus updated, so that your confidential information is always protected.

6. ***Disconnect the Internet Connection when not in use:*** Most broadband users do not disconnect the internet connection on their computer when they are not using it. Malicious hackers can access your computer via an internet connection and steal your confidential banking information. To keep your data protected, ensure that you disconnect from the internet when you do not require it.
7. ***TypeInternet Banking URL*:** It is a safer to type your bank URL in the address bar of the browser than clicking on links given in an email. There are instances of fraudsters sending emails with fraudulent websites links that are designed exactly like the bank's original website. Once you enter your login details on such a website, they may be used to access your account and steal your money. While logging on, check for 'https://' in the URL and ensure that it is your bank's authentic website.
8. ***Information Technology Act:*** The Government of India enacted the IT Act, 2000 with effect from October 17, 2000 which provided legalrecognition to electronic transactions and other means of electronic commerce.The Reserve Bank monitors and reviews the legal requirements of e-banking on a continuous basis toensure that challenges related to e-banking may not pose any threat to financial stability of the nation.
9. ***Seminar and Awareness:*** Awareness to be created amongst public to use digital banking products and services. Government should try to build confidence and trust among the public. Seminars and Workshops should be organised on the healthy usage of digital-banking especially for those who are ATM or computer illiterate.Financial and digital literacy will be an important step in improving the situation. Common man should be informed and educated about various financial instruments and use of mobile technology to access banking facilities.
10. ***Well Trained and Expert Technicians in Computer:*** Special arrangements should be made by banks to ensure full security of customer funds. Technical defaults should be avoided by employing well trained and expert technicians in field of computers, so that loss of data can be avoided. Employees of banks should be given special technical training for the use of e-banking so that they can further encourage customers to use the same.
11. ***Cyber Security Framework:*** Cyber Security frameworkmust be strengthened by the government. There were many cases which reported that security has been breached and the personal data of many customers has been taken out. The legal framework should be quick enough to punish the culprits as well as proper IT mechanism should exist to avoid any frauds and to ensure the security.
12. ***Internet Connectivity:*** Internet connectivity should be available everywhere. The connectivity should have adequate bandwidth and should be available free or at cheapest rates. Government should make huge investments for building the infrastructure.Mobile network availability should be available in villages and remote areas also.

Findings and Conclusion

The review of studies is related to digital technology in banking sector. The role of technology is most important in the present scenario. Indian banking sector is one of the fast emerging industries in the world.In India, banks are making sincere efforts to popularise the digital banking services and products and focusing on the adoption of advanced technology and installation of e-delivery channels.The installations of ATM network, growth of the internet, development of

mobile phones and telecommunication technology have carried out a revolution in the services delivered by the bank. These new technology is sure that the future of banking will introduce more offers and services to the customers with the best banking product and innovations. Banking sector also increased the accessibility of a common person to bank for his productivity and requirements.One of the benefits that banks experience when using digital banking is increased customer satisfaction. This due to that customers may access their accounts whenever, from anywhere, and they get involved more, this creating relationships with banks. In years to come, digital banking will not only be acceptable mode of banking but will be preferred mode of younger generation in India.Though there are few challenges, technology will keep evolving and with collaborative efforts of government,banksand end users, overcoming these challenges will certainly be possible.Hence, internet banking and digital banking assures the best financial practices throughout India which is desired by our prime minister and ultimately every citizen of India.

REFERENCES

1. Business Standard
2. Business Today
3. Chauhan & Choudhary (2015), "Internet Banking Challenges and Opportunities in Indian Context". Apeejay Journal of Management Sciences and Technology, (ISSN-2347-5005).
4. Das JR, Dash M, Sahoo MA, Mohanty AK. An Empirical Study on Customers' Internet Banking Behavior. Journal Homepage: http://www ijmra us. 2017; 7(7).
5. Economics Times
6. Financial Express
7. Geetha S, Ramanarayanan CS (2015) The impact of Core Banking Services in SBM. International Journal of Commerce, Business and Management.
8. http://www.dnaindia.com/business/report-online-banking-users-to-reach-150-billion-by-2020-study-2480515
9. http://www.business-standard.com/article/finance/post-office-account-holders-can-avail-digital-banking-service-from-may-118040800241_1.html
10. http://digitalindia.gov.in/
11. https://www.rbi.org.in/
12. Kumari S, Rai P. Indian Government Policies and Information Technology. Journal of Public Policy & Environmental Management. 2017; 1(1):12-5.
13. KPMG Report, Interdependence of Emerging Technology on next-generation banking, January 2017.
14. KPMG Report, Digital Banking, Feb 2016.
15. M. Bhuvana, P. G. Thirumagal and S .Vasantha, Big Data Analytics - A Leveraging Technology for Indian Commercial Banks, Indian Journal of Science and Technology, Vol 9 (32), August 2016 .
16. Retrieved on March 29, 2016, from http://www.internetworldstats.com/stats.htm.
17. Reserve Bank of India, Annual Report, various years.
18. Sandeep Kaur (2015): ¯A Study on New Innovation in Banking sector ISSN; 2319-7064, IJSR,IF:6.39.
19. Perumal V and Shanmugam B, "Internet banking: boon or bane?", Journal of Internet Banking and Commerce, Vol. 9 No. 3, (2004), accessed January 26, 2015, http://www.arraydev.com/commerce/jibc/2004-12/perumal.ht
20. Saini GS, Sharma S. Factors Affecting Consumers' Perception towards E-Payment Systems in India. Indian Journal of Computer Science. 2017; 2(3):23-31.

4

Digitalisation in India: A Steptowards Development

Dr. Santosh Kumar & Mr. Bhupender Singh***

ABSTRACT

Digital India is the beginning of digital revolution. It is a dream which has been created by the Government of India to ensure that government services are made available to all the citizens electronically, even in remote areas, by improving online infrastructure and by increasing Internet connectivity. Now, Digital India, the dream of Modi ji, is the dream of all Indian citizens. The programme has one mission and one target, that is, to take nation forward digitally and economically. The initiative will enable people to get engaged in the innovation process which is needed by the economy to move forward; but to implement this is a great challenge. There are many roadblocks in the way of its successful implementation like digital illiteracy,poor infrastructure, low internet speed, lack of coordination among various departments, issues pertaining to taxation etc. These challenges need to be addressed in order to realize the full potential of this programme. It requires a lot of efforts and dedication from all departments of government as well as private sector. If implemented properly, it will open various new opportunities for the citizens of the country.

Keywords: *Digital; Infrastructure;Opportunities; Revolution; Roadblocks.*

Introduction

Digital was another name for information technology (IT) a decade ago. Digital is no longer just about computers and the Internet but also about mobile phones, social networking, augmented and virtual reality, block chain, artificial intelligence (AI), mobile apps and much more.

Digital technology is playing a vital role in helping our country leapfrog to the next stage of development. It is bridging the gaps in financial and social inclusion with initiatives such as Direct Benefit Transfer (DBT). Thus, technology is helping our country to progress socially and economicallycreating a digital society will be key to the competitiveness of nations in the near future. The post demonetisation scenario has further emphasised the importance of cashless digital transactions which are possible only if we have a digitally serviced society. Effective implementation of e-governance is a key component of the Digital India programme. Computer, internet and android phones are necessary for digital connectivity.

A digital society is broader than a 'digital economy.' A digital society integrates all social spheres and lends a competitive edge to the overall economy. It is an opportune time for both

* Associate Professor, Jaipuria School of Business, Ghaziabad, U.P.

** Associate Professor, Jaipuria School of Business, Ghaziabad, U.P.

the industry and the government to form a synergistic partnership towards bolstering India's socioeconomic development through digital empowerment.

Decades ago, it was hard to imagine mundane tasks such as grocery shopping and consultation with a doctor taking place over a video call from the comfort of home. Life is now unimaginable without smart phones or high-speed Internet. Digital has pervaded nearly all aspects of our lives, be it health and transport to shopping, education and work life. Now, the facility of e-education, e-health,and digital payment is bounded to cities only, this faculty can be availed in rural areas also.

The expectations of citizens are rising. These new aspirations are the driving force behind the transformation of public service delivery, primarily in high-impact areas such as health, education and social benefits. With many services such as booking a cab or ordering food made convenient and fluid with the advent of mobile apps. Government need more capacity to comprehend and respond to intricate issues and seamlessly provide services aligned with national and citizens' aspirations. The expectations of a modern-day connected citizen are manifold; some of the basic ones are listed below:

1. Availability of public services on demand
2. Awareness of services and government initiatives and consequent reduction in physical visits to government offices for processing of requests
3. Omni channel delivery of services
4. Single point of access for all government services
5. Responsive government systems
6. Transparency in processes
7. Alerts and notifications
8. Engagement/feedback mechanism

Though governments are making efforts to enhance service delivery through portals, apps and help desks, but it is really a challenge for the government to conduct internet services in rural areas.

The National Telecom Policy, 2012, envisages 'leveraging telecom infrastructure to enable all citizens and businesses, both in rural and urban areas, to participate in the Internet and web economy'. As per a TRAI report, as on 31 April 2017, there are 276.52 million broadband subscribers in India, which is the second highest in the world. The key drivers behind this subscriber uptake are a growing young population with increasing digital skills, and decreasing smart phone prices, as well as continued deployments of 3G and 4G mobile broadband technologies in developing markets.

In February 2016, former President Pranab Mukherjee declared Kerala as the first digital state of India owing to its achievement of high e-literacy and mobile penetration. It was also the first state to complete the National Optical Fibre Network (NOFN) project, granting high-speed Internet access to all its gram panchayats. This achievement is significant especially in the area of rural development. Kerala has been setting benchmarks in terms of achievement of digitisation targets.

OBJECTIVES OF THE PAPER

1. To study the concept of digital India programmes.

2. To find out the initiatives of this programme.
3. To find out the challenges faced in implementation of this programme.
4. To find out practical solutions and innovative ideas to accomplish the vision of a digital India-a reality.

INITIATIVES OF THIS PROGRAMME

1. ***Digital payments in India****:* Digitalization has brought revolution in financial services. Now we can avail banking services 24x7. We can deposit, withdraw and transfer money online as per our convenient. There is no need to go to bank for such transactions and to stand in long ques. As per the data of 30December 2017 there are 280 million registered users of paytm while total number of paytammerchants are over 5 millon .Now people are using more and more paytm ,Bheem app or other apps for financial transactions. According to NITI Aayog, the volume of digital transactions in 2016–17 touched 10.9 billion INR, registering a growth of about 55% over 2015–16. The corresponding growth rate in 2015–16 was 49.4%. There was an increase of 74% increase in digital payments acceptance infrastructure, with the number of point of sales (POS) devices jumping from 1.51 million in October 2016 to 2.62 million in April 2017. The Immediate Payment Service (IMPS) segment has exhibited robust growth of 153.5% in 2016–17 in value terms. All modes of transfer like Real Time Gross Settlement (RTGS), National Electronics Funds Transfer (NEFT), debit cards, digital wallets and Unified Payments Interface (UPI) have shown positive growth from October 2016 to April 2017.4

2. ***E.education:*** E education is providing learning opportunities to students anytime, anywhere and at any place, but within a structured curriculum. Its best example is "SWAYAM" which consists so many online courses in a controlled environment. Free of cost courses are available for all students from 9th standard to PhD. SWAYAM has been conceptualised as a comprehensive, multipronged, transformational project. The multilingual MOOC platform and its associated apps will enable students/learners to access the portal and discover their courses of choice, sign up (one-time), enrol in courses, learn through self-paced pedagogy, complete their course and finally go through the assessment cycle to achieve their credits. On completing a course, the portal will also allow the students to pay for the examination and generate a hall ticket. The portal will allow educators to sign up, create and manage courses, and upload course credits which can subsequently be downloaded/printed by the student. IGNOU is also providing online classes of different courses. NIOS has already provided facility of filling admission and exam form online. Now students have no need to go to centres for filling such form even classes are also conducted of such courses

A number of challenges are being faced by the SWAYAM scheme.

- The quality and type of courses on SWAYAM must be maintained. This will help maintain the interest of learners and other educational institutions.
- The courses should be made mandatory for students. Students should also be rewarded with Credits on successful course completion. The credits earned should be recognised by other educational institutions.
- There has been extensive promotion of SWAYAM on both mainstream media and social media platforms to on-board more learners.
- Other challenges include insufficient infrastructure, low digital literacy and slow Internet speed.

3. ***E-health with e-hospital*****:** Technology can play a vital role in improving the way health services are delivered and how policy-related decisions are made. Globally, the healthcare sector is going through a fundamental shift with regard to how information is stored, shared and accessed, and in turn, how all these can change the way health services are rendered. Standing in queue for an appointment with the doctor at a major government hospital or physically visiting the hospital to check blood availability is now a thing of the past. E-Hospital is a one-stop solution for addressing these concerns and connecting patients, hospitals and doctors on the digital platform. The patient interface of e-Hospital is implemented through an online registration system (ORS), an application portal to help patients make online appointments at hospitals. e-Hospital and ORS eliminate the need to wait in queue for appointments or physically visit hospitals to collect laboratory reports. Since e-Hospital is cloud-based, it relieves hospitals of the burden of application and server management. Transformation initiatives are driven with the aim of accomplishing a subset or all of the following objectives:

- Comprehensive services across the continuum of care by integrating information of the patient across multiple health IT systems, sub-centres and centres to obtain a comprehensive record
- Offer data-driven and personalised consultation because of the presence of digital data
- Single-window online channel to offer care to a wide range of healthcare services
- Data-driven policymaking by the government because of the presence of adequate data in digital form

4. ***Digital democracy with MyGov:*** Citizens wanted to be a part of governance and share their inputs on matters related to policymaking. However, there was no medium for them to contribute to decision making as well as be a partner in governance. In the year 2014, MyGov, a unique citizen engagement and crowd sourcing platform, was launched to involve people in policy formulation and programme implementation. MyGov is an innovative platform to foster citizen and government partnership for driving inclusive growth of India. It leverages various engagement methodologies for Soliciting citizens' opinion and deliberation on policy matters. The platform's engagement methodologies include tasks, discussions, quizzes, polls, surveys and blogs. MyGov enables ministries and departments to harness the knowledge and talent of citizens to not just refine policy documents but also seek creative inputs such as logos, mascots, videos and songs for upcoming projects or policies.

As per the records of 28 September 2017, there are 4836.35K Registered members of MyGov app, 190.81K participated in Submissions in 669 tasks and 3798.96K hascommented in 744 discussions

5. ***Digitalization in farming*****:** Agriculture is the primary source of livelihood for the majority of the population of India and ICT has ushered in another revolution in agriculture. The Central, state and private sector have undertaken several ICT initiatives for agricultural sector such as Karshaka Information Systems Services and Networking (KISSAN) Kerala, Village Resource Centre (VRC) – Indian Space Research Organisation (ISRO) and e-Krishi. KISSAN Kerala is a citizen-centric e-governance project for integrated and multi-modal delivery of information to the farming community of Kerala. The projects leverage a combination of technologies such as web, television, telephone and SMS to provide timely agricultural information and assistance to farmers. The project provides online advisory services to farmers with its portal and has a video channel and weekly television programme in Malayalam to disseminate information on good

agricultural practices. ISRO launched the VRC programme to provide space-based services to rural areas in association with Central/state agencies and NGOs.

Currently, 461 VRCs have been set up in 22 states/UTs and more than 6,500 programmes have been conducted thus far.15 e-Krishi is a crop advisory app for Android. The app connects farmers with experts and scientists who can help them with advice and diagnostics. The app also includes knowledge on natural and organic farming practices.

6. ***Digital for police modernisation:*** Recently, the Ministry of Home Affairs launched the Digital Police Portal for citizens to file criminal complaints online or initiate verification of tenants or antecedents. The portal also facilitates criminal investigation by giving access to a national database of crime records to authorised persons. Police personnel can also generate reports of crime incidence or do an advanced search and analytics through the portal. Delhi Police is following suit with a slew of measures to make life simpler for citizens, improve accessibility and enhance the response time. Delhi Police introduced various new apps and web applications for improving the citizen-police connect. For the safety of women, Delhi Police launched the **Himmat** mobile app. The app allows women to connect with the police control room and relatives for immediate response during a crisis or an emergency situation. Moreover, Delhi Police's **Shanti Sewa Nyaya** opened a new chapter in digital policing with facilities like online registration of theft and motor vehicle theft. Character verification and police clearance certificates can also be obtained digitally without having to physically visit the police stations though the portal.

7. ***IRCTC ties up with cab aggregator Ola for booking taxi and auto on its website and Rail Connect App:*** Railway Catering and Tourism Corporation (IRCTC) announced a partnership with cab aggregator Ola, giving commuters an option book taxi on its app. The tie-up, a six month pilot project, will give customers access to Ola booking services when they visit the IRCTC Rail Connect App and on its website..The Ola cab facility will provide all the services offered such as Ola Micro, Ola Mini, Ola Auto, Ola Share etc. on the same price available directly on the IRCTC Rail Connect App and website.

However, customers would not be entitled to any discount. Customers can choose to book cabs up to seven days in advance or upon reaching the railway station. In addition, the IRCTC outlets at railway stations or Ola's self-serving kiosk will also enable commuters to book cabs.

CHALLENGES IN PATH OF DIGITAL INDIA

1. ***Digital literacy:*** Making citizens aware of the Digital India programme and its benefits is one of the biggest challenges. This is because 12 crores of the 16.8 crores rural households in India have no computers and are unlikely to have digitally literate persons. However, this is being offset with the exponential increase in the number of mobile phones. Most Indian consumers indicated that the lack of awareness about Internet services was the main reason for not using them. The non-availability of digital services in local languages is also a major concern. There should be adequate awareness building for people living in rural areas so that they can be a part of digital India and reap the benefits of the Internet.

2. ***Digital payments are facing challenges on many fronts.***

1. Prohibiting transaction costs levied on the use of debit/credit cards, which include service charges and interchange fees, is a major concern which deters merchants from using digital payments.

2. India lacks financial literacy (financial awareness along with money management and financial planning) and is ranked 15th on the Financial Literacy Index with a score of 59 by the International Journal of Management and Research.
3. Trust and security in the usage of digital payments in both urban and rural areas is a matter of concern, with an increasing number of fraud and cyber attacks. According to a report by CERT-In, the number of security incidents increased from 49,455 in 2015 to 50,362 in 2016.
4. The Internet is an essential tool for the growth of digital payments. India is currently at the 89th position in terms average Internet speed globally. While there are a total of 1,127 million telecom subscribers, only 392 million Internet users exist.
5. The lack of regional languages on applications acts as an entry-level barrier for citizens of India. Bharat Interface for Money (BHIM) supports only 12 languages including English, whereas there are 22 national languages excluding English.

3. ***Inefficiency in deploying funds.*** There is wide digital gap between urban and rural India. Funds have been sanctioned for infrastructure creation of digital economy. But this fund is not deployed efficiently.

Suggestions

Government as well as people must take initiative to literate people about using net and digital transactions.PPP model will be fruitful for digital infrastructural .The success of digital India depends upon maximum connectivity with high-speed net and minimum cyber security risk.There is need for effective participation and commitment of various departments. . Government should provide digital equipment at subsidised prices to students and encourage students to educate their parents if they are uneducated. Organise camps in every city to acquaint the people with the latest technology. Different charges must be removed if we are doing online payment. Except it digital application must be in all regional languages so that people can understand and utilise it easily.

REFERENCES

- http://www.digitalindia.gov.in/content/about-programme
- https://www.mygov.in/group/digital-india/
- https://www.youtube.com/watch?v=gmt9EYEIMns
- http://www.financialexpress.com/about/digital-india/
- https://economictimes.indiatimes.com/news/politics-and-nation/pm-modi-at-world-congress-digital-india-has-become-a-way-of-life/articleshow/62979194.cms
- http://digitalindiamib.com/
- https://www.firstpost.com/tag/digital-india

5

Employment & Enterpreneurship in New Indian Era: The Innovation Paradigm, Strategic Intent & Receptivity

Mayank Sharma & Prof. Yashwant Gupta***

ABSTRACT

This research paper highlights the changes in the employment & entrepreneurship continuum in 21st century India paradigm that will eventually swell the ranks of the country's entrepreneurial community with a new class of entrepreneurs that are taking on the challenges and risks of creating & managing pristine businessesled by both technological & strategic innovation. An entrepreneurial ecosystem that is receptive & amenable to epochal innovations& systemic reforms can prove to be a sustainable & replenishable engine of economic growth. The present paper is also a status study examining the lacunae existing in the currentgovernment policy mechanisms & structure of administrative & bureaucratic regulations that encompass investment from the corporate sector & other financial institutions in R&D of new & innovative enterprises. Innovation is the catalyst that drives both economic & social prosperity via entrepreneurial development, generation of new employment, technological advancement, significant rise in national income & infrastructure modernization. The major emphasisof a competitive &emerging economy like India should now be to bring about an alignment betweenthe techno-financial incubation & facilitation of entrepreneurship with a proactive & integrated approach towards innovation at both the macro & micro levels. The realm of positive employment & entrepreneurial transformation shall be a microcosm of multi-polar networks including strategy, process innovation&technology application.

Keywords: *Entrepreneurship, New Employment Shift, Economic Reform, Innovation, Technology, Strategic Management.*

Introduction: Economic Pragmatism & Practical Needs

Since India's inception as a modern nation state, Indian entrepreneurs have played a major role in driving national economic growth and success. Post economic reforms in 1991 & the liberalization era, the Indian entrepreneurial spirit has emerged stronger than ever before. In India, entrepreneurship can be seen as a permanent solution for addressing the major problematic concerns like satiating the requirements of the ever growing workforce & improving the overall quality of the general public.It is widely accepted by every, big or small country, that well motivated entrepreneurs are must for accelerating the process of economic development.

Taking these benefits into consideration, various initiatives have been taken by successive

* Research Scholar, Himachal Pradesh University Business School.

** Director, Himachal Pradesh University Business School.

Indian government from time to time for entrepreneurship development in the country such as Industrial Policies and Five Year Plans specifically focusing on the growth of SME sector, setting up of Special Economic Zones (SEZs), setting up of Entrepreneurship Institutions, organizing Entrepreneurship Development Programmes (EDPs) and various Government Programmes and Schemes for the promotion of entrepreneurship like Pradhan Mantri Rojgar Yojana, Credit Guarantee Scheme, Credit Linked Capital Subsidy Scheme for Technology Up-gradation, National Manufacturing Competitiveness Programme, Micro and Small Enterprises Cluster Development Programme, Technology Centre Systems Programme, Pradhan Mantri Kaushal Vikas Yojana,Market Development Assistance Scheme, Make in India, StartUp India, Atal Innovation Mission& MUDRA among others.

The very definition of an entrepreneur is someone who is willing to take on the considerable risks of launching a business. It is the risk many people associate with being an entrepreneur that is at the root of their fear. But the same employment shifts that are forcing more people to launch their own businesses are also forcing a redefinition of our collective concept of entrepreneurship. The Indian economy is being fueled by two distinct breeds of entrepreneurs:-

- Traditional entrepreneurs: Visionary thinkers who are constantly looking for new ways to change the world and are willing to assume major risks to turn their ideas into reality.
- Accidental entrepreneurs: Regular folks with skills, services or products to sell who are looking for a marketplace for their services that entails minimal risk.

The new employment shift from full-time employees to self-employed freelancers, independent contractors and consultants pushing many a youth from the working population in the country into the entrepreneurial trenches is driven due to innovation in both hard & soft technology.

The entrepreneurship development & employment generation strategies of a geophysical region should be placed on development of entrepreneurship among the people as human resource development that will ultimately resolve unemployment, economic problems, social problems and also bringing the widening of social network.In developing entrepreneurial activities, the most important problems among the entrepreneurs are the accessibility of capital investment& technology, supply of raw materials& marketing problems.

Review of Literature

Bagchi, S. and Pal, D. (2003), Pattern of entrepreneurial activities in India has undergone a sea change in the latter half of the 20th century, more towards the end of it. From being a government dominated sector in the immediate post-independence scenario to a one with reasonable space for operation of private entrepreneurs, this transition has not been a smooth one at all. In fact, at every step, the country has learnt by experience. The attempt now is to briefly and sequentially enumerate the policies followed by the government of India with respect to entrepreneurial activities since its birth as an independent democracy, and their economic implications. It attempts to bring out two main issues in this context, one being the public sector - private sector debate, and the other being the foreign entrepreneur - domestic entrepreneur tussle. The authors use some elementary micro-economics in trying to show the problems posed by these issues, and methods in which the government may intervene to improve situations.

Verma, J. (2007), Entrepreneurship is one of the most important inputs in the economic development of a country. Entrepreneurs play a central rolein the economy by establishing firms,

which in turn create markets and organizations. An individual engages in entrepreneurial activities before the firm is established andthen becomes an owner after the firm is established.

In the case of India, Entrepreneur have performed below expectation due to a combination of different problems themselves through environmental related factors, instability of governments and frequent government policy changes etc.

Entrepreneurship Promotions should thus ensure the availability or possession of managerial capacity and acumen before pursuing financial resources for the development of the respective enterprise. The study is to develop and analyse the contributions of entrepreneurship in the economic development in India. Whereas both the positive as well as the negative impact of entrepreneurship on the economy has been discussed.

Santhi, N. and Kumar, R. (2011),True entrepreneurs are resourceful, passionate and driven to succeed and improve. They're pioneers and are comfortable fighting on the frontline. The great ones are ready to be laughed at and criticized in the beginning because they can see their path ahead and are too busy working towards their dream. An entrepreneur is a businessperson who not only conceives and organizes ventures but also frequently takes risks in doing so. Not all independent business people are true entrepreneurial intensity and drive depend upon how much independence one exhibits, the level of leadership and innovation they demonstrate, how much responsibility they shoulder, and how creative they become in envisioning and executing their business plans. This study focuses and provides an insight into the meaning, qualities required for an entrepreneur, opportunities and challenges faced by them and at last with a small discussion on entrepreneurship as a career.

Mohan, S. and Revathi, R. (2012), It is a fact that individuals can be developed, their outlook can be changed and their ideas can be given true shape of enterprise through an organized and systematic training programme. Entrepreneurial training aims at arousing and reforming the entrepreneurial behaviour in the day to day activities and helping them develop their own ventures or enterprises as a result of their learning or training.

Development of an entrepreneur means inculcating entrepreneurial traits in a person, imparting requisite knowledge, developing the technical, managerial, financial and marketing skills and building the entrepreneurial attitude.The process of entrepreneurial training involves equipping a person with the information needed for enterprise building and sharpening his entrepreneurial skills.

Bhakare, S. and Chadda, D. (2013), India is a nation where millions of young people are reaching working age every year. The Indian society youth scenario on the whole is greatly inclined towards a decent job or service as it gives immense economic security. This job oriented mind set is imbibed from childhood. Thinking of entrepreneurial activity as a future is challenging. Our educational structure is also job oriented. A crucial requirement now is vocational training and artisans skills. Even a person with a high entrepreneurial propensity wanting to set up a business, is dejected by a host of unfavorable factors: want of information on setting up and operating a business, bureaucratic hurdles, funds deficiency, lack of group and mentoring support, insufficient access to technology, operational hurdles , and the horrendous fear about the penalty and aftermath of failure. These factors appear largely as holding back the materialization of entrepreneurship. Due to these considerations, the Government of India has proposed a National Entrepreneurship Policy with the main aim to boost the supply of entrepreneurs. This study endeavours to unfold the crucial role played by entrepreneurship mentoring to create a pool of entrepreneurs which would make the economy more balanced. It

also tries to define how the entrepreneurial journey is traversed through mentors culminating in arriving at the destination of successful entrepreneurs. This study highlights the impeding factors as well the benefits of entrepreneurial mentoring, emphasizing the need for it to be institutionalised in an organized manner and most certainly on a larger scale.

Abhyankar, R. (2014), In spite of having a large publicly funded science and technology infrastructure and a sizeable education base, India has not been able to realize itsinnovative potential due to a fragmented innovation ecosystem. The government of India has taken many initiatives towards strengthening the innovation ecosystem, the most important of which are - the establishment of the National Innovation Council, whose mandate is to coordinate various innovation-related activities, and the new Science, Technology and Innovation Policy 2013, which is intended to promote entrepreneurship and science-led solutions for sustainable and inclusive growth. With a focus on this new policy initiative, this article describes the current innovation ecosystem and the challenges it faces, and it discusses the efforts made by the government towards the promotion of innovation for entrepreneurship development and sustainable growth. With the implementation of this new policy the early indications are that India is poised to take a big leap towards innovation-led growth.

Objectives & Scope of Study

The objective of the present study is to make a factual assessment of the awareness level regarding relationship between techno-creative innovation & strategic KRAs (Key Result Areas) in the growth & sustainability of enterprisesand evolve measures toencourage new job opportunities. In order to meet the objective of thestudy, the task was divided into the following two areas:-

- To examine the status of innovation harvesting in an enterprise.
- To formalize the factors that affect new job creation in an entrepreneurial endeavour.

The scope of the present study is limited to the followingidentified:-

- Innovation in business entrepreneurship - digital solutions, smart tools & internet-driven delivery
- KSAs for sustainable employability

The various parameters for the study decided on the basis of issues and factorscoming out of literature survey were:-

- Enterprise sectoral needs
- Technological& financial access
- Mode of operation
- Management structure & organizational issues
- Human resources utilized

Data Collection

Secondary data was collected on both qualitative & quantitative parameters through research journals & published Government of India reports. This study explores some of the most significant entrepreneurial issues in India with a view to recommending remedial measures that would further enhance the spread of entrepreneurship& innovation in India. While highlighting

pertinent issues, the study has not made detailed empirical investigations on micro issues based on rigorous econometric techniques.

Results & Findings

The three main challenges faced by entrepreneurs in India are:-

- Removal of state-imposed barriers for starting businesses
- Availability of financesand infrastructure
- Awareness about entrepreneurship schemes and regulatory framework

Potential employees on the other hand face problems like:-

- Technical knowledge
- Managerial skills &availability of resources
- Education & nurturing

Indian entrepreneurial ecosystem of the future is likely to experience systemic transformation by the following variables:-

- Transparency
- Equity
- Accountability
- Resilience
- Sustainability

The focus is now on high performance partnerships between innovators & entrepreneurs who can bring their solutions to scale feasibly.

Recommendations

The following measures can be put in place to promote more effectively the idea of entrepreneurship with innovation as a viable career optionfor future generations:-

- ***Content and Learning Methods:*** It is important to develop pedagogic methods, examination systems and curricula that encourage critical and lateral thinking. The ability to promote Entrepreneurship requires an enquiring mind that is able to make connections between theory and practice. Entrepreneurs feel that there is a need to recreate real-life situations in the classroom with the help of examples and illustrations so that students are able to get a 'concrete feel' of various aspects of the outside world. At the same time, many entrepreneurs also feel that the starting point for reforming teaching methods and encouraging variety in career options, must be at the school stage itself, where the pressure to learn by rote and to join typically stereotypical career paths are huge. Right from the school stage, pedagogy should encourage original thinking and not rote learning. One specific suggestion from several entrepreneurs is to introduce manuals in school curricula on 'How Things Work', on various practical aspects of everyday living.
- ***Teaching and Entrepreneurship:*** While Entrepreneurship has beenintroduced as a course in a number of business school curricula, there needs to be a greater thrust in making Entrepreneurship a priority subject. Other aspects of Entrepreneurship such as business ethics, early enterprise management, aspects of scaling up, Indian corporate law and relevant international laws, should also be a part of such curricula. Such initiatives

need to be encouraged for widespread adaptation in other educational institutions, including institutions located outside metropolitan areas. The involvement of the burgeoning NRI community and alumni networks in funding such schools must be encouraged.

- ***Encourage Student-led Entrepreneurial Activities on Campus:*** Entrepreneurship cannot be learnt only by 'chalk and talk'. Shared activities outside the confines of the textbook are imperative to develop leadership and team building skills that are necessary for Entrepreneurship. It is necessary to encourage activities within educational institutions, where entrepreneurial abilities find opportunities and fertile ground to grow. In several educational institutions, student led and faculty supported activities have been able to create awareness and prepare necessary mindsets about Entrepreneurship. Examples include the Entrepreneurship and Innovation Cell at IIM Bangalore and the Entrepreneurship Cell at IIT Bombay, which engage in activities such as business plan contests, assisting start-ups and incubation centres. Initiatives such as 'business plan contests' (with angel/VC/private sector assistance, which could directly become entrepreneurial ventures with rewards in terms of seed funding), instructional programmes that deal with the basic practicalities of Entrepreneurship and platforms to interact with other entrepreneurs and the financial community (especially VCs and angels) need to be intensified and encouraged.
- ***Enterprise Centres in Major Educational and Research Institutions:*** Special enterprise centres focused on translating innovation-driven ideas into viable businesses would greatly enhance Entrepreneurship.

Currently, incubation centres provide assistance to selected start-ups. Enterprise centres in major educational and research institutions can provide institutional support for Entrepreneurship, on a larger scale, and on a more systematic basis. The institutions could also provide extensive industry linkages on different aspects of business, law and finance. Elaborate models of profit-sharing and advisory assistance can also be provided.

It is recommended to establish IPR Cells in major scientific and educational institutions with competent staff, trained in law and technical aspects of various disciplines in order to capture the value and exclusivity of new ideas and innovations.Further, the enactment of legislation that creates a legal framework for public funded research and provides universities and research institutions ownership and patent rights can help this cause. This will create an enabling environment for the institutions to commercialize such inventions through licensing arrangements where the inventors would also receive a share of royalties.

Conclusion

A critical prerequisite for nurturing Entrepreneurship& Innovation is the creation of a favourable business environment. The key parameters of a conducive, competitive & innovative business environment include the smooth flow of information, ease of starting a business and obtaining various clearances and permits, ease of filing taxes, an efficient legal system, enabling legislations and regulations, absence of corruption and world class infrastructure facilities by creating a peer community for knowledge sharing. The global business environment is in a constant cycle of change driven primarily by technological innovations, opportunity-based entrepreneurship, and multinational trade agreements. For a sustainable competitive advantage,

this global trend effectively makes it important for India to broaden the reach and range of our entrepreneurial needs while simultaneously enhancing qualitative innovation.

The need of the hour is to critically assess the various needs of budding entrepreneurs & innovators in the Indian subcontinent along with the removal of most barriers to international trade in this globalised world, capitalise on homegrown resources, and create a value chain that allows India to compete effectively in the global marketplace. This will enable the country engage the paradigm change by thinking of entrepreneurship coupled with innovation as first priority.

REFERENCES

1. Ahuja, G. (2000) 'The duality of collaboration: inducements and opportunities in the formation of inter-firm linkages', *Strategic Management Journal* 21(3): 317-343.
2. Alvarez, S.A. and Barney, J.B. (2001) 'How entrepreneurial firms can benefit from alliances with large partners', *The Academy of Management Executive* 15(1): 139-148.
3. Anand, B.N. and Khanna, T. (2000) 'Do firms learn to create value? The case of alliances', *StrategicManagement Journal* 21(3): 295-315.
4. Ariño, A., Ragozzino, R. and Reuer, J. J. (2008) 'Alliance Dynamics for Entrepreneurial Firms', *Journal of Management Studies* 45(1): 147-168.
5. Brockelman, S. and Cucci, A. (2000) 'Institutionalizing Alliance Capabilities. A Platform for Repeatable Success', Corporate Strategy Board Executive Inquiry, August 2000.
6. Colombo, M.G., Grilli, L. and Piva, E. (2006) 'In search of complementary assets: The determinants of alliance formation of high-tech start-ups', *Research Policy* 35(8): 1166–1199.
7. De Man, A. and Duysters, G. (2005) 'Collaboration and innovation: A review of the effects of mergers, acquisitions and alliances on innovation', *Technovation* 25(12): 1377-1387.
8. Freeman, C. (1991) 'Networks of innovators: A synthesis', *Research Policy* 20(5): 499-514.
9. Jindal, M. and Bhardwaj, A. (2016) 'Entrepreneurship Development in India: A New Paradigm', Proceedings on World Congress on Engineering, June 2016
10. Muller, A. and Välikangas, L. (2002) 'Extending the boundary of corporate innovation', *Strategy andLeadership* 30(3): 4-9.
11. Narula, R. (2004) 'R&D collaboration by SMEs: New opportunities and limitations in the face of globalisation',*Technovation* 24(2): 153-161.
12. Reding, V. (2008) 'Entrepreneurship in the online economy: Europe's new opportunities for growth',speech delivered at the Biennial Conference, Athens, 8 September 2008.
13. Shan, W. (1990) 'An empirical analysis of organizational strategies by entrepreneurial high-technology firms', *Strategic Management Journal* 11(2): 129-139.
14. Wright, R. and Dana, L. (2003) 'Changing Paradigms of International Entrepreneurship Strategies', *International Journal of Entrepreneurship* (1):135-152

6

Cash Management with Legal Aspects: A Comprehensive Study of Best Practice

*Rambir *, Bimla Devi** & Monika Sareen****

ABSTRACT

Cash Management immense interesting and exciting area for the academic studies as well as for Professional in Practice and jobs. Cash constitutes the most significant part of current assets of every business, from small shops in street and rural area up to top multinational companies (MNC) in all over the world. A part of this management of cash play very important role in life of every person and its family as well.

Every organization needs optimum Cash for smooth running of its activities. The main motive of cash management is to ensure how carefully an organization managing cash flow within the firm, into and out of the firm and cash balances held by firm for financing deficit or investing surplus cash.

Every organization wants to implement effective cash management system to avoid cost of borrowing in deficit and get monetary benefit by investing surplus cash.

In this paper we analyze different Cash control techniques, legal aspects attached with cash receipt and payment. And how efficient cash management system plays the role in improving Organization's performance and its stakeholder's satisfaction as well.

Keywords: *Cash management, Current Assets, monetary benefit, organization performance, Stakeholders Satisfaction*

Introduction

Management of cash is vitally important to almost every type of organization, whether Manufacturing, Retail Trade or Service organization because every business plays the major game surrounding cash management.

Actually cash is still heavily used instrument used to pay low value purchase and other transactions in most developed countries.

Even cash hold the smallest portion of total current assets. However, "Cash is both the beginning and end of working capital cycle - cash, inventories, receivables and cash."

* Department of Commerce, DSE, University of Delhi

** Research Scholar, Central University of Himachal Pradesh

*** Lecturer in MBIT, Maharani Bagh, New Delhi

It is the cash, which keeps the business in running position. Hence, every enterprise has to hold right amount of cash, at the right time, at the right place and at the right cost, for its long term existence.

If a firm maintain low level of cash and cash equivalent, the firm has to borrow fund at interest cost for payment of purchases and other operating expenses.

If firm maintain high level of cash and cash equivalent, it loss the opportunity of investing excess fund to get monetary benefits. For short out such problem, firm must have an optimum level of Cash.

But question arises how much cash maintained by a firm and which techniques often adopt for this purpose?

Actually managing the level of cash is like maintaining the level of blood in a body, if there is not optimum blood in body, it catches lot of diseases .if there is optimum blood in body, it gives energy and strength to every part of body.

Similarly if an organization does not maintain optimum level of cash, it may lost many opportunities and catch risks and sickness too. If an organization maintain optimum level of cash it gives energy and strength to every part of organization.

Therefore No doubt that Cash management is nerve center and back bone of each and every organization.

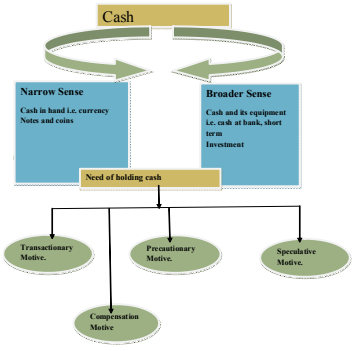
The objectives of this study are as follows:

- To understand meaning and need for holding cash
- To understand legal aspects attached with Cash Management
- To understand the recent announcements made by prominent banks

  In relation to cash transaction charges
- To understand how to manage cash Inflow and outflow
- To understand techniques to determine optimum cash balance.
- Brief discussion on Mantra of Success

Meaning and Need of Holding Cash

For the purpose of cash management, Cash not only includes coins, currency notes but also includes cash at bank, cheques, bank drafts and short term investment, marketable securities too. Which have liquidity and can easily converted into cash within 1 to 3 month.



Transactionary Motive

Cash payment creates by various transactions i.e. to purchase raw material & to pay for operating expenses.

Compensation Motive

Commercial banks require should always be a minimum cash balance may vary from Rs 5000 to Rs 10000. This amount remains as a permanent balance with the bank until the current account is operative and not use for transaction motive of organization. Such minimum balance have to maintain by firm known as Compensation motive for holding Cash.

Precautionary Motive

Every organization keeps sufficient cash and its equipment for unforeseen and contingency circumstances.

For Example Cash Needed in case of Strike, Natural Calamities etc.

Speculative Motive

An organization take the advantages of holding of cash for earn extra profit whenever expected price change or decrease of various securities. In other words decrease price of securities, use cash holding for purchase it.

Legal Aspect Attached with Cash Management

1. Indian stamp act 1899, Section 2 (23)

Section 2 (23) of the Indian stamp act 1899 makes it mandatory for affixing of stamp on any Receipt above Rs 5000

It is mandatory to affix a revenue stamp on the payment receipt of above Rs 5000, as once you have a revenue stamp with cross signatures on the receipt then it can be challenged in the court of law.

The basic purpose of the revenue stamp is to give a legal identification to the document even on the plain paper. Revenue stamp has got more uses than just the payment vouchers.

Let us say you sell your Motor Vehicle to a third party and you can make a sale and purchase Receipt on plain paper and affix a revenue stamp on it, so it will now be accepted in court of law.

Where Receipts includes Following:

- Any Note
- Any Memorandum
- Any Voucher
- Any Writing on plain paper

Whereby any money, or any bill of exchange, cheque or promissory note is acknowledged to have been received.

2. Income Tax act 1961, Section 40A (3)(a)

{Direct Taxes Ready Reckoner with Tax Planning Dr.Girish Ahuja and DR Ravi Gupta 15th Edition 2014}

Section 40A(3)(a) of the Income-tax Act, 1961 provides that any expenditure incurred in respect of which payment is made in a sum exceeding Rs.20,000/- otherwise than by an account payee Cheque drawn on a bank or by an account payee bank draft, shall not be allowed as a deduction.

However if payment is being made for plying, hiring or leasing goods carriages then Limit for these section is Rs 35000/-,instead of 20000/-

Further, there are certain exceptions provided in rule 6DD, under which expenditure , even exceeding Rs 20000/Rs 35000 Shall be allowed as deduction , even though the payment or aggregate of payments made to a person in a day is not made by an account payee cheque/ draft.

3. RBI Act, 1934 and Indian Coinage Act 2011

(A) Denomination of coins and notes in circulation.

Coins in Circulation	Coins withdrawn from circulation (Effective From June 30,2011)	Notes in Circulation	Notes withdrawn from circulation
50 paise	1 paise	Rs 5	Rs 1
Rupee 1	2 paise	Rs 10	Rs 2
Rupee 2	3 paise	Rs 20	Rs 5
Rupee 5	5 paise	Rs 50	
Rupee 10	10 Paise	Rs 100	
	20 Paise	Rs 500	
	25 paise	Rs 1000	

Please note to: The highest denomination note ever printed by the Reserve Bank of India was the Rs10000 note in 1938 and again in 1954. These notes were demonetized in 1946 and again in 1978.

(B) Legal tender of transaction

- **Coins:** From June 30,2011 Coins in the denomination of 1 paise , 2 paise , 3 paise, 5 paise , 10 Paise , 20 Paise and 25 paise have been withdrawn from circulation , so no more legal tender.
- **Notes:** The printing of notes in the denomination of Rs 1, Rs 2 and Rs 5 has been discontinued but

Such notes issued earlier can still be found in Circulation.However the Central Government has recently Reintroduced Rs 1 notes.

All these notes continue to be legal tender for transaction.

(C) Payment/Settlement of Any Sum

As per India coinage act 2011.

- Coin 50 paise can be used to pay /settle any sum not exceeding ten Rupees.
- Coin 1 Rupee and above can be used to pay /settle any sum.

(D) How to check whether a note is genuine or not?

A Fake or forged note is any note which does not have characteristics of genuine Indian currency note. A Fake or forged note can be identified by seeing, touching and tilting the note. To read about how to check banknotes see the (link) https://paisaboltahai.rbi.org.in/

Recent announcements made by prominent banks In relation to cash transaction charges

Axis Bank

HDFC Bank

Particulars	Free Transactions	Charged Transactions	Examples
Home Branch Transaction	1). Four Transactions Per Month 2). Cash Transactions of Rs. 2 Lakh per month per account	1). Fifth Transaction Onwards Charge of Rs. 150 2). Cash Transactions of more than 2 Lakh per month per account, pay Rs. 5 per thousand or part thereof subject to minimum of Rs. 150.	Mr. MukeshAmbani goes to Home Branch of HDFC Bank and does the following transactions in a month 1). Deposit of Rs 10,000 2). Deposit of Rs 15,000 3). Withdrawal of Rs 12,000 4). Deposit of Rs 25,000 5). Deposit of Rs 2,10,000 **Answere** : He will pay Rs. 300 as bank transaction charge.
Non-Home Branch Transaction	1). Cash Transaction of UptoRs. 25000/- per day	1).Cash Transaction beyond Rs 25,000 per day, pay Rs 5 per thousand or part thereof subject to minimum of Rs 150	Mrs Anita Ambani goes to Non-Home Branch of HDFC and does the following transaction 1) Deposit of Rs 35000 in a single day **Answere** : She will pay Rs 150 as bank Transaction charges
Third-Party Cash Transaction		1) For Transactions uptoRs. 25,000 per Rs 150 shall be charged ***Note: Third Party Cash Transaction above Rs 25,000 shall be prohibited***	Mr. Anil Ambani wants to deposit Rs 45000 in the bank account of Mrs. Anita Ambani, Can he do so? **Answere :** No, as per the revised norms he is prohibited.

ICICI Bank

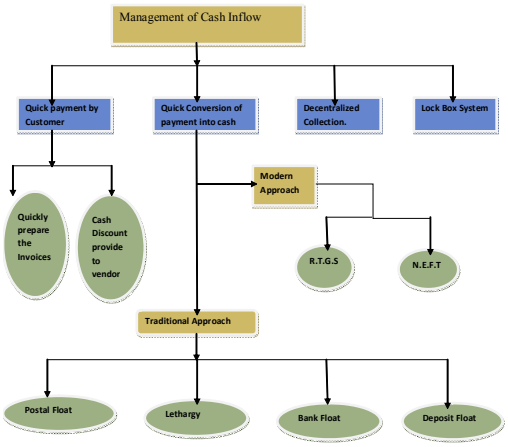
Particulars	Free Transactions	Charged Transactions	Examples
Home Branch Transactions	1). First Four Transactions shall not be Charged	1). Transaction beyond four shall be charged Rs 5 per thousand subject to a minimum of Rs 150 in the same month	Mr. Tendulkar goes to Home Branch of ICICI Bank and does the following transactions in a month 1). Deposit of Rs 10,000 2). Deposit of Rs 15,000 3). Withdrawal of Rs 12,000 4). Deposit of Rs 25,000 5). Deposit of Rs 10,000 **Answere** : He will pay Rs. 150 as bank transaction charge.
Non- Home Branch Transactions	1). No Charges for the first cash withdrawal of the calendar month 2) Cash Deposit in Cash Acceptance Machine would be free of charge for the first cash deposit of a calendar month	1). For cash withdrawal other than the first cash withdrawal in a calendar month the transaction shall be charged at Rs 5 per thousand subject to a minimum of Rs 150 in the same month. 2).Cash Deposit in branches other than through Cash Acceptance Machine will be charged at Rs. 5 per thousand subject to minimum of Rs. 150. 3) Cash deposit in Cash Acceptance Machine other than first such cash deposit in the cash acceptance machine in a calendar month shall be charged at Rs. 5	Mrs. Anjali Tendulkar goes to Non-Home Branch of ICICI Bank and does the following transactions in a month 1). Withdrawal of Rs 10,000 2). Cash Deposit of Rs 15,000 through Cash deposit Machine 3). Withdrawal of Rs 12,000 4). Deposit of Rs 25,000 other than through Cash Deposit Machine 5). Cash Deposit of Rs 10,000 in Cash Acceptance Machine **Answere** : He will pay Rs. 350 as bank transaction charge.
Third Party Limit		Limit of Rs 50,000 per day beyond which it shall not be allowed.	Mr. Arjun Tendulkar wants to deposit Rs 75000 in the bank account of Mr. Ram Mohan in ICICI, Can he do so ? **Answere**: The transaction is prohibited.

State Bank of India

Particular Rs	Free Transactions	Charged Transactions	Minimum Average Monthly Balance	Charges (If Minimum Average Monthly Balance Not Maintained)	Examples
Deposits	3 Times Deposit in Your Own Account	Any Deposit After 3rd Deposit Chargeable @ Rs 50/-			
Account in Metropolitan City Branch			Rs. 5000	1.) Shortfall <= 50% = Rs.50/- + Service Tax 2.) Shortfall >= 50-75% = Rs 75/- + Service Tax 3.) Shortfall > 75%= Rs. 100 + Service Tax	Mr. Rahul Gandhi has an account with SBI in a Metropolitan Branch, he fails to maintain Minimum Average Balance of Rs. 5000 in his account , and the short fall is of Rs 2500, How much will he pay as for Not maintaining the balance ? **Answere** :Rs 75 + Service Tax.
Account in Urban City Branch			Rs 3000/-	1). Shortfall <=50%= Rs 40 + Service Tax 2). Short fall >= 50-75% = Rs 60/- + Service Tax 3). Shortfall > 75%= Rs 80 + Service Tax	Mrs. Sonia Gandhi has an account with SBI in a Urban City Branch, he fails to maintain Minimum Average Balance of Rs. 3000 in his account , and the short fall is of Rs 2000, How much will he pay as for Not maintaining the balance ? **Answere** : Rs 60 + Service
Account in Semi-Urban City Branch			2000	1). Shortfall <=50%= Rs 25 + Service Tax 2). Short fall >= 50-75% = Rs. 50/- + Service Tax 3). Shortfall > 75%= Rs 75/- + Service Tax	Mr. Rajeev Gandhi has an account with SBI in a Semi-Urban City Branch, he fails to maintain Minimum Average Balance of Rs. 2000 in his account , and the short fall is of Rs 1600, How much will he pay as for Not maintaining the balance ? **Answere** : Rs 75/- + Service Tax
Account in Rural Area Branch			2000/-	1). Shortfall <=50%= Rs 20 + Service Tax 2). Short fall >= 50-75% = Rs. 30/- + Service Tax 3). Shortfall > 75%= Rs 50/- + Service Tax	Mr. Sanjay Gandhi has an account with SBI in a Semi-Urban City Branch, he fails to maintain Minimum Average Balance of Rs. 2000 in his account , and the short fall is of Rs 1600, How much will he pay as for Not maintaining the balance ? **Answere** : Rs 50/- + Service Tax

How to manage cash Inflow and outflow

- Managing cash Inflow refers to Methods and ways of accelerating cash inflow
- Managing cash Outflow refers to Methods and ways of make slow outflow of cash.



Management of Cash Inflow

1. ***Quick payment by Customer:*** For the purpose to get quick payment by customer organization has to adopt following two Tools.
   - ***Quickly prepare the invoices:*** Organization has to prepare quick invoice and handover it To vendor shortly.
   - ***Cash discount provide to vendor:*** it is a tool which can be adopt by any organization to get Quick payment but when firm allowed cash discount it should be compare Cost of interest And Cost of Cash discount. After analysis cash discount allowed only if it is beneficial.
2. ***Quick Conversion of payment into cash***

   Traditional Approach: As per Traditional approach firm should try to reduce postal float, lethargy, bank float and deposit float

   Please Note To:
   - ***Postal float*** refers to duration of time taken by post, if customers send the cheque through Post or courier
   - ***Lethargy*** refers to duration of time taken by organization for processing of Cheque before Submit it into Bank.
   - ***Bank float*** refers to time taken by bank for payment of Cheque.

   Modern Approach:

   We all know, in today's corporate culture Real time gross settlement (RTGS) and National electronic fund transfers (NEFT) are famous tools of fund transfer in easiest and Quick Way. Funds can be Transfer by RTGS and NEFT in few Moments.

   Therefore If any Customer make the payment by cheques and by another Manner except RTGS and NEFT

Organization should recommend customer on priority basis and put the pressure on them

To make payment only by RTGS and NEFT.

It may be good activity for quick Conversion of payment into cash.

3. ***Decentralized Collection or Concentration Banking:*** Under this system organization opens bank account in that particular geographical areas

   Where the organization have its branches. But all branches may not have bank accounts.

   Actually selection of area in which bank account may open depends upon the volume of Billing firm may give clear instruction to the customer that mail their payments to such Local banks rather than to the central office.

   When such local banks collected cheque (payment) from customers, immediate transfer The fund to Head/Central office.

   Main purpose to adopt the Decentralized Collection is destroyed the postal float.

4. ***Lock Box System:*** Under this system, a company rents out the local post offices boxes of different cities and The customers are asked to forward their remittances to it.

   The firm arrange with a local bank or some other agency to collect the payment and

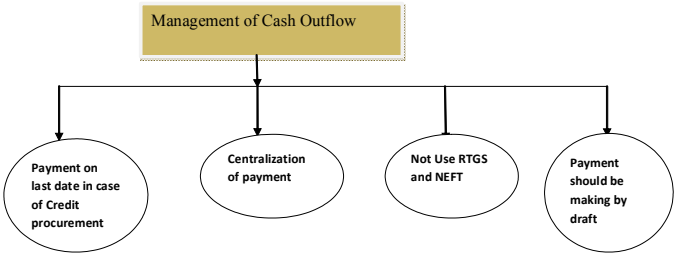
   Transfer the collected as soon as possible to head office / central office.

   Firm has to pay charges to Local bank or some other agency for providing such Kind of services.

   Lock Box System is very popular in USA and European Countries. But in India lock box System is still not popular.

5. ***Cash Withdrawal from ATM:*** If any company needs cash, they can go to bank directly or may use ATM, as today the bank provides the facility to have cash of Rs. 1lac per day from ATM, no one requires to go to bank but if company requires more amount of cash then they have to go to bank and in bank they are going to lose more time than ATM, so for small needs of cash ATM is best for cash withdrawl instead of going bank.

Management of Cash Outflow



Management of Cash Outflow

The objective of Management of cash outflow is to delay payment as long as it is legally and practically possible.

1. ***Payment on last date in case of Credit procurement:*** It can be easily understand by an example suppose a company purchases some raw material for Rs 1000000 on credit, credit period is one month. If company make payment on last date, Fund could be used almost whole of month for another operation of company
2. ***Centralization of payment:*** Many organizations generally make the payment to vendors of various parts of country and abroad as Well. If company has adopted centralized payment system, it can slow down the Cash outflow by Arising Postal Float
3. ***Do not use RTGS and NEFT:*** In the today corporate culture Real time gross settlement (RTGS) and National electronic fund transfers (NEFT) are famous tools of fund transfer in easiest and quick Way. Fund can be Transfer by RTGS and NEFT in very short period. But for the purpose of delay payment as long as. RTGS and NEFT should be ignore for fund. Transfer because both of these minimize postal float, lethargy, bank float and deposit float. For example, a company named Heaven and Heritage Indian Tours Pvt. Ltd., is situated in Chhatarpur, New Delhi and the company has to pay for purchased item in Mumbai to Saini and SidwalPvt. Ltd. Company. Suppose company has to pay Rs. 1 crore and they pay through Cheque by postal and not by RTGS or NEFT. If they transfer through RTGS/NEFT the payment will be transferred directly on the same day but through cheque the payment will be made after 15 to 20 days delay due to postal and all procedure. So, the bank will debit the payment after 20 days but it will give the interest to company which will be its profit for delaying the payment, which will be approx. Rs. 50000/- (assuming interest rate @1% p.m.).
4. ***Use Credit Card instead of cash procurements:*** Suppose a company is having a limit of Rs. 20 lacs in credit card from a bank and it may have another credit cards from other banks. If company uses credit card for payment instead of cash payment, the company will get automaticallyat least a month for paying the used amount which can be calculated as a discounted amount because that amount which is paid can be used in other norms for a month and the company can pay that used amount to bank in another month or in EMIs also.

Meaning and Techniques to Determine Optimum Cash Balance

That level of cash balance by which payment of daily operating expenses done smoothly by firm is known as optimum cash balance.

If any firm has maintained low level of cash and cash equivalent, the firm has to borrow fund at interest cost for payment of purchases and other operating expenses.

If firm maintain high level of cash and cash equivalent, it loss the opportunity of investing excess fund to get monetary benefits.

For short out such problem, firm must have an optimum level of Cash.

Techniques to Determine Optimum Cash Balance

1. *Cash Budget:* It is Estimation or forecasting of cash inflow and cash outflow for particular period to determine any cash surplus or deficiency of that particular period.

It's usually prepare on the basis of analysis of previous period i.e. last 3 to 6 months cash inflow and cash outflow with considered specific cash transactions, which will take place for that particular period by which cash budget is prepared.

Illustration

The following forecast have been made for Banke Bihari ltd for the period May to July 2016.

Particular	May	June	July
Sales	50000	60000	80000
Raw material	30000	50000	60000
Production expenses	5000	8000	10000
Loan Installment	5000	5000	5000

Additional Information

- All sales are made on credit basis ½ of debtor are collected in same month and balance in the next month
- The estimate debtor on May 1, 2016 is Rs 20000.
- The minimum cash balance maintains by firm is Rs 5000 for each month. Cash balance of May 1 will Rs 5000 too.

Prepare cash budget for the month May, June and July 2016.

Cash Budget for the period May to July 2016

Particular	May	June	July
Opening cash balance	5000	10000	5000
Inflow			
Debtors (last month)	20000	25000	30000
Debtors (Current month)	25000	30000	40000
Total Cash Available (A)	**50000**	**65000**	**75000**
Outflows			
Raw materials	30000	50000	60000
Production expenses	5000	8000	10000
Loan Installment	5000	5000	5000
Total Outflow (B)	**40000**	**63000**	**75000**
Cash Balance (A-B)	**10000**	**2000**	**Nil**
Fund have to borrowed	**Nil**	**3000**	**5000**

2. ***William J. Baumol's Model:*** This model suggested by W.J Baumol (1952). It is fantastic model to determine optimum cash balance under certainty, in very easily and smoothly way.

As per the Model, cash and inventory problems are one and the same. Its model is the same Like economic ordered quantity model (EOQ) of Inventory Management.

Every firm wants to minimize the sum of the cost of holding cash and the cost of converting Marketable Securities to cash.

As per this model Optimum Cash Balance Receives/Determine on that point where Total Cost or the sum of the cost of holding cash and the cost of converting marketable securities to cash will Minimum.

Assumption of Baumol's Model

- An organization is able to forecast its cash requirement with certainty
- Opportunity cost of holding cash is known and remains constant
- transaction cost is known for converting cash into securities and remain constant
- The firms cash disbursement incurred uniformly over a period of time.

Limitation of William J. Baumol's Model

- It does not allow cash flow to fluctuate
- Overdraft is not considered
- There are uncertainties in the pattern of future cash flows.
- The transaction cost will also be difficult to be measured. Because it depend upon type and maturity period of investment

Formula for find out Optimum cash balance As per William J. Baumols Model

$$\text{Optimum cash balance} = \frac{2A \times F}{O}$$

Where

A = Annual or monthly cash disbursements

F = Fixed cost per transaction

O = Opportunity cost of holding cash.

Illustration

The annual cash Requirement of Aruna ltd is Rs 2000000 lakhs. The company has marketable securities in lot sizes of Rs 100000, Rs 200000, Rs 500000 and Rs 1000000.

Company can earn 10% annual yield on its Securities. Cost of conversion of marketable securities per lot is Rs 1000.

Show how William J. Baumol's Model fabulous model to determine optimum cash balance

Solution: We have known

As per William J. Baumols Model

$$\text{Optimum cash balance} = \frac{2A \times F}{O}$$

Where

A = Annual or monthly cash disbursements

F = Fixed cost per transaction

O = Opportunity cost of holding cash.

Therefore

$$\text{Optimum cash balance} = \frac{2 \times 2000000 \times 1000}{.10}$$

Optimum cash balance = Rs 200000

Table showing how William J. Baumols Model beneficial for organization

A) Annual need of cash	Rs 20 Lakh	Rs 20 Lakh	Rs 20 Lakh	Rs 20 Lakh
B) Lot size of securities	Rs 100000	Rs 200000	Rs 500000	Rs 1000000
C) Number of lot Size (A / B)	20	10	4	2
D) Average holding of cash (B / 2)	Rs 50000	Rs 100000	Rs 250000	Rs 500000
E) Opportunity cost of holding cash (D X 10%)	Rs 5000	Rs 10000	Rs 25000	Rs 50000
F) Fixed cost per transaction	Rs 1000	Rs 1000	Rs 1000	Rs 1000
G) Total transaction Cost (C X F)	Rs 20000	Rs 10000	Rs 4000	Rs 2000
Total Cost (E+ G)	Rs 25000	Rs 20000	Rs 29000	Rs 52000

The above table clearly indicates that the Total Cost is Minimum at Rs 20000 when the lot size of Securities is Rs 200000 and thus it is Most of Economic lot of Size of Selling Securities.

Mantra of Success at a Glance

- Ensure Preparation of Cash, Credit Card and Bank Reconciliation Statement on Daily basis for Fantastic Control of Cash and its equivalent
- Ensure periodically Cash Audit. And company should make policy regarding recovery of Cash Discrepancy
- Ensure only one employee (Cashier) should be responsible for handling all matter of cash.
- Ensure organization is fulfilling all legal requirement attached with cash receipt and payment.
- Ensure organizations have Cash and Credit Card Insurance against Theft, robbery, fire etc.
- Ensure organizations have water and fire proof, Safe Cash locker or safe Deposit Box for The purpose of keeping the Cash
- Ensure CCTV Camera Coverage of area where organization keeps Safe Cash locker or safe Deposit Box.

Conclusion

- Management of Cash is panacea for organization, if it is properly implemented.
- Neglects or poor Cash management is like slow poison, which pushes organization towards Winding up or out of market.
- Effective Cash management can make a significant contribution to give the energy and strength To each department of a company and vendor satisfaction as well.

REFERENCES

1. Ref Dr R.P Rustagi Fundamentals of Financial Management Seventh Revised Edition.
2. Ref Dr.Girish Ahuja and DR Ravi Gupta Direct Taxes Ready Reckoner with Tax Planning 15th Edition 2014}
3. Ref Board of Studies The Institute of Cost Accountants of India Financial Management.
4. Ref Board of Studies the Institute of Company Secretary of India Financial Management
5. Ref Board of Studies the Institute of Charted Accountant of India Financial Management
6. https://www.sbi.co.in/.../SBI.../0ec3339b-20af-4a9d-b805-219aef520425 at 9 A.M, 20 MAY 2017.*https://www.sbi.co.in/portal/web/services/servicescharges-01-4-2017 at 10 A.M, 20 MAY 2017.
7. https://www.axisbank.com/retail/accounts/savings.../fees-charges at 11 A.M, 21 MAY 2017.
8. www.livemint.com/.../HDFC-Bank-ICICI-Bank-start-charging-for-cash-transactions-a.html at *11:30 A.M, 21 MAY 2017*
9. www.hindustantimes.com/...axis...cash-transactions.../story-ocHBa69oPYVNFuyDKBF94J.html at 8 A.M , 22 MAY 2017.

7

Growing Digital Banking Services in the Indian Economy

*Kratika Gupta**

ABSTRACT

Digital Banking Services persist to develop and replace the delivery of conventional banking services to the consumers through modern technologies to meet the growing multifaceted needs and globalization challenges. The Bank and other Financial Institutions having freer adaption of technological and knowledge of entire market of willing can offer better financial products/services at lower costs to those customers who were having higher spending power. Digital adoption and moving away from cash would not be without complications. But the vary products help the banking sector to improve their performance and to remain economical in the market. There is a growing literature on Digital banking Services and at this point of the growth, this paper systemically reviews the existing sum of literature investigating the impact of DBS on economy performance, analyses and identifies the research gaps.

Keywords: *Bank Performance, DBS challenges, Technology Adoption.*

INTRODUCTION

The sphere of economy has transformed and it's continues to modifying.The buzzword in India today is creating a cashless future in the economy.Digital technology works as a substance for growth in the banking sector; particularly it supportsbanking services, productivity growth, and risk management. Now Digital Banking services (DBS) enlarge the delivery of traditional banking services to thecustomers through innovative technologies like internet banking, mobile-phone-enabled solutions,electronic money models and digital payment platforms.Although modern digital banking startedwith the automated teller machines (ATM) and phone banking, however, the internet and mobilebanking offer fast and effective delivery channels not only for traditional banking products but alsofor new products as well. The outreach of 3G and 4G internet technology alongwith the expanded uses of smartphones and tablets has increased the demand for digital services.This market demand emboldensfinancial institutions, software houses and other service benefactorsto offer advanced digital banking services together with the advent of 'innovative diversifiedproducts andapplications to retain the existing clients and access the unbanked population.

There is no doubt that digital banking has brought inamazing customer experience.However, increased levels of cyberthreats have the potential forcausing significant disruptions intheir services apart from risksrelated to sensitive customerinformation and internet frauds. It is therefore important to see howinformation technology systems and data security risks are

* Assistant Professor, School of Business Management, University of Engineering & Management, Jaipur

monitored and managed.Regulations on digitalization inIndia are at a nascent stage andtheir evolution would also beimportant in charting the wayforward for disruptive innovationsin the Indian banking space.

The banking industry is one of the pioneers of ITbasedfinancial services applications and today heavily depends on Digitalization in reshaping its servicedelivery systems.India thus today stands at the cuspof a banking revolution throughrapid penetration of digitalbanking.

Many studies analyze the eûect of DBS by using both quantitative and qualitative methodologies. Despite considerable research on DBS and bank performance that has appeared in academic journals, a review of the literature on this topic remains missing. Such reviews play an important role in the development of research field through identification of areas where research is lacking. The aim of this study is to explore, understand, analyze and summarize findings of DBS. It eûectively accumulates the existing body of research into the more coherent body of knowledge, and to interpret previous findings.

DIGITAL BANKING SERVICE

"Digital Banking is the application of technologyto ensure seamless end-to-end (STP in the 'old'jargon) processing of banking transactions/operations; initiated by the client, ensuring maximum utility to the client in terms ofavailability, usefulness and cost; to the bank interms of reduced operating costs, zero errorsand enhanced services." Banking Industry to remain contemporary and relevant, started aggressively innovating digital products and services for customers. Banks provide variety of services and delivered it through digital channels, including payments, credit, savings, remittances, insurance and financial information. The term "digital channels" refers to the internet, mobile phones (both smartphones and digital feature phones), ATMs, POS terminals, NFC-enabled devices, chips, electronically enabled cards, biometric devices, tablets, phablets and any other digital system.

The Government of India (GoI) is currently insistent for digital transactions.The GoI promote digital transactions through manifold amenities, such as Aadhar Pay, Unified Payment Interface (UPI), Immediate Payment Service (IMPS), debit cards, launched a mobile application (Bharat Interface for Money - BHIM) for assisting e-payments through bank accounts.The insertion of mobile technology enormously disrupted innovation in the banking sector, digital is currently doing the alike.

DBS used in Literature Review

As DBS include numerous digital channels (improving day to day).We noticed that in our famous articles (2008 to 2017) researchers mainly focus on one particular channel at a spot in time tocarry out their research. Most of the studies used internet banking (39%) as DBSchannel followed by automated/internet/self-service technology (38%).

1. E-banking (Mohammad and Saad, 2011), (D. Karimzadeh et al., 2014), (Abaenewe et al., 2013) (Ugwueze and Nwezeaku, 2016),(Akhisar et al., 2015),(Siddik et al., 2016)
2. Internet banking (Malhotra and Singh, 2006), (Ceylan et al., 2008), (Kennedy and Jacky, 2013) (Malhotra and Singh, 2009), (Van et al., 2015),(Malhotra and Singh, 2010) (Majid and Mohammad, 2013), (Lin et al., 2011), (Tunay et al., 2015) (Stoica et al., 2015), (Dandapani et al., 2008), (Delgado et al., 2007) (Callaway, 2011)

3. Mobile banking (Kennedy and Jacky, 2013)
4. Online banking (Wu and Dash Wu, 2010),(Acharya et al., 2008),(Ho and Wu, 2009)
5. Cash less banking (M. Kamboh and E.J. Leghari, 2016)
6. Automation/internet/ (Mehmood et al., 2015),(Muhammad et al., 2013),(Georgia and Christos, 2013) self-service technology (Ciciretti et al., 2009), (Uchida et al., 2011),(Al-Hawari and Ward, 2006) (Hernando and a J. Nieto, 2007),(Meepadung et al., 2009),(DeYoung et al., 2007) (Hung et al., 2012),(Lavinia, 2014),(Del Giudice et al., 2016)
7. ATM (Georgia and Christos, 2015),(Kondo, 2010)

Research Methodology

To straighten out on the current state of research pertaining to DBS and bank performance we demeanoura general literature review. Since DBS is an interdisciplinary topic hence the related researcharticles are published in an amplerange of academic journals.To see the pertinent articles, we have search of a variety of databases (journals, articles& Conferences) through numerous relevant key provisos:

- ***Databases and key terms:*** Sources: ·Science Direct, Emerald, Pro Quest Direct, Taylor & Francis, Wiley, Inderscience, Scopus, Springer, Google Scholar, ACM Digital Library, AIS Electronic Library, IEEE- Xplore.
- ***Objective Key Terms:*** Mobile banking, Digital Financial Services. Internet banking, Mobile payments, Branchless banking, Online banking, Electronic banking, Digital banking, Mobile money
- ***Subjective key terms:*** Firm performance, Firm profitability, Firm efficiency, Financial impact, Cost effectiveness, Bank performance

To find a relevant article in a database each key objective term is searched with the combinationof subjective terms. Through recognized articles, we discovered the citations and referencesto find any earlier or foremost work that is in our span.Initially 54articles were found, however, a two-step pre-selection is performed before including the article inour literature review.

The following Steps are performed in conductingthe research:

1. Preparing the list of database resources and key terms
2. Searching the data bases with differentcombination of key words
3. Preparing the initial list of publications
4. Screening the articles/ pre-selection
5. If the article is relevant than double checking of the relevant articles is done and back tracking their references to include any missing article, and if the article is not relevant than it discarded.
6. After double checking, preparing database of finally selected articles.
7. Data analysis and manuscript preparation.

The final selection resulted in relevant research articles, wherein some were published in scientific journals and few in conferences. Hence the selected articles represented anample variety of peer-reviewed scientific journals. Due to the spiky expansion in mobileand internet accessibility from the year 2006 onwards the usage of **DBS** increases and continuesto rise.The companies

make over from traditional to the digital model in this period to fill thecustomer requirements, stay in the competition, improve efficiency and hence to gather the benefits ofdigitization. So we decisive to review the research of last one decade. The selected articles useddifferent research approaches and methodologies.

Analysis with Author with Year methodology/approach used sample size countries of study

1. (Dandapani et al., 2008) regression analysis for bank specific financial variables 6566 USA
2. (DeYoung et al., 2007) percentage change in income and balance sheet selected items 5599 USA
3. (Del Giudice et al., 2016) classification analysis method (classification and regression tree). 3692 Europe
4. (Lin et al., 2011) propensity-score matching and difference-in-differences methods 2487 USA
5. (Acharya et al., 2008) structural equation modeling and multiple regression analysis 640 USA
6. (Callaway, 2011) regression analysis 369 Turkey
7. (Hung et al., 2012) regression and sensitivity analysis 181 Taiwan
8. (Meepadung et al., 2009) data envelopment analysis 165 Thailand
9. (Kondo, 2010) regression analysis 128 Japan
10. (Ciciretti et al., 2009) financial ratio and regression and robust analysis 105 Italy
11. (Malhotra and Singh, 2006) regression analysis 88 India
12. (Malhotra and Singh, 2009) financial ratio analysis and multivariate analysis 85 India
13. (Malhotra and Singh, 2010) Financial ratio analysis and multivariate analysis 82 India
14. (Akhisar et al., 2015) regression analysis 82 23 countries
15. (Hernando and a J. Nieto, 2007) Financial ratio and multivariate analysis 72 Spain
16. (Delgado et al., 2007) Financial ratio Analysis and The regression analysis of scale and experience 60 Europe
17. (Ugwueze and Nwezeaku, 2016) co-integration and causality approach 60 Nigeria
18. (Uchida et al., 2011) financial ratio analysis 40 Bangladesh
19. (Ho and Wu, 2009) data envelopment and principal component analysis 32 Taiwan
20. (Kennedy and Jacky, 2013) qualitative analysis 30 Kenya
21. (Mehmood et al., 2015) seemingly unrelated regression estimation and cobb-douglas production function 30 Pakistan
22. (Tunay et al., 2015) demitrescu-Hurlin panel causality tests 30 Turkey
23. (M. Kamboh and E.J. Leghari, 2016) regression analysis 30 Pakistan
24. (Stoica et al., 2015) data envelopment and principal component analysis 24 Romania
25. (Van et al., 2015) regression analysis 20 Vietnam
26. (Ceylan and Emre, 2011) regression analysis 18 Turkey

27. (Mohammad and Saad, 2011) regression analysis 15 Jordan
28. (Ceylan et al., 2008) regression analysis for bank specific financial variables 14 Turkey
29. (Siddik et al., 2016) regression analysis 13 Bangladesh
30. (Muhammad et al., 2013) regression analysis 11 NIgeria
31. (Georgia and Christos, 2013) regression analysis 11 Greece
32. (Lavinia, 2014) regression analysis 11 Romania
33. (Georgia and Christos, 2015) data envelopment and regression analysis 11 Greece
34. (Wu and Dash Wu, 2010) data envelopment and principal component analysis 10 USA & UK
35. (Majid and Mohammad, 2013) regression analysis 8 India
36. (Al-Hawari and Ward, 2006) effect of service quality on bank profitability: structural equation modeling 4 Australia
37. (Abaenewe et al., 2013) financial ratio analysis 4 Nigeria
38. (S˜org and Lu¡st¡sik, 2006) activity-based-costing (ABC) 1 Estonia
39. (D. Karimzadeh et al., 2014) regression analysis 1 Iran

To review all we gathered research techniques used to investigate the impact of different DBS on the bank performance. In our literature review (39 articles) we could find eight different mathematical,financial, econometric, and operation research techniques. Most of the studies (70%)combined financial ratios and regression analysis followed by (13%) data envelopment and principalcomponent analysis. In addition, As reveals, few authors (e.g (S˜org and Lu¡st¡sik,2006),(Del Giudice et al., 2016),(Mehmood et al., 2015),(Lin et al., 2011),) used one specific techniquewhich is not used by any other author in the entire sample of review.

List of techniques used:

No	Methodology /technique used	Number of articles
1	Financial ratio, percentage change (income and balance sheet) and Regression Analysis	27
2	Data envelopment and principal component analysis	5
3	Structural equation modelling	2
4	Co-integration and causality approach	2
5	Activity-based-costing (ABC)	1
6	Propensity-score matching and difference-in-differences methods	1
7	Cobb-Douglas production function	1
8	Classification analysis method	1

RESULT

Most studies are empirical in nature which is understandable from the title of article whereintopic financial performance is reviewed in the literature. 97% of the selected articles in this reviewused the quantitative technique(s) while only one study (Kennedy and Jacky, 2013) was foundqualitative in nature. Of 39 selected articles 60% were published by top-ranked publishers likeElsevier, Emerald, Inderscience, Taylor & Francis, Wiley, and Springer.

Further, the Elsevier publishedthe most articles (8, 21%) followed by Emerald (6, 6%).

The studies applied different financial, econometric, mathematicaland operation research techniquesto investigate the impact of different DBS on the bank performance. Regression analysis isthe most popular estimating technique which is used in more than 60% studies. Interestingly all thestudies were performed in the banking sector including community and primarily internet banks.The research articles used the number of banks or their branches as sample size.

RESEARCH GAP

Most of the studies included in this literature review are of quantitative in nature. However, ithas been observed that data pertaining to the digital channels used as DBS is either very limitedor not empirical in nature. Although financial data indicating the performance of the companyis available easily, however, secondary data for digital payment channels were non-existent in theearly stage of emerging DBS. But nowadays availability of resources increased significantly.Hence to improve the quality and applicability of their studies, researchers are expectedto use better quality data to validate their research.

The branchless banking e.g M–Pesa, Easypaisa, G-Cash, Ready-cash etc (in developing) and Paypal, skrill, Paysafecard and Neteller etc (in developed countries), are serving the masses andnow a major competitor for traditional banking model. In developing countries, such services arebeing provided by mobile service providers while in developed by nonbank companies. The futureresearch to investigate the role of such services in the profitability and performance of mobile serviceproviders' companies could be interesting and the comparison of branchless banking in developedand developing countries can extend understanding for adoption, efficiency, performance and trust.

Conclusion

The combination of higher spendingpower and a freer adaption oftechnological adoption mean thatbanks and other financial institutionshave an entire market ofwilling and able customers to offerbetter financial products/servicesat lower costs. The fact thatunbanked population in Indiahalved from 577 million to 233million speaks volume about theadvancement of financial inclusionefforts. Technology is the biggestenabler and equalizer today. As weconnect one-on-one in real time, ithas created massive new flows oftrade for markets that wereunderserved or overlooked. Cellphone subscription in India hascrossed one billion.

This paper systemically reviewed the existing amount of literature investigating the impact of DBS on bank performance. Overall the research conducted on DBS and bank's performance is promising.It is understandable that data availability remained a big challenge dueto privacy issues but a collaborative effort from academicians and practitioners could overcome it in future. The regular development of technology and intricacy of products call for additionalresearch. There are still several areas related to DBS and bank performance that require deeperattention in future. We suppose that this literature review and our identified future research areaswill provide functional guidance for the research community interested in DBS.

REFERENCES

1. Abubakar Muhammad, M. Gatawa Nasir, and S.B. Kebbi Haruna. Impact of information andcommunication technology on bank performance: a study of selected commercial banks in Nigeria (2001–2011). *European Scientific Journal*, 9(7):213–238, 2013.
2. Amu Christian Ugwueze and Nathaniel C. Nwezeaku. E-banking and commercial bank performancein nigeria: A cointegration and causality approach. *International Journal of e-Education, e-Business, e-Management and e-Learning*, 6(3):175–185, 2016.
3. Bilal Mehmood, Amna Nisar, and Hafeez ur. Rehman. Technology matters: Evidence from Pakistani banking sector using flexible transcendental logarithmic production function. *PakistanEconomic and Social Review*, 53(2):203–224, 2015.
4. D.Kunt Asli, Klapper Leora, Singer Dorothe, and V. Oudheusden Peter. e global findex database2014 measuring financial inclusion around the world. *World Bank Policy Research WorkingPaper*, (7255), 2015.
5. Digital financial services basic terminology. Kuala Lumpur, Malaysia, 2016.
6. Daniela Gabor and Sally Brooks. The digital revolution in financial inclusion: international developmentin the fintech era. *New Political Economy*, 0(0):1–14, 2016.
7. Dinh Van, Le Uyen, and Le Phuong. Measuring the impacts of internet banking to bank performance:Evidence from vietnam. *Journal of Internet Banking and Commerce*, 20(2),2015.
8. Giordani Georgia and Floros Christos. How the internet affects the financial performance of greekbanks. *International Journal of Financial Services Management*, 6(2):170–177, 2013.
9. Ghosh Saibal. Does mobile telephony spur growth? evidence from indian states. *Telecommunications Policy*, pages 1–12, 2016.
10. Giordani Georgia and Floros Christos. Number of atms, it investments, bank profitability andefficiency in greece. *Global Business and Economics Review*, 17(2):217–234, 2015.
11. Ilyas Akhisar, K. Batu Tunay, and Necla Tunay. The effects of innovations on bank performance:The case of electronic banking services. *Procedia - Social and Behavioral Sciences*, 195:369 –375, 2015.
12. Ignacio Hernando and Mar˜A a J. Nieto. Is the internet delivery channel changing banks' performance?the case of spanish banks. *Journal of Banking and Finance*, 31(4):1083 – 1099, 2007.
13. Javier Delgado, Ignacio Hernando, and Mar´ýa J. Nieto. Do european primarily internet banks showscale and experience efficiencies? European Financial Management, 13(4):643–671, 2007.
14. Kazumine Kondo. Do atms influence bankprofitability in japan? *Applied Economics Letters*, 17(3):297–303, 2010.
15. Karimzadeh Majid and Reza Sasouli Mohammad. Contribution of internet banking toward profitabilityof banking in india. Acta Universitatis Danubius. OEconomica, 9(6):57–69, 2013.
16. K. Batu Tunay, Necla Tunay, and ÿ Ilyas Akhisar. Interaction between internet banking and bankperformance: The case of europe. Procedia - Social and Behavioral Sciences, 195:363–368, 2015.
17. Krishnan Dandapani, Gordon V. Karels, and Edward R. Lawrence. Internet banking services andcredit union performance. Managerial Finance, 34(6):437–446, 2008.
18. Lodge Gareth, Greer Stephen, Zhang Hua, and Mazzini Juan. Global tech spending forecast:Banking edition. Technical report, Celent, 2016.
19. Michael E. Porter and Victor E. Millar. How information gives you competitive advantage. *HarvardBusiness Review*, 63(4):149–160, 1985.
20. Manyika James, Lund Susan, Singer Marc, White Olivia, and Berry Chris. Digital finance for all: Powering inclusive growth in emerging economies. Technical report, McKinsey Global Institute, 2016.
21. Md. Nur Alam Siddik, Gang Sun, Sajal Kabiraj, Joghee Shanmugan, and Cui Yanjuan. Impactsof e-banking on performance of banks in a developing economy: empirical evidence frombangladesh. *Journal of Business Economics and Management*, 17(6):1066–1080, 2016.

22. Mohammed Al-Hawari and Tony Ward. The effect of automated service quality onAustralian banks' financial performance and the mediating role of customer satisfaction. *Marketing Intel-ligence and Planning*, 24(2):127–147, 2006.
23. Mingfeng Lin, Henry C. Lucas, and Joseph Bailey. Banking' on the internet: Does internet bankingreally improve bank performance? Available at SSRN: https://ssrn.com/ abstract=1989838,2011.
24. Mihaela Gutu Lavinia. The impact of internet technology on the romanian banks performance. In*Proceedings of International Academic Conferences*, 12th. International Institute of Social andEconomic Sciences, 2014.
25. Manlio Del Giudice, Francesco Campanella, and Luca Dezi. The bank of things: An empiricalinvestigation on the profitability of the financial services of the future. *Business ProcessManagement Journal*, 22(2):324–340, 2016.
26. Mart S˜org and Olga Lu¡st¡sik. Transition banking may be highly profitable: Estonian case. *Banksand Bank Systems*, 1(1):35–48, 2006.
27. Napapan Meepadung, John C. S. Tang, and Do Ba Khang. It-based banking services: Evaluatingoperating and profit efficiency at bank branches. *The Journal of High Technology Management Research*, 20(2):145–152, 2009.
28. O. Al-Smadi Mohammad and A. Al-Wabel Saad. The impact of e- banking on the performance ofjordanian banks. *Journal of Internet Banking and Commerce*, 16(2):1–10, 2011.
29. Onay Ceylan, Ozsoz Emre, and D. Helvacýo¢glu Aslý. The impact of internet-banking on bankprofitability- the case of turkey. In *Oxford Business and Economics Conference Program*, 2008.
30. Okiro Kennedy and Ndungu Jacky. The impact of mobile and internet banking on performance offinancial institutions in kenya. *European Scientific Journal*, 9(13):146–161, 2013.
31. Ovidiu Stoica, Seyed Mehdian, and Alina Sargu. The impact of internet banking on the performanceof romanian banks: Dea and pca approach. Procedia Economics and Finance, 20:610 –622, 2015.
32. Onay Ceylan and Ozsoz Emre. The impact of internet-banking on brick and mortar branches: Thecase of turkey. *Journal of Financial Services Research*, 44:187–204, 2011.
33. Pooja Malhotra and Balwinder Singh. The impact of internet banking on bank's performance:The indian experience. *South Asian Journal of Management*, 13(4):25–54, 2006.
34. Pooja Malhotra and Balwinder Singh. The impact of internet banking on bank performance andrisk: The indian experience. *Eurasian Journal of Business and Economics*, 2(4):43–62, 2009.
35. Pooja Malhotra and Balwinder Singh. Experience in internet banking and performance of banksof banks. International Journal of Electronic Finance, 4(1):64–83, 2010.
36. Rocco Ciciretti, Iftekhar Hasan, and Cristiano Zazzara. Do internet activities add value? Evidencefrom the traditional banks. *Journal of Financial Services Research*, 35(1):81–98, 2009.
37. Shigeru Uchida, Sylvana Maheen Ahmed, and Sarwar Uddin Ahmed. Automation and financialperformance of banks. *Annual Review of Economics*, 27(49-56), 2011.
38. Saeid D. Karimzadeh, Mostafa Emadzadeh, and Javad Shateri. The effects of electronic bankingexpansion on profitability of a commercial bank (sepah bank of iran). *Indian Journal of ScientificResearch*, 4(6):305–312, 2014.
39. Stephen K. Callaway. Internet banking and performance: The relationship of web site traffic rankand bank performance. American Journal of Business, 26(1):12–25, 2011.
40. Webster Jane and T. Watson Richard. Analyzing the past to prepare for the future: Writing aliterature review. MIS Quarterly, 26(2):13–23, 2002.
41. Zeph Chibueze Abaenewe, Onyemachi Maxwell Ogbulu, and Michael Osondu Ndugbu. Electronicbanking and bank performance in nigeria. *West African Journal of Industrial and AcademicResearch*, 6(1):171–187, 2013.

8

Role of Job Satisfaction of Teachers in Emerging Education Scenario

*Rajeev Kumar Bhardwaj**

ABSTRACT

Education is a constructive and life long process which drags a child from illiteracy, darkness, poverty and misery and leads him to the pool of growth, prosperity and happiness by developing his/her personality in all respects i.e. physical, mental, social, emotional & spiritual. It is a lifelong process that starts from at birth of the child and continues till death. An educational institution is a miniature of the society as it has students of all caste, race, religion and gender. It means by serving students, a teacher is also serving a society and a nation too. Swami Vivekananda had emphasised that to give the best to students is the utmost responsibility of a teacher. It is the prime responsibility of a teacher to inculcate the students in such a manner that after delivering the content the teacher must have the feeling of Satisfaction. A teacher who is satisfied with his/her job can give his/her best to his students. Teachers with high level of Job Satisfaction can achieve their goals i.e. they are able to bring desirable changes in in students behaviour and their outcomes. Teachers who have high levels of job satisfaction can motivate their students to achieve the goals. In olden days teaching profession was considered as one of the most comfortable job with high level of Job Satisfaction. Now gone are those days, as teaching profession has become very challenging gradually. In present education scenario only those teachers can survive who have the ability to draw satisfaction from their job.

Keywords: *Job Satisfaction, Job Dissatisfaction, Efficiency and Effectiveness, Motivator, Hierarchy of Needs.*

Introduction

In 1954 Abraham Maslow propounded 'Need hierarchy theory of Motivation'. His theory is based on human needs. Derive to fulfil those needs works as motivation. Thus Job Satisfaction has its relevance for motivation and boosting up the morale of employees of an organisation. Most of the researches or articles which are associated with job satisfaction are focused on job satisfaction of the employees other than employees of educational institutions i.e. teachers. Since the investigators himself is a teacher so investigator decided to work out how Job Satisfaction motivates the teachers and how does it boosts up their morale. Further an attempt has been made to find how Job Satisfaction could enhance the efficiency and effectiveness of teachers to survive in modern education scenario.

* Research Scholar, Department of Commerce and Business Studies, Jamia Millia Islamia, New Delhi.

OBJECTIVE OF THE STUDY

(a) First objective of the study is to ascertain the role of Job Satisfaction in emerging education scenario i.e. how it could be useful for teachers in modern education era.

(b) Other objective of study is to explore how efficiency and effectiveness of teachers could be enhanced to be successful in this challenging modern educational era.

RATIONALE OF THE STUDY

Now a day's it is difficult for teachers to remain happy, efficient and effective in demanding work environments unless they learn the skill of drawing Job Satisfaction. Gone are those days when teaching profession was relaxed and comfortable. In the early phase of this ongoing paper it was observed that most of the researches which are associated with Job Satisfaction are concentrated on the professions other than teaching. Thus it was felt that the endeavours of investigators should be focused on teachers. Abraham Maslow propounded the the five levels need hierarchy theory in 1954, thereafter Hertzberg popularised the two factor theory of motivation. Since there after numerous papers, articles and thesis have been published on Job Satisfaction. But still there is need to work out the Job Satisfaction of teachers. There are many unexplored area of teachers which are associated Job Satisfaction. When unexposed factors will be exposed it might be useful for fostering efficiency and effectiveness of teachers. Those factors when summarised will serve as the key components for higher Job Satisfaction.

STATEMENT OF THE PROBLEM

The term Job Satisfaction finds its roots in the theory of "Hierarchy of Needs" propounded by Abraham Maslow in (1954), modern motivation theory X and theory presented by Professor McGregor's(1959) and two-factor or Hygiene theory formulated Hertzberg (1959). Based on above cited theories, Job Satisfaction has been approached by researchers from the perspective of need fulfilment. Above cited theory provides a solid platform for researcher to work on Job Satisfaction. As it has been mentioned earlier that majority of researches done on Job Satisfaction, are concentrated on the job rather than "Job Satisfaction" of teachers. Thus investigator has formulated the problems to work out job satisfaction of teachers to enhance their efficiency and effectiveness in dynamic and emerging education scenario.

RESEARCH METHODOLOGY

The study is based upon analytical descriptive methodology of research and the appropriate secondary data which has been retrieved from various Books, Newspapers, Research Article, Hard-cover Journal and On-line Journals. On-Line journals were searched on "Sodh Ganga" and "Google Scholar. Analysis and conclusion the ongoing article will provide a smooth base for next primary data based detailed study on Job Satisfaction of teachers.

LITERATURE REVIEW

The investigator has made endeavours to explore that what are the different views and opinion of different authors regarding Job Satisfaction. Gists of all of them are put in chronological order for sake of convenience.

Hoppock (1935), the term "Job Satisfaction" was brought to limelight by him as a psychological and physiological construct. "According to him Job Satisfaction is combination of psychological, physiological and environmental factors that make a person to admit that he is happy with his job". It has been also defined as as the 'end of state feeling'. It is an important factor of morale and motivation.

Abraham Maslow (1954), According to him human's needs are five types and a rational man works till his needs are satisfied. When one level of needs is satisfied it is no longer motivator. There after a human being works for next levels. He divided human needs in five categories ranging from basic needs to Self-Actualisation needs. He defined such set as the "Need of hierarchy". It is based on such assumption that satisfied human need is no more motivator for an individual. Maslow said that human needs are satisfied in a specified order that is from first need to last level of needs. As per hierarchy a rational human being first of all works for basic need i.e. food, cloth and shelter. Once this basic need is satisfied an individual moves to next level i.e. safety needs. Safety needs includes physical safety viz. safety against illness and old age. Further it includes job security and other monetary benefits such as pensions and old age benefits. It also includes the safety of property. Once the second level of an individual of needs is fulfilled thereafter an individual moves to third hierarchy of human needs. Next level of need is social needs. It is also known as affiliation or belongingness needs. Since human is a social animals so affiliation, love, friendship or sense of family relationship. After fulfilling the safety needs it is no longer works as motivator, so forth level works as motivator and fourth level is Esteem Needs. Esteem needs includes self-respect, respect from others, autonomy, praise and recognition. Praise and rewards work as strong motivators for higher level of motivation. In fact at higher level of employment non-financial motivators are more important rather than financial motivators. Last level in hierarchy is self-actualisation needs i.e. growth and self-fulfilment. It refers to the wish or need or drive to become what a person could be. So self-actualisation is last level of human needs. Thus five level hierarchy needs theory explain how an individual work towards the achievement of his goal. So it is clear that an individual moves from low level to higher level.

McGregor (1957 and 1960) has presented two opposite sets of human psychology. First set is called as "Theory X" and "Theory Y". Theory X explains regarding the nature of human beings regarding the work and his origination while the opposite set that is theory Y explains regarding the organisation and work environment. Theory X assumes that typical individual dislikes the work so needs to be motivated to work. Further employees are reluctant to change so again motivation is needed for inducement of changes. While theory Y is opposite to theory X, as it states that management is mainly responsible for motivation and production in organisation. Motivation is the key of success. In the Indian context it may be stated that theory X is widely acceptable. According to him when some conditions are present, boost up the motivation of the employees and are called as motivational factors or satisfiers. But if those conditions are not available they will not cause dissatisfaction.

Porters and Lawler (1975) defines satisfaction as "Satisfaction is an attitude, internal cognitive states, which is derived from the extent to which rewards are given. If actual rewards exceed or meet the perceived equitable rewards, the individuals will be satisfied".

Locke (1976) stated that "Job Satisfaction is based on the experience of the workers which in turn is connected with worker's needs, expectation and their job benefits"

Milkovich & Boudreau (1988) stated that Job satisfaction is a delightful and positive response of an individual or employee or worker for his or her professional and occupational experience.

Argyle (1989) found that in the last two decades, Job Satisfaction has been the target of several research studies. He is of strong belief that Job Satisfaction is a powerful predictor of general wellbeing of an individual in the job setting.

Locke and Latham (1990) reaffirmed that "Job Satisfaction is a mental state which causes a lot of fulfilment the worker acquires from his job and his job experience".

Igbaria and Guimaraes (1993), "Job Satisfaction can be explained as the contentment the employee obtains from the job or job experience". It was affirmed again that the "Job Satisfaction is achieved if the attributes of the job yield with the employee's expectations. This is because it consists of the employee's expectations from the job with the rewards the job provides".

Shann (1998)stated that teacher JS is considered as "a predictor of teacher retention, a determinant of teacher commitment and a contributor to teacher effectiveness" which leads to the teacher's performance enhancement and eventually the ability to have a positive effect on the students' final performance Many teachers are believed to choose teaching as an occupation since they merit the innate rewards which they get and since they feel the pleasure of the emotional and personal advantages of the job itself, including personal improvement and a sense of success

Corsini (1999) has defined Job Satisfaction as "the attitude of an employee towards a job, sometimes expressed as a hedonic response of liking or disliking the work itself, the rewards pay, promotions, recognition or working conditions, benefits".

Syptak, Marslandand and Ulmer (1999) proposed this definition for Job Satisfaction as "peoples' affective relation to their work role, and a function of the perceived relationship between what they wanted from the job, and what they perceived it was offering".

Mayer, Salovey & Caruso (2000). They found that Emotional Intelligence and Job Satisfaction are inter related. Knowledge of interpersonal feelings can aid in the management of negative senses and emotions; therefore, the person will enjoy a better performance in his/her profession. Better performance will also create a basis for JS. EI can be intimately linked to JS and job success since as it was explained earlier, EI is concerned with understanding other people

Robbins (2000) conceptualised that "Job Satisfaction is the overall attitude towards or the outlook about the job performed".

Saavedraand & Kwun, (2000) found that Job Satisfaction is derived by two types of factors viz. situational and personal factors. "Situational factors comprise job associated conditions such as payment, chance for promotion, working situations, and job characteristics like task identity, task significance, skill variety, autonomy, and feedback. Personal factors consist of personality nature, features, self-respect, drives, and feelings".

Iwanicki (2001) stated that most of the teachers choose this profession since they want to help others and look for the chance to improve personally and develop the public services. To put it differently, the utmost reason for this common enthusiasm among teachers is their competency to cause positive differences in young people's lives. What we can conclude from the above-cited discussions on EI and JS is that teachers are not only influenced by outer factors but also by inner factors like feelings and personality characteristics. Emotional or affective intelligence is one of these personality traits.

Rowden (2002) found in his study that high "Job Satisfaction is followed by developed work function regarding quantity and quality since the features of the job suits the anticipations

of the employee". Job Satisfaction not only affects work productivity of employees but also influences work effort, the quality of the working condition, staff turnover and retention of employees, wages and salary level, transfer and promotion system within an organisation.

Spector (2003) has stated "Job satisfaction is the feeling of employees regarding their work, which may be positive or vice-versa. Positive feeling of employees regarding their job enhances their motivation and morale".

FINDINGS AND CONCLUSION

After going through the statements of various authors it was observed that individual authors have tried to define Job Satisfaction in their own context. A common definition may be drawn as follows

"Job Satisfaction is state of mind of an employee regarding his or her job and is a type of attitude which may be either positive or negative. It reflects how an individual feels about his or job. If a person feels and holds favourable and positive feeling about the job it reflects job satisfaction and vice-versa. It means when an individual holds negative and unfavourable feelings about the job it reflects dissatisfaction.

Findings

Review of literatures of similar articles and research papers helped to quote following features of Job Satisfaction:-

I. Job Satisfaction is type of human attitude which may be in form of evaluative statement.
II. It is a state of mind that is Job Satisfaction reflects mental position of an employee of an organisation.
III. It is a cluster of feeling i.e. an employee expresses his /her manifold feeling in terms of Job Satisfaction.
IV. If the employee has high level of Job Satisfaction then he will have favourable and positive attitude towards his job and organisation.
V. If the employee has low level of Job Satisfaction or dissatisfaction then he will have unfavourable and negative attitude towards his job and organisation or may have moderate feeling as the case may be.
VI. Positive attitude includes high motivation and morale, higher output, efficiency and effectiveness, happiness, pleasure, freedom, self-respect, and less-absenteeism.
VII. Negative attitude includes low motivation and morale, poor output, poor efficiency and effeteness, dullness, tension, restricted and more absenteeism.
VIII. Job Satisfaction is variable attribute as the same working conditions and environment may not provide same level of Job Satisfaction in case of two employees of same levels.
IX. It is easy to retain an employee who has more Job Satisfaction as satisfied employee has the feeling of loyalty towards his / her organisation.
X. Job Satisfaction is directly associated with the experience of employees, expectations and benefits derived from the job. Job Satisfaction is directly associated with the hierarchy of needs propounded Abraham Maslow.

Implications of Job Satisfaction of Teachers in Emerging Education Scenario

As it has been quoted above that gone are those days when teaching profession was considered as most relaxing and comfortable job. Various education commissions, policies and recommendations have put a tremendous pressure on teachers. Before discussing the implications of Job Satisfaction we should know the classification of teachers. Teachers can be classified as follows:-

(A) Primary Teachers or Elementary Teachers
(B) Middle School Teachers
(C) Secondary and Senior Secondary school teachers
(D) Higher Education teachers

Since the teachers of different levels have to teach the students of different standards so it is oblivious that they need different levels of Job Satisfaction. But the fact cannot be denied that in present scenario teachers need to be satisfied if they want to survive in their profession. Day by day teaching professions is becoming more challenging job, so Job Satisfaction is one the key to become a successful teacher in complex and modern emerging education scenario.

Job Satisfaction can be useful for the teachers in complex and modern emerging education scenario as follows:-

1. Teachers are deemed as the builders of a nation, so JS of teachers will keep their morale and motivation higher, in turn it will shape the future of India in class rooms.
2. In 1966 Education commission emphasized the role of teachers. It was stated that success of education process of our country depends upon the quality, competence and character of teachers. So unless teachers are happy and satisfied such objective of education commission can't be attained.
3. Teachers are given the responsibilities of unfolding the personality of young children, communicating knowledge in specific subjects and assisting the students to grow their full stature. For such purpose teachers need various attribute for it and job satisfaction is one of them.
4. A teacher not only inculcates and instructs the students but also inspire the students. They have to ignite the minds of their students. Thus before inspiring the students a teacher is assumed to inspire himself first. A teacher who has the higher level of Job Satisfaction will definitely inspire his/her students.
5. Teachers are deemed as friend, parents, philosopher, guide, mentors and leaders of their students. It is very difficult for a teacher to play such a vivid and contrasted role unless they find themselves happy and satisfied.
6. Teacher plays a very important role of Group leader. Students follow a teacher as the leader of their class. Teacher paves the path of development for his students as a group leader. Job Satisfaction and leadership qualities are closely associated, so higher level of Job Satisfaction will make them a dynamic group leader.
7. A teacher is also parent surrogate of his/her students i.e. he is next to parents. On average a student stays in educational institution for six to seven hours, so Job Satisfaction will help a teacher to deal the students with care and love.

Limitations and Scope for Further Research

The present study is based on secondary data which elaborates the role of Job Satisfaction of Teachers about emerging education scenario. More studies can be done on other similar constructs like Emotional Intelligence, self-efficacy and Teacher's Effectiveness. So further studies may be conduct on different psychological construct using primary data

REFERENCES

1. Aremu A.O. *Emotional Intelligence and Teacher Effectiveness*, Academic Journals Cebu, Philippines, Volume 11, Number 1, 2012
2. Bar-On, R. (2005). *The impact of Emotional Intelligence on subjective well-being in Perspectives in Education*, 23(2), pp 41-42.
3. Chan, D. (2004). *Perceived Emotional Intelligence and Self-Efficacy among Chinese secondary school teachers 97 in Hong Kong, Personality and Individual Differences, www.googlescholar,* 10-12-2102, p.36 and pp 1781-1795.
4. Coetzee, M., & Schreuder, D. *The relation between career anchors, emotional intelligence and employability satisfaction among workers in the service industry Southern African Business Review* Volume -15, Number 3, 2011.
5. Farsani, M.A. *The relationship between trait emotional intelligence and self-efficacy among Iranian EFL teachers, 2011 Literature and Linguistics IACSIT Press, Singapore, IPEDR vol. 26, 2011*
6. Fredrick, H. (2007). Two Factor Theory of Herzberg. In C. B. Mamoria, & S. V. Gankar, *Personnel Management* (pp. 613-614). New Delhi: Himalya Publications
7. Gibbs, C. (2002), "Effective Teaching exercising Self efficacy and Thought control of action". Paper was presented at the Annual Conference of British Educational Research Association, University of Exeter, England ,September 2002
8. Fauzi, H. *Emotional Intelligence: Communication Effectiveness mediates the Relationship between Stress Management and Job Satisfaction*, International Journal of Managing Information Technology (IJMIT) Vol.3, No.4, November 2011**.**
9. Hargreaves, A. (1988). *The Emotional Practice of Teaching, Teaching and Teacher Education*, Volume 14, No. 8, pp 835854
10. Hoppock, R. (1935). *Job satisfaction.* New York and London: Harper and Brothers.
11. Igbria, M., & Guemraes, T. (2015, December 16). Antecedents and Consequences of Job Satisfaction among Information Center Employees. *Jounal of Mangement SYSTEM* , pp. 145-174.
12. Locke, J. (1976). *Motivation and Job Satisfaction.* London: OXford University Press.
13. Maslow, A. (2007). Motivation and Personality. In R. R. Stephen, & S. Seema, *Organizational Behaviour* (pp. 162-163). New Delhi: Pearson Education.
14. McGregor, D. (1996). The Human Side of Enteprise. In C. B. Mamoria, & S. V. Gankar, *Personnel Management* (pp. 607-610). Delhi: Himalaya Publishing House. Porter, L. W., & Lawler, E. E. (1975). *Behavior in organizations.* New York: McGraw-Hill.
15. Maharishi Mehi Paramhans, great spiritual *Saint, Moksha Darshna, Shanti Sandesh,* pp3-6, volume October 2016, ISSN 2454-2369 and hhtps://en.m.Wikipedia.
16. Nias, (1996) Thinking about Feeling: *The Emotion in Teaching*, Cambridge Education Journal, Cambridge University Press, UK, Volume 26, Year 1996, pp 293-306
17. Penrose, A. *Emotional intelligence and teacher self efficacy: The contribution of teacher status and length of experience***,** Posted on website 2nd week of January 2012**.**

18. Porter, L. W., & Lawler, E. E. (1975). *Behavior in organizations*. New York: McGraw-Hill.
19. Salami, O.S. *Relationships of Emotional Intelligence and Self-Efficacy to Work Attitudes Among Secondary School Teachers in South-western Nigeria*, Essays in Education, Volume 20, Spring 2007

    Salovey, P. And Mayer, J.D. (1990), Emotional Intelligence, Imagination, Cognition, and Personality, 9,185-211

    Singh, 2003, *Emotional Intelligence of a School Teacher* - a case study analysis, Krepublishers.com/02-Journals/IJES/IJES-02-0-000-10-Web/IJES-02-2-000-10
20. Tsai, M.T. *A study on the relationship between leadership style, emotional intelligence, self-efficacy and organization*, Posted on website 25 January 2011.
21. Zahra, A. *Relationship between Emotional Intelligence and Self-efficacy in Practical courses among Physical Education Teachers,* Pelagia Research Library www. Pelagiaresearchlibrary. com

9

Impact of Social Media Advertising on Millennials Buying Behaviour

Taanika Arora & Dr. Arvind Kumar***

Introduction

Social media is defined as all web-based applications "that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" (Kaplan and Haenlein 2010). According to Social Media Statistics there are 3.5 billion users on internet and out them 3.03 billion are active on social media. (Kit Smith, 2017). Seeing the power and unprecedented growth of social media , companies have included it as one of their biggest advertising channel and allocating their big proportion of advertising budget on social media channels . (Okazaki and Taylor 2013; Saxena and Khanna 2013, Johannes Knoll 2015)

This form of media ''describes a variety of new sources of online information that are created, initiated, circulated and used by consumers intent on educating each other about products, brands, services, personalities, and issues'' (Blackshaw&Nazzaro, 2004,).

Social networking is not new to people, it has always been as a part of human nature to interact, maintain relationships with one another and to advice, voice out their opinions about commercial content. (Uitz, 2012). So with the advent of internet which has given rise to social media platforms, these interactions have reached up new heights. Clients are adopting an increasing number of lively roles in co-creating advertising content with companies and their respective brands. In turn, corporations and companies are looking to on line social advertising packages and campaigns that allows you to attain purchasers where they 'stay' on-line. in the new social media-driven business version described by consumer connectivity and interactivity, content material is going hand in hand with technology, generating far-achieving results for the way marketers have an impact on present day and potential customers. (Hanna 2011).

The study involves studying the influence of social media advertisements on Millennials buying behaviour of smartphones. Millennials also known as Generation y have grown up in an environment where they have been bombarded with advertisements, so its becomes immensely important to understand their attitude and purchase behaviour. Individuals from the Millennial Generation ('recent college grads') are firmly joined with their cell phones and engaged in web-based social networking. They often post pictures and tweet about the items they like and purchase. Therefore, settled buyer brands unfit to ace the utilization of Twitter

* Assistant Professor, Amity University, Noida, U.P.

** Assistant Professor, Lady Shri Ram College, New Delhi

and other online networking are probably going to lose their capacity to communicate with this age. (Sashittal, 2015)

The Online purchase behaviour has characteristics like the accessibility of massive volume of information, lower search costs, openness to different types of competitors. (Daniel and Klimis, 1999) which has significantly changed the consumer buying decision process. People can access any product related information at any time through the different sites of internet, can compare various retailers, read various reviews given by experts on different products. So the internet purchase behaviour is quite different from a traditional one. What has enhanced the difference in the online and offline purchase behaviour is the power of social media. The power of electronic word of mouth spread through social media sites has a significant impact on Millennials purchase decision.

Literature Review

According to Kaplan and Haenlein (2010), "social media could be viewed as a group of applications powered on the internet and built on ideas similar to the foundations of Web 2.0 technology which allows the generation and interchange of information or other content generated by the users of such media".

Social media, such as fb, Twitter, LinkedIn, YouTube, WhatsApp, Instagram, Tumblr, Pinterest, WeChat and Google , permit young users to create customized on-line pages, speak and engage with friends, in addition to exchange content material that they have created themselves (user-generated content) and/or statistics from different brand-associated assets (Matthee, 2011; Statista, 2015, Duffett 2017) The main motives of on-line advertising communication commonly include generating brand awareness; generating consumer demand; imparting information; activating trafûc building relationships; fostering two-way connection ; rendering customer service; manifesting brand loyalty; creating word of mouth; generating leads and expanding sales. (Thomas, 2011; Stokes, 2013)

The different forms of social media include: -

- ***Social networking Sites:*** The use of Web sites and programs to communicate informally with others, discover humans, and share common pursuits. . Examples: Facebook, Google+, and LinkedIn
- ***Microblogging:*** Posting of very brief entries or updates on a social networking web site permits customers to enrol in different users' content material, transmit direct messages, and respond publicly permits customers to create and share hashtags to share content material on similar topics, Examples: Twitter and Tumblr
- ***Photo Sharing:*** Publishing a person's virtual photographs, permitting the person to share images with others either publicly or privately. Examples: Instagram, Flickr, Snapchat and Pinterest
- ***Video Sharing:*** Publishing a person's virtual videos, permitting the person to share images with others either publicly or privately. Examples: YouTube, Vimeo, and Periscope

Kaplan and Haenlein (2010)segregated social media into several dimensions which include: blogs (individual/community), collaborative project sites, virtual worlds (social/game) and social networking sites(Facebook). Social Media is a hybrid element of the promotion mix since directly it enables companies to interact with their clients, while indirectly it enables customers to engage

with one another. Social Media being a hybrid element of the promotional mix, should be considered as an indispensable part of the company's Integrated Marketing Communication (IMC). (W. Glynn Mangold and David J. Faulds ,2009)

Nowadays purchaser on line is a commentator, reviewer and publisher, all the companies should stop speaking and begin taking note of how they are perceived on-line. Listening is just the beginning, after listening, actively taking part in the discussions with the clients and engaging them is vital. This engagement with the consumers on line might be the key manner for building long-term advocates of the brand, who no longer simply buy their merchandise however additionally suggest them on and offline. (Tom Smith ,2010). Social networking sites and multimedia sharing sites such as Facebook, twitter, blogs and wikis, YouTube and Flickr, have massively diversified the communication process. Apart from the traditional advertising channels web sites are used as important platforms for advertising since they massive information can be given to sell their products. Apart from the websites social networks are known as tools that enriches the connectivity, they are one of the most vital advertising method due to the power of E WOM. (Hayta, A. B, 2013)

Consumers, believe that the reviews and opinions of the others are more credible than the advertising message and content of companies (Akar 2010). There are several studies, like Universal McCann (2008), MENG (2009), Awareness (2008a, 2008b), and Barnes and Mattson (2009), DEI Worldwide (2008) about the viewpoints and perception of consumers toward social media marketing. Results of various study concludes that consumers who are users or visitors of social media sites make better buying decisions in contrast to those who are not using them.

ErkanAkar&BirolTopçu (2011) indicate that the attitude of women toward social media and toward shopping online for products on social media sites are more favourable than men's which is in contrast with the study done by Cha 2009 and Lewis 2010 as they reported that no statistical significance was found between women and attitude toward shopping for products on social media sites. User generated product reviews, photographs, tweets, likes, tags serve as an important source of information when it comes to choosing a product online. (Ghose,Ipeirotis,andLi2009)

Cha (2009, 80) indicated that ''the more familiar people are with a medium, because of their frequent use of it, the more favourably they feel toward that medium.'' ' Monroe (1976) mentioned that ''the greater the amount of experience a buyer has with a particular brand, the more information he possesses about the brand.'' Aldridge, Forcht, and Pierson (1997) stated that as consumers start feeling familiar with the brand the comfort level of usersincreases, they tend to spend more time than others on the Internet and tend to purchase products online more. Hoffman, Novak, and Peralta (1999) found that ''the more experience one acquires online, the less important are the functional barriers to online shopping.'' Trust is one of the vital things when it comes to buying products online (Cheung et al. 2009). Heijden ,2003 quoted that perceived risk ''negatively influence[s] an unfavourable attitude towards online purchasing, but [does] not positively influence a favourable attitude towards online purchasing''

Research Methodology

The survey method was employed for obtaining primary data from 300 respondents through a structured questionnaire who actively use social media platforms on using convenience sampling, from Millennials residing in NCR.

Millennial are the principal users of on-line virtual programs including Social networking

websites (Du Chenne, 2011; Smith, 2012); (Bolton, 2013); (Wronski and Goldstruck, 2013). The data were recorded and analysed via statistical software SPSS (version 21). Although, all of the questionnaires were first meticulously weighed in terms of accuracy and completeness to establish whether they should be incorporated in the statistical analysis The data collected was analysed with the help of various statistical tools like frequency distribution, percentage analysis, mean scores and chi square analysis. Chi square analysis has been used

Research Objectives

1. To identify the motives for online Consumer's Social Media usage.
2. To ascertain the attitude towards Social Media Advertising.
3. To analyse the relationship between users of social media sites and effectiveness of Social Media Advertising

Hypothesis Formation

For finding out the association between users of social media sites and impact of Social Media Advertising following hypothesis have been formed:

H_{01}: There is no association between Facebook users and effectiveness of Facebook Advertising.

H_{02}: There is no association between Twitter users and effectiveness of Twitter Advertising.

H_{03}: There is no association between YouTube users and effectiveness of YouTube Advertising.

H_{04}: There is no association between Instagram users and effectiveness of Instagram Advertising.

Results and Discussion

Demographic Analysis

Demographic Variables	Subcategory	Frequency	Percent
Gender	Male	130	43.3
	Female	170	56.7
Age Group	18-24	240	80
	25-30	37	12.3
	31-35	11	3.7
	35+	12	4.0
Educational Qualifications	Undergraduate	183	61
	Graduate	66	22
	Postgraduate	44	14.7
	Ph.D.	7	2.3
Occupation	Student	236	78.67
	Service	58	19.33
	Self Employed	6	2

As per shown in table demographics of respondents were classified according to their gender, education, age and Occupation. Out of total respondents 43.3% are male & 56.7% are female. Majority of respondents are undergraduate (61%), 22% respondents are graduates, 14.7% are graduates and rest are Ph.D. Majority of the respondents are from 18-24 group (80%).

Analysis for Identifying the Motives for Millennials Online Social Media Usage

Table 1. Time Spent on the Internet per day by Millennials

Hours Number	Number	Percent
Less than 15 Minutes	08	2.67
15- 45 Minutes	82	27.33
45 Mins-1.5 hours	95	31.67
More than 2 hours	115	38.33
Total	**300**	**100**

The findings revealed that 38.33% the Millennials use the internet more than 2 hours a day, then 31.67% use the internet between 45 Mins-1.5 hours, 27.33% between 15- 45 Minutes while 2.67% use internet for less 15 minutes in a day.

Table 2. Preference of Social Networking Sites

Social Networking Sites	Percent
Facebook	30.3
Twitter	8.0
LinkedIn	9.2
Instagram	26.1
YouTube	26.5
Total	**100**

The findings revealed out that the most preferred social networking site is Facebook with 30.3% followed by YouTube (26.5)%, Instagram (26.1)% and least preferred is Twitter (8%)

Table 3. Reasons for usage of Social Networking Sites

Social Networking Sites	Percent
Networking	23.9
Reading posts related to the preferred brands	22
Keep in touch with family and friends	22.9
Deals and Promotions	4.4
Entertainment	6.5
Watch Videos and Photos of different products	20.2

The above table shows that predominant reasons for using social media sites by Millennials is Networking (23.9%), followed by keeping in touch with family and friends (22.9%) and reading posts related to the preferred brands (22%).

Table 4. Number of Millennials Who Follow Brands on Social Networking Sites

Follow Product brands	Number	Percent
Yes	182	60.7
No	118	39.3
Total	300	**100**

The above table shows that 60.7 % millennials follow brands on social media sites networking site, whereas 39.3 % do not follow brands on social media sites

Table 5. Purchase Decision of Millennials Who Bought a Smartphone After Seeing it on Social Media

Bought a Product	Number	Percent
Yes	101	33.6
No	137	45.7
May be	62	20.7
Total	**200**	**100**

The above table shows that 33.6 % millennials buy a product after seeing it on a social networking site, whereas 45.7 % do not agree to buy a product after seeing it on a social networking site and 20.7 % are not sure of buying it due to social networking site.

Analysis for Understanding Consumer Buying Behaviour

Table 6. Sources of Information Used for Getting Information on Smartphone Brands

Social Networking Sites	Percent
Company Website	24.2
Social Networking Page	21.9
Information from the internet (e.g. user reviews, blogs, forums)	21.4
Information from mass media (e.g. TV, radio, magazine)	10.7
Information from peers, friends or family members.	21.8

The above tableshows different sources of information, the most prominent sources are Company Website (24.2 %) and social networking page (21.9%).

Table 7. Follow Advertisements of Smartphones on Mass Media Channelsby Millennials

Followadvertisements on mass media channels	Number	Percent
Yes	226	75.3
No	74	24.7
Total	300	**100**

The above table shows that 75.3 % millennials follow advertisements of Smartphones on mass media channels whereas 24.7 %millennials do not millennials follow advertisements of Smartphones on mass media channels.

Table 8. Preference of Mass Media Channels for Advertisements of Smartphones by Millennials

Mass Media Channels	Percent
TV	25.4
Radio	12.8
Newspaper	33.6
Magazine	20.2
Other	8.0

The above table shows the preference of mass media channels by millennials, the most preferred channel are Newspaper(33.6%) followed by television(25.4%).

Analysis for Measuring the Millennials Attitude Towards Social Media Advertising

Sixteen statements were taken and measured on a five-point Likert Scale to assess the impact of social media on millennials attitude. The response collected from the respondents were tabulated and analysed into logical statements using percentage and mean rating evaluation. The amplitude of consistency towards statements was denoted from 1 to 5 (five denotes the strongly agree, while, 1 is the strongly disagree). In addition following criteria is used for analysis part:-

(a) The mean score between 1.00-1.79 means Strongly Disagree
(b) The mean score between 1.79-2.59 means Disagree
(c) The mean score between 2.59-3.39 means Neutral
(d) The mean score between 3.39-4.19 means Agree
(e) The mean score between 4.19-5.00 means Strongly Agree (Motwani, Shrimali, & Agarwal, 2014)

Table 9. Showing Percentage of Respondents and Mean Score

	Percentage of respondents					Mean score
Statements	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Max (5)
I like to read blogs on Internet	0	23.5	52	19	5.5	3.065
I use social media to view online Advertisement.	4.0	18.7	33.7	33	10.7	3.265
I use social media to catch up with all the latest news and updates.	3.0	6.7	33.7	39.0	17.3	3.615
I oftenly use Social media as it fulfils a variety of needs	3.3	6.3	25.7	47	17.7	3.620
I believe that people who give opinions about products and services are experts.	3.3	15.7	33.7	32.5	14.7	3.510
I use social media to learn about different aspects related to my work.	5.3	14.3	40.0	26	14.3	3.130
I refer to the reviews, likes and comments before buying any product	2.0	9.0	32.5	43.5	13.0	3.595
I use social media as it is a great stress buster for me.	1.7	20	28.3	39.3	10.7	3.440
I use social media for interacting with family and friends.	2.5	6.0	22	45	24.5	3.830
I use social Media as it helps me in learning about the different activities of people associated with me	2.5	11.0	31.0	31	24.5	3.640
Companies which are using Social Media can effectively communicate with consumers	16.5	14.5	25	29.5	14.5	3.175
I feel social media has made our lives easier and interactive.	8.5	14	28.5	30.5	18.5	3.380
I believe that information shared on Social Networking Sites is useful.	4.5	23	37	24.5	11	3.165

The above table shows the attitude of millennials towards social media. The statements which have received the highest agreement for social media are:

Use it to catch up with all the latest news and updates, social media helps to fulfil a variety of needs, it fulfils a variety of needs, learning about the different activities of people associated, used for referring reviews, likes and comments before buying any product, believe that people who give opinions about products and services are experts, helps in interacting with family and friends and it is a great stress buster for me

Analysis for Finding the Impact of Social Media Advertisement Through Different Social Networking and Media Sharing Sites

The consumer attitude (Dependent variable) is measured by 4 statements to measure the effectiveness of Social Media Advertising. in this paper which are. Each statement is tested on a significant value of 0.05 and Chi Square analysis has been performed on the basis of usage of Social Media Sites (Independent Variables). It has also been used to test the hypothesis. The significance value of either higher or lower than 0.05 is used as either to accept to reject the hypothesis. The result chi square analysis are given in the table. The statements which shows a statistical difference that is its significant value is less than 0.05 on the basis of usage of Social Media Sites, have been marked bold, which implies that in lieu of the statement we fail to accept the null hypothesis and there is a relationship between usage of social media site and effectiveness of social media advertising.

Table 9. Association between Social Media Users and Social Media Advertising

Social Sites	Positive reactions/feelings towards advertisements of Smartphones displayed on it		Visual and slogans of the advertisements of Smartphones displayed are memorable		Appealing advertisements of Smartphones on social networking sites		Trust the advertisements of Smartphones displayed on social networking sites	
	Chi Square	Value	Chi Square	Value	Chi Square	Value	Chi Square	Value
Facebook	5.547	**0.019**	8.282	**0.004**	2.828	0.93	6.850	**0.009**
Twitter	4.409	**0.036**	.678	.410	.458	.498	5.491	**0.019**
Instagram	5.606	**.018**	10.409	**0.005**	5.676	**0.017**	21.235	**0.000**
YouTube	7.091	**0.008**	6.132	**0.013**	2.839	**0.092**	6.753	**0.009**

After computation of the above statements related to effectiveness of social media advertising o, these statements were then combined and a Scale score was formed to accept or reject the null hypothesis. The following hypothesis were formed to find out the relationship

H_{01}: There is no association between Facebook users and effectiveness of Facebook Advertising.

$H_{02:}$ There is no association between Twitter users and effectiveness of Twitter Advertising.

H_{03}: There is no association between YouTube users and effectiveness of YouTube Advertising.

H_{04}: There is no association between Instagram users and effectiveness of Instagram Advertising.

Table 10. Chi Square test statistic

	Chi Square value	Significance level	Decision
Facebook	16.382	0.012	Reject the Null Hypothesis
Twitter	.783	.941	Accept the Null Hypothesis
Instagram	14.897	0.011	Reject the Null Hypothesis
YouTube	11.967	0.018	Reject the Null Hypothesis

The above table shows that there is a significant association or relation ship between Facebook users and Facebook Advertising, between YouTube users and YouTube Advertising, between Instagram users and Instagram Advertising but no such evidence is found out to reveal any association between Twitter users and Twitter advertising.

Conclusions and Implications

"Traditional marketing is not dying – it's dead!" (Zyman, 1999).

Social media can be installed anywhere with a web connection, and it should be treated by entrepreneurs, advertisers, and content material creators as a fundamental element oftheir communications due to the fact that social media impacts all elements of the internet and transforms the position of internet in people's lives. (Universal McCann 2008).

Nowadays, consumers acquire a new position with social media. they are becoming ''content material creators'' and, as a result, useful customers rather than simply consuming, as in the past. (ErkanAkar&BirolTopçu ,2011).

The findings of the study can be summarised as below:

There is a high percentage of young people (18-24), who use social media and buy online from different social media(83%). Social media sites have an extensive usage in day which came out be to be more than 2 hours a days by 38.33 % . The most preferred Social media Platform among the Millennials is Facebook (30.3 %), followed by YouTube (26.5%), Instagram (26.1%) and the least preferred are LinkedIn (9.2%) and Twitter (8%). There are for several reasons for using social media platforms by Millennials for but the most prominent one are to Networking (24.6%), reading posts related to the preferred brands (22.9%) and to watching photos and videos of the products they like.(20.2 %). To analyse the attitude of the consumers towards social media advertising, frequency analysis was conducted which implied that they are interested in reading blogs, in viewing advertisements of products, social media sites are a great stress buster for them, they also use social media sites for connecting with people so as to know about their stories, for comparison of different products, for reading people reviews and for catching up the latest news.

In order to find out if there is any association between usage of social media sites and effectiveness of social media advertising, chi square analysis was performed and hypothesis were tested at a significance level of 0.05. The results showed that there is an association between usage of Facebook, Instagram, YouTube users and effectiveness of Social Media Advertising. The study reveals the significant impact of social media sites on Millennials buying attitudes. As the power of internet, electronic word of mouth , and online communities has increased manifold, it is becoming vital for the companies to gain a major share of their presence on social media sites. For increasing the power of social media platforms, the advertisers need to use segmented and differentiated strategies for their target groups, as there are significant differences in attitudes of people on the basis of demographic factors.

REFERENCES

1. Akar, E. (2010). Sanaltopluluklarýnbirtürüolaraksosyalaðsiteleri-birpazarlamaileti þimikanalýolarakiºleyiºi.
2. Aldridge, A., Forcht, K., & Pierson, J. (1997). Get linked or get lost: marketing strategy for the Internet. *Internet research*, *7*(3), 161-169.
3. Awareness. 2008a. Enterprise social media: Trends and best practices in adopting Web 2.0 in 2008. http://www.awarenessnetworks.com/resources/AWN_WP_ 2008Trends.pdf (accessed Feburary 6, 2018).
4. Awareness. 2008b. Social media marketing: Integrating social media in your marketing mix.: http://www.awarenessnetworks.com/resources/Integrating-SocialMedia.pdf (accessed Feburary 6, 2018).
5. Barnes, N. G., and E. Mattson. 2009. Social media in the Inc. 500: The first longitudinal study. http://www.umassd.edu/cmr/studiesresearch/blogstudy5.pdf (accessed Feburary 6, 2018).
6. Blackshaw, P. (2004). Consumer-generated media (CGM) 101: Word-of-mouth in the age of the web-fortified consumer. *http://www. nielsen-online. com/downloads/us/buzz/nbzm_wp_CGM101. pdf*.
7. Bolton, R.N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., KomarovaLoureiro, Y. and Solnet, D., (2013). Understanding Generation Y and their use of social media: a review and research agenda. *Journal of service management*, *24*(3), pp.245-267
8. Cha, J. 2009. Shopping on social networking Web sites: Attitudes toward real versus virtual items. Journal of Interactive Advertising 10 (1): 77–93
9. Cheung, C. M., Lee, M. K., &Thadani, D. R. (2009, September). The impact of positive electronic word-of-mouth on consumer online purchasing decision. In *World Summit on Knowledge Society* (pp. 501-510). Springer, Berlin, Heidelber
10. Daniel, E., &Klimis, G. M. (1999). The impact of electronic commerce on market structure:: An evaluation of the electronic market hypothesis. *European management journal*, *17*(3), 318-325.
11. DEI Worldwide. 2008. The ýmpact of social media on purchasing behavior. Volume One: Initial findings. http://www.deiworldwide.com/files/DEIStudy-Engaging %20ConsumersOnline-Summary.pdf
12. Du Chenne, S. (2011). High on aspiration, but cynical. *AdReview*, *28*(April), 48-51. Du Chenne, S. (2011). High on aspiration, but cynical. *AdReview*, *28*(April), 48-51.
13. ErkanAkar&BirolTopçu (2011) An Examination of the Factors Influencing Consumers' Attitudes Toward Social Media Marketing, Journal of Internet Commerce
14. Ghose, A., Ipeirotis, P., & Li, B. (2009, September). The economic impact of user-generated content on the Internet: Combining text mining with demand estimation in the hotel industry. In *Proceedings of the 20th workshop on information systems and economics (WISE)*.
15. Hoffman, D. L., Novak, T. P., & Peralta, M. (1999). Building consumer trust online. *Communications of the ACM*, *42*(4), 80-85.
16. Kaplan, A.M., and M. Haenlein. 2010. Users of the world, unite! The challenges and opportunities of Social Media. Business Horizons 53, no. 1: 59-68
17. Johannes Knoll (2015): Advertising in social media: a review of empirical evidence, International Journal of Advertising: The Review of Marketing Communications
18. Hanna, R., Rohm, A., & Crittenden, V. L. (2011). We're all connected: The power of the social media ecosystem. *Business horizons*, *54*(3), 265-273.
19. Hayta, A. B. (2013). A study on the of effects of social media on young consumers' buying behaviors. *Management*, *65*, 74.

20. Lewis, B. K. 2010. Social media and strategic communication: Attitudes and perceptions among college students. Public Relations Journal 4 (3).
21. Matthee, C. (2011), "Towards the two-way symmetrical communication model: The use of social media to create dialogue around brands", Master dissertation, Nelson Mandela Metropolitan University, Port Elizabeth, SA.
22. Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business horizons*, *52*(4), 357-365
23. MENG. 2009. MENG survey: Social media in marketing. Marketing Executives Networking Group. http://www.mengonline.com/visitors/newsroom/Survey Summary_Social_Media10082008.pdf (accessed February 6, 2018).
24. Monroe, K. B. (1976). The influence of price differences and brand familiarity on brand preferences. *Journal of Consumer Research*, *3*(1), 42-49.
25. Motwani, D., Shrimali, D. and Agarwal, K., (2014). Customer's attitude towards social media marketing.
26. Okazaki, S., and C. Taylor. 2013. Social media and international advertising: Theoretical challenges and future directions. International Marketing Review 30, no. 1: 5671
27. Rodney Graeme Duffett, (2017) "Influence of social media marketing communications on young consumers' attitudes", Young Consumers, Vol. 18 Issue: 1, pp.19-39
28. Sashittal, H.C., Hodis, M. and Sriramachandramurthy, R., (2015). Entifying your brand among Twitter-using millennials. *Business Horizons*, *58*(3), pp.325-333.
29. Saxena, A., and U. Khanna. 2013. Advertising on social network sites: A structural equation modelling approach. Vision: The Journal of Business Perspective 17, no. 1: 1725.
30. Statista (2015), "Global social networks ranked by number of users 2015", available at: www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/ (accessed 18 March 2018).
31. Tom Smith (2010), "The social media revolution", International Journal of Market Research, Vol. 51, Issue 4.
32. Uitz, I. (2012), "Social media: is it worth the trouble?", Journal of Internet Social Networking and Virtual Communities, pp. 1-14.
33. Universal McCann. 2008. Power to the people social media tracker. Wave.3. http://www.universalmccann.com/Assets/wave_3_20080403093750.pdf (accessed March 22, 2018).
34. Van der Heijden, H., Verhagen, T., &Creemers, M. (2003). Understanding online purchase intentions: contributions from technology and trust perspectives. *European journal of information systems*, *12*(1), 41-48.
35. Wesner, M. S., & Miller, T. (2008). Boomers and millennials have much in common. *Organization Development Journal*, *26*(3), 89.
36. Zyman, S., Leonard-Barton, D. and Sway, W.C., (1999). *The end of marketing as we know it*. New York: HarperBusiness.

10

E-Pricing and Online Shopping Behavior in India

Shipra Mishra & Gargi***

ABSTRACT

In the present digitalization world each and every things are now available with our single click because Internet has exploded in India, spreading its reach further than ever before. As more and more consumers embrace the virtual world as a safe and convenient place to shop – either on computers or using their smartphones – one thing is for certain, e-commerce is here to stay. The Indian Institute of e-Commerce states that by 2020, India is expected to generate $100 billion online retail revenue out of which $35 billion will be through fashion e-commerce. Online apparel sales are set to grow four times in coming years. The Demonetization and a reduction in cash transaction in India, along with improvement of net banking facilities, can be opportunities for the Indian e-commerce sector,in 2016, about 69 million consumers purchased online and it records 100 million in 2017 with the rise of digital natives, better infrastructure in terms of logistics, broadband and Internet-ready devices to fuel the demand in e-commerce. It is expected to that at the end of 2018 Indian e-retail is touch $17.52 billion. The total retail sales is growing at an impressive rate of 15%, registering a double digit growth figure year after year. The Present study is based on behavior of online shopping or E-commerce in India and it also covers the trend of e-payment systems in India. The study is based on secondary data and the data will be collected by various secondary sources such as articles, journals, newspaper and websites.

Keywords: *Digitalization, Demonetization, E-Commerce, Net-banking, e-payment.*

Introduction

In a simple term online shopping is the act of purchasing product or services over the internet. Online shopping has grown in popularity over the years, mainly because people find it convenient and easy to bargain shop from the comfort of their home or office. The increase in technology provides good opportunities to the seller to reach the customer in much faster, easier and in economic way. Online shopping is emerging very fast in recent years. Now a day the internet holds the attention of retail market. Millions and millions of people shop online. On the other hand the purchasing of product from traditional market is continuing since years. Many customers go for purchasing offline so as to examine the product and hold the possession of the product just after the payment for the product. In this contemporary world customer's loyalty depends upon the consistent ability to deliver quality, value and satisfaction. Some go for offline shopping, some for online and many go for both kind of shopping. Most of the companies are

* Research Scholar, Faculty of Commerce, Banaras Hindu University, U.P.

** Research Scholar, Faculty of Commerce, Banaras Hindu University, U.P.

running their online portal to sell their product/services online. In India e-commerce is now growing at a very high speed and it is expected to cover more than $100 billiononline retail revenue in 2020. The online shopping depends upon factors like shopping incentive, shopping motive, internet knowledge and so on. Online shoppers wants to gain maximum information with minimum clicks and reach information which suits their requirement such as best brands and best price and offers.E-Commerce also provides benefits to the channel partners. By using E-Commerce, the dealers of the products can save on the selling expenses. Transaction cost in between producers to ultimate consumers will reduce which they can use for expanding their business. Mode of payment is also very much consumer friendly by many online companies where the consumer need not use his/her debit or credit card due to the lack of trust and security. In this case companies are allowing Cash on Delivery (COD) and deliver the product at their doorstep. [1]

E-pricing and Online Shopping in India

In a simple term pricing is a quantitative measurement of any product and services so the price is consideration for all types of products and services which a consumer consume for their wants satisfaction. It is very important to pre-determine the price of any product or services. In Online shopping or in E-commerce determination of price is the very big deal because more than 60% of all online shopper decision is based on the price of the product. It not only depends on the price determination but also in the price comparison because of the more option available in e-market. A study said that more than 20% of online shoppers compare the price before purchasing the product and services. Therefore, e-Commerce companies of all sizes from all around the world should better gear up with their pricing operations and approach it as a group effort, instead of just leaving it to the hands of a single department or a single employee within the company. By applying various pricing approaches, e-Commerce companies can actually utilize **pricing** both as a **marketing weapon** and a **conversion rate optimizer**. Online pricing can be determine by the four methods-

1. Cost based pricing
2. Market oriented pricing,
3. Dynamic Pricing
4. Psychological pricing tips

These all types of pricing is based on the demand of the customer in India, cash on delivery is the most preferred payment method, accumulating 75% of the e-retail activities.[5] Demand for international consumer products (including long-tail items) is growing much faster than in-country supply from authorised distributors and e-commerce offerings.

India is one of the fastest-growing e-commerce markets worldwide, with millions of new internet users taking advantage of cheap mobile connectionsto send mobile messages, watch online videos, use mobile services, and of course, to shop. As of 2015, only 26 percent of the local population was using the internet; almost ten times the audience size from a decade prior. According to recent market research, mobile phone internet user penetration in India is projected to reach 37.36 percent of the population in 2021, representing a huge potential in terms of digital and mobile buyer audience. Total internet audiences in India are estimated to surpass 635 million online users in 2021. As of 2015, the majority of online users in India were male, and the same held true for online shoppers. In India, men accounted for almost two thirds of online shopping

audiences,despite this imbalance in online presence and digital spending, female online shoppers are estimated to account for 42 percent of all Indian e-retail spending in 2020 up from only 20 percent of total retail e-commerce expenditure in 2015.

Literature Review

1. **(Bhatt, 2014)** in article entitled "Consumer Attitude towards Online Shopping in Selected Regions of Gujarat" published in Journal of Marketing Management stated that online shopping is gaining popularity among people specially the younger generation but in today scenario to become equally popular among all age groups e-marketing will have to cover a longer distance. As per study mode of payment is depended upon income of the respondents. People from different age groups are doing online shopping regularly. The attitude of consumers is changing with the time. In a country like India, consumers are finding online shopping very comfortable because of many variables like cash on delivery, customization or personalization of the websites, home delivery etc.
2. **(Singh, 2014)** in his article "Consumer's Buying Behaviour towards Online Shopping A case study of Flipkart.Com user's in Lucknow City" published in Abhinav stated that future of e-retailers in India looking very bright. E-retailers give consumers the best way to save money and time through purchasing online within the range of budget. Flipkart.com offering some of the best prices and completely hassle-free shopping experience. The whole concept of online shopping has altered in terms of consumer's purchasing or buying behavior and the success of E-tailors in India is depending upon its popularity, its branding image, and its unique policies.
3. **(Kanchan, 2015)** in their article "A Study of Online purchase behavior of Customers in India" Published in ICTACT Journal on Management Studies stated that online shopping is gaining popularity among people of young generation. Higher income groups and educated people are purchasing more via e-retailing websites. People have hesitations in doing online shopping due to security concerns. At the same time people are resistant to change because of technological complexity in making online purchase. Companies involved in online retailing should focus on building trustworthy relationship between producers and consumer.

Scope of the Study

The present study explains the online shopping behavior in India and it also includes the price determination or e-pricing in online shopping. The study is based on the secondary data and for this we collect all over India data related to the online shopping. The study also covers the problem and challenge faced by the customer at the time of doing online shopping.

Objectives of the Study

The main objectives of the study is:

1. To know the conceptual aspects of online shopping and e-pricing in India.
2. To study the growth and trends of online shopping in India.
3. To study the problem and challenges of online shopping in India.

Research Methodology

The present study is based on secondary data and last five year data is collected and the study also highlights the future of online banking in India and for this 2016-2022 statistic is also explains the growth of online shopping in India. the data was collected by various secondary sources such as newspaper, journals, article ad from various other websites.

Growth and Trends of Online Shopping in India

The retail sale over e-Commerce portals in the country touched an unprecedented high of $5.30 billion during CY 2014, tells e-Marketer. One of the most trusted names when it comes to providing insights about digital marketing, media and commerce, e-Marketer also expect it to grow by 45.2% over 2015 and touch a figure of $7.60 billion. Now while that is heartening news and augurs well for the future of online retail in India which is still in the embryonic stage, the fine print beyond this is somewhat disturbing **(Mahajan, 2015)** In spite of the industry having grown by leaps and bounds, **online retails in India accounts are the less than 1% of the total retail sales**. And the trend is expected to continue in the future as well as the e-Commerce is expected to contribute only 1.4% of the total retail sales even by 2018.The total retail sale in India has increased from $635.25 billion in 2013 to $717.83 billion during the year which just ended, growing at a rate of 13%. It is expected to touch $818.33 billion in 2015 registering a Y-O-Y growth of 14.0%. By 2018, total retail volume will grow to $1,244.58 billion, growing steadily at 14-15% annually.

Global leaders like Amazon see the country as one of the biggest opportunity windows and continue to sell from here in spite of all odd, while also promising to step up their investment and pump up their operations. Leading Indian players like Flipkart and Snapdeal have been on a funding spree too, what with some of the biggest venture capitalists on the global front continuing to show faith in their startups.Retail e-Commerce sales in India, on the other hand, which were a meager $3.59 billion in 2013 grew to a somewhat better $5.30 billion in 2014, a Y-O-Y growth of 47.6% as compared to 55.6% over the previous year. In the year 2015, total online retail in India all set to touch $7.69 billion, growing at a rate of 45.2%. By the year 2018, e-Commerce retail in the country is expected to grow to $17.52 billion.

Table 1. Retail online sales in India from 2016-2022

Years	2016	2017	2018*	2019*	2020*	2021*
Retail online sales in India (In Million US dollars)	16073	20059	25076	31123	37979	45206

Sources- The Statistics Portal

Graph 1. Retail Online Shopping sales in India from 2016 to 2022

*Predicted value Sources. The Statistics Portal

The above data and graph shows that online shopping grows in India and expected to reach at 52301 Million US $ or will be double in five year i.e. 2022.In the upcoming years, e-commerce is expected to boom in the Asian region. The number of digital buyers in Asia Pacific is projected to pass the one billion mark for the first time in 2018, which will account for 60 percent of all internet users in the region. In line with the regional growth, India, a fast-growing emerging Asian market, shows optimistic projections for the e-commerce industry. Current active e-commerce penetration in India stands only 28 percent, with lots of room for improvement - India's retail e-commerce CAGR is projected to reach 23 percent from 2016 to 2021.

Close to 329.1 million people are projected to buy goods and services online in India by 2020. This means that about 70.7 percent of internet users in India will have purchased products online by then. The majority of digital shoppers in India are male. This growth in volume of digital buyers has a reflection on revenue as well. Retail e-commerce sales in India are forecast to grow tremendously, with projections to jump from around 16 billion U.S. dollars in 2016 to just over 45 billion U.S. dollars in 2021. In 2016, Amazon.in was the leading online store in India with net e-commerce sales of 437.7 billion U.S. dollars, followed by local competitors Flipkart and Snapdeal.

Mobile is also a profitable and promising shopping platform for the retail industry in India. In fact, about 23 percent of Indian internet users stated that they used a mobile phone for making a purchase in 2016. This places India as one of the leading digital markets for mobile e-commerce penetration. About 27 percent of digital buyers in the country stated making an online purchase via their smartphones/mobile on a monthly basis, and 24 percent stated purchasing online goods and services weekly. About 71 percent of consumers in India also said mobile wallet is their preferred method of digital payment. In terms of value, sales from mobile retail e-commerce are projected to generate 63.5 billion U.S. dollars in revenue by 2020.

Problem or Challenges of Online Shopping in India

1. ***Quality Issues:*** Quality of the product is the biggest problem while buying things online. Electronics & other products: Sometimes sellers ship you smuggled/imported (from south East Asia) or B-quality stuff. The problem is that though the product might be genuine but it will not be covered under the company's warranty. Sometimes the product is even broken.
2. ***Lack of Genuine Reviews***: Reviews are not always reliable and all the research can't assure you of a product's quality; fraudulent sellers who intentionally mislead customers to increase sales are the prime reason for faulty/sub-par products being sold online. With the volume of goods e-commerce companies handle these days, it can be quite difficult for them to conduct quality checks on each and every one of the products they're selling.
3. ***Size Issue*****:** The issue of getting the correct size remains a serious drawback for buying clothing and footwear online. Sizes vary from brand to brand, and since you can't try out the products before buying them, selecting the size is always a gamble
4. ***Missing Product Information*****:** Missing Product information is one of the major issue of the online shopping. Sellers try to hide the actual quality of the product. Not offering detailed product information that address the shopper's questions about a product is a crucial mistake. It reduces your trustworthiness between seller and buyer.

5. ***Delivery and Logistics:*** All e-commerce sites have order tracking systems for their customers, they aren't always accurate. One trouble that constantly turns up while shopping online is when the order will be delivered. While. Delivery personnel often turn up at our homes when we're at work or out somewhere as there's no way to fix a particular time slot for the delivery to take place. This same issue exists while returning products.
6. ***No Delivery Services in Rural Areas*:** Another problem is that the vast majority of the Indian population which lives in rural areas and Tier-III cities is unable to shop online because not all e-commerce sites provide delivery services to their locations.
7. ***Shipping Delay:*** The main problem of online shopping is, you cannot receive the product immediately. You have to wait until the product arrives. Sometime it is better to have an item instantly than keep waiting for it for many days.Sometime you may face Delivery risk. Delivery risk occurs when the seller fails to deliver the original product or delivers a damaged (inferior/duplicate) product due to shipping problems.
8. ***Digital Payment Failures***: Whether a customer is paying by credit/debit card, net banking, or one of the several digital wallets that exist today, the failure of digital payments always looms overhead while making online transactions. A faltering internet connection or a technical glitch often results in the payable amount being debited from a customer's account without being credited to the selling party. And retrieving this amount is anything but a quick process; one has to inform the site and then wait around 7-10 days before the amount is refunded to their bank accounts. But this situation is steadily improving as the sector is focusing more on cashless transactionsand customers are getting more informed about making payments online.
9. ***Additional Charges*:** Shipping charge is one of the main problems of shopping online. How many times has it happened that you've spotted a great deal on a product and when you're one click away from purchasing it you noticed an additional shipping charge? This is commonplace on all e-commerce sites when your order amount isn't high enough to qualify for free shipping. And even when it is, sometimes these shipping charges are added on each individual product (if you're buying multiple products of course) and not the collective order. Sometime the addition of shipping charge makes the price similar or more expensive than your nearby local store.
10. ***Unclear Return and Guarantee Policies*:** Consumers hate dealing with returns just as much as retailers or brand manufacturers do. They refuse to buy a product online, if they cannot capture it mentally or cannot imagine how it will look like once unpacked. Since you have no idea of product's quality until you hold it in your hands, returning things bought online is quite common. Unless you're buying from one of the established e-commerce companies, it's important to go through the return policy while making a purchase. But most sites have vague return policies that can leave you with a low-quality product and no way to return it. The same applies for guarantees, as most sites don't clearly mention what the policy is for a product and then refuse to carry out replacements if you receive a damaged product.
11. ***Lack of Security*:** Cyber security, or more precisely the lack of it, is a major problem on the internet today. E-commerce sites record important customer data like name, phone number, address, and bank details. If these sites don't implement stringent cyber security measures, your data is at risk of falling into the wrong hands who can then wreak

havoc on your bank account. Most of the big players in online shopping certainly have the best-in-class security measures to protect their customers' details, but the same can't be said about the countless smaller sites that may not have the expertise to do so.

Online shopping is far too convenient to get hindered by these problems. But if e-commerce sites can fix these issues, they will certainly improve customer experience and hence generate more sales.If you order something and cancel order you must have a bank account even if u took product on cash on delivery. And some websites keep saying we refunded your amount but they dint.

Conclusion and Suggestions

Thus from the above study it is clear that India is a fastest growing country in Internet users, online banking and online shopping. From the above discussion, it is concluded that future of online shopping in India looks very bright. Online shopping give customers best alternative to save money and time. Companies Offers detail product information, easy mode of payment, facility of comparison of price and very important completely hassle free shopping experience. Success of online shopping depends on its popularity, its brand image and its unique promotional policies.

REFERENCES

1. Bhatt, P. A. (2014). Consumer Attitude towards online shopping in Selected region. *Journal of Marketing and Management*.
2. Kanchan, U. (2015). A study of online purchase behaviour of consumer in India. *ICTACT Journal of mnagement studies*.
3. Mahajan, A. C. (2015, January 7). *Dazeinfo*. Retrieved from https://dazeinfo.com/2015/01/07/retail-ecommerce-sales-in-india-growth-2014-2018-report/.
4. Raghunath, C., & Sahay, M. (2015). Consumer behaviour in Online Retail in India. *IOSR Journal of Business and Management*, 16-19.
5. Singh, P. (2014). Consumer Buying Behaviour towards online shopping. *ABHINAV- National Journal of Research in Commerce and Management*.
6. https://yourstory.com/2017/04/common-problems-online-shopping/
7. https://www.quora.com/in/What-are-the-problems-people-generally-face-while-shopping-on-an-e-commerce-website-or-making-an-order-on-an-online-food-delivery-website
8. https://www.statista.com/topics/2454/e-commerce-in-india/

11

Cyber Security: The Foundation for the Digital Economy

*Diljeet Kaur Varma**

Introduction

Security has been of prime concern to humans since the dawn of civilization. The ancient Sumerian rulers were perhaps one of the first to try and build a large fortified wall in the 21st century B.C. to keep the invading Amorites trying to attack Mesopotamia. But the more well-known is the Great Wall of China which took hundreds of years to materialize beginning from the third century B.C. to the 17th century A.D. The wheels of time have rolled on, and with the rapid advances in information technology, security has been elevated to a completely new,virtual level including high-tech "Firewalls" being built by corporates and governments worldwide to protect their nations and the new digital avatar of their economy. The objective still remains the same, to protect their independence and sovereignty from outside attacks.The average number of daily cyber threats have grown from a mere 25 in 2006 to more than four lakhs by 2016 according to recent reports by International Data Corporation (IDC). The year 2017 has taken this further, witnessing such an increase in cyberattacks that Forbes has termed it as the "Year of the Data Breach".

As a result of this, organizations were estimated to spend $73.7 billion on cybersecurity in 2016 as per IDC. This is expected to increase by 38% to $101.6 billion by 2020. Add to this the General Data Protection Regulation (GDPR) formulated by the European Union (EU) which is to be implemented soon, i.e. from May 2018, shows that cybersecurity is gaining momentum.

Cyber security consists of technologies, processes and controls that aim to protect systems, networks and data from cyberattacks.The risks involved could be related to security, privacy, fraud, theft, deception, disruption in service etc. Further, accordingto Levy & Stone (2005), ID theft covers five major areas: credit card fraud, phone or utilities fraud, bank fraud, employment-related fraud, government documents/benefits fraud and loan fraud.

The cyberattacks could be in various forms for example, Denial-of-service attacks, viruses, Trojan horses, phishing, spoofing, sniffing, spamming.To counter these varied risks, a cybersecurity system targets the following three basic goals, according to Joseph (2010):

1. Integrity of the data
2. Confidentiality of the data
3. Availability of the data to the users

These goals together provide a roadmap for fighting cybercrime in the digital economy.

* Dr. Bhim Rao Ambedkar College, University of Delhi.

Emergence of the Digital Economy

According to Deloitte, "Digital economy is the economic activity that results from billions of everyday online connections among people, businesses, devices, data, and processes."According to a 2016 report in Forbes, the value of the digital economy was estimated around three billion dollars in that year. India expects the digital economy to be worth 1 trillion dollars in the next five years.

The digital economy is the progression of the unprecedented development of technology in the past few decades. This has changed the way humans conduct business and more recently how they govern their entire nation. ARPANET, the predecessor of the current day Internet, was born in 1969 as a small close-knit network of researchers in U.S. universities. The World Wide Web transformed the Internet into an information network for the common man making it easily accessible to businesses and governments. Thus was born e-commerce, e-business and e-governance, all converging into a new form of economy, called the digital economy.

Types of Transactions in the Digital Economy

Digital transactions or e-commerce have traditionally been classified as follows:

Table 1. Categories of E-Commerce

	Business	Consumer/Citizen
Business	B2B	B2C
Consumer/Citizen	C2B	C2C
Government	G2B	G2C

This paper covers these categories as:

(A) Business and Business/Consumers

(B) Government and Citizens

(C) Consumers/Citizens and Consumers/Citizens

(A) ***Business and Business,Consumers:*** This consists of transactions amongst businesses, and transactions between businesses and consumers

(i) ***Business and Business:*** The corporate sector turned out to be an "Early Adopter" beyond the initial "elite" users which had comprised of researchers and scientists. The Internet was used for bringing operational efficiency initially through e-mails and electronic data interchange (EDI). Later, the network helped them mainly in just-in-time manufacturing (JIT), supply chain management (SCM) and electronic funds transfer (EFT). Gradually, businessesmoved towards e-commerce and e-business as a whole. Today, Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) applications cover a major part of the transactions of a company.

(ii) ***Business and Consumers:*** Businesses gradually adopted computer networks to transact with consumers also. This is mainly through online retailing, online banking and company websites. India has now become the world's number two online markethaving 460 million users, next only to China. Around 49 percent of Indian users use the mobile for their online purchases, against the global average of 38 percent.Apart from online retailing, online banking is also becoming popular with

45 million active urban online banking users in India in 2017. This is further expected to rise to 150 million by 2020 according to a report by The Boston Consulting Group (BCG) and Facebookin theirreport, titled "Encashing on Digital: Financial Services in 2020".Digital buyer penetration was estimated to be 48.3 percent in 2016 by Statista.

(B) ***Government and Citizens:*** Governments have been giving a major thrust to the development of digital infrastructure and digital transactions. In India, this is being developed under the National e-Governance Plan (NeGP), for developing e-Governance services such as Digital India, e-Kranti, broadband connectivity for rural areas, using internet to benefit farmers, digitization of land records, MCA 21, e-procurement, e-district, amongst others. With the rising mobile usage, Mobile Seva and m-app stores have also been introduced. Demonetisation and GST have also given a boost to the digital economy.

(C) ***Consumers/Citizens and Consumers/Citizens:*** In the C2C model consumers/citizens interact directly with other consumers/citizens. Citizens themselves are transforming their lives by utilizing the power of the Internet for example by becoming a seller on various online selling platforms such as Snapdeal and improving their incomes by increasing their reach.

Security Challenges in the Digital Economy

The rapid development of e-commerce and e-governance have led to the application of Internet being extended to areas which are beyond its original purpose, that of research among trusted partners. With a set of trusted partners, no longer holding true, issues such as security, privacy and trust are becoming the norm rather than the exception. With the internet becoming all pervasive due to its usage in commercial as well as government services, such security issues undermine the efforts being made to convert the economy into a digital economy.

According to reports byAccenture, data breaches increased by 27.4% in 2017.With the Facebook-Cambridge Analytica controversy hogging the limelight at a global level, the alarm bells have started ringing for ensuring cybersecurity. Facebook, is currently dealing with the controversy regarding private data of 87 million users being misused to help political candidates and the Brexit campaign.Thus, saying that compromised data may alter the economic and political future of countries is no longer an exaggeration.

This becomes all the more relevant with the move towards Cloud Computing, which is further limited in terms of providing security and raises associated risks.Bain reports that 70% of the growth in the IT market is due to the Cloud during the period 2012 – 2015. Businesses use cloud computing for application development, testing, providing streaming services such as movies, big data analytics, data backup and recovery, ERP, CRM etc.At the consumer end, Facebook, WhatsApp, Siri, Google Assistant, Microsoft Office 365, Dropbox, Google Drive, online banking, online shopping, e-mail are some examples of cloud services commonly used.By 2017, 48 of the 50 Fortune Global 50 companies had publicly announced adopting the cloud for a variety of their IT needs.

The high cost of data breaches also makes cybersecurity an imperative. Every data breach has a loss attached to it. The same report by Accenture states that the cost of information loss hasgone up from 35% to 43% of expenses. The recent Facebook-Cambridge Analytica controversy has cost Facebook dearly about $ 60 billion in its total market value apart from loss of reputation.

In addition to this, are the impending fines which could be upto $ 40,000 per violation per day. With millions of users whose data was breached, this will add up to a humongous amount.

Cyberattacks also reduce the benefits which are expected from the use of cyberspace in terms of productivity. Precious amount of working hours are lost due to cyberattacks bringing down the system and also due to the time involved in detecting and resolving the issue to finally get the system working.

Resolving the legal complications arising out of data breaches may also be cumbersome especially in India, where the legal system has not kept pace with the rapid development of technology.

Developments towards adoption of the Internet of Things (IoT) are also expected to create new challenges in cyber security in the future.Using the power of the IoT, government initiatives such as Digital India and Smart Cities are seeking to provide better digital services to the citizens. Since urban areas contribute to 75% of the country's GDP, the Smart Cities initiative aims at developing the infrastructure of 100 cities during the period 2015 – 2020. It includes the institutional, physical, social and economic infrastructure of these cities. Nokia has already showcased a real time city surveillance system for the police, a public safety service that can be deployed at railroad crossings and a smart parking service to help manage parking lots. All such efforts are based on huge amounts of data being generated every minute by various digital applications.

In order to make Digital India and Smart cities a reality, the Government of India has plans to roll out 5G services for consumers by 2020 and is expected to be ready with a roadmap by June 2018.

These developments which are moving towards the Internet of Things (IoT) arefurther making the need for taking cybersecurity seriously. IoT cuts across various applications and sectors such as industrial automation, home automation, smart home light bulbs, smart watches, retail, supply chain management, energy, transportation, self-driving cars, traffic flows, agriculture, personal security, environment monitoring, self-diagnosing machines, and even healthcare. Cisco estimates 500 billion devices will be connected to the Internet by 2030. There were just 8.7 billion in 2012.

With the IoT becoming so pervasive, bringing almost all sectors of the economy into its digital fold, the security risks are only set to increase. The health care sector is becoming the number one target for cyber attackers, even more than online banking according to a 2016 X-Force Cyber Security Intelligence Index by IBM. In fact, employee health records have a higher demand than financial data in the black market. Apart from this, hacking of medical devices connected to the IoT can create entry points into hospital networks. The attack on health insurer Anthem in 2015 that involved personal data theft of 79 million consumers and employees has been just one among many in the health care cyberattacks.Johnson & Johnson warned customers about a security bug in one of its insulin pumps in 2016.

The health care is not the only victim of online attacks. According to the IBM report, the sectors most susceptible to cyberattacks are Healthcare, Manufacturing, Financial services, Government and Transportation, in that order. An attack on any of these sectors by terrorists or other malicious hackers might have the ability to cripple the digital economy in the future.

If the Internet was not designed to be secure initially, the Internet of Things is not far behind. A real life example is the Dyn Cyberattack. In 2016 some hackers targeted the DNS

provider Dyn with a DDoS attack making various Internet services unavailable to large number of users in Europe and North America. The attack was implemented using botnets such as baby monitors, printers and IP surveillance cameras which were infected with the Mirai malware. This clearly brings out the vulnerability of the IoT in the future.

Suggestions for Countering Cyberthreats

In view of the sharp increase in the number of attacks and data breaches even within global companies such as Anthem and Home Depot, a multi-pronged strategy needs to be adopted. This may take the following three forms:

(A) Technological Solutions

(B) Psychological Solutions

(C) Legal Solutions

(A) ***Technological Solutions:*** These solutions comprise the planning and implementation of the security infrastructure to counter cyber threats.With the increase in the number and the sophistication level of attacks, adequate risk analysis and planning is required.

Not all data is critical and consequently vulnerable. While planning, the technique of ABC Analysis of Inventory Control may be applied for digital assets also. The data assets that are most critical, less critical and least critical need to be identified and appropriate policies should be designed for their safeguarding depending on their category. This will lead to Category A digital assets having the highest degree of controls such as authentication, encryption and access controls. This will help in a cost effective allocation of funds.

The planning aspect also needs to look into the cost-benefit analysis of security implementation. As per a study by Fenz, et al (2014) such risk vs cost analysis is explicitly not implemented in organisations. Security solutions and infrastructure don't come cheap. They involve a huge cost. On the other hand, attaining hundred percent security is not possible.

It is also important to keep the system updated to counter any new types of threats. New security threats are increasing at an alarming rate and an organization needs to keep pace with such developments.

Safe storage of data to ensure user privacy is becoming imperative. Cloud storage is no longer considered safe. Safety can be ensured by harnessing new technologies such as blockchainwhich is based on the concept of decentralized storage of data. Cryptocurrencies are just one application of blockchain technology. Apart from storage, this technology can also help in encryption and security of other types of data in the future for example for calling, videoconferencing, chatting etc.

Another emerging technology for ensuring safety and privacy isencryption based on quantum cryptography. This is being considered un-hackable making even the Pentagon in the US to take note of this. China tested this recently through a Quantum Satellite Micius, in 2017 and opened the first long-distance quantum communication link between Beijing and Shanghai. Some banks in China are already using this to send their most sensitive data.

Finally, monitoring the network in real time is an absolute necessity as also getting a security audit done preferably by an external agency.

(B) ***Psychological Solutions:*** The greatest weapons and tools can be rendered ineffective in the hands of misguided people. Most successful attacks rely on social engineering. The

term was coined by a famous now reformed hacker Mitnick in the 1990s. It refers tothe process of gaining access to a system by relying on psychological vulnerabilities of the victims instead of just using a brute attack.A firewall will be useless if a user is tricked into disclosing his password.

First of all, security should be given top priority by the top management itself and a culture of security and alertness needs to be developed in the organization. According to a research by consulting company NTT Com Security,many top managements are focusing more on marketing as compared to cybersecurity inspite of increased attacks.

Creating security awareness among employees and customers is important. Users need to be made continuously alert to the possibilities of social engineering attacks. One recent variant of phishing attacks called "whaling" have led to losses of $2.3 billion from 2013-2016 in the U.S. according to FBI. Whaling or CEO scams involve a hacker impersonating as a CEO or another senior executive asking an employee to transfer money. For example, Mattellost $3 million in 2015to one such scam, whileSnapchat and Seagate Technologies also fell prey to similar schemes. Software designed to identify such threats may be used such as those by Microsoft, Proofpoint, Cloudmark and Mimecast.

Finally, users need to be made aware of using strong passwords.The passwords need to be changed from time to time. Also, different passwords should be set up for different accounts.

(C) ***Legal Solutions:*** A faster adoption of digital transactions needs to be matched with updated laws. The General Data Protection Regulation (GDPR) formulated by the European Union (EU) is expected to lead other countries into updating their cyber laws. With widespread misuse of user data, more focus needs to be put on simple and readable privacy policies, legitimate use of data collected and user consent based on actual choice as opposed to forced choice. Applications should collect only that data which is essential to provide that service. Furthermore, data should be deleted once that service has been provided. For example, Google Maps stores data of all the places that a person has visited in the past few years, which is totally redundant.Finally, an effective legal system which can act as an effective deterrent is the need of the hour.

REFERENCES

1. Andrews, E. (2016, February 1). 7 Famous Border Walls. Retrieved from https://www.history.com/news/history-lists/7-famous-border-walls (accessed 23 March 2018)
2. Awad, Elias M. (2008). *Electronic Commerce – From Vision to Fulfillment*.Pearson Prentice Hall
3. Bloomberg, (2018, March 30). Facebook risks millions of dollars in FTC fines over datacrisis. *Times of India*.
4. Boston Consulting Group, Facebook. (2017, June). Encashing on Digital: Financial Services in 2020 Retrieved from http://image-src.bcg.com/Images/BCG-Facebook-Encashing-on-digital-Jun-2017_tcm21-163357.pdf(accessed 5 April 2018)
5. Boulton, C. (2016, April 21). *Whaling emerges as major cybersecurity threat*. Retrieved from https://www.csoonline.com/article/3060132/data-protection/whaling-emerges-as-major-cybersecurity-threat.html (accessed 6April 2018)
6. Bradley, T. (2017 August 14). Achieve GDPR Compliance with a Data-centric Approach to Security. *Techspective*. Retrieved from https://techspective.net/2017/08/14/achieve-gdpr-compliance-data-centric-approach-security/ (accessed 4 April 2018)

7. Brinda, M., Heric, M. (2017). *The Changing Faces of the Cloud*. Retrieved from http://www.bain.com/Images/BAIN_BRIEF_The_Changing_Faces_of_the_Cloud.pdf (accessed 6 April 2018)
8. Dovall, P. (2017, May 23). Digital Economy to be worth $ 1 trillioninfiveyears: Ravi Shankar Prasad. *Times of India*. Retrieved from https://timesofindia.indiatimes.com/business/india-business/digital-economy-to-be-worth-1-trillion-in-five-years-ravi-shankar-prasad/articleshow/58810248.cms(accessed 4 March 2018)
9. ET Bureau. (2018, February 23). Airtel, Huawei conduct India's first 5G trial. The Economic Times. Retrieved from https://economictimes.indiatimes.com/tech/internet/airtel-huawei-conduct-indias-first-5g-trial/articleshow/63046414.cms(accessed 6 April 2018)
10. Gada, K. (2016, June 20). The Digital Economy-Let's follow the Money. Forbes. Retrieved from https://www.forbes.com/sites/koshagada/2016/06/20/the-digital-economy-lets-follow-the-money/#6f296cee78cb(accessed 4 April 2018)
11. Govind, D. (2016, December 15). Nokia India announces 5G, IoT services aimed at creating smart cities. Livemint. Retrieved from https://www.livemint.com/Companies/G5m2drXYFvtMXKpULinqyK/Nokia-India-announces-5G-IoT-services-aimed-at-creating-sma.html(accessed 6 April 2018)
12. Hundley, R., & Anderson, R. (1997). Emerging Challenge: Security and Safety in Cyberspace. In Toffler A. & Toffler H. (Authors) & Arquilla J. & Ronfeldt D. (Eds.), In Athena's Camp: Preparing for Conflict in the Information Age (pp. 231-252). RAND Corporation. Retrieved from http://www.jstor.org/stable/10.7249/mr880osd-rc.15
13. Hynes, C. (2018, March 22) This Singaporestartup is betting on-blockchainforthe futureofdatasecurity. *Forbes*. Retrieved from https://www.forbes.com/sites/chynes/2018/03/22/this-singapore-startup-bets-on-blockchain-for-the-future-of-data-security/#6522125379f8 (accessed 25 March 2018)
14. Joseph, P.T. (2010). *E-Commerce: An Indian Perspective*. New Delhi, PHI Learning Private Limited.
15. Kalakota, R and Whinston, Andrew B. (2011) "Frontiers of Electronic Commerce" Pearson
16. Kant, K. (2018, March 25). India's retail banking now bigger than Russia's but not close to China's. *Business Standard*. Retrieved from http://smartinvestor.business-standard.com/market/story-519037-storydet-Indias_retail_banking_ now_bigger_than_Russias_ but_not_close_to_Chinas.htm#.WsZx4ohubIU(accessed 5 April 2018)
17. Kharpal, A. (2017 August 10). China uses a quantum satellite to transmit potentially unhackable data. *CNBC*. Retrieved from https://www.cnbc.com/2017/08/10/china-uses-quantum-satellite-to-transmit-potentially-unhackable-data.html(accessed 10 March 2018)
18. Levy, S., Stone, B. (2005 July 3). Grand Theft Identity. Newsweek.
19. Madan, S., (2013) E-Commerce, Mayur Paperbacks
20. National Portal of India, (n.d.). *Smart Cities Mission-Building a Smart India*. Retrieved from https://www.india.gov.in/spotlight/smart-cities-mission-step-towards-smart-india (accessed 6 April 2018)
21. Newman, L.H. (2017, Feb. 03). Medical Devices are the Next Security Nightmare. *Wired*. Retrieved from https://www.wired.com/2017/03/medical-devices-next-security-nightmare/ (accessed 23 March 2018)
22. Soderbery, R. (2013, January 7). How many things are currently connected to the Internet of Things. *Forbes*. Retrieved from https://www.forbes.com/sites/quora/2013/01/07/how-many-things-are-currently-connected-to-the-internet-of-things-iot/#40d07529bd2d (accessed 6 April 2018)
23. Statista. (n.d.) Internet usage in India - Statistics & Facts. Retrieved from https://www.statista.com/topics/2157/internet-usage-in-india/ (accessed 7 March 2018)

24. Stefan Fenz, Johannes Heurix, Thomas Neubauer, Fabian Pechstein, (2014) "Current challenges in information security risk management",Information Management & Computer Security, Vol. 22 Issue: 5, pp.410-430, https://doi.org/10.1108/IMCS-07-2013-0053

25. Vanian, J. (2016, October 12). Here's how much businesses worldwide will spend on cybersecurity in 2020. *Fortune*Retrieved from http://fortune.com/2016/10/12/cybersecurity-global-spending/ (accessed 4 April 2018)

12

Understanding the Role of Social Networking vis-a-vis the Gender Diverse

*Shivani Arora**

ABSTRACT

Man is a social animal by nature and interacting and communicating with others is a basic human need .We need to connect with others and feel connected with others .Psychology explains that we have an innate (and a very powerful)need to belong.). A failure to do so results in an acute sense of loneliness or social isolation. Lack of appropriate social contact proves to be detrimental to one's mind and body resulting in physiological and psychological disturbancesIn the twenty-first century technological social media like face book , twitter have replaced the traditional methods of mass mobilization providing a platform to connect far and wide and interact by creating an online audience specific self sustaining interactive environmentespecially for the socially isolated and marginalized LGBTQ population.Social Media facilitates discussion , inspire action and enables engagement .It provides visibility and recognition to their experiences voicing their concerns into the mainstream consciousness.

Social networking undoubtedly allows the gender diverse to garner psychosocial support worldwide but at the same time it encourages online victimization and cyber bullying , invasion of privacy and spamming. The absence of an effective gatekeeper to monitor online content posits many such issues .

The negatives of social networking avenues notwithstanding , it acts as an empowering tool for the gender diverse to challenge the status quo and be seen and heard.

"Remember we all stumble, every one of us. That's why it is a comfort to go hand in hand"
Emily kimbrough (American Author)

Man is a social animal by nature and interacting and communicating with others is a basic human need. We need to connect with others and feel connected with others .Psychology explains that we have an innate (and a very powerful)need to belong. Even biologically our bodies tend to perform better when we are not alone .According to Maslow's hierarchy of needs ; belongingness is one of the most basic and fundamental (deficiency)needs after safety and health. Evolution has shown that attachment in an infant is essential for its survival(Bowlby,1969).Every person yearns for acknowledgement (recognition of an individual), approval (evaluation of the individual) and acceptance (reception in a larger group). A failure to do so results in an acute

* Assistant Professor, Shayama Prasad Mukherjee, College, University of Delhi

sense of loneliness or social isolation which can be defined as an absence of contact between individuals. Lack of appropriate social contact proves to be detrimental to one's mind and body. Research has significantly indicated that social relationships are associated with avariety of comorbid conditions with a concurrent existence.Manyphysiological disturbances develop as a result of poor social interaction like high blood pressure,cardiovascular diseases ,cognitive decline (Emerson, and Jayani 2015). The Archives of General Psychiatry states that Alzheimer's disease is twice as likely to develop in lonely people. Feelings of social isolation are linked to alterations in the activity of genes that control inflammation. A condition of perceived social isolation (PSI) creates a situation of anxiety leading to the release of cortisol ; a hormone released in times of duresswhich increases the glucose levels in the body and activates it .Psychologically also the impact of social isolation is all encompassing for positive mental health.It is known to lead to severe depression (Hawkley and Capitanio 2015), significant periods of restlessness and poor qualityof sleep(Cacioppo et al 2002).PSI is also known to be associated with an increased risk of suicidal ideation(Hirsch et al 2012.)

Individuals feel safe and appreciated when they actively engage in social relationships, they feel connected and significant and derive a purposeful existence .It makes us feel content and happy and secure being approved by others. It is responsible for encouraging a sense of positive self worth and self esteem.

In the twenty-first century we live in a world which is fast moving and constantly changing.social media like face book , twitter have replaced the traditional methods of mass mobilization like newspapers and radio and television. It provides us with a platform to connect with each other and become actively involved in the sharing experiences irrespective of the geographic difference that separates people, enable them to widen their personal knowledge and also discover things they did not know earlier .social media not only offers worldwide connectivity vis a vis the locally or nationally based newspaper but is also open for conversation at all times. It is a medium of communication which brings us all together and is easily accessible.

Social media in today's day and age is proving to be a strong catalyst for social change . It is responsible for major restructuring of communication at the global level and altering our fundamental perceptions about it.Replacing the traditional tools of mass media , the social media has played a pivotal role in connecting with avast majority of audience across the globe creating a very sensitive digital arena susceptible to both the good and the bad . It provides the user with unlimited freedom of expression and has become an extremely powerful platform for giving a voice to the voiceless millions thus leading to the empowerment of the individual as well as the community at large.From the traditional dissemination of information the social media has transformed into an instrument of awareness and advocacy The mass engagement has resulted in bringing about anevolutionary change in the social fabric of the society. It seeks to give a perception of participation and belonging.One such group is the population of gender diverse individuals who are shunned from the mainstream society by virtue of not belonging to the socially accepted gender binary. Trans phobic attitude and deep seated discrimination and humiliation faced by the gender fluid persons forces them to lead lives out of stealth . They mask their real identities and repress their innermost desire of being accepted for who they are .They are disowned by their own families and ridiculed by society at large .Many a times they are subjected to violence and hate crimes . Because of their gender orientation and sexuality LGBTQ are marginalized and denied the most basic human rights even like the right to education , vocational opportunities and essential healthcare. Thus for a collective with a plethora of social

challenges the phenomenon of social networking has emerged as a boon . It allows the extremely vulnerable population of gender non conforming to gain an authentic status. Their genders are understood as superficial and illegitimate. They are made to fight for the privilege of essence, argue for their existence.Faced with such discrimination andharassment,the gender diverse often lack a safe venue to express themselves all the while connecting with one another. Social networking serves as aplatform for establishing social ties , gaining visibility , and sharing of information and even resources which the marginalized gender diverse community is bereft of.

The contemporary digital media offers the gender diverse representations in the form of online communities which act as a safe haven for them and facilitate sharing of uncensored experiences, and confirmation of their gender identity. Social Networking addresses the following concerns of the gender diverse :

- ***Global Inclusion:*** The social media is breaking barriers of hierarchy, region, language, age and cultural boundaries to reach your doorstep. no matter where we are located or which religion we belong to, whether we are living in distinct cultures , are rich or poor, we have the prospect of connecting witheach other irrespective of the boundaries that separate us . Social networking via social media offers worldwide connectivity to people, ideas, messages and organizations. The world has transformed into a global village where distance and isolation have been rendered meaningless. It does not entail any physical presence to be connected only requiring a mental connect. It offers socially meaningful structures which transcend our neighborhood and are multiethnic , multicultural and, multiregional in their approach. Also the efficiency with which the digital interactions take place increases the velocity and density of the messages communicated serving as a social catalyst seeking to bring about a change and alter the hegemonic supremacy of the complex social structures.

  Social media is for everyone andis considered highly useful and productive simply because it provides a sizeable audience across the globe far more than the traditional instruments of mass media could ever accomplish.

  The efficiency and the convenience with which social networks function is responsible for increasing their accessibility manifold. A transgender adolescent living in a remote , rural part of India can belonging to a virtual community can influence , campaign and participate in the outreach program undertaken by an organization in USA within minutes , round the clock all at an inexpensive cost of a few rupees.

  The prospect of shrinking the world at large so much so that every human being is a potential user have significant implications for real time communication.

- ***Social Support:*** Social networking and social media has emerged as a valuable mechanism of interaction and communication useful in mobilizing support for the issues and concerns of the genderdiverse .According to a statistical report presented by England's Department of Culture, Media, and Sport in April 2016,89.5% of Gender diverse used social media outlets as compared to 70.1%of the general non LGBTQ population .It not only facilitates interpersonal interaction but also ensures privacy and anonymity if so desired. The virtual community recommends anideal place to know one another and explore our similarities and differences. It provides them with a sense of belonging and connectedness, an ease which enables them to trulyexpress themselves. A significant body of research indicates that LGBTQ use the socialnetworking sites to deal with the various social challenges and daily life issues concerning them like finding

a partner or dealing with social isolation. (Hillier and Harrison , 2007: Hillier 2001). More and more gender diverse individuals use the social media to come out of the closet or publically disclose their gender orientation.Since the gender diverse are marginalized and stigmatized , online avenues offer greater visibility which in turn helps in breaking down of prejudices and stereotypical notions and encourages equality.

Allport's(1954) intergroup contact theory states intergroup interactions reduce the conflict , fear , anxiety and prejudice that one group has towards another group and increases mutual empathy and understanding. social media also allows hetronormative individuals to interact with the gender diverse thus enabling them to understand each other's perspective and foster cordial relations creating an inclusive and harmonious society. According to Cobb's Buffer model , social support acts as a buffer to protect against stress in life and induces a sense of overall well being.It reduces tension and is an instrument of increased self esteem,satisfaction and happiness.(Cobb, 1976)

- ***Awareness and Sensitization:*** The social networking sites permit the gender diverse to accessinformation about healthcare , policies and sexualities without feeling awkward or humiliated, it acts as a social enterprise raising awareness and sensitizing individuals across the globe to the variety of challenges faced bythe Gender diverse .For instance The Human Rights Campaign launched in 2013 highlighting the issue of equality for the gender diverse has 1.5 million members and supporters worldwide . Similarly The It Gets Better Project ,initiated in 2010 after two teenage suicides in USA to reach out to the LGBTQ community by uploading similar testimonials of bullying , harassment and intolerance in order to encourage each other to overcome the various social impediments that they face.More than 50,000 testimonials (and counting) were uploaded . Better still ,For the parents and families of the gender diverse individuals , social network offers a forum dedicated to providing support , disseminating information and resources among parents with gender diverse children and allows them an opportunity to understand the psychosocial concerns and apprehensions faced by their children so that they in turn can modify and facilitate parenting practices to ensure positive mental health outcomes.

  Social networking is highly useful and productive simply because it provides a sizeable audience across the globe far more than the traditional instruments of mass media could ever accomplish. Thus awareness and sensitization is the only mechanism which can be effectively used for bringing about equality and justice for the gender diverse by creating an environment of tolerance , empathy and regard and bridging the gap between the heterosexual population and the gender diverse.

- ***Agency for change:*** From the traditional dissemination of information the social media has transformed into an instrument of awareness and advocacy. It is no longer only a platform for the self obsessed or for entertainment but has metamorphosed into a sphere of sociopolitical advancement. The social media has in the contemporary era acquired an unbridled force of power which should be used for the improvement and betterment of the society for instance ensuring empowerment to the women , questioning state policies and providing agency to the voiceless, to name a few. It does so by creating an online audience specific self sustaining interactive environment. These Online communities are a collective of likeminded individuals who come together in the virtual world and discuss things they like and even establish relationships. Community members

do not necessarily know each other in order to share ideas or develop a sense of bonding. Social Media facilitates discussion , inspire action and enables engagement. It offers a direct avenue to discuss relevant issues, it provides visibility and recognition to their experiences .It is also useful in cutting across societal disparities and reach out to people not potentially acknowledged or recognized and community specific voices into a collective consciousness and an opportunity for sharing of experiencesDigital social media provide a range of different platforms that are being utilized in different ways and used for various purposes as they are shaped by and shaping the more specific cultural, social and economic means and positions of LGBTQ youth raise awareness and responsiveness.For instance a Facebook campaign to highlight issues of the gender diverse proves to be inexpensive ,accessible to all and a highly effective way to disseminate outreach messages.

- ***Individual and Collective empowerment:*** We have seen that social networking sites have become a bonafide venue for interpersonal interactions where information and resources are shared and opinions are expressed.Using video diaries, vblogs , blogs and several such tools the gender diverse are co creating and sharing their experiential realities .It draws attention to major issues and apprehensions surrounding gender diversity. It increases in group visibility and allows the non binary people to find each other and connect with solidarity. Social networking sites also act as sites ofcrisis interventionand promote strategies for resisting a hostile and stressful environment embedded with stigma and prejudice The fraternity of the collective engagement leads to the empowerment of the gender diverse to deal with the challenges and vulnerabilities on a day to day basis. The members of the group also identify with positive role models and social support offered leading to mutual inspiration and motivation while fostering resilience ;photos , testimonials and v diaries, opinions express phenomenological experiencesas technology becomes more and more integrated with our lives. Social Media is often used to design specific advocacy campaigns which are tailormade to suit the needs and requirements ofthe gender diverse who are already distressed andvulnerable, who can then draw strength and agency from the collective discourse andare more comfortable with their own identities(ciszek,2017).

The twenty first century has seen an *unprecedented influence exerted by the social media in terms of helping individuals to connect with each other , formulate support groups and seek information ;the negative effects of same cannot be overlooked. On one hand it offers an interactive platform for the distressed and marginalized gender diverse population to engage with people with similar interests and orientations ,social networking sites also encourage cyber bullying and hostility .In* a study Out Online:The experiences of lesbian,Gay,Bisexual,and Transgender Youth on the Internet (GLSEN,2013) states that LGBTQ youth experience nearly three times as much bullying and harassment online as non LGBTQ youth.The campaigns launched in the arena of social media with the purpose of promoting visibility to the gender diverse and encouraging disclosure of their true gender identities are potentially more threatening leading to online victimization.

The gender diverse individuals face a lot of hostility and bullying in real life situations and as an extension as it were, their coming out process also makes them vulnerable to online bullying , shaming and abuse.

Creation of an online Persona: All social networking platforms require the user to put up a "profile" consisting of one's personal information which could be an image far from

realityuploaded for the purpose of Impression Management. A curated expression of the self which is deliberately fashioned to put forth a positive self image to belie the existing actuality in order to fool and mislead others, exploiting the vulnerability of the gender diverse individuals.

Invasion of Privacy: The social media has access to the personal information like email , location , name, age and other details which when disclosed can lead to serious endangering of ones privacy. It can (and very often does) result in cyber stalking where the stalker has access to and uses personal information available in the cyber world to pursue and harass you; Theft of identity wherein anyone with access can assume your identity and pretend to be you thus leaving your safety ,security and affiliations exposed and vulnerable. Spamming or the availability of online personal content put up for sale for anyone interested in purchasing it including political activists or being targeted by online predatorsespecially in case of the gender diverse persons thus rendering them defenseless.

The careful management of expectations is very difficult on thesocial networking forums because there are no effective filters which can sift through the information or content being posted . It may engender myths and misinformation since it lacks a professional gatekeeper to monitor the content which is put out there resulting in evasion of trust and disenchantment.

Conclusion

The social network offers a safe space to the gender diverse .It not only offers a reassuring experience but also positive affirmation because it makes them feel less isolated and discriminated . It encourages them to raise their voice and be a part of the mainstream consciousness leading to their social inclusion .However like every beautiful flower that has thorns aplenty , many negatives haunt this relationship like online rejection and victimization of the gender diverse , Hate crimes and invasion of privacy to name a few but these are not limited to the gender diverse population . Almost anyone with an expressed opinion is trolled on the social media.

Overall I personally feel that the benefits of social networking far outweigh its disadvantages. The support structure provided by the social networks to the gender diverse has helped immensely in raising awareness , empathy and integration for them at large.

REFERENCES

1. Allport ,G. 1954.The Nature of Prejudice. Cambridge, M.A: Addison -Wesley
2. Bowlby, J.1969. Attachment and Loss, Vol. 1, Attachment. New York: Basic Books
3. Cobb, S. 1976. Social support as a moderator of life stress. *Psychosomatic Medicine, 38*, 300–314
4. Emerson, KG, Jayani J.2015 American Journal of Public Health.2015 May;105(5);1013-1019. doi10.2105/AJPH.2014.302427.
5. Erica L. Ciszek.2017. Advocacy Communication and Social Identity: An exploration of Social Media Outreach, Journal of Homosexuality,64:14,1993-2010,DOI:10.1080/00918369.2017.1293402
6. Lynne Hillier and Lyn Harrison. 2007. Building Realities Less Limited Than Their Own: Young People Practicing Same-Sex Attraction on the Internet. Sexualities 10, 1: 82–100.
7. Lynne Hillier, Philomena Horsley, ChyloeKurdas, and others. 2001. "It's Just Easier': The Internet as a Safety-net for Same Sex Attracted Young People. Australian Research Centre in Sex Health and Society.

8. Lynne Hillier, Kimberly J. Mitchell, and Michele L. Ybarra. 2012. The Internet As a Safety Net: Findings From a Series of Online Focus Groups With LGB and Computer Supported Parenting #chi4good, CHI 2016, San Jose, CA, USA 620 Non-LGB Young People in the United States. Journal of LGBT Youth 9, 3: 225–246.
9. Robert T. Cserni and Ilan Talmud. 2015. To Know that You Are Not Alone: The Effect of Internet Usage on LGBT Youth?s Social Capital. In Communication and Computer Supported Parenting #chi4good, CHI 2016, San Jose, CA, USA 621 Information Technologies Annual. Emerald Group Publishing Limited, 161–182.
10. Mary L. Gray. 2009. Out in the country: Youth, media, and queer visibility in rural America. NYU Press.
11. Mary L. Gray. 2009. Negotiating Identities/Queering Desires: Coming Out Online and the Remediation of the Coming-Out Story. Journal of Computer-Mediated Communication 14, 4: 1162–1189.
12. Oliver L. Haimson, Jed R. Brubaker, Lynn Dombrowski, and Gillian R. Hayes. 2015. Disclosure, Stress, and Support During Gender Transition on Facebook. Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing, ACM, 1176–1190
13. Hawkley LC, Capitanio JP. 2015. Perceived social isolation, evolutionary fitness and health outcomes: a lifespan approach https://www.ncbi.nlm.nih.gov/pubmed/25870400
14. Hirsch JK, Chang ED, Jeglic EL 2012 Social problem solving and suicidal behavior: Ethnic differences in the moderating effects of loneliness and life stress. Achieves of Suicide Research.16:303–315.
15. Cacioppo JT, Hawkley LC, Berntson GG, Ernst JM, Gibbs AC, Stickgold R, Hobson JA .2002 .Do lonely days invade the nights? Potential social modulation of sleep efficiency..https://www.ncbi.nlm.nih.gov/pubmed/12137144Sci. 2002;13:385–388. [PubMed
16. Russell ST, Muraco A, Subramaniam A, Laub CJ. 2009. Youth empowerment and high school Gay-Straight Alliances .Youth Adolescence. 2009 Aug; 38(7):891-903.

13

Marketing with Video: Tools and Techniques

Rachita Kauldhar & Diksheeta Gupta***

ABSTRACT

This is the era of visuals. People are more interested in watching a visual than reading it. The main reason for the same is that when you can get information in a more entertaining and shorter period of time then why consider the boring and dragging way. From alphabets to images and now videos are covering the whole market. But now the goal is not only to create videos but also to make money from the same. "Every day, about 1 billion hours of video are watched on YouTube, more than half of which come from mobile devices, while every minute, 400 hours of video are uploaded (Ramblings, 2017)".

Video marketing helps the company's to gather their consumers in a wider range without any geographical limitations and they also makes their communication effective by getting connected to their audience. The scenario of content marketing has also changed as now the content is created according to the needs and wants of audience and what they want to see. In this digital media age, it is necessary to understand how people are using the audio-visual media as video deliver messages more effectively and also add an emotional touch which text cannot do. This paper focusses on how the video marketing is used to promote or market the brand of every business. The main objective is to find out the advantages and the scope of video marketing and also to compare it with other forms of marketing.

The idea is to explain the tools and techniques used by video creators to gather audience for their product and what are the aspects of creating an audio-visual output which attracts audience. The paper also discusses the ideas, opportunities and challenges faced during the process from the making of a video till its marketing. It also explains that in the world where digital technology is very cheap how users are consuming it and how they can consume and produce at the same time. This paper will explain how people can create good videos and can also promote their business and what all platforms they can use to succeed in their goals. It further discussed the scope of video marketing in future.

It has been seen that in near future the whole digital platform will be video based and the customers also wants to see videos from the company they support rather than newsletters and other social content. This paper has demonstrated that video marketing can be a powerful vehicle to drive the business towards profit by making its audience more engaged and active.

Keywords: *Video Marketing, Digital Media, Audio-visual Media, Communication.*

* Assistant Professor, Department of Journalism, Maharaja Agrasen College, University of Delhi

** Department of Journalism, Maharaja Agrasen College, University of Delhi

Introduction

This is the era of visuals. People are more interested in watching a visual than reading a text. The main reason for the same is that when you can get information in a more entertaining and shorter period of time then why consider the boring and dragging way. From alphabets to images and now videos are covering the whole market. But now the goal is not only to create videos but also to make money from the same. The consumption of the digital content has seen a rise over the past few years and it has been observed that videos are dominating most of the digital content. All the social media platforms contain mostly the video content. "YouTube has over a billion users which is almost one third of the internet users" (IMPACT, 2017)."While in India 400 million people watch YouTube" (expanded ramblings, 2017). These results states that now people are preferring the digital technology over old school techniques. Further when video is combined with marketing it is giving a huge success to company's in promoting their brands. Video marketing is not just only one of the option of digital marketing but it is a vital part of the content marketing.

Video marketing is the future of digital technology. 'Hub Spotdid a survey on how video can be useful for business and it stated that adding a video to marketing emails can boost the click through 200-300%' and they also claimed that "64% of customers buy a product after watching a video about it". Video marketing is not limited to just TV or any other media source but the largest platform for video marketing is internet. It is not necessary that the content marketing is limited to advertising. Its sole purpose is not only to sell the product by advertising but to educate, attract, acquire and engage the target audience. It helps to drive the company towards customer's profitable actions.

Video marketing can be defined as use of a video content for promotion of a product or a brand. It engages the audience with motion images and sounds to inform and educate them about the brand or a product. Convergence of media technology led to the amplified amalgamation of video and internet across each and every platform of media. Audiences are startled and at the same time totally pandered with the explosion of so much of content in terms of video, still images and sounds coming from around the world.Video marketing helps the company's to gather their consumers in a wider range without any geographical limitations and they also makes their communication effective by getting connected to their audience. This paper focusses on how the video marketing tools and techniques is used to promote or market the brand. The idea is to explain the tools and techniques used by video creators to gather audience for their product and what are the aspects of creating an audio-visual output which attracts audience. Theobjective is to find out the advantages and the scope of video marketing. The paper also discusses the ideas, opportunities and challenges faced during the process from the making of a video till its marketing.

Development Stages for Video Marketing

Just like any marketing campaign requires planning. Videos are one of the best form to convey a message to diversity of consumers. Creating a video message needs lots of research, planning, thought, idea etc. To excel in the discourse of video marketing there are few stages required which include 4 basic steps –

1. ***Strategic Planning:*** Every work requires a plan, which helps to decide what to do and what not to, it also helps to analyse what sort of content people will like. Developing a

strategy is the first and foremost step in the video marketing which can be divided into two sub strategies –

(a) ***Targeting the audience*****:** A product or a brand is targeted to specific audience. The target audience is identified on the basis of gender, age, profession, economic and socio-cultural aspects. These are the people for whom the company will be making the content, who will be consuming the video or the product. Keeping in mind, the target audience they will create the content,choose the platforms for its dissemination and will select appropriate tools and techniques to shape videos.

(b) ***Setting goal and conceptualizing:*** Company's need to set their specific goal and they need to know the purpose behind starting the digital campaign.These purposes can be divided into three categories.

(i) ***Corporate category:*** These are video usually made for B2B (Business to Business) or sometime B to C (Business to Customer) business categories. Such videos include speeches of different people, footage of the previous events of the company etc.

(ii) ***Marketing category:*** The purpose of the video is to increase the sales of the products of the company. The main focus of the video will be on the product/ service or any sales-oriented action. Such video may or may not take the look of advertising. This solely depends on the company how they convert the idea into a video.

(iii) ***Content Marketing Category:*** Such videos are made to drive the company's approach rather than their product. These videos include the fun, educating, and entertaining essence. They are important from the view of public relations. Storytelling and more of the innovative and creative content comes under this category.

2. ***Production Process****:* To produce any video there is a certain process which includes shaping the idea, drafting the script, shooting the video, budgeting and editing. The three step process of video production -

(a) ***Pre-production:*** This helps the whole department to work on the story board and scripts. All the necessary decisions regarding shooting location, casting, budgeting is taken care in pre-production.

(b) ***Production:*** Here, an idea starts shaping into reality. Recording and shooting of the idea takes places according to the script and story boards.

(c) ***Post production:*** It is the stage where graphics, animation, voice over, colour correction, in one word the editing takes place. This is the stage where final outputs come in to shape.

3. ***Distribution plan***: After making the video it is necessary to have a solid distributing/ dissemination strategy.This includes deliberate consideration on issues such as should the company post it on all social media platforms or on some specific ones, strong background research of audience and their consumption of distribution platforms to understand when, where and how they will be able to get more of th eir targeted audience/ consumers. Such important decision needs to be strategize efficiently.

4. ***Analysing and Optimizing***: Company'sshould analyse their performance and for that they have to measure and evaluate how much they have achieved. Main area where a company should focus to see that whether their video content strategy worked or not

can be evaluated through the number of views, the click through rates, and by taking some personal feedback through survey to see whether they are able to communicate the intended message. Such analysis will help the business to build their marketing strategy more effectively in future.

Video Marketing: Tools and Techniques

In past few years due to the advancements of technologies video marketing has evolved a lot. There have been lots of new techniques by which a company is approaching the audience. These new technologies attract customers through its innovative and more engaging features. Some of the latest trends of video marketing are as follows –

1. **'Going live'**- With the feature of live video streaming companies are able to connect with customers in a more enhanced way and are to show more human side of the company. It has also been observed that people are more interested in watching a live video compared to the pre-recorded videos. This feature helps in cost cutting as it doesn't require any editing. Going live shows the spontaneity and authenticity of the company. Live video not only helps the consumers to give the instant feedback but it also helps the producers to revert on the feedback. This instant visual communication helps the companies to promote themselves more efficiently.
2. ***'360-degree videos'***: This technology is still growing up, 360 degree helps the viewer to control the perspective while viewing the video. 360 degree gives different viewing perspective. Also, it does not require any headset just like in visual it just needs a computer or a mobile browsing control to experience. This is the reason consumers are quickly taking such videos up. 360-degree also helps many producers to market their product as customers can have a 360 degree look which will lead to more immersive and realistic view of the product. 'Google has found out 360-degree videos has 46 percent higher click through rate compared to normal video versions' (moovly.com).
3. ***'Square shaped videos'***: According to impactbnd.com, more than half (50 percent) of the videos are watched from mobile devices now days.Almost everyone is using smart phone in this era and there was a time when the videos were created in 16:9 ratio format which was used in television, cinema etc. But if such format videos are watched on smart phone or tablets, the viewers need to change or reorient their device to watch the video. In 2016, Facebook changed their creative guidelines for video producers to produce the video in 1:1 ratio format also known as square format. The square shaped videos have increased the viewing rates by 67%. Now on many social platforms like Instagram, Snapchat and Facebook people are tend to see more of square shaped format videos rather than the older version.
4. ***'Transcribed videos'***: It's not necessary that the viewer is in position to listen to the sound of the video as there can be environmental disturbances or may be the viewer is somewhere outside where they arenot accessible to the sound. Transcribe videos are the solution of such situations where the videos are subtitled and it is not necessary to access the sound. Transcribed videos also add to the advantage of SEO – YouTube will mark one transcribed video higher than other videos because it will help the search engine to find the keywords from a well written transcript videos. It has also been observed that 65% of the videos on social media platforms are watched without sounds.

The best example of it is the trending videos with a text on images describing the images or the content etc.

5. ***'Explainer videos':*** These are the videos which are describing a product or a service. It is not necessary to be a long or a descriptive one. It should have some information regarding the product or the brand. It has been seen that such videos are taking a hype and will be generated more. It is an excellent way for a brand to tell its story. It can be made by animation, graphics and many other technologies which already many people are using. The best example of explainer videos are the videos of some smart phone apps those videos explain what their app does and how to use it. These videos are not necessarily to be in a complicated manner. Such videos show a direct problem and a solution, they are made in a more compelling and accessible way.

Source: Video marketing strategy by Vidyard and Ascend 2, 2017

Video Marketing Platforms

Distribution that is also known as place is very important part of marketing. The process of distribution or how company's can maximize their reach is necessary which further leads to higher profit. Same thing happens in video marketing, a video maker can make an extra ordinary video but they need to choose how they can make it popular or where they can post their video. For which there are many platforms. These platforms support the distribution strategy to reach the target audience and promote their brand. Some of these platforms are-:

1. ***YouTube:*** "YouTube is the most widely adopted video channel for marketers" (state of video marketing 2018 wzyowl). It is the second largest search engine after google. It helps the producers to analyse their reach and how many audience they have gathered. By using real YouTube views or google analytics one can plan their video marketing process accordingly.
2. ***Facebook:*** It has more than 1.3 billion monthly active users and this is the reason it has become a big platform for advertisers. Every company now has a Facebook page and are specially working for their Facebook profile. Facebook is free to join and has a wide reach. It also offers features like interactivity and feedback by commenting, reacting and sharing on videos which makes it more attractive for the viewers to watch it.
3. ***Twitter:*** Videos are becoming the central part of what's happening on twitter now days. It has taken a growth of 200 times in video in just 12 months. Twitter has also integrated with vine so that people can directly post the videos from vine to twitter. Also, it has the

integration of 'periscope' which allows to connect with the audience live. These advantages of twitter resulted in over 320 million monthly active users.

4. ***Snapchat and Instagram:*** These two social media platforms are the latest space in the course of video marketing. The biggest advantage of both the platforms are it is most used social media platform of young generation. Older generation is also catching up. But if the company's target audience is the younger generation then this is the place for them to market their brand. Snapchat users are watching more than 6 billion videos per day and is tend to rise more. Almost every company now have an Instagram account and these accounts are regularly updated by them.
5. ***Vine:*** It is owned by twitter. It is famous for its bite sized videos which are not more than 6 seconds. This is the USP of this platform Just a 6 second video is known as vine. It has been observed that videos which are less than 2 minutes gains more audience rather than longer ones. Creating a 6 second video not only reaches to more and more active users but also reduces production cost. A recent study showed that more than 100 million vine videos are watched per month and these videos are highly shareable. Vine has been considered one of the fastest growing social media platform and will take a hype in coming future. One more platform is taking hype these days i.e. LinkedIn.

Opportunities of Video Marketing

Video marketing helps companies in many ways. It provides the opportunity to interact and engage their customers more actively. According to the study of wzyowl "63% percent of business has started video marketing and out of them 83% companies find it effective". The number will be increasing very soon.There are lots of opportunities a business gets in video marketing which are as follows –

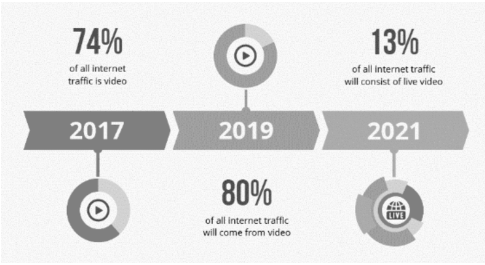
1. ***Increment in sales***: First and foremost goal of any company is to increase the sales of their goods and services. This prime opportunity is given by video marketing as it has been seen that nowadays consumers watch the explainer videos before buying any product. Study shows that almost 74 percent of users who watch these explainer videos buy the product or service. Today, the consumers are self-driven they don't need any salesperson to shop. In that scenario video can serve the consumer anytime and anywhere which is more reliable.
2. ***Engage and connect with customers:*** Video increases the customer interaction with the company as they get to see people behind the brand which further leads to brand loyalty and it also validates the authenticity of the company. Video can create long term relationship of trust between consumer and producer. Video takes the advantage of its audio-visual feature, videos can use facial expression, voice, emotional music which will be a powerful form of content. This will create a memory of the product in the consumer's mind and they will respond to the product according to their needs.
3. ***Effective planning*:** Companies cannot see how many readers have read their new blog post or where they stopped reading, which paragraph they read or ignored. The measurement of such counts is difficult in text-based content. Videos are easily measureable in terms of these counts. One can find the click through rates, the views, how long people saw the video, where they stopped, also they can see how many people shared it and can keep an eye on their content marketing techniques. Thus, videos help

in optimizing the company's marketing process and to see where they are lacking behind and how they can improve further.

4. ***Providing 'info' in 'elaborataning' way:*** Elaborated + Entertaining makes it elaborataning. By the use of video a company can provide as much information they want their consumers to receive, they can elaborate about their product by explainer video and that too in a more entertaining way. The best example of the same is animated videos which is the combination of innovation, nostalgia and simplicity. Things which a person cannot imagine and when they see it they get more attracted. Animated videos work in the space of video marketing as they provide the respective information effectively.
5. ***Improved SEO:*** Studies shows that if a company has embedded a video on their website they are 53 times more likely to rank first on google search, also YouTube is owned by google which makes the effect of video content more positive and company are likely to gain more eyes than other companies who don't use video. Better SEO helps in better promotion of brand further leads to the accomplishment of the company's goals.

Scope of Video Marketing

The future of video marketing is optimistic as marketing companies as well as audience are responding in a similar wavelength to this upcoming trend. It is observed that in near future the whole digital platform will be video based and the customers also wants to see videos from the company they support rather than newsletters and other social content. YouTube has over a billion users and people watch hundreds of millions hours of YouTube videos every day and also the time people spend watching videos on YouTube has also increased by 60 % year-on-year (Trimble, 2015). According to Tubular Labs research, 655 million videos were uploaded by 67 million content creators in a year to over 30 video platforms. The scenario of content marketing has also changed as now the content is created according to the needs and wants of audience and what they want to see.



Source: Infographic-The state of video marketing, 2018

Though there are some challenges which comes with the era of visuals for the companies that everybody has started making the content and there is so much on every social media platform the company will face the challenge of ignorance as the consumer would be having lots of content to access. Also, another challenge for the business would be the continuation process and the company's will always be in the need to create innovative content in terms of increasing competition.

There is a lot more coming up in the world of visuals, in coming future there are high chances that all the companies will become a content production company, every employee of

the company will be a content producer and all the companies will be hiring director or a content producer. Also, it has been that in future every business will strive for videos for their brand promotion and further those press releases will take the shape of videos.Also, television will help the marketers to reach the consumers in their living room itself. There will be more social media platforms and technologies which will show up in coming future and video marketing trend will be rising.Although, it becomes necessary to understand how people are using the audio-visual media as video deliver messages more effectively and also add an emotional touch which text cannot do.

REFERENCES

1. Ascend2 in partnership with Vidyard.(MARCH 2016) Video Marketing Strategy Benchmarks for Success.
2. Boman, Kalle. And Kalle, Raijonkari (April 2017).Online Video as a Marketing Tool A quantitative survey on video marketing habits.
3. Brite Content (November 2016)The state of video marketing 2017
   Available at - file:///C:/Users/hp/Desktop/video%20marketing/The-State-of-Video-Marketing-2017.pdf
4. Clum,Mike (February 22, 2018).Video marketing statistics: Why your business needs a video
   Available at: https://clumcreative.com/video-marketing-statistics/
5. DIGITAL 22, (October 2016). Benefits of video marketing for growing business.
   Available at : https://www.digital22.com/insights/benefits-of-video-marketing-for-growing-businesses
6. Expanded Ramblings (March 30, 2018) 16 amazing youtube statistics and facts.
   Available at :https://expandedramblings.com/index.php/youtube-statistics/
7. Funnel Box Video Marketing (February 2016) VIDEO MARKETING VIDEO PRODUCTION
   Available at :http://funnelbox.com/what-is-the-definition-of-video-marketing/
8. Hubspot (JUNE 2017) 16 video marketing statistics to inform your Q4 strategy (infographic)
   Available at :https://blog.hubspot.com/marketing/video-marketing-statistics
9. Larson, Kim (January 2017). Five Fixes for Your Online Video Marketing Strategy: Lessons from Google Brand LA. Video, Advertising, Measurement
10. ROSE, ROBERT (July 2015). START SMART, SCALE UP, AND STAND OUT WITH VIDEO!
11. Sukhraj, Ramona (September 2017),Importance of Video Marketing
    Available at: https://www.impactbnd.com/blog/video-content-the-importance-of-video-marketing
12. Wzyowl(2018) The state of marketing 2017 .
    Avaialbleat: https://bb4b089076d0d4765f18-c3b4c8baa 80714684c08 ebfcd0c823f3. ssl.cf1.rackcdn.com/AutopilotHQ/downloads/Wyzowl-Video-Survey-2018s.pdf

14

Web Searching Practices and Outcomes: An Experimental Study on Assigned Task and Fancy Web Searching

Bhupinder Singh* & Mangal Chhering**

ABSTRACT

Web searching practices and outcomes: An experimental study on assigned task and fancy web searching, is an experimental study conducted on college students. The study underlies major objectives viz. to investigate factor affecting web searching experience and to analyze difference between assigned web searching task and fancy web searching. Pupil were probed through a questionnaire and allowed to perform an assignment. A number variables have been reduced to five factors, which affects the Web searching practices and its outcomes. The second part of the study was an experimental study which investigates variance between web searching experiences, based on assigned task (control group) and feel like task (fancy web searching). Searching process was recorded and analyzed with help of a software. Following dimensions and its attributes have been investigated: Visited pages, attractiveness of color, type of web page, maximum depth of exploration, Number of keywords, refinement of keyword, and number of words used in the first keyword so on. Findings were, students with feel like (fancy web searching) web searching experiences could find more spot-on answers than assignment task searching (control group).

Keywords: *Web Experiences, Fancy Web Searching.*

INTRODUCTION

Web searching practices and outcomes: An experimental study on assigned task and fancy web searching, is an experimental study conducted on college students.According to (Spink, 2001) in studying actual Web searching by the public at large, it was found that most people use few search terms, few modified queries, view few web pages, and rarely use advanced search features. (Dionysia Kroustallaki, 2010) Assessed the effects of a short-term intervention designed to enhance students' web searching skills, particularly query formulation, information selection and credibility evaluation. The y also explored students' affective experiences during web searching and examined the influence of achievement goals on positive and negative affect.

The objective of research isto investigate factor affecting web searching experience and to analyze difference between assigned web searching task and fancy web searching. To achieve these objectivessecondary data was collected from various sources such as published records, books, magazines, journals, reference materials, research articles, research papers, and reports.

* Department of Commerce, College of Vocational Studies, University of Delhi

** Department of Commerce, College of Vocational Studies, University of Delhi

Primary data was collected via. Questionnaire as well as recorded videos. Various range of question has been asked like The first question was; there are some factors which affects the web searching practices, you might also have experienced these factors, website always contains the information we need, Information is frequently easy to find, so forth, a detail of questionnaire have been explained in methodology.The second part of research wasto analyze difference between assigned web searching task and fancy web searching.For this, two tasks were designed, task one and task two, detail of these tasks have been explained in methodology as well.

The descriptive analysis has been done, like: mean, standard deviation and variance. Factor Analysis the Principal Component Analysis extraction method was used to analyze the data. Factor rotation once the initial factor loadings have been calculated, the factors are rotated. This is done to find factors that are easier to interpret. Five factorshave been formulated, **Magnetic Factor**, **Rapidity Factor**, **Archetype Factor**,**Reliability Factor, Conventional Factor.**

REVIEW OF LITERATURE

According to (Bhattacharjee, 2014) web has been emerged as the most powerful tool for the instant access of millions of information resources and his paper highlighted the result of a survey of web searching behaviour among the library users of Silchar medical college and result shows that majority of the user were using this technology for updating their knowledge, preparing class note and course related study

(Balwan, 2015)present study on the web searching behaviour of agricultural students of Haryana Agricultural University and revealed that web is the most useful tool for the users for searching information on the network in which Google is the most favourite search engine among the users.

(Adan Ortiz-Cordova, 2015)analyze the transitions from external search, searching on web search engines, to internal search, searching on websites and they cluster the searching episodes into major patterns and identify the most commonly occurring, which are namely *Explorers* with a broad external search query and then broad internal search queries, *Navigators* with an external search query containing a URL component and then specific internal search queries, and *Shifters* with a different, seemingly unrelated, query types when transitioning from external to internal search.

According to (Fu, 2016) with the increasing number of multilingual webpages on the Internet, cross-language information retrieval has become an important research issue. This study examine the query reformulation strategies and patterns and to determine why search engine users utilize certain reformulation strategies. The results inform system designers to enhance cross-language controlled vocabularies and develop discovery platforms for multilingual content, and improve search engines to provide users with more relevant results.

(Lee, 2016) try to find out the association between searching and learning and contribute to the formulation of a research agenda for searching as learning and concluded that there are ample opportunities and challenges in developing a search system that supports sense-making and enhances learning.

According to (Rahayu A Hamid, 2016) searching for images is an everyday activity and their article studies the factors that affect users' online web image search behaviour, investigating the use of criteria in making image relevance judgements and the effect of familiarity, difficulty and satisfaction.

According to (Houen S., 2017) children bring to the classroom their experiences from everyday life from both outside and within the classroom, and they display varying knowledge of skills in web searching and other digital technologies.

(Ioannis Charalampopoulos, 2017)Display the relationship among the outdoor thermal conditions in northern european countries and their individuals' web searching frequency on summer holidays and touristic destinations. Also the paper introduces a new field of combined utilization of web searching activity and atmospheric data.

According to (Meth, 2018) web searching using search engines and the websites of topically relevant organisations is sometimes used as a supplementary literature search method. Previous research has shown that the reporting of web searching in systematic reviews often lacks important details and is thus not transparent or reproducible. His study points out that reporting of web searching was found to lack essential detail for ensuring transparency and reproducibility, such as the search terms.

METHODOLOGY

To achieve the desired result the study was depend on a range of secondary data collected from various sources such as published, books, magazines, journals, reference materials, research articles, research papers, and reports. Primary data was collected via Questionnaire as well as recorded videos.

QUESTIONNAIRE DESIGN

The first question was asked as follows; there are some factors which affects the web searching practices, you might also have experienced these factors. Please share your agreeness or disagreeness based on scale (1 means Strongly Disagree to 5 strongly Agree), website always contains the information we need, Information is frequently easy to find, Ease of navigating the website, Relevant information must be on the home page only, Information must always be visible, Websites contain information about company, products, & services, features, sections or information must emphasized on the site, Performance of the search function, Information does not meet the need, Information must easy to understand,

There must be a third-party applications that will need to be integrated, Information needed to be comprehensive, Always need any social sharing features built in, Information must be interesting, Attractive and pleasant Look and feel, Links and buttons should help move around information easily, Must be password protected, Graphic design must be attractive, Extensive Coverage of information, Speed of response and performance must be fast, Design and appearance should be attractive, websites should meet the purpose, It is always hard to find Information, Larger number of pages is needed, Color of webpages must represent the company's colors, Websites must require online chat features, There is a need for multi-language support, Websites must be mobile friendly (responsive design), Different sections of site require different designs, layouts or coloring?

The second question was on various demographic information about the women as given below, 1. Age, A. Below 20 Years, B. 21-30 Years, C. 31-40 Years, D. Above 40 Years. 2. Level of education and training A. Can't read and write, B. Class1-9, C. 10^{th} complete, D. 10+2, E. Graduation, F. Professional, G. Other (specify). 3. Marital status. 4. Family size 6. Income/Year.

The second objective of the research was to analyze difference between assigned web searching task and fancy web searching. To achieve this objective two tasks were designed task one and task two (control). Task one: Given below is a task to perform on the internet, you are free to perform, we are obliged towards respondent's confidentiality and privacy. The time limit is 15 minutes. Visit your favorite web sites, or do any task of your choice on internet. The second task which was kept as controlled tasked, given below is a task to perform on the internet, you are free to perform, we are obliged towards respondent's confidentiality and privacy. The time limit is 25 minutes. 1. Visit any sports/entertainment channel. 2. Find out the top most economy in the world. 3. Compare your favorite electronic gadgets. 4. Online price compare your favorite book. 5. Visit any shopping website. 6. Online compare your favorite automobiles.

DATA ANALYSIS

In this section there is description of descriptive analysis, the table of descriptive statistic has been given in this section, mean standard deviation and variance has been calculated for all twenty nine variables.

Internal consistency is usually measured with Cronbach's alpha, a statistic calculated from the pairwise correlations between items. Internal consistency ranges between negative infinity and one. Measure of Reliability Statistics test shows the value of Cronbach's Alpha .750 and the number of items were 20, has been found. We can say that it has good internal consistency.

Table No. 1. Descriptive Statistic

S.No	Variables	Mean		Std. Deviation	Variance
		Statistic	Std. Error	Statistic	Statistic
1	Information is frequently easy to find	3.17	0.18	0.99	0.97
2	Ease of navigating the website	3.03	0.18	0.96	0.93
3	Relevant information must be on the home page only	3.33	0.18	0.96	0.92
4	Information must always be visible	3.57	0.23	1.25	1.56
5	Websites contain information about company, products, & services	3.3	0.2	1.09	1.18
6	features, sections or information must emphasized on the site	3.53	0.19	1.04	1.09
7	Performance of the search function	3.67	0.19	1.06	1.13
8	Information does not meet the need	3.23	0.19	1.04	1.08
9	Information must easy to understand.	3.3	0.19	1.02	1.05
10	There must be any third-party applications that will need to be integrated	3.43	0.2	1.07	1.15
11	Information needed to be comprehensive	3	0.15	0.83	0.69
12	Always need any social sharing features built in	3.4	0.18	0.97	0.94
13	Information must be interesting.	3.5	0.19	1.04	1.09
14	Attractive and pleasant Look and feel	3.1	0.15	0.84	0.71
15	Links and buttons should help move around information easily	3.4	0.18	0.97	0.94
16	Must be password protected	3.3	0.16	0.88	0.77
17	Graphic design must be attractive.	3.3	0.18	0.99	0.98
18	Speed of response and performance must be fast.	3.3	0.17	0.95	0.91
19	Extensive Coverage of information	3.33	0.16	0.88	0.78

20	Design and appearance should be attractive	3.13	0.16	0.9	0.81
21	websites should meet the purpose	3.6	0.21	1.13	1.28
22	It is always hard to find Information	3	0.24	1.31	1.72
23	Larger number of pages is needed	3.23	0.19	1.04	1.08
24	Color of webpages must represent the company's colors	3.2	0.2	1.1	1.2
25	Websites must require online chat features	3.03	0.24	1.3	1.69
26	There is a need for multi-language support	3.07	0.22	1.23	1.51
27	Websites must be mobile friendly (responsive design)	3.23	0.25	1.38	1.91
28	Different sections of site require different designs, layouts or coloring?	3.3	0.22	1.21	1.46
29	website always contains the information we need	3.4	0.22	1.19	1.42

Factor Analysis has been used for data analysis.In analysis part initially. KMO (Kaiser-Meyer-Olkin) and Bartlett's Test was applied to the collected data. Kaiser-Meyer-Olkin Measure of Sampling Adequacy test shows the value of .609 and has been found significant and it was found out after the test that Factor Analysis can be applied on the data.

The researchers to identify significant and smaller numbers of factors as the respondents were asked twenty observed variables related to Web searching practiceshave used the factor analysis technique. The Principal Component Analysis extraction method was used to analyze the data. The extracted communalities ranged from 0.58 to 0.88. The factor analysis yielded 7 factors in all which explaining 74.84 percent of total variance as explained in Table no.2.

Table No.2 Communalities

S.No	Communalities		
		Initial	Extraction
1	Information is frequently easy to find	1	0.83
2	Websites contain information about company, products, & services	1	0.72
3	Performance of the search function	1	0.78
4	Information must easy to understand	1	0.81
5	Websites must be mobile friendly (responsive design)	1	0.84
6	Extensive Coverage of information	1	0.81
7	Websites must require online chat features	1	0.59
8	Ease of navigating the website	1	0.6
9	Information needed to be comprehensive	1	0.73
10	Information must be interesting.	1	0.88
11	Must be password protected	1	0.75
12	It is always hard to find Information	1	0.67
13	There is a need for multi-language support	1	0.58
14	Websites must be mobile friendly (responsive design)	1	0.7
15	Larger number of pages is needed	1	0.88
16	Relevant information must be on the home page only	1	0.86
17	Design and appearance should be attractive	1	0.69
18	There must be any third-party applications that will need to be integrated	1	0.64
19	Speed of response and performance must be fast.	1	0.83
20	Links and buttons should help move around information easily	1	0.78
Extraction Method: Principal Component Analysis.			

Which shows that 74.84 percent of total variance is explained by information contained in the factor matrix. Analysis gives an overview of component matrix wherein Principal Component Analysis extracts the seven components.

Total No.3 Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.245	26.224	26.224	5.245	26.224	26.224
2	2.770	13.848	40.072	2.770	13.848	40.072
3	1.645	8.227	48.299	1.645	8.227	48.299
4	1.482	7.410	55.709	1.482	7.410	55.709
5	1.451	7.253	62.962	1.451	7.253	62.962
6	1.220	6.101	69.063	1.220	6.101	69.063
7	1.156	5.778	74.841	1.156	5.778	74.841
8	.997	4.984	79.826			
9	.881	4.403	84.229			
10	.664	3.320	87.549			
11	.573	2.864	90.412			
12	.438	2.190	92.602			
13	.363	1.815	94.417			
14	.304	1.521	95.938			
15	.273	1.367	97.305			
16	.191	.956	98.260			
17	.122	.609	98.869			
18	.111	.557	99.426			
19	.073	.363	99.788			
20	.042	.212	100.000			

Extraction Method: Principal Component Analysis.

The scree plot has been shown in the figure no 1. In the x axis contains components number is plotted against eigenvalues in the y axis. There are seven variables having more than 1.156 eigenvalues, but for best inferences for the research more the1.451 eigenvalues has been considered.

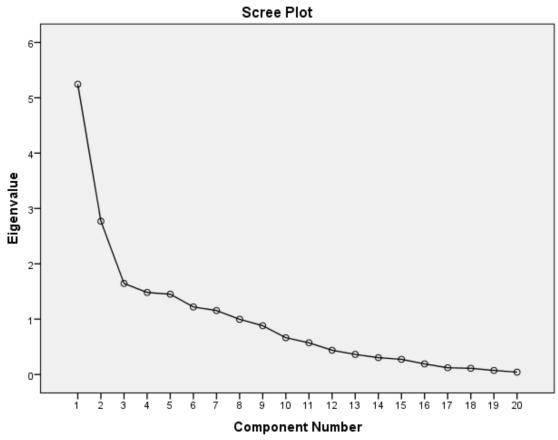


Figure No. 1

Total No. 3. Component Matrix

S.NO	Component Matrix[a]							
		Component						
	Variables	1	2	3	4	5	6	7
1	Websites must be mobile friendly (responsive design)	.840						
2	Links and buttons should help move around information easily	.806						
3	Relevant information must be on the home page only	.775						
4	Extensive Coverage of information	.759						
5	Performance of the search function	.720						
6	Must be password protected	.707						
7	Larger number of pages is needed	.675						
8	Speed of response and performance must be fast.	.589	.582					
9	Information must be interesting.	.513						
10	Information is frequently easy to find	.505						
11	Ease of navigating the website		.579					
12	Websites must require online chat features		.577					
13	Information needed to be comprehensive			.593				
14	There is a need for multi-language support				.639			
15	Websites contain information about company, products, & services					.641		
16	It is always hard to find Information						.589	
17	Design and appearance should be attractive						.516	
18	There must be any third-party applications that will need to be integrated			.671				
19	Information must easy to understand							.575
20	Websites must be mobile friendly (responsive design)							.516
	Extraction Method: Principal Component Analysis.							
	a. 7 components extracted.							

FIVE FACTORS

First Factor (**Magnetic Factor**) Includes following variables: Information must be interesting .513, Information is frequently easy to find .637, Ease of navigating the website, Websites must require online chat features .577, Design and appearance should be attractive .516, and there must be any third-party applications that will need to be integrated .671

Second Factor (**Rapidity Factor**) Include following variables: Links and buttons should help move around information easily .806, Performance of the search function .720, Speed of response and performance must be fast .589,

Third Factor Include (**Archetype Factor**) following variables: Larger number of pages is needed .675, Websit.es contain information about company, products, & services .641, and Information must easy to understand .575.

Fourth Factor (**Reliability Factor**) Include following variables: Relevant information must be on the home page only .775, Must be password protected .707, It is always hard to find Information .589,

Fifth Factor (**Conventional Factor)** Include following variables: Websites must be mobile friendly (responsive design) .840, Extensive Coverage of information .759, Information needed to be comprehensive .593, There is a need for multi-language support .639, Websites must be mobile friendly (responsive design) .516.

The second objective of the research was to analyze difference between assigned web searching task and fancy web searching. To achieve this objective two tasks were designed, these tasks were to be performed on the internet only, and the activities were recorded and analyzed. The table no. 4 shows outcomes of these activities.

Table No. 4

S.NO	Variables	Fancy Web Searching			Assigned Web Searching		
		Minimum	Maximum	Mean	Minimum	Maximum	Mean
1	Number of visited websites	1	7	3.9	3	6	5.67
2	Number of keyword	1	6	1.71	1	7	2.3
3	Refinement of keyword	0	3	.41	0	5	.47
4	Maximum depth of exploration	1	3	1.2	1	4	1.42
5	Time spent on websites (minutes)	3:45	15	10.47	6:34	12:23	9.35

Outcomes of Web Searching

A comparative analysis between fancy web searching and assigned web searching have been done viz. Number of visited websites, Number of keyword, Refinement of keyword, Maximum depth of exploration, Time spent on websites (minutes). The Minimum number of visited websites is *one* and Maximum visited are*seven*and *3.9* mean websites, in case of Fancy Web Searching compare to minimum *three*, and *six* maximum and *5.67* mean websites in case of Assigned Web Searching.

The Minimum Number of keyword used is *one* and Maximum is *six, and 1.71* mean keywords usedin case of Fancy Web Searching compare to minimum *one*, *seven* maximum and *2.3* mean keywords used in case of Assigned Web Searching. The Minimum Refinement of keyword is *zero* and Maximum is *three*and *.41* mean Refinement of keyword in case of Fancy Web Searching compare to minimum *zero*, *five* maximum and *.47* refinement of keyword in case of Assigned Web Searching. The Minimum depth of exploration is *one* and Maximum is *three*and *1.2* mean depth of explorationin case of Fancy Web Searching compare to minimum *one*, *four* maximum and *1.42* mean depth of explorationin case of Assigned Web Searching. The Minimum Time spent on websites *3:45* minutes and Maximum is *15* minutes and *10:47* average time spent in case of Fancy Web Searching compare to minimum *6:34* minutes, *12:23* minutes maximum, and average time spent is *9:35* in case of Assigned Web Searching

The figure no. 2 shows a comparative analysis of types of websites surfed like educational, entertainment, e-commerce, social media, news and other, between Fancy Web Searching vs. Assigned Web Searching.

The inner circle in figure shows various types of websites (educational, entertainment, e-commerce, social media, news and other)along with their percentages, for Fancy Web Searching. The outer circle illustrations types of websites along with their percentages for Assigned Web Searching. Only 19 percent of people surf educational websites when they have leisure time compared to 23 percent people do educational work when they are assigned.

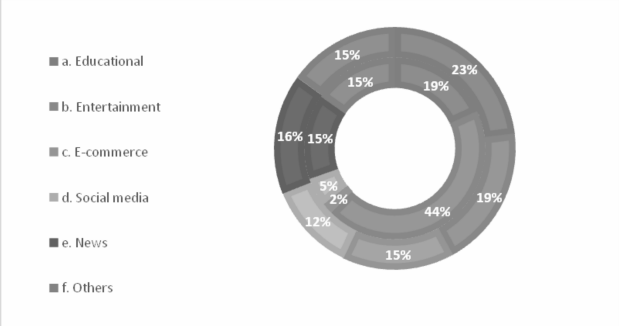


Figure no. 2 Types of websites

Only 19 percent people are engaged in entertainment related activities when are assigned compared 44 percent people engaged in entertainment related activities when their hand are free. Only 2 percent people have surfed e-commerce websites when they were free, compared to 15 percent surfed in case of assigned task.Only 5 percent people surfed social media when they were free compared to 12 percent when they are assigned. All People are interested in news and others, almost equally.

RESULTS AND DISCUSSION

The result and discussion part explains outcomes obtained from various analysis in greater detail.

Internal consistency ranges between negative infinity to one.The value of Cronbach's Alpha is.750 and the number of items were 20.It has good internal consistency.Kaiser-Meyer-Olkin Measure of Sampling Adequacy test shows the value of .609 and Factor Analysis is applied. The Principal Component Analysis extraction method was used. The extracted communalities ranged from 0.58 to 0.88. The factor analysis yielded 7 factors in all which explaining 74.84 percent of total variance.

The scree plot shows seven variables having more than 1.156 eigenvalues, but for best inferences for the research more the 1.451 eigenvalues has been considered and five factors have been formulated. First Factor (**Magnetic Factor**) Includes following variables: Information must be interesting .513, Information is frequently easy to find .637, Ease of navigating the website, Websites must require online chat features .577, Design and appearance should be attractive .516, and there must be any third-party applications that will need to be integrated .671

Second Factor (**Rapidity Factor**) Include following variables: Links and buttons should help move around information easily .806, Performance of the search function .720, Speed of response and performance must be fast .589. Third Factor Include (**Archetype Factor**) following variables: Larger number of pages is needed .675, Websit.es contain information about company, products, & services .641, and Information must easy to understand .575.Fourth Factor (**Reliability Factor**) Include following variables: Relevant information must be on the home page only .775, Must be password protected .707, It is always hard to find Information .589. Fifth Factor (**Conventional Factor)** Include following variables: Websites must be mobile friendly (responsive design) .840, Extensive Coverage of information .759, Information needed to be

comprehensive .593, There is a need for multi-language support .639, Websites must be mobile friendly (responsive design) .516.

A comparative analysis between fancy web searching and assigned web searching have been done. The Minimum number of visited websites is *one* and Maximum visited are *seven* and *3.9* mean websites, in case of Fancy Web Searching compare to minimum *three*, and *six* maximum and *5.67* mean websites in case of Assigned Web Searching. The Minimum Number of keyword used is *one* and Maximum is *six, and 1.71* mean keywords usedin case of Fancy Web Searching compare to minimum *one*, *seven* maximum and *2.3* mean keywords used in case of Assigned Web Searching. The Minimum Refinement of keyword is *zero* and Maximum is *three* and *.41* mean Refinement of keyword in case of Fancy Web Searching compare to minimum *zero*, *five* maximum and *.47* refinement of keyword in case of Assigned Web Searching.

The Minimum depth of exploration is *one* and Maximum is *three* and *1.2* mean depth of exploration in case of Fancy Web Searching compare to minimum *one*, *four* maximum and *1.42* mean depth of exploration in case of Assigned Web Searching. The Minimum Time spent on websites *3:45* minutes and Maximum is *15* minutes and *10:47* average time spent in case of Fancy Web Searching compare to minimum *6:34* minutes, *12:23* minutes maximum, and average time spent is *9:35* in case of Assigned Web Searching.

Only 19 percent of people surf educational websites when they have leisure time compared to 23 percent people do educational work when they are assigned. Only 19 percent people are engaged in entertainment related activities when are assigned compared 44 percent people engaged in entertainment related activities when their hand are free. Only 2 percent people have surfed e-commerce websites when they were free, compared to 15 percent surfed in case of assigned task. Only 5 percent people surfed social media when they were free compared to 12 percent when they are assigned. All People are interested in news and others, almost equally.

REFERENCES

1. Adan Ortiz-Cordova, Y. Y. (2015). External to internal search: Associating searching on search engines with searching on sites. Information Processing & Management, Volume 51 Issue 5 718-736.
2. Ahuja, J. S., & Webster, J. (2001). Perceived disorientation: An examination of a new measure to assess web design effectiveness. Interacting with Computers, 14, 15–29.
3. Balwan, I. R. (2015). Web Searching Behaviour of Agricultural Students of CCS Haryana Agricultural University, Hisser. Journal of Knowledge & Communication Management, Volume 5 Issue 1 page 53-60.
4. Beaufils, A. (2000). Tools and strategies for searching in a hypermedia environment. Journal of Computer Assisted Learning, 16, 114–124.
5. Bhattacharjee, N. (2014). Web searching behavior: A case study among the library users of Silchar Medical College. International Journal of Academic Library and Information Science, Vol. 2(3), pp. 27-35. doi:10.14662/IJALIS2014.010
6. Bilal, D. (2000). Children's use of the Yahooligans! Web search engine. I. Cognitive, Physical and affective behaviors on fact-based tasks. Journal of the American Society for Information Science, 51, 646–665.
7. Bilal, D. (2001). Children's use of the Yahooligans! Web search engine. II. Cognitive, Physical and affective behaviors on fact-based tasks. Journal of the American Society for Information Science, 52, 118–137.

8. Braten, I., & Stromso, H. I. (2006). Epistemological beliefs, interest, and gender as predictors of internet-based learning activities. Computers in Human Behavior, 22, 1027–1042.
9. Dionysia Kroustallaki, T. K. (2010). Exploring students' affect and achievement goals in the context of an intervention to improve web searching skills, Computers in Human Behavior,.
10. Fu, H. (2016). Analysis of chinese-english mixed language query reformulation strategies and patterns during web searching. Proc. Assoc. Info. Sci. Tech, 53: 1–5. doi:10.1002/pra2.2016.14505301086
11. Henri, F. (1992). Computer conferencing and content analysis. In A. R. Kaye (Ed.), Collaborative learning through computer conferencing (pp. 117–136). New York: Springer.
12. Hirsh, S. (1999). Children's relevance criteria and information seeking on electronic resources. Journal of the American Society for Information Science, 50(14), 1265–1283.
13. Hofer, B. (2004). Epistemological understanding as a metacognitive process: Thinking aloud during online searching. Educational Psychologist, 39(1), 43–55.
14. Houen S., D. S. (2017). Web Searching as a Context to Build on Young Children's Displayed Knowledge. In: Bateman A., Church A. (eds) Children's Knowledge-in- Interaction. . Singapore: Springer.
15. Ioannis Charalampopoulos, P. T. (2017). Human Thermal Conditions and North Europeans' Web Searching Behavior (Google Trends) on Mediterranean Touristic Destinations. Urban Sci., 1(1),8.
16. Lee, S. Y.-T.- J. (2016). Volume: 42 issue: 1, page(s): 19-34. Retrieved from https://doi.org/10.1177/0165551515615841
17. Meth, R. S. (2018). A review of the reporting of web searching to identify studies for Cochrane systematic reviews Research Synthesis Methods. 9(1) 89-99.
18. Park, Y., & Kim, B. S. (2007). Web search using dynamic keyword suggestion. International Journal of Computers and Applications, 29(1),1365–1708.
19. Shenton, A. K., & Dixon, P. (2004). Issues arising from youngsters' information-seeking behavior. Library and Information Science Research, 26, 177–200.
20. Slone, D. J. (2003). Internet search approaches: The influence of age, search goals, and experience. Library and Information Science Research, 25, 403–418.
21. Spink, A. W. (2001). Searching the Web: The public and their queries. Journal of the American Society for Information Science and Technology, Vol 52, Issue 3235-246.
22. Tsai, C.-C., & Chuang, S. C. (2005). The correlation between epistemological beliefs and preferences toward internet-based learning environments. British Journal of Educational Technology, 36(1), 97–100.
23. Weideman, M., & Strumpfer, C. (2004). The effect of search engine keyword choice and demographic features on internet searching success. Information Technology and Libraries, 23(2), 58–66.
24. Weyer, S. K. (1982). The design of a dynamic book for information search. International Journal of Man–Machine Studies, 17, 87–107.

15

Will the Emergence of Cashless Economy Transforms India?

*Shilpa Rajagopal**

ABSTRACT

Government of India [GOI] initiated Digital India programme as a flagship programme with eyesight to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is considered to be one of blatant role of Digital India. By framing a participative, transparent and responsive system in economy, distinctive day to day functions like online registration, fixing appointment in hospital, electronic fund transfer, using of digital signature for confidential work becomes accessible and simple as this functions are said to be the backbone of an economy and digital innovation in all these services make these function convenient and quick. As India is one of the youngest countries in entire world with large number of potential internet user and has anenormous potential of using digital methods. Digitalization is the one of the most dynamic and powerful method which will act as catalyst in development of Indian economy.

This research paper aims to investigate how government is taking various steps to upgrade digitalization in India. It highlights various benefitsof digitalisation in Indian economyand also focuses the initiatives to promote India on the path of digitalization. The paper also states the impact of digitalization and various challenges that are restraining India from becoming a digitalised economy.

***Keywords**: GOI, Digitalization, Indian Economy, Benefits, Initiatives, Impact, Challenges.*

Introduction

"Digital India has created a platform enabling seamless delivery of services and has transformed itself from a project to a way of life"

With the eyesight to transform India, Honourable Prime Minister, Mr. Narendra Modi laid foundation for the Programme "Digital India"; in order to digitally empower the nation and by creating a cashless, paperless economy. Only 7% to 8% of electronic payments are happening as per the prevailing status of India. Honourable Prime Minister, Mr. Narendra Modi put forwardmaking India a cashless economy on Nov 8, 2016(Bindra & Bindiya, 2017).

Don Tapscott, in his book, Digital Economy-Promise and Peril in the Age of Networked Intelligence coined the term "Digital Economy" in 1995 and anticipated that Internet would exorbitantly revolutionize the business and these digital shifts reshape the economies and societies today as well as in future also. Even this holds an accentuation to endorse innovations, technologies, able to generate efficiencies and improve services throughout the economy.

* Research Scholar, Department of Management Studies, Central University of Haryana, Haryana

Successfulmodification of digital economy improve the services and help address the policies challenges in a wide range of areas, such as health, education, agriculture, governance, tax, transports, and environment, among the others (Jha, 2018).

Digital economy is a step towards better productivity; inclusive and sustainable growth; job creation and the well-being of the people; and has the ability to alter the structure and business models of the economy so that the GDP and per capita income increases, and the lifestyle of people can be improved. There isa vast opening in this area and Indian economy is growing at a fast pace as it is ranked among fast-developing economies in the world (K., 2017).

The digitaleconomy endeavours a timely, essential synthesis that interconnects the various aspectsof the digital or cyber economy from the real firm's context. It is based on the commoditization of fast, cheap computing and data storage; the supremacy of standardized software platforms enabled with digital [Internet] interconnectivity; setting up of a worldwide, integrated, digital network. The digital economy is Information and Communications Technology (ICT)enabled worldwide network ofeconomic activities (Jha, 2018).

The aim is to provide the citizens of rural areas as well as the urban areas with digitally and electronically advanced means through network devices and services. It is designed to ensure that theservicesthrough electronic means, provided by the government are accessible even to the poor people, so that, rendering of services can be fastened along with the improving of quality of life of the entire society. Various steps are adopted to improve the country's digital infrastructure and to increase thenetwork devices access through increased band width and advanced digital technologies. In order to increase the digital literacy of the population to become capable of operating digital gadgets and equipment, initiatives are also being taken. Facilities provided under this programme are, digital locker, e-mandi, e-education, e-hospitals, e-banking,e-government, e-sign, etc (K., 2017).

Digitalisation

For transforming Indian economy into a total digital economy, GOI initiated a programme called Digital India on **2nd July 2015**by which each and every Indian citizen can have an undisguisedcontact as well as they will be getting required services of different government and non-government department. Digitalisation results in shortening paperwork, communication and knowledge gap between rural and urban India. There are nine pillars for Indian Digital programme and they are Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance Reforming Government through Technology, e-Kranti Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes (Monisha, Budhiraja, & Kaur, 2017).

There areextensive openings in the digital sector; thereby increased the jobs opportunities,outlook of entire cities got changed economically as well as globally, produced innovationand innovative technologies. By adopting digital payments across the sectors in a cashless economy, it has forewarned anumber of challenges. CompetitionLaw Bar Association and CompetitionCommission of India initiated a conference short while ago andmanifested that there exist a critical role in encouraginginnovation and technologiesin digital economy. Due to the low barriers to entry and high levels of innovations in the 21st century, the top companiesof an industry have to workeven harder in this area to keep customers whohas the mind set tochanges their fidelity to abetter and cheaper competitor (Jha, 2018).

The effectivenessof digitalization throws lighton simplifyingbusiness processes; by managing the document; locking up of data; continuous accessibilityconstitutesprovision for Disaster Recovery Solutions, Local Area Network (LAN) and Wide Area Network (WAN); by minimizing the storage ofpaper; to get rid of manual searches for consuming time; by strengthening availability of information; by augmenting the security of information; by reducing storage costs; boostingcustomer service; providing access to internet for public; easy mobile connectivity access; computer knowledge; displacement from labour intensive to capital intensive and knowledge management (Sharma & Dubey, 2017)

The Best Five Cashless Payment Options in India are E-Wallets; UPI [Unified Payments Interface]; Plastic Money; Net Banking; Aadhaar Card (Gaur & Padiya, 2017).

For making India cashless, Payment Banks; Electronic Fund Transfer Systems; Mobile Wallets; Internet Banking; Banking Cards; Banks Pre-Paid Cards; Point of Sale; Mobile Bankingare the various modes available in form of digital transactions which are being actively used by people in India (Bindra & Bindiya, 2017).

Objectives

- To focus on how government is taking various steps to upgrade digitalization in India.
- To highlight various benefits of digitalisation in Indian economy
- To know about the initiatives to promote India on the path of digitalization.
- To study the impact of digitalization
- To examine various challenges that is restraining India from becoming a digitalised economy.

Research Methodology

The research methodology used in this paper is exploratory, qualitative and descriptive in nature. Secondary data is gathered for specific types of information and to gain an in-depth understanding about topic "Will the emergence of Cashless Economy transforms India?" Data is collected from the secondary sources such as journals and articles

Digital Innovation

Bank accounts and digital means of transaction are the aforementioned financial framework gained momentousness in the post-demonetisation scenario. Reason is because of the latterly driven cashlessness made people to imperatively deposit old 500- and 1000-rupee notes to the bank or post office accounts. This paves way for transacting through advanced means such as digital wallets and credit-card transactions. Instruments already developed for financial inclusion is said to be insignificant during the aforesaid time and in order to expedite poor people's transition into the system, a set of tools developed for anti-poverty programmes. Informal street sellers who are not used with such instruments faced obstacles and the sudden pressure to become familiar and faced many businesses at risk of closure. Those tools are biometric identification, area of bank accounts and mobile transactions(MASIERO, 2017).

Pradhan Mantri Jan Dhan Yojana(Jan Dhan) is a financial inclusion scheme initiated by the GOI aims at endorsing low-income earners to open zero-balance bank accounts in the area of bank accounts. Unique Identity Project or Aadhaar eventuated in 2009 for biometric identification

by an authority called the Unique Identification Authority of India (UIDAI) is an autonomous and free scheme that provides a 12-digit identification number and nails biometric details to all those listed. India is considered to be the biggest system in the world on biometric identification. It aims at revolutionizing access to the public sector, by alternating a superabundance of documents(MASIERO, 2017)

Now the bank accounts are linked with mobile numbers and most of the financial institutions endorse mobile banking.For the last few years, mobile services have rooted in the financial system. An innovation called digital wallets is a device for making transactions like receiving and disbursing money through the mobile phones. It requires a mobile phone device equipped with Internet and flow of money happens only after by downloading an app and transactions can be managed by text message or by capturing QR code. JAM trinity (Jan Dhan, Aadhaar, mobile phones) is an anti-poverty strategy intended to endure social benefits for the poor and was already existed back when demonetisation. It is to transform cashlessness economy to digital economy(MASIERO, 2017).

Mobile internet; cloud technology; automation of knowledge work; digital payments and verifiable digital identity are the technologies for digitalizing work and life. Internet of things; Intelligent Transportation and Distribution; Advanced Geographic Information System [GIS] and Next generation genomics are the technologies for Smart physical systems. The technologies for rethinking energy are Advanced Oil and Gas Exploration and Recovery; renewable energy and advanced energy storage (Kaul, 2015).

Various Steps Taken By RBI and Government to Discourage Use of Cash

Mobile wallet facilitates the users to immediately send money, pay bill, and recharge mobiles, book movie tickets, and send physical and e-gifts through online and offline. Various incentives offered by GOI and RBI to promote digitalization in India are Service Tax of 15% waived off on digital transactions up to rupees 2000; a discount of 0.75% for purchasing fuel through credit cards, mobile wallets or e-wallets digitally; free accident insurance will be provided to online ticket buyers worth rupees 10 lakh; a discount of8% is offeredif purchasing of new LIC policies online via its site; GOI initiated UPI(Unified Payment Interface) for transferring money through mobile between account holders of two different banks; GOI initiated BHIM (Bharat Interface for Money) app to transact between each other, Aadhar Enabled Payment Systems by which traditional banks are moving towards e-wallet services on mobiles; Microsoft opened Cyber Security Engagement Centre (CSEC) in India which evaluates how viruses spreads, cyber-attacks originates in addition to GOI or RBI because of increasing trend of cashless or digital transactions and helps customers to tap pool of security specialists (Bindra & Bindiya, 2017).

Measures to be taken for stepping towards Cashless India

Basic cyber hygiene must be taken care of such as:

- Non-sharing of passwords with others, non-saving of passwords on public networks and better access to control techniques with strong authentication measures should be implemented by mobile e-wallet companies
- Assure Open Bank accounts operationalized
- Government fees on credit card transactions should be abolished
- Interchange fee on card transactions should be reduced

- Rise in ATM withdrawals taxes
- Consumers and merchants who adopts electronic payments should be given tax rebates
- Scale up POS machine's capability
- In order to minimize cybercrimes and augmenting people's trust in electronic payment system, make sure that the Electronic payment infrastructure is safe and secure (Bindra & Bindiya, 2017).

Initiatives to Promote India on the Path of Digitalization

Digitalization is a transformation in terms of all the sectors. GOI underwent certain initiatives for promoting Digitalization in India. They are;

- ***Digital Villages:*** In order to broaden internet connectivity with rural areas, high speed internet will be catered to atmostGram Panchayat level. Bharat net and National Optic Fibre Network(NOFN) are the programme for accomplishing those objective(Monisha, Budhiraja, & Kaur, 2017).
- ***E-Governance Projects:*** E-passport, Registration of land online, "Bhumi in Karnataka", quota cards and food delivery service are the distinct e-governance projects currently exist in India. Digitalization includes land registration; online access in colleges; industrial tax department; driving licence renewal; documentation for vehicle registration and handling the files of intra-department at the state secretariat. Digital Locker system, my gov.in app, e sign app, SwacchBharat mission mobile app, Portal for national scholarship, e-hospital app, digitize, Bharat net, Fund for electronic development, Centre of Excellence on internet of things (IOT) are the projects for promoting Digitization(Monisha, Budhiraja, & Kaur, 2017)
- ***Geographical Information System:*** In 2015, GOI initiated a programme in order to promote online payments for government services. It includes generation of Operating system which focuses on sustaining TEXT to SPEECH technique for nine diverse languages (Monisha, Budhiraja, & Kaur, 2017).
- ***New Data Centre:*** New Data Centre for National Informatics Centre (NIC) was initiated by GOI in Odisha for commencing Software Technology parks (Monisha, Budhiraja, & Kaur, 2017).
- ***Rise of ICT:*** GOI initiated a programme called National Informatics Centre for accessing different digital documents and information through a portal and initiated another programme called Central Secretariat Library Mission for transforming printed material into digital readable document (Monisha, Budhiraja, & Kaur, 2017)

Benefits of Digitalisation in Indian Economy

Going cashless has positive impact on society. Restricting the black money generation; downsizing tax avoidance instances; shrinking in real estate prices; Boosts consumption among people which results in more production, employment opportunities therebyrising income of people are the distinct benefits for going cashless (Bindra & Bindiya, 2017).

The digitalisation revolutionresults in catering their services through common delivery outlets; inclusive growth in all sectors of India; high transparency; E-Governance on all sectors, downsizing corruption and quick and accurate management of things; Digital locker facility

helps the people to digitally store their essential documents and results in ecological betterment by reducing the paperwork; assistance during time of demonetisation; strengthening large scale business and small scale business; growth in GDP; rise in job opportunities and downsized the gap between rural and urban India (Monisha, Budhiraja, & Kaur, 2017)

Reduced fraud, improveoperational efficiency, more transparency, mitigate physical cash transactions/ reduce cost are the benefits of Digitalization (Agrawal & Sen, 2017)

Objectives of being digital is to bring transparency; to control corruption; to ensure promptness/quick results; to increase efficiency; to bring effectiveness; to promote-commerce; to make India a cashless society; To accelerate industrialization; To promote economic growth and development; Reduce paper work; To develop the banking sector; To integrate the world economy; to promote online teaching and learningto inculcate quality education like National Programme on technologyenhanced learning (NPTEL), Consortium for Educational Communication(CEC) etc.; To eliminate tax avoidance; To modernize the higher education system (Sharma & Dubey, 2017)

Cost Effective to Banks; Low Time Consumption; Safe and Secure; Up-gradation of Technology; Control of Black Money and Check for Anti-money Laundry enhances the proper economic growth are the advantages of being cashless (Gaur & Padiya, 2017).

Key Projects Framed Under Digital India Programme

Digital India comprises of various initiatives under the single programme. They are Highways to have broadband services; Easy access to mobile connectivity; IT Training for Jobs; Manufacturing of electronics; Provide public access to the internet; E-Governance; E-Kranti; Global Information; MyGov.in; Early harvest programs (K., 2017).

Digital Locker System; Swachh Bharat Mission Mobile Application; eHospital; Bharat Net; Electronics Development Fund; National Scholarship Portal; Universal Mobile admittance; Ekranti; Electronics Manufacturing; Information for All (Monisha, Budhiraja, & Kaur, 2017).

Impact of Digitalization

Digital technologies are indispensible for modernizing the future economies. Business as well as the financial analysts'pointed out that digital economy is not only conceptual but it has some impact on societies. Also emphasised, there isnarrow acceptance to the technologies whichenables the digital economy. Some points out digitization and mechanization replace workers and the job opportunities. There is an inconsistency between the rapid growth in technologies and the gradual growth in organisation and skills which will results in enhancement of artificial intelligence, robotics, networks and analytics. The major challenge will be initiating an effective organisation for digital economy in the coming future (Jha, 2018).

By 2019, Cross cutting, ranging from broadband connectivity in all Panchayats, Wi-Fi in schools and universities and Public Wi-Fi hotspots will be the likely impact of Digital India. Job opportunities in IT sector of India will get increased rapidly. There by India will be Digitally empowered country as well as a master in the usage of IT in different fields. Universal digital literacy and availability of digital resources/services in Indian languages is emphasised by Digital empowerment. In order to implement this, GOI plans to re-establish National Informatics Centre (NIC) to support all central government departments and state governments (K., 2017).

A. ***Economic impact:*** Digital India plays a major part in macro-economic factors such as growth in GDP, generating employment, labor productivity, growth in a number of businesses and leakages of revenue for the Government. India is the world's 2nd largest telecom market [915 million wireless subscribers] as well as the world's 3rd largest Internet market [259 million broadband users]. There is huge economic optionas number of telephone connections for every hundred individuals living in a rural area is just 45% but the population of same is estimated to be more than 65%. The expectation about the growth of telecommunication industry is much more in the coming future (K., 2017).

During the initial stages in the process of Digitalization, expenses bared for creating, preserving and distributing digital information is high which results in reduction of production costs when compared with foremost form of information distribution system. They are:

- Reduction in the marginal cost of issuing and keeping many copies of a document
- Cost for buying online information results in retaining total expenditure
- Firms get benefit when library hours got reduced and minimal time for work force to do labour intensive task;
- In order to execute an open access model, WWW supports organization
- Other impact of digitization includes proven effect on reduction in unemployment, standard of living will get enhanced, access to public facilities, higher efficiency & clarity by GOI results in development of economy (Monisha, Budhiraja, Kaur, 2017).

B. ***Social impact:*** Social sectors are incapable to influence the people and these results in the cumbersome growth and gap between the rural and urban India. By the introduction of ICT brought about tremendous aftermath on social modernization. m-Education services provides an access to physical infrastructure in rural and remote areas. Digital India enablesthe users to study through smart and virtual classrooms, online educational platforms like Massive Open Online Courses (MOOCs). It boosts the country's financial inclusion through mobile and internet banking. Tele-medicine aids in rise of infant mortality rate, growing life expectancy, fewer quality physicians. M-health boosts innovation and extension of healthcare services. Digital platforms even helps farmer to know about the choice of crop, varieties of seed, weather, best practices for cultivation, market prices, market demand etc. (K., 2017), (Monisha, Budhiraja, & Kaur, 2017).

C. ***Environmental impact:*** Extensive changes in the technology will have an impact on economic system as well as environment. The next generation technologies will assist in efficient management and consumption of scarce and non-renewable resources, waste management, lessening the carbon footprint by shortening consumption of fuel, greener workplaces and thereby results in a greener ecosystem,. Cloud computing technology minimizes carbon emissions by improving mobility and flexibility. carbon emissions can be minimized due to Cloud computing technology which results in enhancing the mobility and flexibility (K., 2017)

The advantages to economy in ecological terms are saving substantial paper, organizational level initiated campaigns for saving the environment by reusing water cups & going paperless; resources have been used in a prudent way by the people; able to get the past documents through online digital solution portal within seconds; employees are not enforced to go to work places thereby reduces pollution by reduced fuel usage(Monisha, Budhiraja, & Kaur, 2017).

Negative Impact of going Cashless

By transforming into Digital India, there exist some negative effects. Increase in Cyber Crimes; Increased chances of trapping; Frauds through digital transactions are considered to be the negative effects of going cashless with reference to India (Bindra & Bindiya, 2017)

Challenges

Cashless Ecomony has certain challenges also. Women employees found difficult to find the balance between their work and personal lives. Technology won't reduce stress levels. So that make sure that the advantages are not overshadowed by increased stress levels. The work forces in the organisation are accountable to set bounds and discourage this cultural development among team (Bagrecha & Acharya, 2016).

According to (Jha, 2018), Unauthorized access, use of corporateand personal information and lackof secrecy are the challenges of Digitalisation.

Non-existence of infrastructure and required technology; Dearth of education; Financial issues and technical issues like appropriate bandwidth, firewalls, filters, anti-virus software's, protection from hackers,buffering;Attitude ofcitizens as well as government ; Cyber-crimes and Lack of confidence; High costs andTraining needs are found to be the certain challenges of Digitalization (K., 2017).

Bank accounts found to be dysfunctional through Jan DhanYojana; Digital mode is difficult for tech-unfriendly people;Low literacy rates; Lack of infrastructure; Poor to low speed of Internet; Inefficient resources to capitalize electronic payment infrastructure; Service charges for cards; Unaware of the benefits of credit cards by the non-users are the obstacles in making India a cashless economy (Bindra & Bindiya, 2017).

According to (Monisha, Budhiraja, & Kaur, 2017), High level Digital Illiteracy; Technology & Language; Cyber security;Connectivity in Remotes Areas;Constraints in Budget are the challenges faced due to Digitalisation.

Practice of using cash; Difficulty of using Internet; Fraud and hidden charges; Lack of human interaction; Less Introduction of Smartphone in rural area; Sufficient internet speed and Scared of privacy and security are the key barriers of Digital payment (Nirala & Pandey, 2017).

Conclusion

"People who change after change will survive

People who change with change will succeed

People who cause the change will lead" —***Narendra Modi, Prime Minister of India***

Honourable Prime Minister's quote depicts the determination to revolutionize the entire economic structure to make India cashless. The future of the India is promising due to the implementation of Digitalization. This will increase transparency in the economy; GDP growth; the creditability of the country and investments (Bindra & Bindiya, 2017), (Baskaran, 2017), (Bergenwall, 2016). The programme enables transforming of India into a digitally empowered society and knowledge economy. Successful implementation of this programme leads to wealthy and prosperous India.

REFERENCES

1. Agrawal, P., & Sen, S. (2017). DIGITAL ECONOMY AND MICROFINANCE. *PARIDNYA – The MIBM Research Journal*.
2. Bagrecha, C., & Acharya, S. (2016). Digital Revolution- An Elixir Forwomen Professionals. *Research in Digital Revolution and New India*, 107-112.
3. Baskaran, S. A. (2017). Digital money - "An emerging payment system in India". *Int. Journal of Management and Development Studies* , 26-39.
4. Bergenwall, S. (2016). Assessing India's Rise and the Road Ahead. *Strategic Analysis*.
5. Bindra, R., & Bindiya. (2017). GOING CASHLESS: STEPPING TOWARDS DIGITAL INDIA.
6. Gaur, A. D., & Padiya, J. (2017). From Demonetisation to Digitization of Indian Economy: The Road Ahead. *Proceedings of International Conference on Strategies in Volatile and Uncertain Environment for Emerging Markets*, 598-607.
7. Jha, V. N. (2018). GROWTH OF DIGITAL ECONOMY: A CHALLENGE FOR COMPETITION REGULATORS. *Niti Samvaad*.
8. K., M. (2017). Digital India Programme and Impact of Digitalization in Improving Quality of Life of Citizens. *Research in Digital Revolution and New India*.
9. Kaul, V. K. (2015). Harnessing Digital Technologies for Emowering India. *Yojana*.
10. MASIERO, S. (2017). New routes to cashlessness? ICTs, demonetisation, and the Indian informal economy. *Loughborough University*.
11. Monisha, Budhiraja, K., & Kaur, J. (2017). DIGITALISATION IN INDIAN ECONOMY. *BMIET Journal of Science, Technology and Management*.
12. Nirala, C., & Pandey, B. (2017). Role of E-Banking services towards Digital India. *International Journal of Commerce and Management Research*.
13. Sharma, M., & Dubey, T. (2017). DIGITIAL INDIA AND A CONTEMPORARY ECONOMY PORTRAY: A REVOLUTIONARY STEP. *International Education & Research Journal [IERJ]*, 488-490.

16

The Analytical Study of Digital Education with Comparison between Traditional and E-Education

*Dr. Fatemeh Rajabi**

ABSTRACT

Traditionally education is not mere schooling or instruction imposed by the elders on the younger ones. It is equivalent to the development of character or personality by means of the social life of education institutions. The social life includes all kinds of out-of-class activities. Man acquires experience throughout his life. This acquisition of experience is education. This process of acquiring experience is a social process and it is related to and influenced by social factors. Education is thus a social process and its function is not only to preserve the social heritage but also to enrich it. Learning is the result of social interaction and social motivation. Education helps to develop this social self so that an individual may become an effective and useful member of the society. Education is a process of directed learning.

Advances in digital technology have opened up many avenues of learning. Technology has made information accessible from anywhere and by / to all groups of people. Education has reached most parts of the world and "information and communication in technology" has become an integral part of human life.

The purpose of this paper is to identify implications for future investment in the use of digital technology for learning. Digital technologies are now embedded in our society. Focus has shifted from whether or not to use them in teaching and learning, to understanding which technologies can be used for what specific educational purposes and then to investigate how technology is used to access and apply such knowledge. The paper relates how these technologies have been used in education and its impact in general.

Key words: *Digital Education, Traditional Education, Digital technology, Explicit knowledge, Information Communication in Technology.*

Introduction

Traditional Education

Generally speaking, 'Education' is utilized in three senses: Knowledge, Subject and a Process. When a person achieves degree up to certain level we do not call it education .As for example if a person has secured Masters degree then we utilize education it a very narrower sense and call that the person has achieved education up to Masters Level. In the second sense, education is utilized in a sense of discipline. As for example if a person had taken education as a paper or as a discipline during his study in any institution then we utilize education as a

* Lecturer, International Chabahar University Sistan and Baluchestan

subject. In the third sense, education is utilized as a process. In fact when we talk of education, we talk in the third sense i.e. education as a process. Thus, we talk what is education as a process? What are their importances etc.? The following debate on education will discuss education in this sense and we will talk education as a process.

In English the term "Education" has been derived from two Latin words Educare (Educere) and Educatum. "Educare" means to train or mould. It again means to bring up or to lead out or to draw out, propulsion from inward to outward. The term "Educatum" denotes the act of teaching. It throws light on the principles and practice of teaching. The term Educare or Educere mainly indicates development of the latent faculties of the child. But child does not know these possibilities. It is the educator or the teacher who can know these and take appropriate methods to develop those powers. Thus, education may be defined as a purposive, conscious or unconscious, psychological, sociological, scientific and philosophical process, which brings about the development of the individual to the fullest extent and also the maximum development of society in such a way that both enjoy maximum happiness and prosperity. In Short, education is the development of individual according to his needs and demands of society, of which he is an integral part.

Traditional education system means the earliest and ancient system which was developed on how to get education and how to impart education system to other. Traditional education system consist of one way communication system by the gurus to the students, which consist of imparting education to the student in best possible way. In this student require to attend the classes in person and on the campus. It makes sense if you decide to live in the dorms or are an incoming freshman who wants of real college experience. There are certainly more opportunities to join clubs, association or fraternities/sororities while taking classes on campus. It may be a better choice for those students who are not very savvy with technology or want to enjoy interacting with teacher and professor face to face.

Traditional education is defined as teacher-centered delivery of instruction to classes of students who are the receivers of information. Traditional schools generally stress basic educational practices and expect mastery of academic learning in the core subjects of math, reading, writing, science and social studies. Public schools generally follow this educational model, although charter schools can offer a more flexible educational approach. Other alternatives to the traditional public school include independent schools that operate outside the public school jurisdiction, religious schools, home school and online learning. Since many factors come into play when choosing a school, it's wise to look not only at the educational program, but also at social atmosphere and availability of support services.

Digital Teaching and Learning

Today's we all lives in a 21st century, everything changed very rapidly and continuously for the betterment of future, new technology is simply a modified version and a technique to overcomes the drawbacks of previous one, that's proves very beneficial for all. In the era of globalization, traditional education system is losing its relevance. Role and importance of digital education in areas like commerce, management, information technology etc. is increasing day by day.

The role of technology in education has been an important question since the potential of computer technology to transform Skinner's teaching machines was recognized in the 1960s. It

remains an important issue today with debates about the impact of technology on our society, the implications of quick and easy online access to information for knowledge and learning and the effect of technology on young people's social, emotional and physical development frequently in the news. It is therefore important to take stock of what we know about the impact of digital technology on education from what we have learned over the last fifty years.

Digital education is a new education concept by using the internet technology. It deliveries the digital content, provides a learnt orient environment for the teacher and students. It promotes the constructions of lifelong learning opinions and Learning society. One vast land needs to embrace internet and technology if it has to reach all of its huge population the majority of which is located in remote village. Today the whole world moving towards

information based world and society after all information is knowledge and knowledge is wisdom. Digital education also refers "Digital learning" or "Distance Education" involves taking course over the internal as opposed to in the classroom. Its popularity due to its flexibility and convenience that an online experience provides. It allows student to work at their own pace without the confines of a strict class schedule. The main aim of the education is the elevate the scope, purpose for computer education in rural area. Not only for student, many public and private sector organization also provided their training programme through electronic medium. Basically this is useful for the people namely student, rural resident, farmer, worker and other.

The Important Role of Education

Digital education can occur in or out of the classroom, it can be self paced, or may be instructor-led it suited to distance learning and flexible learning but it can also be used in conjunction with face to face teaching, in which ease the term blended learning is commonly used. Barnard a pioneer of E- education, advocate that the "E" should be interpreted to mean "exciting, energetic, enthusiastic, emotional, extended, excellent and education in addition to electronic. Parks suggested that the "e" should refer to "everything, everyone, engaging, easy. In East Information Communication Technology is one of the rapid development technological fields in the global society. But there is no doubt in the near future's development will based on ICT's however benefits of ICTs are not reached expected level in the rural areas.

For the overcome these problem both central and state govt. and non- governmental organizations are allocating huge amount for the development of ICTs and rural education. Online education in East has picked up rapidly growth. Due to the challenges of the current education system, there is growing realization that problems like delivery, assessment and general consumption of information can be addressed by leveraging technology. At present digital education include numerous types of media that deliver text, audio, image, animation and streaming video and includes technology applications and processes such as audio or video type, satellite TV, CD ROM, and computer based learning as well as local internet/extranet and web based learning. To tackle this popular demand, online education is emerging as one of the preferred modes of education among students and working professionals considering its ease of access, affordability as well as industry relevance.

The reason behind pursuing education through an online medium is different for each one, some do it to up still themselves with other do it to gain accreditation from renowned universities worldwide in order to built better qualification from the convenience of their home. It is also a more cost effective and faster from of learning.

Global Perspective of Digital Education System

Process of Digital Education System

Digital learning refers to the use of technology in learning and education. The communication conducted in e education systems directly affects the educational results and the participant's satisfaction. There are several aspects to describing the intellectual and technical development of digital education which can be categorized into discrete areas.

Digital education as a technological medium that assist in the communication of knowledge, and its development and exchange digital learning itself as an educational subject, such courses may be called "computer studies" or ICT (information and communication technology). It is more successful in comparison of traditional education while other causes difficulties both for the instructor and for the participants. Let us first understand the characteristic of face to face communication during the tradition education. Internet is a medium in which problems related to the communication channel often appear. While online programs have significant strengths and offer unprecedented accessibility to quality education, there are weaknesses inherent in the use of this medium that can pose potential threats to the success of any online program. These problems fall into six main categories:

- The technology
- The student
- The facilitator
- The administration and faculty
- The online environment
- The curriculum

Confinements of Technology

User friendly and reliable technology is critical to a successful online program. However, even the most sophisticated technology is not 100% reliable. Unfortunately, it is not a question of if the equipment used in an online program will fail, but when. When everything is running smoothly, technology is intended to be low profile and is used as a tool in the learning process. However, breakdowns can occur at any point along the system, for example, the server which hosts the program could crash and cut all participants off from the class; a participant may access the class through a networked computer which could go down; individual Personal Computers can have numerous problems which could limit student's access; finally, the Internet connection could fail, or the institution hosting the connection could become bogged down with users and either slow down, or fail all together. In situations like these, the technology is neither seamless nor reliable and it can detract from the learning experience.

The Learners

While an online method of education can be a highly effective alternative medium of education for the mature, self-disciplined student, it is an inappropriate learning environment for more dependent learners. Online asynchronous education gives students control over their learning experience, and allows for flexibility of study schedules for nontraditional students; however, this places a greater responsibility on the student. In order to successfully participate

in an online program, student must be well organized, self-motivated, and possess a high degree of time management skills in order to keep up with the pace of the course. For these reasons, online education is not appropriate for younger learners and other students who are dependent learners and have difficulty assuming responsibilities required by the online paradigm.

The Facilitator of Learning

Lack of Essential Online Qualities

Successful on-ground instruction does not always translate to successful online instruction. If facilitators are not properly trained in online delivery and methodologies, the success of the online program will be compromised. An instructor must be able to communicate well in writing and in the language in which the course is offered. An online program will be weakened if its facilitators are not adequately prepared to function in the Virtual Classroom. An online instructor must be able to compensate for lack of physical presence by creating a supportive environment in the Virtual Classroom where all students feel comfortable participating and especially where students know that their instructor is accessible. Failure to do this can alienate the class both from each other and from the instructor. However, even if a virtual professor is competent enough to create a comfortable virtual environment in which the class can operate, still the lack of physical presence at an institution can be a limitation for an online program. For the faculty as well as the participants, such things as being left out of meetings and other events that require on-site interaction could present a limiting factor in an online program.

The Organization and Faculty

Some environments are disruptive to the successful implementation of an online program. Directors and/or faculty members who are uncomfortable with change and working with technology or feel that online programs cannot offer quality education often inhibit the process of implementation. These people represent a considerable weakness in an online program because they can inhibit its success. Sometimes administration cannot see beyond the bottom line and look at online programs only as ways to increase revenues and are thus not committed to seeing online programs as a means of providing quality education to people who would otherwise not be able to access it. In such a case, an institution that is not aware of the importance of proper facilitator training, essential facilitator characteristics, and limitations of class size would not understand the impact that these elements can have on the success of an online program.

The Online Circumference

Levels of Synergy

Online learning has its most promising potential in the high synergy represented by active dialog among the participants, one of the most important sources of learning in a Virtual Classroom. However, in larger classes (20 or more students), the synergy level starts to shift on the learning continuum until it eventually becomes independent study to accommodate the large class. At this point, dialog is limited as well as interaction among participants and the facilitator. The medium is not being used to its greatest potential.

4. Digital Education Global Perspective

Digital education is a new concept and as with other innovations it will meet with resistance. The following strategies might be considering by those involves with e education. 24 Hours a Day, 7 Days a Week Accesses: The internet and the online mode operate 24/7. Ensuring anywhere, anytime connectivity. Student can learn at their convenient time. Whatever they are, they just need a device and internet connectivity to study and learn.

1. ***Global Pool of Knowledge:*** The Information Communication Technology overrides the barriers of time and geographical boundaries. There is world wide connectivity to a vast pool of knowledge resources.
2. ***Social Impact's:*** Social impacts of the development the values of upgrading skill and knowledge through Digital education.
3. ***Technology:*** Props for the Disabled: The mass reach initiative of distance learning has gone a step further, with technology props being implemented in online learning systems for the visuals/hearing impaired/physical disabled.
4. ***Offline Study:*** Video lectures, seminars relating to academic and non-academic can be made available to students, in ready and easy downloadable formats, thanks to the compatible versions of software, which have been put in place for the same. Those who are not able or cannot schedule to their convenience to watch live video demos, can download them for later browsing.
5. ***Career-Progress*****:** Distance learning enables studying while staying on job. Working professionals eager for skills-upgrade, for better designation and career growth can enroll for distance education programs. The online platform helps to strike the right balance between office, home and work priorities, as this mode of study can be used, anywhere, anytime. There is parallel growth in skills and work experience in the distance education mode of study.

Reaction to Digital Education

Government of developing countries has made educational provision available for all in a variety of people way through schools, teachers and the correspondence system. This system support rural and urban area. Many school closed because people shift to rural to urban places for their betterment education response is very good for the advancement for the developed country and underdevelopment country. We need to create awareness about digital education in undeveloped country.

Digital Education Merits

- Universal access and universal service
- Build knowledge communities by using self-learning
- Through it we can transfer knowledge speedily.
- Beneficial for upgrading skill and build knowledge.
- Quality factor included: industry relevant, comprehensive and creditable for the current job scenic.

Promotion Process of Digital Education

Remote Students: By using print based system the correspondence school has been serving needs of the isolated students. Training or e mail and chatting system or synchronous/ asynchronous methods-education will become global education that will be available to students of all age groups and genders.

Learning Support: Both government and industry should support for the rural development through funds, creating infrastructure and sponsoring / supporting students especially in rural area.

People Support: To provide education through radio and television program in rural area by using regional language. Use of video conferencing technology to raise achievement standards in rural areas. Use specific language and culture and give students greater access of knowing.

Facilitator/Professional: Accountability and quality are the important factors in the professional world for decision making. Through digital education professional can do lifelong learning. This kind of knowledge is now deliverable using CBT, and web based training methods, these students can continue to learn while physically staying/being at home or at the workplace.

Cost and Economic Factors

Standard Module: Today at introductory level it is costly but if we develop standard module, which will serve the need of the rural area at very large scale then it will become cheaper.

Infrastructural Costs: cost of cables, networks and other transmission systems.

Package Cost: purchase, upgrade, licensing and compliance costs.

Peripherals Costs: such as computers, scanners, web camera, multimedia kit, modems and printers.

There are Several Reasons that Justify the Development of Online Educational System for a University Course, Seminar or Corporate Training

- It is easier for a large number of participants to successfully and more completely acquire instructional content.
- The need to improve the way instruction is performed and increases the satisfaction of the participants.
- Decreased expenses and waste of time of the students for travelling to the class venue.
- Better impression of the teacher/instructor and the institution which organized the instruction.
- Available financial resources which makes the time and effort financially worthwhile.
- The obligation of an instructor/teacher and /or the institution to perform a certain module online.
- A chance to master new educational technologies and join the contemporary trends.

Apart from Benefits, There are Several Unfavorable Factors When Developing Digital Education System for a Course or a Class

- Problems related to copyright for the content of the courses and visual illustrations;
- The need for technical support by other people and/or mastering internet technologies;
- The possibility that, after great initial investments, a course becomes redundant;

- The need to maintain and innovate due to the appearance of new technologies in distance education;
- Possible apparition of similar competitive and better quality online educational programs by other authors.

Consideration of Similarities/ Dissimilarities

Conventional and Digital Education

Online education is also known as distance learning and consists of taking classes via the internet. More and more students take online classes because of the flexibility and convenience it provides. You can attend class sessions from the comfort of your home and complete assignments at almost any time of the day. Online classes are great for individuals

who have a demanding work schedule and family responsibilities. In addition, online classes are more cost efficient because they doesn't require any commuting, allowing you to save on gas and the wear and tear of your vehicle. Online courses are also great for individuals in the military or who travel frequently.

The distance learning format allows students to pursue education through an out-of-state school without having to transfer residence. However, there are some clear cons to online education, including

- Limited direct contact with colleagues and professors
- Fewer opportunities to join on campus clubs and extracurricular activities

Difference 1: Online Learning can Include Both Synchronous and Asynchronous Activities, with an Emphasis on the Latter

"Synchronous" activities are those that take place at a scheduled time and place, such as in a classroom or, with an online course, in a live web conference or chat room. "Asynchronous" activities are those for which the student determines the time and place to complete work, which is an advantage for people like parents and working students who need a flexible schedule in order to pursue their education. Traditional classrooms also incorporate asynchronous activities ever heard of homework? But online classrooms tend to rely more heavily on the asynchronous completion of assignments.

Difference 2: Because of its Asynchronous Nature, Online Learning Requires more Self-Direction and Discipline

Online learning is best suited to the highly motivated student who is willing to take the full responsibility for his or her own learning. Given how easy it is to ignore coursework in favor of social events, trashy TV marathons, and all the other distractions that life has to offer, online learners must be particularly diligent with time management. You must gauge how much time it takes to complete assignments and organize your personal schedule accordingly which is easier said than done. The advantage is that you have the flexibility to work at your own pace and schedule.

Difference 3: Reading is Paramount in Online Learning

This is a simple but overlooked truth: In an online course, up to 100% of your classroom materials will consist of assigned reading (with the occasional multimedia presentation). This is not the case in traditional classroom settings, which rely more heavily on lectures and face-to-face interaction. If you struggle to get through reading-based learning, you may struggle in an online classroom.

Difference 4: Online Feedback can be Slower than Face-to-Face Feedback

As noted above, online education heavily relies on written material; if you get stuck on something, your professor and peers won't necessarily be readily available to provide feedback on the spot, though effective professors will make themselves available through a variety of methods, including online office hours. On the flipside, if you prefer to take your time to develop responses to course material and peers' comments, you may prefer this lag time in the learning process.

Difference 5: Writing Skills are Paramount in Online Learning

In a traditional classroom setting, writing skills represent just one of the tools you use to communicate; while important, writing usually complements other forms of communication and assessment, notably in-person dialogue and presentations. If you're not a solid writer, you can usually compensate with these other forms of communication in a traditional classroom. With online learning, the bulk of assignments and class communication is written and via email or instant messaging, so solid writing skills are essential for success. This is true not only for written assignments, but also for interacting with fellow students and your professors; if you are unable to concisely articulate what you need or don't understand, you will waste time over miscommunications and ambiguities.

Difference 6: Digital Literacy Makes the Difference between Hanging on by Your Fingernails and Thriving in an online Classroom

The old "dog ate my homework" excuse has been replaced with "the Internet went out" or "the program froze before I could save my 200-page report." But these excuses are just that excuses and your professors don't want to hear it. Online learning requires a higher level of digital literacy, or the ability to navigate, evaluate, and create information using a range of digital technologies, including an online course management system (i.e. the website where your lessons, assignments, and other materials are stored and made accessible to the students in the class). It doesn't mean you need to learn programming languages, but it does mean you can't balk at the emerging technologies that are being employed by online programs. In fact, the most successful online students embrace these technologies and increase their own digital IQ independent of the online classroom.

Difference 7: In Online Synchronous Debates and Discussion, the Writer is Advantaged Instead of the Talker

In a traditional classroom setting, the loudest or most forceful student often gains the advantage in discussion. But in a chat room or instant messaging forum, each student stands on equal footing, including with the professor. This can result in a more even, open discussion, but it also gives the quick, skilled writer an advantage, particularly in content areas and classes that involve debate.

Difference 8: The Professor is a Facilitator in Online Learning, Not a Dictator

In a traditional classroom setting, the professor is the indisputable leader of the learning process; they stand in the front of the room, call on people, and maintain authority over the chalkboard. In an online classroom, the professor is still the authority figure, but their role is reduced to facilitating the students' digestion of and response to the information. Less instructor supervision means more student autonomy.

Difference 9: Networking and Social Interaction Differ in the Two Settings

While traditional classroom settings offer opportunities to network with peers on your campus, online classrooms may contain students from all over the world. If you find it easier to network face-to-face, you will obviously prefer the traditional setting, but the advantages of the larger networking pool of locations and personalities will give a different atmosphere to the classroom dynamic.

Difference 10: Online Learning is an Individual Pursuit

The learning process in a traditional classroom is inevitably a group activity, but the bulk of online learning takes place individually or, depending on the online class structure and content area, in small groups. However, camaraderie can be developed in both traditional and online settings; in fact, many online learners report that they interact with their peers more through synchronous and asynchronous online class discussions than in a traditional setting. But at the end of the day, it's up to you, sitting alone in front of your computer, likely with a large mug of coffee at your side because you can take the student out of the classroom, but you certainly can't decaffeinate them.

Conclusions Traditional

To conclude we can say that traditional education system is the system which provides the education to the students in the manner that provides the overall benefit to the student. Purpose of the education is to acquire knowledge and skills and make them fruitful in life for one's own welfare and the other people. Thus traditional education is providing these all benefits to the society as whole as also it is affordable by any class of people.

Digital Education

Developed and under developed countries have started adopting digital education. Government of a developing country has taken strong steps toward digital education. The methods of delivering e education are better understood for all levels of people. It is beneficial to people who have universal access. It require large amount of investment and infrastructure facilities and prove more useful and best suited alternative for rural education and service delivery. It is necessary to identify the target communities, their characteristics in terms of attitudes towards digital education. Characteristics may span over various aspects such as social, technological, personal and community level. In a developing country the infrastructure is improving as new technologies come available but it is need to identify specific community and understand their needs.

REFERENCES

1. Darnell, F. and Higgins, A.H., (1983), Factors and Issues in Australian Rural Education: A Case for New perspectives, in Browne, R.K and Foster, L, E. Sociology of education (3rd Ed), Melbourne. MacMillan. 29.
2. Debarshi_Mukherjee, Assistant professor (IT), E Learning a Potential Solution for Rural India. 2008, IIMK, [online], http//ds pace.iimk.ac.in/bit stream/2259/425/1/RM 39.pdf.
3. History of education in India.[online] http:/www.academia.edu/1747225
4. Ishan Gupta (CEO of Edukart.com), Article/Emergence-online-education-India[online]http/ www.indiadigitalreview.com
5. Key Difference between online learning vs traditional classroom based classes/[online] htttp// www.bestonlineuniversities.com
6. Martin Gradner, online education vs. traditional Education, Education and science[online] http/ www.hubpages.com
7. Ministry of HRD, Government of India
8. Stieman, Managing director (IT), Nov 2007, ICT for development and Education, pp-16-21[online] available

   http/www.iicd.org/files/icts-for-education.pdf.
9. Rimmi et al, E Learning and its Impact on Rural Areas, IJMECS, 2012, vol 5, pp 46-52, [online]

   http//www.mecs-press.org.
10. Rogers, E.M (1995). Diffusion of Innovations (4th Ed). New York. Free press.

17

Transformation in Digital Finance Should Accompany with Reform and Compliance in India

Sanket Shekhar*

ABSTRACT

Finance is said to be a life blood of organization in a financial terms but if we point out the need of finance in our day to day life same blood is running in our body round the clock. There are mainly to type of finance one is in currency in liquid form and another is in digital form which may be seen in ATM machines, Net Banking , Mobile Wallet such as Payzapp, PAYTM, Pay pal etc which may be seen virtually and acknowledgement can be made by the SMS, emails, Mini statement etc. It has eased our life, we can avail or use our money any time due to massive growth in financial and technological infrastructure . Banks and Financial Institution now days are in a competitive race to be customer friendly in terms of providing customer with number of facilities on their finger tips. UPI, USSD , Aadhar enabled finger print transaction etc which will even solve the problem of the one of the debatable issue that we are moving toward a policy of financial inclusion through digitalization despite of the fact that mass of the population lives in rural country are semi literate or illiterate or they cannot afford mobile phones . These steps of the government are welcomed by every segment of people in the country that now the financial transaction is seems to be easy, government is also promoting these to promote to free flow of information, transparency reporting of the incomes and expenditure will be easy . Through my paper I have tried to focus on the problem that besides of this digital transformation in financial domain the country is not fully prepared for this transformation and it is very vulnerable and risk prone. There are number of avenues were the country is lagging behind. I have also suggested some probable solution through which reforms and compliance can be clinched and we can augment the transformation.

Keyword: *Digital, Finance, Transaction, Compliance, Bitcoin, Wallet, Security.*

Introduction

Finance is a basic and fundamental need of a human being, everything more or less is related to finance. Finance can also can be defined as science of money management. Finance can be broken into three different sub categories : Public Finance, Corporate Finance and personal Finance. In this paper we are mainly centric to personal finance and changing attitude toward money management due to transformation in the form of finance toward virtual or Digital currency. Financial Management is now in our fingertip, by pressing a finger we can transact, transfer our digital currency and acknowledgement can be received within a second via registered mobile number and Email ID . Due to the growth in technology stream of financial transaction

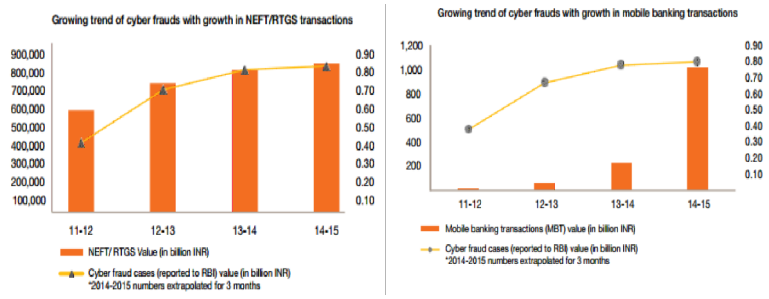
* Research Scholar, Department of Commerce, Jamia Millia Islamia, New Delhi

has been changed . Banking and Financial institutions by integrating with world class technology have made their customer life easy with optimum support of government . Government is equally concern about the cashless economy and promoting digitalization in Indian Economy to restrict the money laundering activities so that the proper reporting of Income and expenditure can be done. As more than 80 percent of the transaction remain unreported to government. People also find it is easy to transact through their cards, Net banking , Mobile wallet such as PAYTM, Mobile wallet, Mobikwik, Pay pal etc. Recent move towards the cashless economy such as USSD and Aadhar enabled payment surprised all the critics such that India is said to be rural economy, they live in rural area either they don't have smart phone or they don't know to use smart phones. As through USSD transaction can be made my simply sending a message and in Aadhar enabled payment system the person who want to transact should have a Aadhar linked Account and transaction can be done by thumb impression . It is a good move undoubtedly. Despite of all these financial blessings there are number of avenues in digital platform were we are lagging behind in terms of security threat and compliance. India is still not fully prepared for the cashless economy and vulnerable and risk prone . Sales volume for bit coin has increased on several exchanges for the digital currency according to Hindustan times. Bit coin was trading at a $20 dollar premium in India at the beginning of September and now is trading at a $70-100 premium to the USD rate but It is a matter of concern that there is no dedicated law for Bit-coin in India but it is governed by Information Technology Act 2000. RBI has miserably failed to provide a regulatory guidance regarding the financial and monetary aspect of Bit coin in India. Instead it preferred to choose the escape route and cautioned the user against use of Bit-Coin . Enforcement Directorate believes that Bit-Coin money can be used for Hawala Transaction and funding terror and security threat. Let's look at all these major challenges in detail and probable solution.

Whether its financial transactions, customer experience, marketing of new products or channel distribution, technology has become the biggest driver of change in financial service sector. Most financial institutions are thus insisting on paperless and cashless transaction. The new technology are making them vulnerable to various risks such as phishing, identity theft , card skimming ,viruses and Trojans , spyware and adware , social engineering website cloning and cyber stalking .

Evolving risk in Digitalization of Financial Institution

Cybercrime: A majority of Banks in India offer online and Mobile Banking services. Most of the transactions are conducted via payment cards, debit and credit cards and electronic channels. Consequently both private and public bank as well as other financial institution in India is becoming increasingly sophisticated cyber attacks. According to the PWC Global Economic Crime survey 2014, cyber crime was one of the top economic crimes reported by organization across the world, including India.



Sources: RBI statically data ., Economic Times 4th March 2015,

Identity thefts: With the proliferation of mobile devices and online platform, the nature of identity theft has changed in today's world. Fraudsters are devising new way to exploit loopholes in technology system and processes. In case of fraud involving lower amounts, they employ hostile software programs or malware attacks .Some of the examples are : Unauthorized email asking for account information for updating bank records are sent by fraudster , access rights for making entries are given to unauthorized people, bank employee keep original.

Mobile Banking Risks

There are two type of financial services offered at mobile financial services one is mobile banking and another is mobile wallets. Being an easy and convenient mode of transacting, there has been a 55 times rise in value usage of mobile banking. According to new changes in RBI policy, customer of semi-closed and prepaid instruments can now load up to Rs. 100,000 in wallet and can transfer money from their wallet to any other account. This moves on one hand, enhances the convenience and adoptability of a mobile wallet and on the other makes it susceptible to fraud risks.

Risks Associated with Mobile Banking

Mobile banking application being mapped to an incorrect mobile number: For bank customers who do not use mobile banking, an employee of the bank could attach an associate's mobile number to the bank account and install a mobile application on his mobile device. The customer's account is compromised by the associate and he or she does not get any notification about the same.

Creating fake and non-existent users on the mobile financial services platform: Most of the banks appoint a third party vendor to develop a mobile application to be integrated with their core banking system. The vendor may create two unauthorized users with rights to initiate and verify transactions, and transfer funds from the organization to his associates' wallets, effectively stealing money from the bank.

Increased risk of money laundering: Transfer of money into and out of a mobile wallet from or to a bank account is now possible. Cash-in from the bank account of an individual and cash-out to a different bank account of another individual can be used as a platform for laundering unaccounted money.

Unauthorized deductions from the wallet of a customer (especially a dormant or infrequent customer account): Employees of the mobile wallet service provider may misuse the balance

stored in the wallet of a customer by making unauthorized deductions. Moreover, in case of a miss-happening to a customer with no nomination facility, the balance in the customer's account is not passed on to his family members and remains with the service provider, which ultimately becomes a low-hanging fruit for the fraudster.

Failure to conduct proper due diligence of merchants: If the merchant on-boarded by the service provider is a fraudster, and the payment is made by the customer for fictitious goods or services from the merchant, cash can be rotated with minimum transaction fees

Incident of Digital Money Fraud

1. ***Financial Data of 3.2 Million ATM were at risk :*** According to The Economic Times data of the card 2.6 million comprises of Master and Visa card platform and 6 lac on Rupay platform. The worst hit of the card issuing bank are SBI, HDFC, ICICI Bank, Yes Bank etc. The breach is said to be originated in Malware introduced in systems of Hitachi Payment services, enabling fraudster to steal funds. Hitachi is a company which provides ATM, Point of Sales and other services. A forensic audit was carried by Payment council of India after the complaint received from banks about the debit cards are being used in China which aroused suspicion and it took around six weeks to detect malware in this case. But prevention is always better than cure. Banks have been receiving complaints from customers about their cards are being used at various ATMs and Point of Sale in china and European countries.

2. ***Pay tm alleged that it is cheated by customer worth 6 lac rupees: 15 people were allegedly involve in fraudulent refund through Pay tm wallet.***

Bitcoin Status in India

Bit coin is a crypto currency and a payment system invented by an unidentified programmer, or group of programmers, under the name of Satoshi Nakamoto. The system is peer to peer and transaction takes place between users directly without an intermediary. Since the system works without a central repository or single administration, the us treasury categorizes bit coin as a virtual currency. It is trending in India as the financial autonomy is phasing towards digitalization. Sales volume of Bit Coin has increased due to effect from the government moves toward the demonetization of old currency of 500 and 1000.

China has banned the Bitcoin from being used as a currency, Germany has permitted its transactional use .India meanwhile has yet to make a ruling but its keen to make the public aware of the danger. There are various risk associated with Bit-Coin :

Security Risk: Bitcoin exchanges are entirely digital and, as with any virtual system, are at risk from hackers, malware and operational glitches. If a thief gains access to a Bitcoin owner's hard drive and steals his private encryption key, he could transfer the stolen Bitcoins to another account. This is particularly problematic once you remember that all Bitcoin transactions are permanent and irreversible.

Insurance Risk: Some investments are insured through the securities Investor protection Corporation, like normal bank accounts, which are insured through the Federal Deposit Insurance Corporation up to a certain amount depending on the jurisdiction. Bitcoin exchanges and Bitcoin accounts are not insured by any type of federal or government program.

Market Risk: Like with any investment, Bitcoin values can fluctuate. Indeed, the value of Bitcoin has seen wild swings in price over its short existence. If fewer people begin to accept Bitcoin as a currency, these digital units may lose value and could become worthless.

Fraud Risk: While Bitcoin uses private key encryption to verify owners and register transactions, fraudsters and scammers may attempt to sell false Bitcoins. For instance, in July 2013, the SEC brought legal action against an operator of a Bitcoin-related Ponzi scheme.

The RBI issued a master circular on 'Frauds – Classification and Reporting'. The circular has fixed the responsibility of preventing frauds on banks, exposing them to a completely new horizon of financial risks. Further, banks are now required to report to the RBI the "complete information about frauds and the follow-up action taken thereon". With the shift from traditional ways of responding to frauds to new ways of robust reporting and risk monitoring systems, banks can now control financial and reputational risks more efficiently. With the rapid growth in users and wider coverage of mobile phone networks, mobile banking is increasingly coming up as a significant delivery channel for extending banking services to customers. Putting the onus on banks, the RBI has issued operative guidelines to regulate this channel, suggesting reporting of suspicious transactions to its financial intelligence unit. Owing to the heavy reliance on telecom operators for its services, the prevention and detection of frauds in mobile banking have become even more complex. To keep a check on frauds, banks need to incorporate a greater level of scrutiny, by deploying advanced tools and technology capable of protecting the customers against unethical activities.

In India in 2020, the average Indian will be the largest and youngest in the world. The younger generation in India today has financial and social independence .They are driven high aspiration and technology and well connected through social media. Changing technology and rapid flow of information have placed the customer at the centre .Now it is critical for every financial institution to understand customer needs and expectation and offer customized and safe financial transaction

There are some global trend to detect fraud and accused

Automated analysis tools: Today, the industry is increasingly aware of the need for automated analysis tools that identify and report fraud attempts in a timely manner. Solution providers are providing real-time transaction screening, third-party screening as well as compliance solutions.

Sector-oriented benchmarking solutions: Solutions aimed at assessing the fraud vulnerability of financial institutions are now available. They help in formulating a targeted and cost-effective action plan against fraud risks.

Data visualization tools: These are being used to provide a visual representation of complex data patterns and outliers to translate multidimensional data into meaningful pictures or graphics.

Behavioral analytics: This is helping businesses identify enemies disguised as customers. The data analytics implemented by the institutions to understand customer behavior, preferences, etc are also helping in the detection of fraudulent activity either in real-time or post mortem.

Deep learning: Internet payment companies providing alternatives to traditional money transfer methods are using deep learning, a new approach to machine learning and artificial intelligence that is good at identifying complex patterns and characteristics of cybercrime and online fraud.

The internal audit function: This function is being altered to include fraud risk management in its scope. The changed technological landscape requires the old ways of internal auditing to give way to new, technologically equipped audit functions. Annual audit planning may no longer be fully effective and flexible audit plans are the need of the hour, as fraud risk assessments require extensive use of forensic and data analytics solutions.

Block Chain Technologies

It is a distributed database that maintain a continuosly growing list of ordred record called blocks. Each block contain a timestamp and a link to previous block . By design blockchains are inherently resistant to modification of the data once recorded , the data once recorded can be altered retroactively. There are some benefits of using Block Chain technology in banking stream which are

Disintermediation & trustless exchange

Two parties are able to make an exchange without the oversight or intermediation of a third party, strongly reducing or even eliminating counterparty risk.

Empowered users : Users are in control of all their information and transactions.

High quality data: Blockchain data is complete, consistent, timely, accurate, and widely available.

Durability, reliability, and longevity: Due to the decentralized networks, blockchain does not have a central point of failure and is better able to withstand malicious attacks.

Process integrity: Users can trust that transactions will be executed exactly as the protocol commands removing the need for a trusted third party.

Transparency and immutability: Changes to public blockchains are publicly viewable by all parties creating transparency, and all transactions are immutable, meaning they cannot be altered or deleted.

Ecosystem simplification: With all transactions being added to a single public ledger, it reduces the clutter and complications of multiple ledgers.

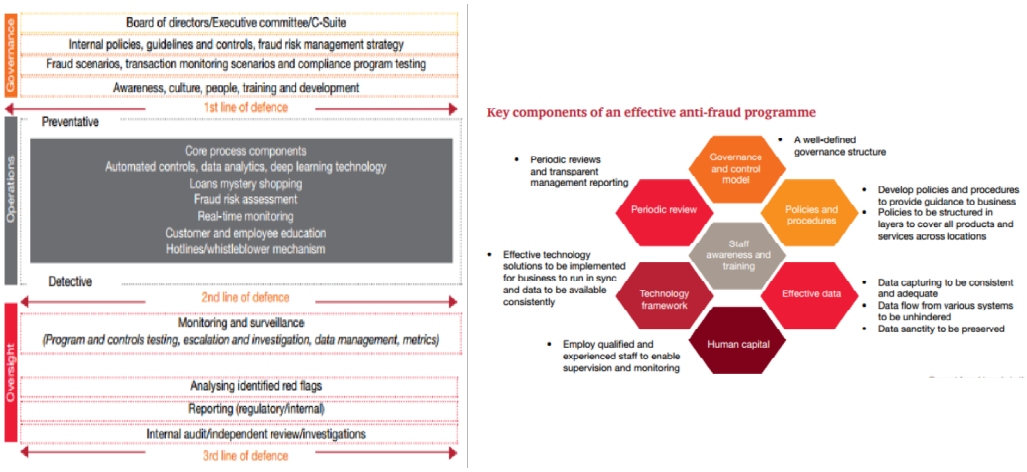
Faster transactions: Interbank transactions can potentially take days for clearing and final settlement, especially outside of working hours. Blockchain transactions can reduce transaction times to minutes and are processed 24/7.

Lower transaction costs: By eliminating third party intermediaries and overhead costs for exchanging assets, blockchains have the potential to greatly reduce transaction fees.

Hiring reliable management and building relationships with genuine clients, suppliers and partners are of utmost importance. The lack of correct background information can lead to both reputation and business risks. Effective background checks of employees and associates are thus recommended. It is difficult but also necessary to integrate data from various sources to be able to derive the benefits of analytics techniques. Financial institutions do face challenges in maintaining the efficiency of anti-fraud security controls at an enterprise-wide level. Challenges arise while integrating channels or within applications and tools (integrating online and ATM transactions, retail banking and corporate banking or integrating subsidiary banks where different information systems are used). The three lines of defence can only be strengthened by technology and not replaced by it. The tone at the top is critical in the fight against fraud. Lack of customer and/or staff awareness can result in failure of even the best of technology solutions. It takes a concerted effort to be able to build, maintain and sustain an effective fraud risk management programmed. Organizations need to build awareness around the latest technological and procedural vulnerabilities and fraud schemes, to be able to remain one step ahead of the fraudsters. In addition, incident management procedures need to be well defined and comprehensive, in order to ensure that incidents of fraud are managed without exposing the organization to any legal or reputational risks. Forensic tools can be used to navigate IT systems

for evidence of malfeasance such as information deletion, policy violations and unauthorized access. These tools can help the company legal counsels to prepare for a suit to be filed against the fraudster. Apart from internal controls, financial institutions need to also educate the customers. Since the manoeuvres used by cyber-criminals to target sensitive financial data are sophisticated and constantly changing, financial institutions must look at existing security controls with a new approach and risk appetite.

According to Pwc there should be three line of defense:



Source: PWC https://www.pwc.in/assets/pdfs/publications/2015/current-traud-trends-in-the-financial-sector.pdf

Government should take initiative apart from all these mechanism to literate their citizen so that they can do safe transaction. Objective of the government should be cashless and one of the safest transactional economy. Some reform and strict rule should come so that the risk related to digital financial transaction can be mitigated. Any government program, initiative need cent percent people participation. Citizen support is equally important, they should understand their responsibility and now situation have been changed now a person can directly connect with government and can express their opinion and feedback.

In conclusion It can be said that that the digitalization in finance is a fruitful step but some secure infrastructure and world class technology should be impeded to protect it from security threat and there should be reform and strict compliance to look over the matter then It may be successfully implemented in the Indian context.

REFERENCES

1. Newspaper Article: Indian Express (Daily Vols.), The Hindu(Daily Vols.), Economic Times(Daily Vols.)
2. Journal Online: Current Fraud Trend in India (June 2015) ASSOCHAM along with PWC India. Government Report: Bank wise volume in online transactions (2015). Reserve Bank Of India https://www.rbi.org.in/scripts/NEFTView.aspx

18

Review on Digitalisation in India

*Arpit Rastogi**

ABSTRACT

Digitalisation is the second stage after Digitization and before the final stage of digital transformation. Digitization and digitalisation are two conceptual terms that are closely associated and often used interchangeably in a broad range of literatures. Digital transformation happens, which means a way to move to digital business. Digital transformation requires digital business and digitization. India has become favorite destination for FDI among emerging economies which shows that digitalisation and the process of digital transformation would be fast tracked by latest technology being unleashed in those sectors which attracted FDI including ancillary industries, it promotes open access to relatively all stakeholders. The process of digitalisation is marked by cost effectiveness to cut the cost that incurred in various knowledge practices related to the production, organization and communication of information that makes long-term economic growth. This paper highlights the Review of digitalisation in India. alongwith the findings and conclusion.

Keywords: *Digitalisation, Digitization, Digital Transformation, cost effectiveness, open access, stakeholders.*

INTRODUCTION

India is adding almost 110 million Smartphone users every year, and is on the verge of launching Aadhaar-compliant devices with biometric authentication built into phones and tablets. The power of the JAM trinity (Jan Dhan Yojana- Aadhaar-Mobile) will come into full force when transactions are enabled using Aadhaar and biometric authentication, creating a system that is not only cashless but cardless. Already, a new entrant into telecommunications service in India has succeeded in using the India Stack to enroll 108 million consumers in 170 days with a totally paperless, mobile-centric manner — in the process achieving customer acquisition costs of less than $1 (USD) per customer, compared with the prior industry standard of $25. The process of digital disruption — whether led by government or not — creates numerous significant social challenges. Rather than seeking to slow that process to reduce those challenges, India has taken the opposite approach: to not only embrace but accelerate digital disruption, to ensure its full potential for economic and social inclusion is realized. India's development was inequitable and inconsistent for far too long; the country still has a long way to go. The societal challenges created by digital disruption, challenges both expected and unintended, are real. They will be addressed only with a combination of administrative humility and entrepreneurial determination. But the

* Research Scholar, Department of Commerce & Management, H.P. University, Shimla, H.P.

long-term benefits are real. The reality is that India is moving into the future at an unprecedented rate. And the path it is taking to get there is digital.

NEED FOR REVIEW ON DIGITALIZATION IN INDIA

India is a country with nearly 1.35 billion population. There is an urgent need to co-ordinate and co-operate efficiently and effectively in cost effective manner to reach to entire population and raise the information sharing in as smooth manner as possible thereby eliminating bottlenecks currently hindering the abovementioned scenario. So, there is urgent need to review the current situation with regard to literature available on the topic - DIGITALIZATION IN INDIA.

SCOPE FOR REVIEW ON DIGITALIZATION IN INDIA

There is a lot of scope to review literature on the abovementioned topic in order to familiarize the stakeholders to recalibrate the policy initiatives in order to achieve the recently launched initiatives by the current ruling dispensation to fast track the digitalisation process in India.

REVIEWS OF LITERATURE ON THE DIGITALISATION IN INDIA

1. Digitization has the potential for dramatic economic, social, and political improvements. Anecdotal evidence abounds: water utilities have installed sensors that reduce leakage, saving water and money; healthcare organizations send text messages to pregnant women with advice on prenatal care, creating a healthier new generation before children are even born; fleets of trucks use digital GPS devices that direct them to shorter routes, cutting down on their greenhouse gas emissions. The challenge for all stakeholders in the ICT ecosystem has been to quantify the impact of digitization. Numerous organizations, including the World Economic Forum with its evolution of the Networked Readiness Index, are taking steps in that direction. Our hope is that this analysis, which illustrates the need to define and measure ICT beyond broadband access, can provide an input on such efforts. However, realizing the opportunity that broadband presents will require that policymakers undergo a shift in their thinking. They must go beyond considering ICT and focus instead on digitization, with an emphasis on ICT usage rather than just access. They must take into account their current level of digitization in order to ensure that they are focusing on the right investments to advance to the next stage. And they need to look with fresh eyes at policies that were developed a decade ago to understand how they can be updated for a new era. Policymakers are hopeful about this opportunity, and many are committed to action. The steps they take in the coming years will determine whether they can translate opportunity into reality.

2. India will be reincarnated into Digital India by 2022,this depends on the implementation of the formulated policies and programmes. By launching the Digital India Programme the Government of India has developed a path for this transformational journey. Although the path to achieving the desired state of 'Digital India' seems largely, smooth it is by no means a straight forward one and has some stumbling blocks and impediments. The National Informatics Centre (NIC) is largely unprepared for facing stumbling blocks and impediments that Digital India will encounter. Upon reflection of the Digital India Programme and the various factors that need to be considered at all the stages of the Programme - including the development, implementation and adoption - the DIP can be viewed as a truly revolutionary initiative. By providing the opportunity to educate and enhance the digital skill set of potentially the whole population, the

Programme has the potential to create an environment of not just digital but over all social inclusion - the optimal state of a nation is to achieve social inclusion of all citizens which can partially be attained through digital inclusion. Thus, the DIP provides not only a promising but an exciting opportunity for the whole of India. In order to make this vision a reality, nevertheless, requires a cultural transformation of Indian citizens and their habits - possibly the most critical yet enthralling challenge facing the creators of the DIP. If DIP achieves the expected results then, in the new economy, India would be in a perfect position to succeed and sustain positive national growth, which is a crucial element in enhancing India's global competitiveness. The future for India, as the ambitious DIP suggests, is bright.

3. Digital conversion of print sources has improved rapidly in the past few years. Digitization is the social transformation started by the massive adoption of digital technologies to generate, process, share and manage digital information. Digitization is an inclusive technique of preservation and access by which all the institution's assets are transformed into digital and creating high-quality copies in digital format. It provides advanced opportunities for preservation and access to knowledge contents, also it changes the ways in which collections are used and accessed. Emerging digitization initiatives and ways in which institutions are becoming digital are causing various effects on economy, society and academics as well. These radical and rapid changes make the information presentation and distribution more rapid, open, and global access to the information than has been available in the past. In addition, converting material from analog to digital format reduces some of the costs included in digitization operations for providing access to print sources. However, the digital copies should not be a replacement for the original items of knowledge.

4. Digitalisation is for social transformation. Digital empowerment is essential for extending the benefits of ICTs to all strata of the society, with special focus on people with special needs, in order that they will be able to fully, if not equally participate in all aspects of life, exercise their duties, contribute to and enjoy the rights and benefits as members of the society. However, majority of the developed economies have become broadband-based information societies and are using the internet not only to connect people, but also things, in what has been called the Internet of Things. The digital economy that is driven by information technology and e-commerce is being developed worldwide. Digitization provides an opportunity to collect information in real time and to collect information more effectively related to the needs of consumers. Business world fully utilize the advantages of digitalisation to successfully grow in this competitive environment.

5. These challenges indicate that Digital India has a long way to go on its road to reality in its truest sense. The government cannot overstep them, no matter how trivial they might seem to be. It is an initiative to build Digital infrastructure and provide Internet access, service to every citizen along with Digital literacy to empower them to utilize it effectively. Although, digital India programme is facing some barriers, yet it has a great impact on India to make the best future of every citizen. We Indians and others should work together to shape the knowledge economy. More employment prospects will open for the youth that will boost the nation's economy. Digital India campaign is a welcome step in shaping India of the 21st century powered by connectivity and the technological opportunity. In short, this paper focuses on certain barriers and providing some suggestions to face such challenges. Focusing on these obstacles, if the government of India tries to get over them by using effective methods then there is no doubt in India being a digitally empowered country.

6. Standard & Poor's survey shows that, over 76% Indian adults lack basic financial literacy and they don't understand the most basic and key financial concepts. The digitalization brings innovation, ease of working, new job opportunities and growth in the economy. It helps to bring transparency in the system and more transparent are the flow of funds in the economy less is the problem of tax evasion, parallel economy etc. But with all these benefits available it also makes it necessary for the people to have basic financial knowledge and a push towards the importance of the financial literacy. Digitalization can also play an important role in achievement this goal as it can have a greater reach to the people. India is known for its frugal innovation, and offers tremendous scope to develop or adapt high-tech innovations en-masse. To be successful in India, the startups will have to understand Indian culture and the need of the Indian consumer and businesses, and invest in local talent or joint-venture approaches with Indian companies. The important factor to consider for startups will be to learn to do business the Indian way by understanding the Indian market. Rapid Internet and mobile penetration, increasing demand for technology related services, a large number of small and medium sized businesses, favorable government policies and regulations makes India one of the most ideal destinations for investment.. It is important that startups seeking growth opportunities in India have a long-term vision as far as India as a potential market is concerned. Thus, blend of factors like economic growth, favorable government policies and technical talent is making India a coveted destination for international startups. These trends are likely to continue in the foreseeable future and startups have tremendous opportunities to expand in India.

7. E-governance doesn't mean only to attain the electronic governance but also the effective, enabling, efficient governance for the development and digitalization of India. Promoting and providing easy and affordable access to the digital world across rural-urban divide would do wonders. The success lies in passing digital vibes to the grass root levels. For which the citizens and the government must work hand in hand. The recent scenario of Demonetization has moved huge crowds towards digitalization. People who had access to digital platform did see it as a major burden. Because, they were able to go through day-to-day transactions with apps like Paytm and e-banking etc. It brought unavoidable situation for people to switch to digital world. Despite many hurdles, India is on a great pace towards its digital destination.

8. Digital technology, despite its seeming ubiquity, has only begun to penetrate industries. As it continues its advance, the implications for revenues, profits, and opportunities will be dramatic. On average, industries are less than 40 percent digitized, despite the relatively deep penetration of these technologies in media, retail, and high-tech. Bold, tightly integrated digital strategies will be the biggest differentiator between companies that win and companies that don't, and the biggest payouts will go to those that initiate digital disruptions. Digitization is putting pressure on revenue and profit growth. Digitization is penetrating all sectors, but to varying degrees. Some digital initiatives generate attractive returns, while others don't return their cost of capital. Products are more digitized, while supply chains are less so. When companies respond to digitization assertively and across multiple dimensions, they improve their performance. Leading corporate ensure that digital strategy is aligned with corporate strategy. Disruptive strategies are a powerful response to intense digitization. Fast following and great execution are the next best things to disruption.

9. Knowledge Triangle (KT) model is useful as it forms the stage for research-education and research-innovation linkages. Understanding is required about what stakeholders think regarding the changes in linkages under digitalization and highlight recent developments of

tools and instruments for making the KT systems sustainable. The special feature of the KT is that all stakeholders (government, business, universities and nonprofit organizations) are somehow involved into knowledge production and to a different degree perform research, innovation and education activities.

FINDINGS

Digitalization in India is happening at a rapid pace. Management and operation of National Optical Fiber Network to provide a minimum of 100 Mbps broadband connectivity to each one of all 2,50,000 Gram panchayats in the country covering nearly 625,000 villages to transform to Digital India. The last mile connectivity with a total of 7,00,000 wi-fi hotspots to cover all 625,000 villages of India, by adding 2 to 5 wi-fi hotspots per gram panchayat and minimum one wi-fi hotspot per village, have been created by connecting high-speed 4G base tower stations of commercial telecomm operators to BharatNet, whereby commercially non-viable wi-fi hotspots will be subsidised by the union government grant of ?3,600 crore to sustain the operation. Government has discounted the bulk BharatNet bandwidth rates to the commercial telecom operators by 75% to enable them to offer the highly-discounted, affordable, competitive and commercially-viable BharatNet-enabled wireless cellular 4G broadband deals to the rural customers. The ?45,000 crore union government share of funding will come from the "Universal Services Obligation Fund" of Department of Telecommunications. It will be rolled out with the additional funding by state governments to connect all gram panchayats in India. The BharatNet is, world's largest rural broadband connectivity program. It is built 100% under "Make in India" economy-booster employment-generation initiative with no involvement of foreign companies.

CONCLUSION

Citizens are increasingly using mobile devices to access various public sector services on the go. Integration of online services with governance will not only enhance citizen engagement but also foster connectivity and provide a seamless experience.

1. ***DIGITAL INFRASTRUCTURE :*** Governments must increase the spread of digital infrastructure such as optic fiber cables, telecom towers, Internet and Wi-Fi hotspots. To enable this, adequate policy reforms, incentives for private players, utilization of existing infrastructure and ease of doing business needs to be established.
2. ***MULTI CHANNEL SUPPORT*** **:** Rendering services through not just mobile but other channels such as bank branches, websites, CSCs and post offices will help in providing better user experiences and accessibility. Moreover, providing retail shops with an integrated easy-touse mobile-based platform for offering G2C, B2C and other services to citizens and institutions will also be helpful.
3. ***LOW CAPITAL INVESTMENT*** **:** There is a need to guide and support Central and state IT projects and help them become low capital investment projects. One approach that can be included as a guideline in the model RFP is refraining from the procurement of computing, storage and network infrastructure. This must be procured as infrastructure or platform as a service, with adherence to MeitY-defined cloud procurement and security guidelines.
4. ***DATA SECURITY*** **:** Governments store critical data and information on their servers. With the rising incidence of cyber attacks, it is crucial for the government to protect the

data of citizens and reassure them of data security. Also, the government must educate and inform citizens and institutions about the risks and good cyber security practices while conducting electronic transactions. Digital India - Targeting inclusive growth 25

5. ***BIG DATA AND ANALYTICS*** : Machine learning and big data analytics could be adopted in= vital areas such as health, education, fraud analysis, financial leakages, cybercrime and other domains to identify citizen/ institution behaviors and service usage patterns to improve service delivery. Moreover, customer data could be used to pre-emptively provide the right set of services to citizens at the right place and the right time.
6. **LOCATION BASED SERVICES :** The next leap in digital will be capturing local coordinates and providing tailored services to people for an immersive experience— for instance, providing traffic updates in real time or helping someone who has newly migrated to a city with registration for power, gas or electricity connections.

REFERENCES

1. Dirk Meissner and Natalia Shmatko," Integrating professional and academic knowledge: the link between researchers skills and innovation culture", (2018).
2. GeethaPrabhu. K, JewillaRodriges," Digital india initiatives-building the new, not just fighting the old (with special focus on challenges)", International Journal of Latest Trends in Engineering and Technology Special Issue SACAIM 2016, pp. 254-259 e-ISSN:2278-621X , page 259 (2016).
3. Jacques Bughin, Laura LaBerge, and Anette Mellbye," The case for digital reinvention "(For McKinsey quarterly), (2017).
4. Karim Sabbagh, Bahjat El-Darwiche, Roman Friedrich, Milind Singh, Raul Katz and Sandeep Ganediwalla , " Maximizing the impact of digitalization ", page 25 (2012).
5. Ms Vandana Soni, and Dr. (Mrs) B. B. Pandey ," Impact of Digitalization in E-Marketing ", IJIRST – International Journal for Innovative Research in Science & Technology| Volume 3 | Issue 05 | October 2016 ISSN (online): 2349-6010 (2016)
6. Mrinalini Kaul, Purvi Mathur," Impact of digitalization on the Indian economy and requirement of financial literacy ", Proceedings of International Conference on Recent Innovations in Engineering and Technology, Jaipur, India, 18th - 19th Feb'2017, ISBN: 978-93-86291-63-9 (2017).
7. Yogesh K Dwivedi, Nripendra P Rana, Antonis C Simintiras, and Bantia Lal," Digital India Programme : A Public Administration Reformative Initiative ",Yojana Magazine, Feburary 2015 edition, page 32 (2015).
8. Saima Khan, Dr. Shazia Khan, and Mohsina Aftab," Digitization and its impact on economy ", page147, International Journal of Digital Library Services vol. 5, April-June 2015, Issue-2 (2015)
8. Swissnex India, Excubator (Bangalore)," India's booming Digital Economy ", page 26 (2017)

19

Marketing Automation and Sales Funnel

Akanksha Paliwal & Aditi Batheja***

Introduction

The growing importance of the digital marketing platforms, following an increased influence in customer purchasing decisions being made online has motivated B2C sellers to create digital content that leads potential buyers to interact with their company. They expect to engage with them and obtain feedback via direct or indirect engagement with the customer's to be able to identify their needs and as a result form efficient communication channels with the customer's. This trend has engendered a new paradigm referred to as 'content marketing.' Marketing automation hence in essence is helping marketers engage with their potential customer's in a more intelligent and efficient way where they don't bombard information on the potential customer's, but plan the communication channel intelligently with the help of digital data available of the potential customer's. Marketing Automations have come a long way since when they first garnered market visibility in the 1990s with the release of a first CRM platform. These software platforms were designed for enterprise customers that sought to integrate marketing and sales business information in order to gain insight, efficiency and control over the sales process. Led by Siebel Systems, these large solutions were expensive to license and install, with most projects designed and implemented by internal information technology (IT) departments. Faced with internal decision-making and implementation challenges, many organisations — realising the efficiency benefits that technology could provide — opted for a series of 'home-grown' or custom solutions that were derived from existing third-party marketing, sales and business information tools. Development was typically tasked to IT and technology consultants, creating additional challenges, as the marketing and IT 'language' did not always align. With that being said, the industry is in early development, particularly with respect to the establishment of an enterprise suite offering, as no single vendor is close to covering the full solution-set across the marketing technology value chain.

The study advances understanding of the organizational processes that support content marketing and shows how content marketing can be combined with B2C selling processes via marketing automation in ways that achieve business benefits. This study investigates the organizational processes for developing valuable and timely content to meet customer needs and for integrating content marketing with B2C selling processes.

* Department of Commerce, Delhi School of Economics, University of Delhi

** Assistant Professor, Department of Commerce, Delhi School of Economics, University of Delhi

Literature Review

The ability to effectively navigate the provider landscape and make knowledgeable purchase decisions for the end users is a challenge due to the variety of available solutions and the ever-growing number of marketing channels requiring automation. At last count, there were over 300 marketing technology vendors, ranging from multi-billion dollar companies, such as Oracle, SAP, Microsoft and Hewlett-Packard, to early stage innovators developing digital and mobile solutions. Marketers are more accountable than ever for business performance (e.g. revenue and cost reduction objectives) and customer management, making the benefits of automation highly relevant. However, given the complexity of the typical marketing execution process, it is no wonder that marketers are perplexed by not only the tool selection process, but the implementation challenges that follow. (Biegel, B. J, 2009) Marketing automation exploits both active and passive means of learning about potential buyers. Active approaches involve directly asking questions, and passive approaches involve utilizing information on past transactions or clickstream data (Montgomery & Srinivasan, 2003).

Understanding the role of content marketing in B2C sales is particularly crucial given persistent conflicts between marketing and sales departments with regards to lead generation and management. Sales representatives criticize the quality of marketing leads, and marketers criticize sales representatives' poor follow-up skills (e.g., Biemans, Brencic, & Malshe, 2010; Homburg & Jensen, 2007; Homburg, Jensen, & Krohmer, 2008). Insufficient lead follow-up is indeed a serious issue in the B2C sector, and one study has shown that sales representatives ignore approximately 70% of all leads generated via marketing (Marcus, 2002). Clearly, if the majority of marketing leads are never contacted and instead disappear into the notorious 'sales lead black hole' (see, e.g., Hasselwander, 2006; Sabnis, Chatterjee, Grewal, & Lilien, 2013), content marketing efforts toward producing sales will prove fruitless.

Little (2001) suggests five levels of system operation:

1. Data inputs
2. Real time decision rules
3. Up- dates of the decision rule
4. Feedback to site management
5. Strategy choice.

This framework suggests deploying real-time decision rules which are calibrated using historical data and updated by conducting adaptive experimentation (Little 2001; Bucklin et al. 2002). The developed systems are expected to give feedback to site management and to provide directions to adapt retailers strategies.

Marketing automation capitalizes on techniques similar to Web analytics (see, e.g., Järvinen & Karjaluoto, 2015; Phippen, Sheppard, & Furnell, 2004; Wilson, 2010) by tracking website visitors' online behaviors (i.e., navigation paths and page views) through the use of cookies and IP addresses. The two tools differ in that marketing automation employs advanced capabilities for identifying individual customers and following their behaviors over extended periods of time, and these functions are typically limited in Web analytics software tools such as Google Analytics. Notably, tracking individual behaviors over time requires that a visitor first identifies him or herself by completing a website contact form.

Marketing Automation

Winterberry Group defines marketing automation as the utilization of marketing technology solutions to automate marketing processes including (though not limited to) planning, budgeting, segmentation, database management, analytics, creative execution, asset management, campaign execution, lead management and reporting. These marketing technologies are a combination of software, networks and hardware that allow the inputs, processing and outputs of marketing and business information and content.

Marketing Automation in today's digital era is not just a luxury to those who can afford the tools, but is a necessity for a business to be able to sell via efficient channels and reduce marketing costs. Customers are switching to online channels to make purchases, and in consumer goods, they usually need lesser focussed options to be able to make purchasing decisions. Thus in digital markets, marketing automations must help them by clearing out the noise, overwhelming number of buying options, and provide personalised buying options. Also, it is hence essential for brands to provide a clear differentiation between themselves so that the consumer choose them instead of the competitors.

As an interdisciplinary subject, marketing automation requires the integration of different kinds of knowledge and approaches from consumer psychology, marketing, and information systems. Systematic integration of IT and marketing would then be the central activity fields for companies. As IT is a core enabler for marketing automation applications, BISE faces a wide variety of research questions. Whereas two decades ago the research areas concentrated on control system optimization tools, on design of databases and recommendation engines (Little 2001), the future research might focus on two streams:

1. Design of marketing automation software, and the analysis of customer behavior
2. Corresponding identification of interesting patterns.

Marketing Automation hence is a complex discipline which required thorough research and smart marketing and product decisions. It is dominated by technological decisions as the targeting logics and inferences from data need to be sharp. Any error while making these two decisions severely affects the whole process, thereby the revenues.

Old Wine in a New Bottle

Marketing Automations is essentially required interacting with the potential customer audience in the most personalised and efficient way. It ensures that there is no communication opportunity left that can influence a sales. Automation hence puts an onus on the content generation team to work extremely closely with the campaign manager and team to ensure they generate sufficient segmented 7 quality content to interact with the leads.

The use of content marketing is becoming widespread in the B2B sector. According to a recent survey, as many as 86% of B2B marketers (n = 1820) in North America use content marketing tactics as a strategic marketing approach, and 47% have a dedicated content marketing group in their organization (Pulizzi & Handley, 2014). In this study, the term 'content' refers to all forms of digital content. We employ the definition of content marketing presented by Holliman and Rowley (2014, p. 285), who tailored the concept to the B2B context as follows: "B2B digital content marketing involves creating, distributing and sharing relevant, compelling and timely content to engage customers at the appropriate point in their buying consideration processes, such that it encourages them to convert to a business building outcome." This definition highlights

the role of content marketing as an inbound marketing (i.e., pull marketing) tactic directed at generating valuable content based on the needs of potential buyers who have already searched for information on a product or service (Halligan & Shah, 2010).

Marketing Automation Technologies

The first step to automating is getting background data on potential customer's to understand their behavior and hence predict their requirements. There are many ways how corporations choose to collect data. The very basic form is collecting cookies. Based on the previous browsing patterns of the visitors they're categorised as:

- Frequently visiting (>1 a week)
- First Time visitors (New cookie)
- Returning Visitor (>1 visit)

These are usually captured by the browser. In case of google analytics, they give you a comprehensive data where you can create lists basis on these criterias. In a multi-channel, multi-platform world, building a data set that accurately records history of all the interactions of users across all those platforms, in a format to enable you to build insight and intelligence, is a big job. There are hence lot of vendors(Big and small) popping up to enable marketeers to do just that. It gives the data foundation to record and understand complete user journeys.

There are also vendors who record anonymous user sessions on the selected landing pages to understand the most visited and the least visited areas on the pages so that information displayed can be optimised to get maximum surf time.

Once you have segmented your data you can choose to automate in the following mediums/ways:

1. ***Telecalling:*** Arranging an automated call back for leads after they fill forms with a call back call to action or reminder call backs
2. ***Automated Product Suggestions:*** In Online advertisement automation technologies that are in sync with the cookies/leads database can be triggered ads as per the campaign requirements. For example if there's a sale on the programs, it could trigger ads to the leads in "purchasing" stage.
3. ***Pop ups (Mobile/Website):*** Website pop ups or push message campaigns are the recent addition in the kind of automated marketing use by marketeers. They push notifications to the subscribers if they subscribe to them on their laptop once they're connected to the internet.
4. ***SMS/Emails:*** Lead nurturing is run via CRM platforms for the captured leads as per the segmentations and triggers set by the marketeers for the leads in the system.

There are hence various tools available in the market. Marketers choose the platform as per their requirement and system compatibilities, also the nature of business plays a major role in selecting the medium of communication. B2C businesses are more dynamic as compared to the B2B businesses. Their token sizes are usually less than B2B hence the acquisition numbers are greater and frequency is also higher.

Purposes of Marketing Automation

While the eventual goal of marketing department in corporations is to maximise revenue/ profits of the organisations, there are many ways they are using automations to achieve the goals.

Since a marketer monitors various processes as per the requirement, let's look at why and how they're using the available marketing automation tools and what business problems have they solved using the tools and also understand the new problems that might have arisen because of the automation tools.

1. ***Advertisements:*** In today's digital era of advertising, marketeers use segmentation techniques to divide all the potential customer's into distinct segments and use efficient marketing communication to be able to connect with the maximum possible audience.
2. ***Lead Generation:*** Integration of Advertising platforms and Landing pages with CRM platforms enable marketeers to connect with their new leads when they're available for interaction either via email or SMS
3. ***Channelised Communication:*** Personalising news feed on social media or in their emails as per their actions and preferences, is now days essential to gain customer trust and increase brand visibility.
4. ***Sales:*** As the CRM platforms record all the actions of the leads in the system, marketers set triggers for actions that implicate that the lead is in it's purchasing stage or needs support. These actions trigger sales activities like telecalling etc which reduce the selling time and optimise the system

Keillor, Bashaw, and Pettijohn (1997) studied salesperson attitudes toward the use of technology applications and relationships between these attitudes and salespeople's experience and perceived productivity. They observed that technology can contribute to increased salesperson productivity and may be a way through which less experienced sales personnel can augment their productivity faster. Proponents of SFA have long advocated its potential for increased productivity (e.g., Hair et al., 2009; Moriarty & Swartz, 1989; Wedell & Hempeck, 1987).

SFA technology is intended to enhance salesperson efficiency and effectiveness (Anderson et al., 2007; Hair et al., 2009) and ultimately firm performance (Kim & Kim, 2009).

Moreover, behavioral intention to use technology was determined to be positively associated with adaptive selling (Robinson et al., 2005). As such, salespersons successfully deploying an SFA system are likely to choose adaptive selling behavior when interacting with their customers. Adaptive selling allows salespeople to shape messages to fit their buyers, thus enhancing sales personnel capacity to build relationships with customers and augment sales performance (Jaramillo et al., 2007)

Challenges and Opportunities for Vendors

The benefits of marketing automation to both marketers and suppliers are straightforward and compelling — efficiency gains that translate into more effective marketing and marketing services, generating superior returns on marketing investment.

Given the current fragmentation within the vendor marketplace, and the significant growth potential derived from increased marketer adoption, rapid and continuous market consolidation is imminent. As we look forward, web analytics has become a subset of the more robust offline analytics suites, as the significant web analytics solutions providers attempt to differentiate themselves in the face of free offerings from Google Analytics. Digital technology providers are expected to acquire their way up the value chain as well. While the initial acquisitions centred around segmentation providers, the next wave of consolidation will come from e-commerce

and e-mail providers seeking to maintain their independence. CRM Lead management, and various campaign management tools provides a straight path for marketers and suppliers to rapidly execute a large number of campaigns at current staffing levels. Vendor consolidation must hence eventually create fully loaded and integrated marketing technology suites.

Interview Discussion & Results

For the research purpose we shortlisted three niche marketing automation vendors which specialised in latest automation technologies including video, banner ads and push notification marketing. The interview length was of about 20-30 minutes each, where i got a chance to dig deeper into their business proposals and challenges faced. We discussed in depth about each client category where they shared examples of a few clients who had a unique problem or an extremely unconventional customisation requirement. Starting with VDOPIA's Associate Director, I also spoke with Global Sales Manager iZooto and CEO Adelements. I covered questions about their business offering, client profile, technology tools they used, if their technology was build inhouse or outsourced, the automation technologies customers prefer and organisational challenges of implementing these technologies at the client's office.

Results

While most of them covered the retail, ecommerce, BFSI and travel industries, they also covered niche markets such as education sector, online publishers, etc.

The next question was about which clients got the maximum returns on investments and we further keen on automation technologies, it pointed out to the obvious fast growing retail ex. MCDonalds & ecommerce sector followed by technology organisations like Google, Intel and auto industry players.

When asked about why these industries were at the top of the list, I got to know that the segmentation process of the audience they do primarily was easily usable by these industries. For other niche markets like education, finance etc., the data had to be mined and various filter were to be used in order to fine tune the data for maximum benefit. This took a lot of time at both the seller and the buyer's end and hence was slow.

When I asked them about the satisfaction levels of their clients all of them unanimously agreed that there was a lot that had to be done since the technology is fast paced. The customer's are never satisfied by the tools offered to them as there's a new addition in the next 4-5 months. The clients were however able to achieve their objectives which they had set at the start of the campaign along with the vendors.

The next question was asked about the kind of technology they pitched to the potential clients. Even though they all had a different product, the offering was quite similar: User Segmented targeting, Marketing and personalising. Be it the video - App based targeting, Banner based targeting or push notifications, they all essentially had to work on strengthening their platform to efficiently segment the customer database with maximum number of parameters so that they can yield efficient targeting results for their clients.

The next question helped me understand the kind of automation tools clients prefer. They usually preferred automation techniques to personalize communication to the target audience. The objective was to reach fragmented audiences via personalised communication.

Digging deeper into this question I understood the objectives of why the clients used automation tools. All of them answered Brand awareness, improving ROI of the marketing campaigns and customer acquisition were the primary objectives. Automation tools like push-up notifications added that engagement with the audience is also a secondary objective of a few of their clients.

They also added that they had developed these marketing automation tools in house instead of outsourcing them from another external vendor. This gave them enormous room for flexibility and they were able to customise solutions for their clients quickly and conveniently.

The next question was about if they faced any organisational challenges while implementing these tools at their client's site. Most of them agreed that getting the technology team of the client on the same page as theirs was a challenging task for them. This was also the part of the implementation process that took the longest amount of time. The second organisational challenge two of them mentioned was HR training for the efficient usage of the tools. This was a critical step since if the resources are not trained then getting these often complex automation systems to work as per the expectations of the client often fails. Hence training is a necessary yet significant part of the process.

While the major players like Google and facebook are already dominating the market with a whooping 80% combined share in the advertising industry I asked them about how they differentiated themselves from these big players. VDOPIA's associate Director mentioned that they maintain an exclusive inventory of websites where they sign deals to display their ads. So they have an advantage over google as these big players aren't able to cover the deeper landscape for their display and video campaigns even though their spectrum is wide.

Scope of Future Studies

The study findings support evidence proposing that content must target customers' needs and solve their problems rather than promoting company products (Davis, 2012; Handley & Chapman, 2011; Wuebben, 2011).

There is a huge chunk of visitors that use more than one browsing platform to visit the website. This means that every time they enter the system as a new customer unless they aren't signed in or haven't entered their emails at all. Adding to this is another possibility where the visitor may have deleted their previous cookies in which case the system treats them as a new visitor. It gives a false image and becomes extremely difficult to track these visitors. However a new technology of Identity stitching is gaining prominence in the marketing world, however is slow and will take a while to reach the mainstream automating tools.

Moving on from measuring challenges to the Human resource challenges. A manager must not manage more than 7 metrics at a time to be effective in taking action. However today's digital marketing automation tools provides dashboards flooding managers with metrics of information and numbers. It hence becomes extremely difficult to manage data.

The primary reason why digital marketing is a safer bet to invest money is because it is supposed to be transparent, however too much information is smothering the marketeers and is not helping with making better decisions. At this time, google and other tools are coming in with data visualisation tools which shall help managers to visualise answers to their challenges on a dashboard and to be able to track it easily without digging and downloading untidy excel reports weekly/monthly.

Automation tools which are in sync with CRM platforms that also facilitate sales, can help in keeping track of the leads. Automation enables setting up follow ups without any failure, which reduces the risk of missing out on active leads. They also help in automatically assigning leads to the sales team. However, there are still loopholes in these systems which can be exploited by the sales members to gain incentives. These systems need to be set up cautiously, and need to be flexible so that they adjust as per the requirement of the corporations. In case these systems are built in house it provides them flexibility, however in case they buy it from a vendor, it becomes a challenge. Another challenge here is that they vendors have access to the company data which makes them more vulnerable to leaks.

REFERENCES

1. A longitudinal crosslevel model of leader and salesperson influences on salesforce technology use and performance. Journal of Applied Psychology, 92(2), 528—537.
2. Agnew, M. (2000). CRM tool offers sales force solutions. Retrieved March 24, 2008, from http:// www.informationweek.com/ 800/sfa.htm
3. Biegel, B. J Direct Data Digit Mark Pract (2009) 10: 201. https://doi.org/10.1057/dddmp.200 8.37
4. Brynjolfsson, E., & Hitt, L. M. (1998). Beyond the productivity paradox: Computers are the catalyst for bigger changes. Communications of the ACM, 41(8), 49—55. Bush, V.,
5. Bush, A. J., & Orr, L. (2010). Monitoring the ethical use of sales technology: An exploratory field investigation. Journal of Business Ethics, 95(2), 239—257.
6. Collins , K . , Sarner , A . and Thompson , E . (2007) ' Predicts 2007: A return to growth fuels marketing technology spending ' , (Online) Gartner Group, available at http://www.gartner.com/ DisplayDocument?id=498238 (accessed 15th August, 2008)
7. Dwyer, F. R., Schurr, P., & Oh, S. (1987). Developing buyer-seller relationships. Journal of Marketing, 51(2), 11—27.
8. George, B. (2012, June 5). Keynote address at the Thought Leadership on the Sales Profession conference, Harvard Business School
9. Hasselwander, 2006; Sabnis, Chatterjee, Grewal, & Lilien, 2013
10. Homburg, C., & Jensen, O. (2007, July). The thought worlds of marketing and sales: Which differences make a difference? Journal of Marketing, 71, 124–142.
11. Homburg, C., Jensen, O., & Krohmer, H. (2008, March). Configurations of marketing and sales: A taxonomy.
12. Jaramillo, F., William, B. L., Paul, E. S., & Eric, G. H. (2007). Getting the job done: the moderating role of initiative on the relationship between intrinsic motivation and adaptive selling. Journal of Personal Selling and Sales Management, 27(1), 59-74
13. Jones, E., Sundaram, S., & Chin, W. (2002). Factors leading to sales force automation use: A longitudinal analysis. Journal of Personal Selling and Sales Management, 22(3), 145—156.
14. Journal of Marketing, 72, 133–154. Hubspot (2015). What is marketing automation? Available at: http://www.hubspot.com/ marketing-automation-information (Accessed 15 February 2015)
15. Keillor, B. D., Bashaw, R. E., & Pettijohn, C. E. (1997). Salesforce automation issues prior to implementation: the relationship between attitudes toward technology, experience and productivity. Journal of Business and Industrial Marketing, 12(3/4), 209-219.
16. Khandpur, N. K., & Wevers, J. (1998). Sales force automation: Using web technologies. New York: John Wiley & Sons, Inc. Mathieu, J., Ahearne, M., & Taylor, S. (2007).

17. Little JD (2001) Marketing automation on the internet. In: UC Berkeley 5th invit choice symp, Monterey
18. Lorge, S. (1999). A real-life SFA success story. Sales and Marketing Management, 151(1), 67.
19. Michiels , I . (2007) ' Success strategies in marketing automation ' , (Online) Aberdeen Group, available at http://www.aberdeen.com/summar y/report/benchmark/4133-RA-mark etingautomation.asp (accessed 15th August, 2008)
20. Morgan, A. J., & Inks, S. A. (2001). Technology and the sales force: Increasing acceptance of sales force automation. Industrial Marketing Management, 30(5), 463—472.
21. Moriarty, R. T., & Swartz, G. S. (1989). Automation to boost sales and marketing. Harvard Business Review, 67(1), 100-108.
22. Morris, M. G., & Venkatesh, V. (2000). Age differences in technology adoption decisions: Implications for a changing work force. Personnel Psychology, 53(2), 375—403.
23. Petsky Prunier . (2008). (Database) (Personal communication, August 2008)
24. Relationship between salesperson performance and understanding of customer decision making. Journal of Marketing Research, 15(4), 501-516.
25. Richards, K. A., & Jones, E. (2008). Customer relationship management: finding value drivers. Industrial Marketing Management, 37(2), 120-130.
26. Rivers, L. M., & Dart, J. (1999). Sales technology applications: the acquisitions and use of sales force automation by mid-sized manufacturers. Journal of Personal Selling and Sales Management, 19(2), 59-73.
27. Robinson, L., Marshall, G. W., & Stamps, M. B. (2005). An empirical investigation of technology acceptance in a field sales force setting. Industrial Marketing Management, 34(4), 407-415.
28. Rogers, E. M. (1995). Diffusion of innovations. New York: Free Press
29. Salesforce.com. (2008a). Financial services case study: BOK Financial Corporation. Retrieved April 1, 2008, from http:// www.salesforce.com/customers/fin ancial-services/casestudies/bok.jsp Salesforce.com. (2008b). As its business evolves, Expedia Corporate Travel customizes CRM in minutes. Retrieved April 1, 2008, from http://www.salesforce.com/custom ers/ traveltransportation/expedia_co rp_travel.jsp
30. Schafer, S. (1997, June). Supercharged sell. Inc.com. Retrieved from http://www.inc.com/magazine/ 199 70615/1412.html
31. Speier, C., & Venkatesh, V. (2002). The hidden minefields in the adoption of sales force automation technologies. Journal of Marketing, 66(3), 98—111.
32. Technology Marketing Corporation. (2004, June 15). Yankee Group survey shows 57 percent of sales force automation users very positive on technology use; Increasing sales effectiveness still top problem in the enterprise. Retrieved March 24, 2008, from http://www.tmcnet.com/usubmit/2 004/Jun/1048518.htm
33. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425—478.
34. Wang, G., & Netemeyer, R. G. (2002). The effects of job autonomy, customer demandingness, and trait competitiveness on salesperson learning, self-efficacy, and performance. Journal of the Academy of Marketing Science, 30(3), 217.
35. Wedell, A., & Hempeck, D. (1987). Sales force automation—here and now. Journal of Personal Selling and Sales Management, 7(2), 11-16. Weitz, B. A. (1978).
36. Widmier, S. M., Jackson, D. W., & McCabe, D. B. (2002). Infusing technology into personal selling. Journal of Personal Selling and Sales Management, 22(3), 189-198

20

Digitalization: A Revolution in Indian Banking

Akshit Gupta & Ishika Gupta***

ABSTRACT

Information & Technology has blanketed the human life from head to toe. Every entity is utilizing technology to pace up the speed and assure quality in its work. Without exceptions, each industry, business & service sector adopted IT to provide innovative products and services to consumers. It turned major this year with its advent from 2000 and impacted all the spectrums of economy such tremendously that the age is termed as "Digital Era". Banking sector too came up with digital services like plastic money, NEFT, RTGS etc with the onset of the new era but recent changes, it brought into its structure, is appreciating. In this paper, the prime focus is on the present situation of banking with the digitalization, consumer engagement and satisfaction with digital banking & the essence of future metamorphosis of digitalization in banking. A sample survey is conducted through online Google forms and analysed with conclusion. This paper offers an open window to see how digitalization has revolutionised the Indian Banking sector and what opportunities and challenges does it bring to the surface in the coming future.

Keywords: *Technology, Digitalization, Economy, Indian Banking.*

OBJECTIVES OF THE STUDY

(i) To make theoretical analysis on e-banking and to look at its evolution and the progress of computerization and automation in Indian banking sector
(ii) To analyse the trends and development made by the Indian banking industry in adoption of e-banking technology and services.
(iii) To highlights the benefits and challenges associated with e-banking in Indian context.
(iv) To make some recommendations for future development of e-banking.

INTRODUCTION

We talk a lot about building digital banking solutions to help financial organizations improve their customer on-boarding experiences and boost their morale for the institution. But, what is digital banking?

Digital banking is the digitization (or moving online) of all the traditional banking activities and programs that historically were only available to customers when physically inside of a bank branch. This includes activities like:

* Department of Commerce, Maharaja Agrasen College, University of Delhi

** Department of Commerce, Maharaja Agrasen College, University of Delhi

- Money Deposits, Withdrawals, and Transfers
- Checking/Saving Account Management
- Applying for Financial Products
- Loan Management
- Bill Pay
- Account Services

Consumer preferences have quickly shifted to online and mobile devices, but many financial organizations have had trouble shifting their onboarding experiences online and to smaller screens.

In addition, until the past few years, banks were not envisioning the tremendous shift in consumer behaviour that occurred as a result of the millennial generation now become the largest consumers of financial products.

What is the Difference Between Online and Digital Banking?

For the most part, these two words are synonyms. But, we define online banking a bit more narrowly: online banking primarily focuses on remote deposits, money transfers, bill pay, and basic online management of accounts. Other synonyms for online banking include internet banking, virtual banking, and e-banking. So, online banking focuses on digitizing the "core" aspects of banking, but digital banking encompasses digitizing every program and activity undertaken by financial institutions and their customers.

Moreover, E-Banking is a bit different from M-Banking as former includes the banking by all electronic means ie email, sms, web, portal whereas later is access and control accounts through mobile applications.

Background

Banking sector plays prominent role in the development of an economy. It is a financial institution which apart from accepting deposits and offering credit, also provides discounting, consultancy services etc. Though the modern banking system was initiated in the 14th century but its roots can be traced back to 1700 BC in ancient Greece, Roman Empire, China, India which has records of interest bearing loans. With industrialisation in 17th century A.D., the Banking sector witnessed many upgradation and institutional changes with every decade rolling.

In India, banking made its headway in late 18th century with establishment of Bank of Hindustan in 1770, Bank of Calcutta (1806), Bank of Bombay (1890) and Bank of Madras (1845) which all amalgamated as Imperial Bank of India in 1921 and upon independence of the sub-continent conferred as State Bank of India in 1955. To regulate the Indian banking system, Government of India passed Banking Regulation Act in 1949 empowering Reserve Bank of India (established in 1935) "to regulate, control and inspect banks in India". 1969 was the year of great reconstruction for Indian Banking system when Indira Gandhi (then Prime Minister) expressed the nationalisation of banks in a paper titled "Stray Thoughts on Bank Nationalisation" and following which Government of India nationalised 14 Public sector banks. With the introduction of computers, Banks felt the need for mechanisation and automation in industry for which RBI set up committee headed by Dr. C. Rangarajan in 1984 to monitor the needs and capabilities of the sector. Also, New Economic Policy was adopted in 1991 to open the economy for the foreign players to boost the deplorable condition of economy. India flourished day and night embracing

the new economical and technological advancements which was well witnessed in Banking system as well.

DIGITALISATION IN BANKING

The concept of internet banking has been simultaneously unfolding with the progression of world wide web. The first online banking service was initiated by United States in October, 1994 developed by Stanford Federal Credit Union. In May 1995, Wells Fargo became the first bank to offer banking services over the internet to its customers. This trend was brought to Indian land by ICICI Bank in 1997 under the brand name 'Infinity'.

Stages	Objectives and Technology applied	Developments
Post-Nationalized Stage Control of Govt. (1969 – 90)	Social Banking and Limited Computerization	**1984-88** •Installation of ALPMs. •Banks started using personal computers with hard disk. • MICR cheques were introduced at four metro centres. • Installation of ATMs. **1990** • Experimentation of total branch computerization covering all aspects of bank's transactions at the branch level.
Economic Reforms Stage Entrants of foreign and Social Banking to IT based Banks (1991 – 2000)	Higher profitability, cut throat competition and E-banks	**1991** • India joined SWIFT. **1997** • Shared payment network system has been set up. **1999** • A pilot project for smart cards conducted jointly by RBI, IIT (Mumbai) and IDRBT, Hyderabad. **2000** • IT Act, 2000 was passed.
Present Stage- Implementation of various committee report (2000 – till date)	New products and Services and Maximum use of IT- Mobile, ATMs	**2003** • Special EFT system was introduced. **2004** • RTGS system was introduced. **2005** • 11% of branches of PSBs have been brought under CBS and NEFT system was introduced. **2007** • The payment and settlement system act, 2007 was enacted. **2008** • The operative guidelines on mobile banking transactions were issued. • CTS were implemented in national capital region. **2009** • Cash withdrawal from ATMs of the banks was made free of cost. **2010** • Mobile payments App like PayTM **2016** • UPI payment system By National Payments Corporation of India • BHIM APP **2017-18** • Banking plus Lifestyle apps like SBI YONO

BENEFITS OF DIGITAL BANKING

- To customer…

Convenience and mobility: Digital banking lets customers use banking services 24*7 and doesn't require them to visit the local branch of their bank for routine work. According to oracle financial services global survey customers listed "best returns and experiences as most important considerations across all banking stages" and 81% of consumers are opting for digital channels to engage with their banks. According to our research 80% people prefer digital banking because it's convenient and 62.2% prefer because it's easy to use.

Better rates: With the utilisation of technological advancements in the banking sector, management is able to reduce their administration and operating costs. This has enabled them

to offer lucrative interest rates on deposits as compared to their traditional counterparts. For instance: Paytm payments bank is presently offering interest @6.85% p.a. as compared to highest rate of interest available in traditional banks which is 4% p.a. on zero balance saving accounts. Also, they don't charge any fine on non-maintenance of bank balance.

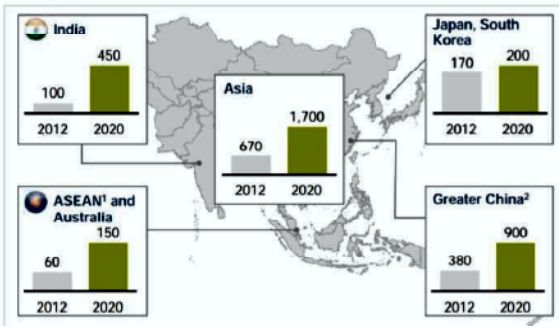
Customized services: Along with providing traditional banking services, digital banks are offering services like functional budgeting and forecasting tools, financial planning capabilities, investment analysis tools, loan calculators and equity trading platforms.

- To banks….

Reduction of costs: With consumers increasingly using mobile phones and the internet for banking services, major banks are reducing the size of new branches. Digital banking has also paved the way for banks to remodel their branch banking by allowing technology to play a major role. According to Chanda Kochhar (MD and CEO of ICICI Bank) "Only the size, number of people required at a branch changes. Also, cost of operations is reduced and it helps profitability," On an average, a branch banking transaction costs a bank about `40-50 per customer, while an internet or mobile transaction brings down the costs to `15-30 per customer.

Increase in consumer base: Convenience and mobility of digital banking have drawn many unbanked of the country towards banking sector which were earlier sceptical about opening bank accounts. With smartphones becoming a household name Paytm has got 25 crore account holders in a span of just 5 years.

In 2012 no. of digital banking users were 100 million which are expected to increase by 4.5 times and become 450 million by the end of 2020 according to study of digital banking in Asia.



Source: Association of Southeast Asian Nations

Ability to provide better consumer experience: Banks can easily collect feedback from their customers. This will help them to provide better services. Big data analytics will help the banks to analyse data accurately leading to better decision making and improve customer experience.

- To economy…

Better credit delivery: Historically, banks primarily lent to large credit worthy corporates and hesitated for small borrowers. This is because of lack in evidence of one's creditability and ability to pay back. With the digital transactions taking place it is easier to track the digital footprints of the borrowers and assess their credit worthiness. This has advanced different credit services like education loan, car loan, home loan, gold loan, etc.

Rural outreach: Expansion needs a lot of cost to be borne by a bank to reach remote parts of the country which are not profitable due to lack of awareness, scale of business, proper

infrastructure. This hinders the organisation to setup branches in rural areas however digital banks do not need any branch to operate their modus operandi and can be easily accessible through smartphones. Smartphone penetration rate in India is 77% which connects the rural areas to the modernising Indian economy.

CHALLENGES TO DIGITAL BANKING

1. ***Attaining app perfection:*** There is an immense feeling of power and reassurance while accessing a smartphone application. Smartphones are more personal in nature, progressing to biometric verification, even for actions such as unlocking the screen. Taking this into account, developing applications related to a business becomes crucial in order to retain customers. With banking and financial applications increasingly offering the comfort and luxury of monitoring expenses at any time from any place, organizations that do not tap into this area will certainly lose out on many individuals that will deem the corporation outdated. However, most applications are often ridden with bugs and face severe performance issues. They remain difficult to navigate, at times, and frequently crash. This can be detrimental to the company's progress as it would represent poor quality.

The Fix: Quality Assurance professionals are trained to inspect, assess, and assure the quality of the software. They become involved in the process early on in the software lifecycle and ensure that applications are delivered with premium quality. In the case of a performance issue despite the rigorous testing, they will be able to tend immediately to the problem and fix the bugs instantly.

2. ***Technology Upgrades:*** Five years ago, smartphones wee only just becoming popular. Today, the functionality largely defines the device that is owned. Those who travel frequently on business depend on Apple and Android tablets, those who work as freelancers depend on high quality cameras and digital notebooks, while those who work the 9-to-5 routine prefer robust laptops and high-performance desktops. In addition, we have products like Amazon Echo thrown in the mix, for daily alerts and to perk up the overall lifestyle. Knowing which audience to target is only the half of it; understanding who would use what device under which circumstances is equally important. This means a serious amount of investment for banking and financial entities in digital capabilities and formulating effective digital strategies.

The Fix: Software testing plays a key role in ensuring device compatibility with the software and makes the entity more user-friendly. This invariably leads to more breathing room for exploring the devices that will be able to carry the c1ompany's customized software better. This typically saves the corporation millions of dollars and organizations can, subsequently, spend their efforts on figuring out an apt digital strategy.

3. ***Cyber Crime:*** Most banking and financial applications are subject to cyber-attacks the most. The reason is obvious, what with money being the unquestionable objective. Fraudsters have been known to be innovative in their endeavours to siphon funds, either as large amounts in a gun-shot, or minuscule amounts from thousands of accounts, over a long period of time. If not money directly, there is always the threat of data being compromised.

The Fix: Security testing will sniff out the possible points of vulnerabilities that hackers may take advantage of and offer the appropriate solution. Security testing demands a thorough understanding of the banking system and offers an in-depth knowledge of the internal architecture. Quality Assurance professionals that have expertise over the banking domain are the ones that would best tackle cyber-crime.

4. ***Spearheading with Innovation:*** Spearheading the marketplace by offering innovative services is not just desired, but also required in order to stay ahead of the curve and attract a wide customer base. Especially with a large base of young users, it becomes important to distinguish your company in the ever-growing and competitive marketplace. However, companies are often hesitant to take the leap, as they are aware that things can horribly backfire and cause instant backlash from irate customers.

The Fix: Software testing can ensure that all the major bugs are tackled as they rise, and thorough analysis is conducted in order to have preventive measures. This will give innovative companies in their respective industries a boost, so that they can continue to explore how to better delight their customer-base.

5. ***Sustainability:*** Post successful innovation and implementation, the next pressing challenge to tackle effectively is sustenance. An organization's sustainability as a leader is possible only through synergy. Only when the users acknowledge the value of the product or service will the organizational value skyrocket to success and remain there. In this context, the power of social media is often overlooked. While consistently good reviews uplift the organization to a better status, consistently bad reviews can destroy even an entire empire.

The Fix: Understanding and leveraging the power of social media, while necessary, can be ridden with issues. Trolls, malwares, and tweets about performance issues can all wreak havoc if not effectively and immediately managed. Software testing personnel can spot real problems and immediately fix the issues, thereby containing the issue. This greatly helps sustain brand image in the long-run.

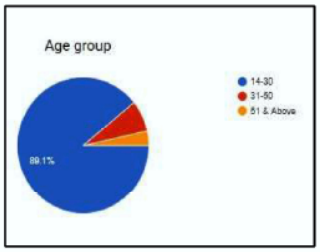
6. ***Delivering Quality at Speed:*** In the rush of wanting to deliver products and services at an accelerated speed, companies often tend to compromise on the quality. The issue with quality is that there is no such thing as a small bug; a bug is a bug. There have been several instances of organizations knowingly turning a blind-eye to defects in products and software even before the item hit the market.

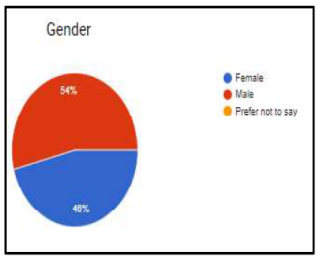
The Fix: Robust software testing ensures that the product or software hits the market well in time. By closely analysing possible software issues right from the requirements gathering stage, quality assurance experts ensure time to market.

DATA RESEARCH

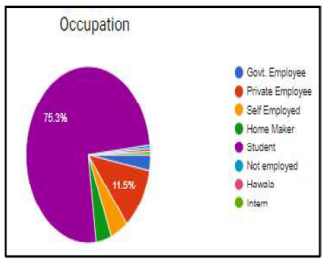
The study covers around 200 people from different backgrounds which ranges from students, home makers to working professionals. In this research, we can say that the data represents the 4/7 urban section especially who have access to internet services available via mobile networks or Wi-Fi broad bandwidth at homes and other institutions.

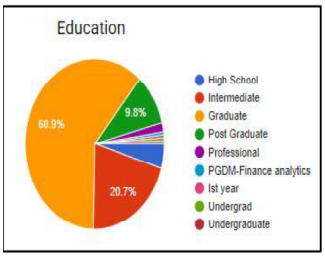
In this data, we got 89% youth, 7% aged between 31 and 50 years and rest were above 50 years of age. The respondents comprise 54% of males and 46% of females.



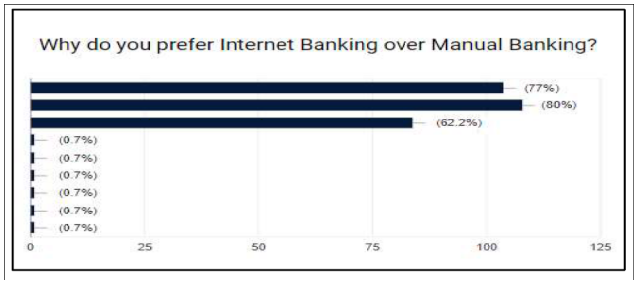


The respondents comprises of 75% students, 11% private employees, 3% government employees and 4% each self-employed and home-makers. Due to domination of students in the study, their readiness and ability to grasp and yearn to adapt to changes is prominent.

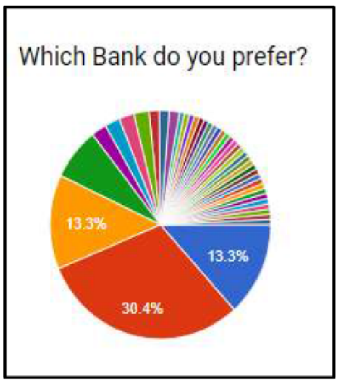


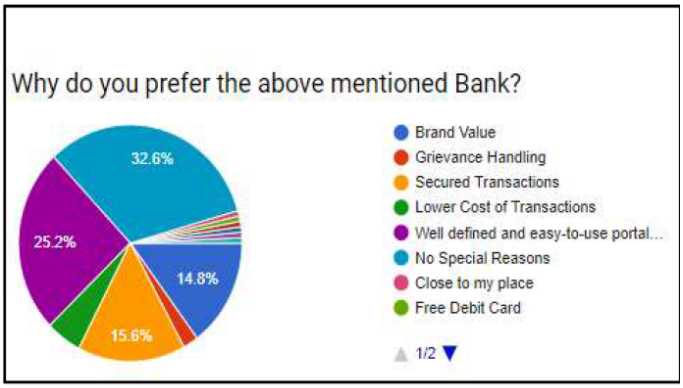


When we talked about the literacy level to comprehend the financial and digital literacy, 61% of the data is either pursuing graduation or has already graduated. In this data, we also found that 20% were just intermediate passed but also 10% are pursuing Post graduation or already hold the degree in Post-graduation. The internet banking penetration in the data is 77.6% which indicates 3/4 of the urban sectors are moving from traditional way to modern system of banking. Only 22% is either reluctant or finds internet unreliable when it comes to managing funds.



Statistics show that the degree of Confidence is 4 on a scale of 5 in 48% interviewee and degree of 3 and 5 in 30% communicators in each case. This shows that people are not reluctant in using internet services by forgoing their woes and worries regarding security of their funds.

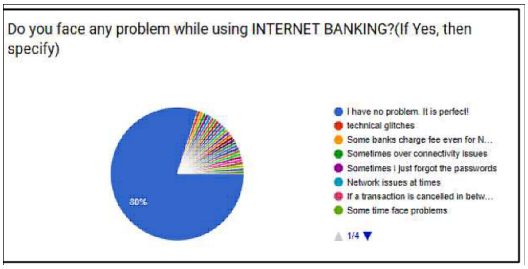




The data also brings the fact to the lime light that most of the internet banking users prefer the digital banking due to the advantage of time saving (77%), easier accessibility (80%) and convenient to use (62.2%).

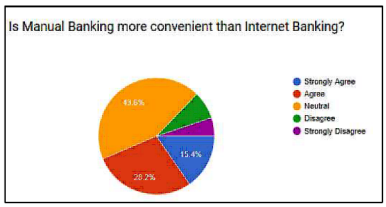
From the data collected, we can see that 30.4% share is captured by State Bank of India, 13.3% each by ICICI Bank and HDFC Bank, 7.4% by Punjab National Bank and rest by banks like Indian Bank, Axis Bank, etc. When it comes to the reasons about such special reasons then 32.6% couldn't explain (which either they don't want to share or because of accounts being opened by parents, presence of relatives or friends etc.). However, merely 15% people give consideration to the brand value of a bank whereas 25% are concerned about 'well-defined and easy to use portal'. Also, 16% have preferred their choice of bank because of 'secured transactions'.

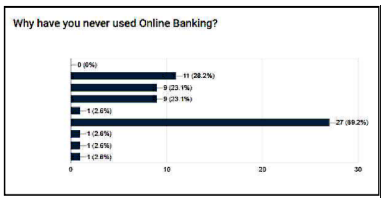
The respondents were inquired about the frequency of digital transactions undertaken by them. It was revealed that 10.4% of the class leave some digital footprints on every day. Moving further, 32% of the sample transacts 2-3 times a week. However, there are 31% who operate once a week and 19% are those who manage their accounts once a month only. Infact, 7% belongs to the category who surfs their online funds very rarely. This gives a clear picture that people have understood the benefits of digitalized access of their bank accounts.



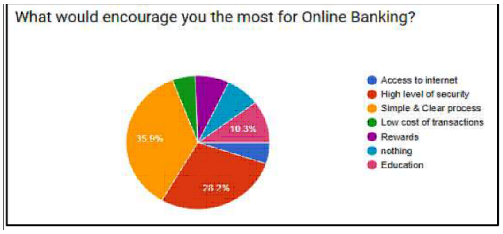
There is nothing perfect in this materialistic world, everything comes with some defects. 80% Internet banking users claimed that they had no problems while using the digital services but the other 20% spoke out about the problems like hard to remember long passwords, connectivity issues, technical faults, doubt regarding success of transactions, delay in funds transfer, servers don't respond and so on. Either 80% sample does not consider the above stated reasons as problems or they were reluctant to speak up about it.

All the above stated data and charts were statements of people who use internet banking but the interviewee who were still dependent upon traditional way of banking also spoke about their fears and experiences.





Convenience of handling accounts manually was also taken into consideration. 43.6% were neutral for which the reasons could not be extracted. 15% strongly agree that manual accounts are more convenient than digital accounts. However, 5% could only strongly disagree about the convenience of traditional accounts.



The sample was inquired about the reasons for not using internet banking services in which 69% said they have never tried, 23% each said the process is too complex and prefer human relations. 11% people don't trust internet services when it comes to managing funds online.

Always there are incentives to bring people out of their fears. We got some points where in people are willing to transform themselves into digital friendly. At first, 35% requires active internet all the time to transact money online, 28% demand security of their transactions, 8% want some rewards like discounts, 5% desire for lower cost of transactions, 10% want awareness and education about how to access their accounts online. However, there were 8% samples that were reluctant to change their way of managing their funds. The pie-chart given below details the same.

A WAY FORWARD

Blockchain hastening payments: The customer base that banks serve is going through a major shift in terms of buying behaviours and preferences, driven by the digital revolution, particularly social media and mobile. An increased demand for more choice and control in how they interact with a bank is on a rise. Sluggish payment processes will be a thing of the past as Blockchain is set to inculcate the advantage of real-time payment process, hastening up the procedure of payment, thereby increasing support and satisfaction.

Voice Assisted Banking

Physical presence is slowly fading away as technology empowers customers to use banking services with voice commands and touch screens. The natural language technology can process queries to answer questions, find information, and connect users with various banking services. This reduces human error, systemizing the efficiency.

Personalized Financial Services

Personalized connect will reach new heights as automated financial advisors and planners provide expertise in making financial decisions. They analyse market temperament against the user's financial goals and personal portfolio, and offer recommendation regarding stocks and bonds.

Data-driven AI applications for lending decisions

Applications embedded in end-user devices, personal robots, and financial institution servers are capable of analysing a huge volume of data, providing customized financial advice, calculations and forecasts. These applications can also develop financial plans and strategies through research, regarding various customized investment opportunities, loans, rates, fees, etc. and track the progress.

CONCLUSION

Digital banking has come a long way from erstwhile mechanisation technology to present mobile banking facility. Earlier customers of traditional banks were sceptical about going digital for trust and personal interaction being the major determinants but the digital banks are coming up with personalised innovative solutions. They are now more secure and maintaining customer relations through a new customer relationship management (CRM) model. Even Public sector banks have realised that relationship building is of utmost importance to maintain market share. These banks are in no mood to disappoint their customers.

Having said that challenges to digital banks are not yet over and demands of digital consumers growing along with technology, hence the banks are needed to upgrade their methods accordingly and regularly. How well digital banks will be able to satisfy their customer will define their fate but, at present, their future seems bright…

REFERENCES

1. Austin, Granville (1999). Working a Democratic Constitution – A History of the Indian Experience. New Delhi: Oxford University Press. P. 215. ISBN 0-19-565610-5.
2. Radhe Shyam Rungta (1970). The Rise Of Business Corporations In India, 1851–1900. Cup Archive. P. 221. Ggkey: Nc1sa25y2cb
3. Cigniti Technologies, Independent Software Testing Services, blog dated January 13, 2017
4. "You Can't Have A 21st Century India with 19th Century Institutions: Amitabh Kant | Forbes India". Forbes India. Retrieved 2017-06-24.
5. Indian Banking System. I.K International Publishing House Pvt. Ltd. 2006. ISBN 81-88237-88-4.
6. "3.2 Million Debit Cards Compromised; Sbi, Hdfc Bank, Icici, Yes Bank and Axis Worst Hit". The Economic Times. 20 October 2016. Retrieved 2 0 October 2016.
7. Lama, Pema and Saha, Suranjana, Recent Trends and Development of E-Banking: Indian Perspective (2015)
8. Don Bergal, Cmo Avoka, Speech At Avoka Auditorium In October,2017
9. Oracle Financial Services Global Survey, 2017
10. Mckinsey & Company, Report On Digital Banking: "Mastering New Realities, A Blueprint To Transform Indian Banking" May 2017"
11. Ficci Report On Digital Banking In Financial Foresights: "Digital Banking: New Horizons In A Cash-Light India", April 2017

21

Fundraising in Digital Economy: Can Bitcoins be the Next Investment Avenue

Dr. Deepak. R & Prof. Shruthi Prabhakar***

ABSTRACT

Year 2018 has been turning out to be the worst nightmare for those who invested in traditional investment avenues including the mutual funds. The corporate scandals, the speculations of changes in interest rates by the Federal Reserve earlier than expected, expectation of increase in global oil prices, tariff wars between developed and developing nations, lack of positive sentiments among portfolio institutional investments, have more or less, led to bearish sentiments among the investors. Among this trend, crypto-currencies have been observed to be the next generation investment avenue which is decentralized in nature and have been based on the Block Chain Technology. The study thus tries to examine the nature, regulations revolving around the currency and the underlying trend in the daily, monthly and yearly returns obtained from 2010 to 2017.

Keywords: *Bitcoins, Investment Avenues, Crypto-currencies, Decentralized Currency.*

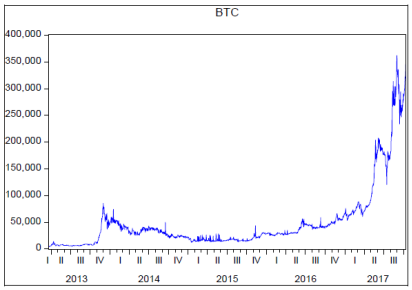
INTRODUCTION

Israel's Central Bank on January 8th, 2018[3] opinioned that, virtual currencies such as bitcoin cannot be considered as an actual currency and it would be difficult to devise regulations considering the risks it has on the its banks. Instead, virtual currencies can be considered as an "Financial Asset"[4] . Same has not been the opinion of most governments and regulators in this matter around the world as there are still debates on the nature of the currency. Wei Dai (1998) sought an idea to create a currency which will be completely decentralized in nature[5] and Satoshi Nakamoto in 2009 made Dai's concept into reality by developing bitcoin, the first decentralized virtual currency"[6]. According to Satoshi Nakamoto (2009), in his self-published paper "Bitcoin: A Peer-to-Peer Electronic Cash System" bitcoin was the world's first digital virtual currency which was exchanged through the peer-to-peer network to gain value through demand and is virtually decentralized in nature.[7] According to Wikipedia[8], Bitcoin is a digital, decentralized, partially anonymous currency, not backed by any government or other legal entity, and not redeemable for gold or other commodity. It relies on peer-to-peer networking and cryptography to maintain its integrity. The transactions are verified by network nodes through use of cryptography and recorded in the public distributed ledger called the Block chain. The presence of the Distributed ledger system on the Block chain technology allows any organization of any chain of records or transaction without the need for any intermediary to transact, its usage has been limited not only to few individual investors and firms.

* Associate Professor, Department of Management Studies, Dayananda Sagar College of Engineering, Bengaluru, Karnataka, India.

** Research Scholar, Institute of Management Studies, Davengere University, Davengere.

Figure 1: Performance of Bitcoin Prices (in Indian Rupees) from 2013 to 2017

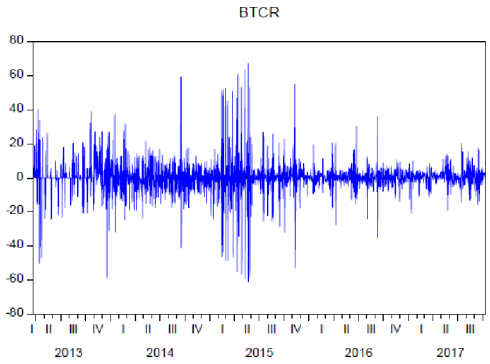


Source: www.yahoofinanceindia.com

The Bitcoins does not have an intrinsic value and the only real value is based on supply and demand (what two parties in the trade are willing to pay for the trade-off). The characteristics of the Bitcoins made it immediately popular among the masses spawning several copies over the years. The bitcoins has many properties that could make it an ideal currency/financial asset. Among several properties, the most important is that, it is highly liquid in nature and can be used for making payments very quickly over internet. Due to this, it can be transacted with the lowest transaction costs and hence would definitely qualify to be an medium for micropayments. As observed, in Figure 1, the prices of Bitcoins have increased from meager Rs. 3917.720 on 20th March, 2013 to Rs. 5,56,351.94 as on 25th march, 2018. The value of bitcoins was valued at a mere amount of two dollars in 2011, but it broke the $10,000 mark by 2017. This is more than 14,200 times the initial amount. Which other financial asset would offer such a return??.

These inherent characteristics soon raised a concern among government and regulators to uphold its value or monitor its use. Irrespective of several attempts to prevent this decentralized currency from peer-to-peer transactions, little progress has been seen. Considering the cryptocurrency ecosystem in the present times, everyone wants to be part of this global phenomenon, irrespective of the risks involved. As observed in Figure-2, unlike the various traditional investment avenues, there exists significant trade-off's between return and risks for the parties involved. In the beginning few years (especially during 2014-16), the volatility was unpredictable fluctuating in the range of -40% to +50% on rare occasions raising concerns of its safety, but in the recent times, volatility has been normalized.

Figure 2: Volatility in Bitcoin Returns from 2013 to 2017



Source: Authors

The "Decentralised Digital Currency" or "Virtual Currency" (VCs) market has continued to grow buoyed by the increasing prices of the currencies. The Bitcoin has certainly caught the attention in India, with estimates of more than 10 lakh traders of Bitcoin alone with total revenue of top 10 exchanges in India might be equivalent to Rs. 40,000 crore[9]. With the Bitcoin values reaching new levels, there was observed crackdown on companies dealing with crypto-currencies by the government agencies.

PROBLEM STATEMENT

Studies in the literature have often been concentrated on studying the properties of the traditional investment avenues and have propounded to be best option for investors savings. In the recent times, with the growing popularity of the virtual currencies, several global and local companies along with the retail investors have found opportunity to diversify their portfolio with bitcoins and other virtual currencies being part of it. But in the recent Budget speech of 2018, the finance minister reiterated the stance of the Reserve Bank of India (RBI) against the potential financial, operational, legal, and security related risks stating that "crypto-currencies are not a valid tender". If Israel's Central Bank opinion of virtual currencies being treated as an "Financial Asset"[10] is further evaluated, we might be able to assess the risks of the virtual currency especially bitcoins in relation with the portfolio investments. Thus, the study would be conducted to examine the trend and patterns in bitcoins during the period 2010 to 2018, which would help in evaluating its risks with portfolio's made of traditional investment avenues.

OBJECTIVES OF THE STUDY

(a) To examine the performance of the bitcoins in relation to its inherent risks for the period considered.

(b) To examine whether, there exists seasonal patterns in bitcoin trading on virtual ecosystem.

(c) To discuss, whether bitcoins have any similarities or dissimilarities with traditional investment avenues.

(d) To suggest various measures which could be taken by the retail investors from the results obtained.

DATA COLLECTION AND DATA METHODOLOGY

The study uses the daily price data of first virtual currency namely bitcoins obtained from various secondary sources such as kaggle.com and yahoofinance.com. For the study, the daily prices of bitcoins was obtained for a period of around five years from 20th March, 2013 to 25th March, 2018 from yahoofinance.com.

For the study, return form the daily prices were calculated as follows:

$$R_{it} = \ln\left(P_{it} \Big/ P_{i(t-1)}\right)$$

Where, Pit is the closing prices of the currencies on day t and Pt-1 is the closing price on day t-1. It was observed that the bitcoins data considered over the data range is non-stationary in nature. Thus, the Augmented Dickey-Fuller test (ADF) on the closing price values was applied

to test if the series considered was stationary or not-stationary. ADF consists of a regression of the first difference of the series against the series lagged k times as shown below:

$$\Delta R_t = \alpha + \delta R_{t-1} + \sum_{i=1}^{p} \beta_i \Delta R_{t-1} + \varepsilon_t$$

Where,

$$\Delta R_t = R_t - R_{t-1}$$

The null hypothesis is H0: □ = 0 to be tested against H1: □<1. The acceptance of null hypothesis implies nonstationarity. Thus bitcoin prices were transformed to stationary time series by differencing as the time series was found to be difference stationary in nature. Since the time series data of bitcoin series log-differenced, the order of integration (differencing) is one. In order to examine the performance of the bitcoins over the data period, summary statistics of bitcoins was examined for overall period and for each year separately.

In order to test for seasonality in returns, the following Ordinary Least Square model with dummy variables representing the days of the week was considered as follows:

$$R_t = \sum_{i=1}^{5} \delta_i D_{it} + \varepsilon_t$$

Where, R_t is the returns in period t. *i* indicates all days of the week and D is the dummy variable for all days. □$_i$ represents the coefficients estimated using OLS method. The error term is assumed to be independent and identically distributed with a zero mean and constant variance.

To capture the conditional dynamics characterized by heteroscedasticity, or time-varying volatility in the return series, GARCH model was adopted which stands for Generalized Autoregressive Conditional Heteroscedasticity. According to the GARCH model of order p and q, which is denoted as GARCH(p,q) model, the conditional variance of the time series depends on the squared residuals of the process(Choudhary,1995);

The GARCH (p,q) model suitable for studying the calendar anomalies is shown below:

$$R_t = \sum_{i=1}^{5} \theta_i D_{it} + \varepsilon_t$$

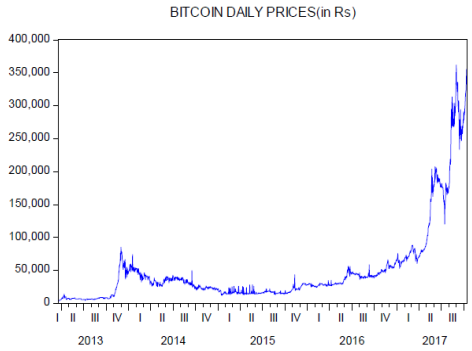
Where, □$_t$ is an error term with zero mean and conditional variance $\frac{1}{10_t}^2$, which is specified as follows:

$$\sigma_t^2 = \alpha + \beta \varepsilon_{t-1}^2 + \varepsilon \sigma_{t-1}^2 + \sum_{t=1}^{5} \lambda_i D_{it} + \varepsilon_t$$

In order to avoid, dummy variable trap, intercept is not considered in the regression. The coefficients $6\overline{39}_i$ represent the day-of-the-week effects and $2\overline{21}_i$ represent the volatility effects in the day-of-the-week. In order to examine the presence of seasonal anomalies, the level of significance is considered to be 5 percent.

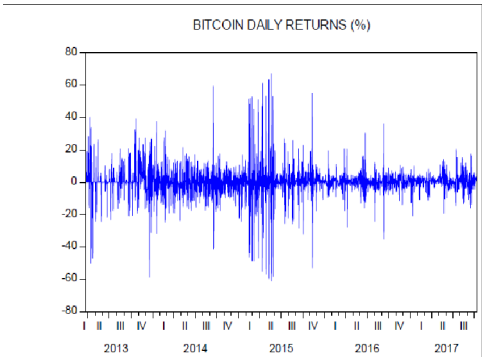
DATA ANALYSIS AND INTERPRETATION

Figure 1: Trend in prices of Bitcoins from March 2013 to December 2017



Source: Authors

Figure 2: Return series of Bitcoin Prices for the Period 2013 to 2017



Source: Authors

In order to examine presence of seasonality in bitcoins, first and foremost we had to examine if the series was stationary or not. As observed in Figure 1 and Figure 2, taking return form of the series is found to be appropriate, as the series observed is found to be stationary in nature. There is clear evidence of serial correlation in amplitude of returns but no visual evidence of serial correlation in returns. The Q-statistic and its p-values of the sample autocorrelation function (ACF) and partial autocorrelation function (PACF) under the null hypothesis of white noise for value of m ranging from 1 through 20 are consistently not zero at 1 percent level of significance indicating the rejection of null hypothesis of white noise. The ACF and PACF along with Bartlett bands display no patterns and are mostly inside the Bartlett bands.

In order to examine the average returns and risks involved in investing, summary statistics of bitcoin returns for various sub-periods and for the total periods was calculated. The results of the summary statistics is shown in Table-3. As observed, not only is the bitcoin highly liquid in nature, it is also very volatile to include in a portfolio. On an average, for the entire time period, if one were to invest in bitcoins, the returns would have been around 27 percent with maximum average returns of 67 percent and minimum being -60 percent. Considering the standard deviation of 10.4 percent, the bitcoins can be considered to be riskier in nature and risk averse investors would find it difficult to sustain in this environment.

Table 3: Descriptive Statistics of Bitcoin Returns for Sub-periods and Overall Period

	2013	2014	2015	2016	2017	2018	overall period
Mean	0.883265	-0.22272	0.071689	0.231434	0.786935	-0.84131	0.273002
Median	0	0	0.045302	0.265635	0.782952	-0.72369	0
Maximum	40.20469	59.4146	67.14245	36.00896	20.34602	17.86068	67.14245
Minimum	-58.6565	-41.211	-60.9676	-35.1538	-20.7091	-25.3612	-60.96763
Std. Dev.	11.55061	9.766159	16.40086	6.016808	5.671518	7.482735	10.47211
Skewness	-0.65442	0.479259	0.178974	0.084996	-0.01259	-0.48382	0.053154
Kurtosis	8.6944	7.747446	8.391715	12.96753	5.260699	4.581759	13.56877
Jarque-Bera	406.8257	356.7419	444.0639	1515.552	77.73581	11.89081	8517.896
Probability	0.000	0.000	0.000	0.000	0.000	0.002618	0
Sum	252.6138	-81.2928	26.16636	84.70478	287.2314	-69.8291	499.5944
Sum Sq. Dev.	38023.72	34717.54	97911.75	13213.72	11708.47	4591.288	200577.6
Observations	286	365	365	366	365	83	1830

Source: Authors

As observed in Table 4, as a formal test of stationarity, the Augmented Dickey-Fuller(ADF) test was conducted. The test rejects the null hypothesis of non-stationarity at 1 percent level of significance and also shows consistency with different lag structures with the presence of intercept or intercept and trend. Similarly, in case of other six cryptocurrencies, return form of series was observed to be stationary in nature.

Table 4: ADF test result on return series of Bitcoin prices

Null Hypothesis: BTCR has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic - based on SIC, maxlag=24)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-34.43390	0.0000
Test critical values:	1% level	-3.433728	
	5% level	-2.862919	
	10% level	-2.567551	

*MacKinnon (1996) one-sided p-values.

Source: Authors

As observed in Table 5, in order to examine Day-of-the-week effect in Bitcoin returns, Day-of-the-week dummy variables were considered. The presence of day was indicated by value of unity with corresponding days to be zero. Day-of-the-week effect would be confirmed when the coefficient of atleast one dummy variable is statistically significant at 5 percent level of significance. The result of the regression results with dummy variables is shown in Table 5. It should be noticed that, Durbin-Watson statistic which has greater ability to detect serial correlation is 2

indicating no serial correlation in the residuals. Thursday coefficient is found to be statistically significant at 5 percent level of significance. As observed in Table 6, according to Breusch-Godfrey Serial Correlation LM test for the null hypothesis of presence of no serial correlation, at 5 percent level of significance it is rejected.

Table 5: OLS Regression of BTCR with Dummy Variables

Dependent Variable: BTCR
Method: Least Squares
Date: 03/25/18 Time: 23:18
Sample (adjusted): 3/21/2013 3/24/2018
Included observations: 1830 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D1	-0.029318	0.647591	-0.045272	0.9639
D2	0.936768	0.647591	1.446543	0.1482
D3	-0.109494	0.647591	-0.169078	0.8658
D4	1.296712	0.646354	2.006194	0.0450
D5	0.383727	0.646354	0.593680	0.5528
D6	-1.179734	0.646354	-1.825213	0.0681
D7	0.613574	0.647591	0.947471	0.3435

R-squared	0.005175	Mean dependent var	0.273002
Adjusted R-squared	0.001901	S.D. dependent var	10.47211
S.E. of regression	10.46216	Akaike info criterion	7.537224
Sum squared resid	199539.6	Schwarz criterion	7.558308
Log likelihood	-6889.560	Hannan-Quinn criter.	7.545001
Durbin-Watson stat	1.99412		

Source: Author

Table 6: Serial Correlation LM test on BTCR with Dummy Variables

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	212.7183	Prob. F(2,1821)	0.0000
Obs*R-squared	346.5706	Prob. Chi-Square(2)	0.0000

The residuals of the regression output exhibited Conditional Autoregressive Heteroscedasticity for the overall periods which was confirmed by the ARCH test. Thus GARCH (1,1) method was conducted. As observed in Table-7, all the parameter estimates are highly statistically significant with "GARCH Coefficient" (ß) substantially larger than "ARCH Coefficient" (a) which is commonly found in financial asset returns. After correcting for serial correlation and ARCH effects in the residuals, day of the week effect was observed with thurday returns to be statistically significant at 5 percent level of significance for the overall period. The coefficient of Thursday was found to be significantly higher than the rest of the weekdays suggesting stronger performance of the currency during Thursdays.

Table 7: Regression Results of Bitcoin Returns with Dummy Variables and GARCH (1,1)

Dependent Variable: BTCR
Method: ML - ARCH (Marquardt) - Normal distribution

Sample (adjusted): 3/21/2013 3/24/2018
Included observations: 1830 after adjustments
Convergence achieved after 42 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(8) + C(9)*RESID(-1)^2 + C(10)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
D1	-0.022672	0.358055	-0.063319	0.9495
D2	0.260879	0.384456	0.678566	0.4974
D3	0.200303	0.388466	0.515625	0.6061
D4	1.289459	0.351331	3.670211	0.0002
D5	0.480060	0.349810	1.372345	0.1700
D6	-0.240240	0.406441	-0.591082	0.5545
D7	0.709428	0.498539	1.423012	0.1547
Variance Equation				
C	2.407738	0.214762	11.21119	0.0000
RESID(-1)^2	0.186987	0.010096	18.52129	0.0000
GARCH(-1)	0.816928	0.006680	122.2894	0.0000

R-squared	0.003279	Mean dependent var	0.273002
Adjusted R-squared	-0.000002	S.D. dependent var	10.47211
S.E. of regression	10.47212	Akaike info criterion	7.092735
Sum squared resid	199920.0	Schwarz criterion	7.122855
Log likelihood	-6479.852	Hannan-Quinn criter.	7.103844
Durbin-Watson stat	2.007917		

Source: Authors

CONCLUSION

By the end of march 2018, there are more than 150 official cryptocurrencies trading in the world and these currencies have spawned to become best alternatives of the first virtual currency which is bitcoins. The volatility visible for the last few years in bitcoin have significantly lowered in the recent years and it has broke several records in the year 2017 only. The bitcoin currency has increased more than 10 times in year 2017 alone and analysts hope this trend to continue. Satoshi Nakamoto's electronic cash system has grown to be the biggest virtual currency ecosystem comprising of several cryptocurrencies which if examined further can be world's best portfolio competing with the traditional investment avenues if it believed to be a "financial asset". From the analysis, it is very clear that, the bitcoin has similar distinct characteristics of a time series observed in other capital market instruments and exhibits strong day-of-the-week effects for the entire periods and thus the markets might be weak form efficient in nature.

SCOPE FOR FUTURE RESEARCH

(a) Considering the virtual currency environment to be weak form efficient in nature, more studies can be conducted to examine if Technical analysis and its various methods can be used by the innumerable traders and investors to find the support & resistance levels[11]

(b) The examination of presence of trends and patterns in all the cryptocurrencies should be examined to check whether markets are weak-form efficient in nature.

REFERENCES

1. Grinberg, Reuben, (December 9, 2011). Bitcoin: An Innovative Alternative Digital Currency Hastings Science & Technology Law Journal, Vol. 4, p.160. Available at SSRN: https://ssrn.com/abstract=1817857
2. Nicholas A. Plassaras.(2013). Regulating Digital Currencies: Bringing Bitcoin Within The Reach of The IMF. Available at SSRN. http://ssrn.com/abstract=2248419
3. Nikolei M. Kaplanov(2012). Nerdy Money: Bitcoin, The Private Digital Currency, And The Case Against Its Regulation, Available at SSRN. http://ssrn.com/abstract=2115203
4. Timothy B. Lee, Bitcoin's Comeback: Should Western Union be Afraid?, ARS TECHNICA (Dec. 21, 2011, 12:40 PM), http://arstechnica.com/tech-policy/news/2011/12/bitcoins-comebackshould-western-union-be-afraid.ars

WEBLIOGRAPHY

1. https://en.wikipedia.org/wiki/Bitcoin retrieved on 21st, March 2018.
2. https://economictimes.indiatimes.com/markets/stocks/news/fm-dashes-hopes-of-cryptocurrency-regulation-in-budget-2018/articleshow/62758330.cms retrieved on February 2nd, 2018.
3. https://www.bloomberg.com/news/articles/2017-04-10/russia-caves-in-on-bitcoin-to-open-new-front-on-money-laundering retrieved on 21st, March 2018
4. https://www.newsbtc.com/2017/03/28/open-source-video-game-development-engine-cryengine-now-accepts-bitcoin-donations/ retrieved on 15th, March 2018
5. https://www.swissinfo.ch/eng/digital-payments_ey-switzerland-becomes-first-advisory-firm-to-accept-bitcoin/42706658 retrieved on 21st, March 2018
6. https://www.theverge.com/2016/4/28/11525482/bitcoin-steam-valve-bitpay retrieved on 1st, February 2018
7. https://support.microsoft.com/en-us/help/13942/microsoft-account-add-money-with-bitcoin retrieved on 21st, March 2018
8. https://donate.mozilla.org/en-US/ retrieved on 21st, March 2018
9. https://blog.wikimedia.org/2014/07/30/wikimedia-foundation-now-accepts-bitcoin/ retrieved on 21st, March 2018

22

A Study on the Alternative Modes of Payment in India

*Devyani Madan**

ABSTRACT

This article explores the alternative payment mechanism in India and consumer's perception and awareness of the same. The study has been conducted by reaching out to people of all age groups and studying their behaviour towards modes of payment through the use of personal interview and questionnaire. A descriptive research design has been followed to gather information of inter-mode preferences and factors affecting consumer's preferences. The research also focussed on examining causal relationships between variables like age and usage of particular mode of payment, area of stay and choice of mode of payment among others.

Keywords: *Payment, Modes of Payment, Alternative Mode.*

INTRODUCTION

Indian payments industry is fast changing with the Reserve Bank of India doing its best to encourage alternative methods of payments which will bring security and efficiency to the payments system and make the whole process easier for banks.

A mode of payment is any medium/mechanism trough which goods/services can be purchased/sold and transactions incurred. For years, the country India has been dependent on cash as its primary mode of payment, however, post the demonetization of 2016, there has been emergence of new modes as well as new firms.

The Indian banking sector has been growing successfully, innovating and trying to adopt and implement electronic payments to enhance the banking system. Though the Indian payment systems have always been dominated by paper-based transactions, e-payments are not far behind. Ever since the introduction of e-payments in India, the banking sector has witnessed growth like never before. In the case of India, the RBI has played a pivotal role in facilitating e-payments by making it compulsory for banks to route high value transactions through Real Time Gross Settlement (RTGS) and also by introducing NEFT (National Electronic Funds Transfer) which has encouraged individuals and businesses to switch.

With the changing scenario and availability of internet across all major areas, many new players pertaining to payment industry have emerged along with emergence of new modes of payment. Debit card swipes at ATMs have slipped 18 per cent to 655 million transactions in May 2017. Simultaneously, point-ofsales terminals' debit card usage has jumped 90 per cent to 267.5

* Shaheed Sukhdev College of Business Studies, University of Delhi

million transactions in May 2017 from around 140.4 million in October, a month before high-value notes were scrapped by the government.

According to GlobalData, a leading data and analytics company, the company estimates that the e-market will continue to grow at a brisk pace to surpass the INR1tn mark in 2018. While the Indian government is heavily promoting the use of electronic payments, it has also introduced a slew of regulatory guidelines for mobile wallet providers in order to safeguard consumer interests, as well as curb money laundering activities.

LITERATURE REVIEW

Research have been conducted on modes of payment by different scholars. The summarised results of the same are mentioned below.

Jasmin Khan

(Auckland University of Technology)

This research set out to examine the cognitive and emotional associations that people have with payment modes and to ascertain if and how these associations impact on payment mode choice and how the payment mode selected impacts on purchase behaviour. This thesis suggests that the physical characteristics of the payment mode used, affects consumers' perceptions and behaviours. Given the historic use of cash, it is most likely that people have developed an established set of responses to the cash token (the stimulus), i.e., a cognitive bias. This set of responses functions as anchor points (reference points) that direct perceptions and behaviour when the 138 token is used, perceptions and behaviours that differ to those that occur when a debit card is used.

Ashish Das and Rakhi Aggarwal

Indian Institite of Technology, Bombay

To locate the reasons for the subdued transition to cashless payments, this study carries out a review of the roles performed by various players of the system and then arrives at a structured and implementable roadmap to move towards a cashless retail payment system in India.

Deepak Tandon and Neelam Tandon

International Management Institute

The study aims to understand the technological shift in private and public banks from the year 2011 to 2013 and to compare volume of e-transactions done in private and public banks using NEFT and mobile. It aims to study the performance of banks due to the implementation of e-banking products.

Stacey L Shreft

Federal Reserve Bank of Kanas City

The research has been conducted taking into account what affects consumer's choice of mode of payment including macroeconomic policy factors. Economics finds a legitimate role for government in providing public goods and internalizing externalities. Both of these roles exist regarding the payment system. Ensuring the stability of the payment system, a public good, has long been a goal of public policy. And the network externalities present in the markets for payment instruments create the possibility that the variety and mix of payment instruments available to facilitate the efficient exchange of goods and services might not arise from laissez faire.

OBJECTIVES

The purpose of the proposed study is to explore consumer's perception and awareness of alternative modes in India. The purpose of this paper is to contribute to scientific knowledge by achieving following research objectives:

- To study consumer awareness about different alternative modes of payment
- To find out consumer preferences among different modes of payment
- To study what influences consumer's choice of mode of payment
- To study how consumers value different characteristic of any typical mode of payment
- To study relation between age of consumers and their usage of different modes of payment

RESEARCH METHODOLOGY

For undertaking this study, descriptive research design is used. In its essence, descriptive studies are used to describe various aspects of the phenomenon. Primary data has been collected for the purpose of the study. A sample of 400 consumers from all age groups and from different areas of residence was asked to fill a questionnaire. The consumers who couldn't fill a questionnaire were personally contacted and asked the questions. The questionnaire was circulated through social media platforms as well as through physical copies. The data obtained through the questionnaires will be analysed through use of statistical software SPSS. Chi Square test of independence has been used to examine relationship between different demographic factors and choice of mode of payment.

RESULTS

A sample of 400 consumers was asked to fill a questionnaire based on the objectives of the study. The questionnaire included multiple choice questions relating to general awareness and perception of different alternative modes of payment in the country. The target audience of this survey was not restricted. Any person who ever made a purchase/payment could fill in the survey. It was observed from the survey that credit/debit cards are most popular among the sample with almost 90% respondents claiming awareness of the same. Real Time Gross Settlement(RTGS) is observed to be the least popular mode of payment among the respondents for higher amount transactions with only 39% respondents being aware about the same. Government launched Aadhar Enabled Payment Scheme is observed to be better in terms of awareness among respondents with almost 42% respondents being aware of the same. Traditional mode of payment-cheque emerged as the second most popular mode of payment with over 88.6% respondents claiming knowledge about the same. Newly emerged e-wallets and online banking have gathered attention of about 86% and 86.8% respondents respectively. There was seen a difference in the way consumers choose the mode of payment for various transactions. It is observed that 25% of all respondents depend on cash to pay for their travelling and fuel station expenses. It is also observed that 5% of all respondents use cash to pay for educational/ billing expenses while the rest have switched to using alternative modes of payment. It is also observed that consumers (27%) value safety of transaction the most while 22% believe that an ideal payment system should be most convenient to use. 16% of consumers want speed of

transaction to be given most importance while 18% believe that for a payment system to be ideal, it should be accepted universally. 17% of the responded have the view that consumer grievance redressal mechanism should be given the most importance in any mode of payment. On studying consumer's attitude towards incentives offered by various modes of payment, a positive relation was found between offering incentives and usage of that particular mode of payment.

Sample Demographics

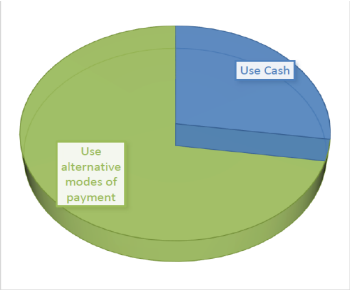
Age group	15-20 - 52% 20-30 - 26% 30-40 - 12% 40 and above - 10%
Occupation	Employed – 13% Self employed – 5% Housemaker - 6% Student - 69% Practising Profession - 2% Other - 5%
Highest Educational Qualification	10th – 1% 12th – 49% Graduate – 10% Postgraduate – 38% Other – 2%
Area of residence	North Delhi – 24% South Delhi – 7% East Delhi – 6% West Delhi – 14% Central Delhi – 4% NCR – 29% Other – 16%

DISCUSSION

In this study, the data collected with the help of questionnaire is analysed using different statistical tools like correlation coefficient, Chi square values etc. SPSS is used for this analysis. Percentage figures are preferred wherever possible for easy comparison and understanding.

Consumers Choice of Mode of Payment while Paying for Travel/Fuel Expenses

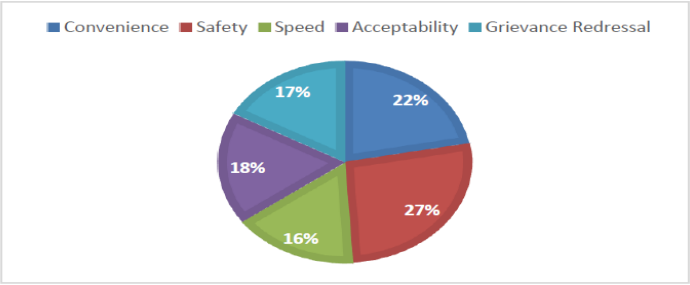
It is observed that 25% of all respondents depend on cash to pay for their travelling and fuel station expenses even today. This highlights the non-availability of mechanism to accept alternative modes of payment in this particular industry. At fuel stations, consumers are more inclined towards use of cash even when debit/credit cards machines are available. This clearly marks the need to create more awareness to make consumers start using alternative modes in this sector just like their usage of the same in other sectors like mentioned further.



Consumer's Choice of Mode of Payment while Paying for Education/Bills

It is observed that 5% of all respondents use cash to pay for educational/billing expenses while the rest have switched to using alternative modes of payment. This result is in sharp contrast with the result where consumer's choice was noting with regard to payment of travel expenses. This indicates that the consumers are well aware of the alternative modes of payment and they use it as a primary mode when it comes to paying for educational/billing expenses however, the same consumer prefers using cash when it comes to payment of travel expenses. This deviation between the two can be bridged by opening more opportunities/incentives in travel sector.

How Much do Consumers Value Different Characteristics in any Mode of Payment



On studying the responses, it is observed that consumers (27%)value safety of transaction the most while 22% believe that an ideal payment system should be most convenient to use. 16% of consumers want speed of transaction to be given most importance while 18% believe that for a payment system to be ideal, it should be accepted universally. 17% of the responded have the view that consumer grievance redressal mechanism should be given the most importance in any mode of payment.

Consumer's Choice of the Ideal Mode of Payment

When asked to name a mode of payment with regard to a good characteristic of mode of payments, it is observed that consumers prefer debit/credit cards the most with it being good at 5 out of 6 most important characteristics in any mode of payment (convenience, acceptability, speed, security, grievance redressal, transaction history). Consumers find e-wallets as the best mode when it comes to convenience of use but credit/debit cards for all other reasons.

How Consumers React to Incentives Offered

It is observed that consumer's behaviour is strongly linked with incentives. The availability of incentives makes them change the mode of payment they otherwise would have used. In different cases studied, the respondents are ready to switch to modes like e-wallets, debit/credit cards on provision of additional discounts/free delivery.

Dependency Between Variables and Consumer Behaviour

On performing chi square tests on the recorded data, interdependence between the variables was established. We observe that for paying fee/bills, the choice of a particular age group is same while another age group has another same choice. This highlights the relation between age group and choice of mode of payment. A moderate relationship has been examined between age group and choice of mode of payment based on security, speed and acceptability. This highlights that emerging firms can design products in a way to suit different age groups. Another direct relation was observed between occupation and choice of mode of payment with regard to convenience. This brings about the fact that different jobs make people prefer different modes of payment and for payment companies to woo consumers, they must target needs of different occupational groups

CONCLUSION

The results of the survey indicate that among all the modes of payments Credit/Debit Cards is the most widely used for payment followed by E wallets for almost all kinds of transactions. Various discounts and incentives given by merchants or shopkeepers on using a particular mode of payment has an effect on people's mind and they get influenced into using a particular mode of payment. For consumers, safety of transaction occurs to be the most valued characteristic of any mode of payment which is further followed by convenience. There also occurs a relationship between age group and modes of payment used at various places and also a moderate relation between occupation and modes of payment used at various places but no such relationship could be seen with respect to the area of residence of a respondent.

REFERENCES

1. http://PayPal_Asia_Research_Report_Digital_Payments.pdf
2. https://economictimes.indiatimes.com/wealth/spend/readyto-go-cashless/articleshow/56269830.cms
3. https://www.tsys.com/Assets/TSYS/downloads/rs_2016-usconsumer-payment-study.pdf
4. http://aut.researchgateway.ac.nz/bitstream/handle/10292/393 7/KhanJ.pdf
5. https://www.kansascityfed.org/publications/research/rwp/psr p
6. https://en.wikipedia.org/wiki/Payment_and_settlement_systems_in_India

23

Goods and Services Tax (GST): Serving towards Digitalization of the Indian Economy

*Dr. Dhani Ram**

ABSTRACT

Contemporary world technology seems to grow more and more each day. Digitalization has sneaked into every aspect of our life. With a vision to transform the Indian economy into a digitally empowered and knowledge economy, the NDA government under the leadership of Prime Minister, Shri Narendra Modi has launched its flagship programme i.e. 'Digital India.'

This research paper attempts to understand the role of newly launched indirect taxation system in India i.e. Goods and Services Tax (GST) in serving towards the goal of digitalisation of the Indian economy. GST is a new tax reform to draw Indian businesses into digital economy. The implementation of GST involves IT accounting & tax compliance system along with a mechanism to track the business transactions with the help of Goods and Service Tax Network (GSTN). With the help of IT technology, GST aims to bring full addressability and elimination of the menace of under-reporting by the businesses. Author also attempt to study how GST is different from the previous indirect taxes, the role of GSTN and highlight the various challenges before GST regime in the Indian scenario.

Keywords: *Goods and Services Tax; Indian Economy, Digitalization.*

INTRODUCTION

Digitalisation means integration of digital technology into everyday life. In this contemporary world technology seems to grow more and more each day and has sneaked into every aspect of our life. With a vision to transform the Indian economy into a digitally empowered and knowledge economy, the NDA government under the leadership of Prime Minister, Shri Narendra Modi has launched its flagship programme i.e. 'Digital India.'

It is a move towards adopting digital systems to ensure that Government services are made available to the Indian citizens electronically by improved online infrastructure and increasing internet connectivity or by making the country digitally empowered in the field of technology.

Goods and Services Tax (GST) which was implemented in India from 1st July 2017 is a new tax reform to draw Indian businesses into digital economy.The GST regime is considered as one of the major comprehensive indirect tax reforms in India since independence. It has subsumed 17 indirect taxes and around 23 surcharges levied by government at Central and State levels. It

* Assistant Professor, Ramjas College, University of Delhi

has simplified the indirect tax structure of India by putting an end to the cascading effect of multiple-layer of indirect taxes.

GST aims to serve towards the goal of digitalisation of the Indian economy. Its implementation involves IT accounting & tax compliance system along with a mechanism to track the business transactions with the help of Goods and Service Tax Network (GSTN).

GSTN is a unique IT initiative that seeks to establish a uniform interface for the tax payer and a common and shared IT infrastructure between the Centre and States. It has been set up primarily to provide IT infrastructure and services to the Central and State Governments, tax payers and other stakeholders for implementation of the Goods and Services Tax (GST).With the help of IT technology, GST aims to bring full addressability and elimination of the menace of under-reporting by the businesses.

However, there were several problems faced by the Indian businesses just after the implementation of GST on 1st July 2017 such asinefficient functioning of the GSTN portal, classification disputes of goods and services under different slab rates, lack of knowledge about GST's functioning, increase in operating cost of small scale businesses etc.

Indian policymakers should learn from these pitfalls and aim to resolve them. Timely resolution and better administration will lead to an increase in indirect tax revenues and smooth implementation of GST/VAT.

This paper is divided into four sections. First section talks about the concept of GST in India and how it is different from the previous indirect taxation regime. Second section talks about the role of GST in digitalisation of the Indian economy. Section three proceeds to analyse the challenges of faced by the Indian economy post GST implementation. Section four concludes with suggestions to overcome the loopholes in the GST regime.

RESEARCH METHODOLOGY

This paper is exploratory in nature. Available secondary data was extensively used for the study. Different news articles, journals and websites which focused on various aspects of GST were used for the study.

OBJECTIVES OF THE STUDY

Following are the objectives of this study:

1) To understand the concept of GST in India and how it is different from the previous indirect taxes.
2) To understand the role of Goods and Services Tax (GST) in serving towards the goal of digitalisation of the Indian economy.
3) To highlight the various challenges before GST regime in the Indian scenario.

1. WHAT IS GST AND HOW IT IS DIFFERENT FROM PREVIOUS INDIRECT TAXES?

India has a federal form of government where the taxing powers have been divided among the government at the Central level and the governments at the State levels under the Constitution of India. According to Article 265 of the Constitution of India, "no tax of any nature can be levied or collected by the Central or State Governments except by the authority

of law." The authority to enact the law and levy taxes and duties is given by the Constitution *vide* Article 246 which says that "law can be enacted by the Parliament or State Legislature, if such power is given by the Constitution of India. Prior to the implementation of GST, central government levied the indirect taxes such as central excise duty (levied on manufacturing of goods in India), central sales tax (levied on inter-state sale of goods), service tax (levied on provisioning of services in India) and custom duty (levied on import and export of goods) while the state governments levied the indirect taxes such as value added tax (levied on intra-state sale of goods), state excise duty (levied on liquor and narcotic drugs), entry tax (levied on entry of goods in a state) and entertainment tax (levied on places of entertainment). Both the levels of the government had complete autonomy over their taxes with respect to decisions regarding rates, rules, provisions etc.

Indirect taxation system prior to GST needed improvement because it allowed for multiplicity of taxes leading to complex tax structure, distortions, cascading effect and lack of tax compliance. Tax bases at both the central and state levels were narrow, making the VAT chain incomplete with significant cascading elements, remaining at both the levels. Owing to the loopholes in the existing system a need was felt to introduce a more comprehensive and unified indirect tax regime in India by subsuming majority of central and state level indirect taxes. Keeping this overall objective in view an announcement was made by Sri P. Chidambaram(then Finance Minister) in the Union Budget on 28th February, 2006 to introduce Goods and Services Tax (GST) in India. After various negotiations between the central and state governments, BJP government was able to get consensus of the state governments on GST's structure. The CONSTITUTIONAL(122ND AMENDMENT) BILL,2014 , was passed by the Rajya Sabha on 3rd August 2016 and by the Lok Sabha on 8th August 2016. Bill was ratified by more than 50% of the sate assemblies and got Presidential assent. GST Council was set up to work on the details of GST structure based on which GST laws were drafted. Central GST law was passed by the Parliament and State GST laws by the respective state assemblies. Finally GST was rolled out in India effective 1 July 2017.

The GST regime is considered as one of the major comprehensive indirect tax reforms in India since independence. It has subsumed 17 central and state indirect taxes and around 23 surcharges. It has simplified the indirect tax structure of India by putting an end to the cascading effect of multiple-layer of taxes.

GST is a nationwide tax levied on supply of goods and services in India. It is a destination based value added tax levied at each stage in supply chain right from the manufacturer to the consumer with benefit of input tax credit at each stage thereby eliminating cascading effects.

Functioning of GST in India

- India follows a dual GST model. The Centre and the States have concurrent powers to levy, collect and administer GST. GST has two components: one levied by the central government known as central GST (CGST) and other levied by the state governments or Union territories as the case may be known as state GST/Union Territory GST (SGST/UTGST) to promote cooperative federalism. Revenues generating from CGST will accrue to the central government and revenues generating from the SGST/UTGST will accrue to the government of that state or union territory where the final consumption of goods/services takes place.

- GST is applicable to the whole of India including Jammu and Kashmir.

The CGST and the SGST/UTGST are levied simultaneously on every transaction of supply of goods and services except the exempted goods and services, goods which are outside the purview of GST, and the transactions which are below the prescribed threshold limits.

(i) CGST: GST levied by the Central government on **intra-State** supply of goods or services or both is called the Central GST (CGST).

(ii) SGST: GST levied by the states on **intra-state supply** of goods or services or both is called the State GST (SGST). State under the GST law is defined to include a Union Territory with Legislature. Thus, on every supply of goods or services or both within the Union territories of Delhi and Pondicherry, SGST will be levied.

(iii) UTGST: GST levied by the Union Territories on supply of goods or services or both within the Union Territories of Andaman and Nicobar Islands, Lakshadweep, Dadra and Nagar Haveli, Daman and Diu, Chandigarh is called the Union Territory GST (UTGST).

(iv) INTEGRATED GOODS AND SERVICES TAX (IGST) MODEL- The centre will levy and collect IGST on **inter-state supply** of goods and services. Import/export of goods and services and supply of goods and services to or by special economic zone(SEZ) developer or a SEZ unit will also be treated as **inter-state supply** and would be liable to IGST.

IGST = CGST + SGST

- GST is applicable on **'supply' of goods and services** as against the earlier concept on manufacture of goods or sale of goods or provision of services. So now there is single taxable event which is supply of goods or services in India as against multiple taxable events earlier.
- GST is structured on the **destination principle**. The tax would accrue to the taxing authority which has jurisdiction over the place of consumption which is termed as place of supply.
- India follows a four slab rate structure of GST as suggested by the GST Council in its meeting held on 3rd November 2016. The proposed rate structure is as follows :
  - i) Lower rate of 5% : on essential items
  - ii) Two Standard rates of 12% and 18% : on majority of goods and service
  - iii) Higher or sin rate of 28% : other consumer goods such as small cars.
  - iv) 28% + cess : on tobacco, luxury cars, pan masala etc.
- Each taxpayer would be allotted a PAN- linked taxpayer identification number with a total of 15 digits.
- Every registered taxable person shall have to furnish monthly returns along with an annual return electronically through GSTN portal or Facilitation Centers notified by the Board or Commissioner.

PREVIOUS TAXATION V/S GST

S.NO.	Particulars	Previous Taxation	GST
1.	Structural difference	• Two separate VAT systems operated simultaneously at two levels, centre (CST) and state (VAT) and input tax credit under one is not available as set off against the other. • No separate tax on services at the state level • Service tax levied under separate legislation by central government. • Imports in India not subject to state VAT	• A dual tax with both CGST and SGST levied on the same base. • It allows seamless tax credit. • All goods and services baring few exceptions are brought into the GST base.
2.	Place of taxation	Taxable at the place of sale or rendering of service	Tax is levied at the place where final consumption takes place.
3.	Taxable event	Multiple events	Supply of goods and services
4.	Power to levy tax on manufacture	With the centre as excise duty	No such power in GST
5.	Power to levy tax on sale of goods	Inter-state sale- central govt. Intra-state sale- State govt.	Concurrent powers to centre and state
6.	Power to levy tax on provision of service	Central govt.	Concurrent powers to centre and state
7.	Tax on import in India	Goods: under Custom duty comprising of Basic custom duty, SAD and CVD. Services: under Service tax	CVD and SAD on import of goods and services to be subsumed in GST.
8.	Tax on export of goods and services	Exempt/zero rated	Zero rated
9.	Cascading effect	Allows tax credit between excise duty and service tax, but not with VAT.	Allows seamless tax credit
10.	Tax base	Comparatively narrow	Wider
11.	Use of computer network/digitalisation	Just started by states, very minimum	Extensive- it is necessary for implementation of GST
12.	Procedure for filing of returns	Vary from state to state	Uniform
13.	Administration	Complex due to no. of taxes	Comparatively simple

II. ROLE OF GST IN DIGITALIZATION OF THE INDIAN ECONOMY

Goods and Services Tax (GST) which was implemented in India from 1st July 2017 is a new tax reform to draw Indian businesses into digital economy. GST aims to serve towards the goal of digitalisation of the Indian economy. Its implementation involves IT accounting & tax compliance system along with a mechanism to track the business transactions with the help of Goods and Service Tax Network (GSTN). With the help of IT technology, GST aims to bring full addressability and elimination of the menace of under-reporting by the businesses.

The new Goods and Services Tax subsumes 17 Central and state taxes and 23 types of Cess into one single tax, thereby eliminating the complexity of multiple taxes, cascading of taxes and thus achieving significant simplification in indirect taxation. Thirty four state VATs had 97 different types of returns to be supported with 317 annexures and 28 declarations. Similarly, Central Excise had 13 Return Forms which were required to be supported by one declaration. Even the Challan used was of twelve types. All these have been replaced by twelve forms and one challan which are uniform across the country. Not only does GST make it more convenient to pay taxes and file returns, it also promises to reduce the burden of compliance and radically improve the ease of doing business. GST envisages credit of Input tax credit (ITC) of 80 lakh taxpayers to be processed within ten days after filing of monthly returns which is expected to contain 2.6 to 3.0 billion business to business invoice data. This feat is impossible without strong IT Infrastructure. Thus, it would not be incorrect to say that GST is incomplete without a strong IT backbone. The IT backbone has come up in the form of GST System consisting of GST Portal and IT platform – the highly advanced technological infrastructure that has made the timely roll out of the new tax regime possible. The GSTN has successfully developed a common GST Portal that acts as a one stop shop for all businesses, taxpayers and other stakeholders involved in the indirect taxation system.

II.1 GOODS AND SERVICES TAX NETWORK (GSTN) AND ITS ROLE IN DIGITALISATION

Goods and Services Tax Network (GSTN) is a non-Government, private limited company set up under section-8 of the Companies Act, 2013. It has been set up primarily to provide IT infrastructure and services to the Central and State Governments, tax payers and other stakeholders for implementation of the Goods and Services Tax (GST). The main role of the GSTN is to build the indirect taxation platform for GST.It was incorporated on March 28, 2013.

Composition of the GSTN: The Government of India holds 24.5% equity in GSTN and all States of the Indian Union, including NCT of Delhi and Puducherry, and the Empowered Committee of State Finance Ministers (EC), together hold another 24.5%. Balance 51% equity is with non-Government financial institutions (HDFC-10%, HDFC Bank-10%, ICICI- 10%, LIC Housing Finance Ltd.- 11% and NSE Strategic Investment Co.- 10%).The Authorised Capital of the company is Rs. 10,00,00,000 (Rupees ten crore only).

Need for GSTN:

i) Currently, the indirect tax administrations of the Cental and State governments work under different laws, regulations, procedures and formats and consequently the IT systems work as independent sites. Integrating them for GST implementation would have been complex requiring the integration of the entire indirect tax ecosystem.

ii) Besides, GST being a destination based tax, the inter- state trade of goods and services (IGST) would need a robust settlement mechanism amongst the States and the Centre. This was possible only with the existence of strong IT Infrastructure and Service back bone which enables quick processing and exchange of information amongst the stakeholders (including tax payers, States and Central Governments, Accounting Offices, Banks and RBI).

iii) Hence, the GSTN is a unique IT initiative that seeks to establish a uniform interface for the tax payer and a common and shared IT infrastructure between the Centre and States.

GSTN Portal is designed by Infosys (India's 2nd largest IT Company). It has been appointed as the Managed Service Provider (MSP).

GSTN SuvidhaProviders(GSPs): To assist GSTN in developing sound IT infrastructure for GST. Till now 34 GSPs are appointed by the government.

Role Assigned to GSTN

i) Creation of common and shared IT infrastructure for functions facing taxpayers such as filing of registration application, filing of return, creation of challan for tax payment, settlement of IGST payment (like a clearing house), generation of business intelligence and analytics.

ii) However, all statutory functions to be performed by tax officials under GST like approval of registration, assessment, audit, appeal, enforcement etc. will remain with the respective tax departments. The diagram below shows the work distribution.

1) Role of GSTN with respect to Registration

i) Under GST, the registration of taxpayers will be common under Central and State GST and hence one place of filing application for the same i.e. the Common GST portal.

ii) The application so received will be checked for its completeness by the GST portal, which will also carry out validation of data like PAN from CBDT, CIN/DIN from MCA and Aadhaar of promoters, if provided, from UIDAI.

iii) After completion of validation, the registration application will be shared with respective central and state tax authorities. Query of tax authorities, if any and their final decision will be communicated to GST portal which in turn will communicate the same to the taxpayer.

2) Role of GSTN with respect to Filing of Returns

i) Under GST, there will be common return for CGST, SGST and IGST, eliminating the need to file separate tax returns with Central and state GST authorities.

ii) Checking of claim of Input Tax Credit (ITC) is one of the fundamental pillars of GST, for which data of Business to Business (B2B) invoices have to be uploaded and matched. The Common GST Portal created and managed by GSTN will do this matching on the basis of invoice level data filed as part of return by all taxpayers.

iii) Similar exercise will be done for inter-state supplies where goods or services will move from the state of origin to the state of consumption and so will the taxes. The claim of IGST and its utilization will be settled based on returns filed at the Common GST portal.

3) Role of GSTN in Payment of GST by Taxpayers

Under GST, all challans will have to be prepared by taxpayers on the GST portal only. Once Challan is created with GSTIN, name of taxpayer, amount under various tax heads and sub-heads, the taxpayer has following two options to pay the tax:

i) He can choose online option under which, he will have to choose one of the agency banks (i.e. banks authorized by RBI to collect GST on their behalf) from the dropdown

menu and after that he will be taken to the website of chosen bank to make payment by providing user ID and password of bank. After completion of payment, he will be brought back to GST portal from where he can download the paid challan, which is generated by GST System on confirmation from the Bank.

ii) The other option of tax payment is to print the challan and present the same in the relevant bank for 'Over the Counter Payment' (OTC). The bank after realising the payment will transfer the money to RBI and send confirmation of payment to GST Portal for accounting.

At the end of the day, the GST portal will prepare a summary of all payment confirmations received by it from Banks and share the same with RBI and accounting authorities for reconciliation. No tax money will ever come to GSTN in any manner. GSTN will only get conformation of payment from the Banks.

Goods and Services Tax Identification Number(GSTIN)- GSTINis a unique identification number which each taxpayer receives once they have registered on the common portal. It is based on taxpayer's Permanent Account Number(PAN).

II.II E-WAY BILL

Electronic Way Bill (E-Way Bill) is basically a compliance mechanism stated in **Rule 138 of the CGST Rules, 2017** wherein by way of a digital interface the person causing the movement of goods of worth Rs. 50,000 or more in a day uploads the relevant information prior to the commencement of movement of goods and generates e-way bill on the GST portal. It is to be issued whether the movement is in relation to a supply or for reasons other than supply.

E-way bill is an electronic document generated on the GST portal evidencing movement of goods. It has two Components-

- **Part A :** comprising of details of GSTIN of recipient, place of delivery (PIN Code), invoice or challan number and date, value of goods, HSN code, transport document number (Goods Receipt Number or Railway Receipt Number or Airway Bill Number or Bill of Lading Number) and reasons for transportation; and
- **Part B :** comprising of transporter details (Vehicle number).

Upon generation of the e-way bill on the common portal, a unique e-way bill number (EBN) generated by the common portal, shall be made available to the supplier, the recipient and the transporter on the common portal.The details of e-way bill generated shall be made available to the recipient, if registered, on the common portal, who shall communicate his acceptance or rejection of the consignment covered by the e-way bill. In case, the recipient does not communicate his acceptance or rejection within seventy two hours of the details being made available to him on the common portal, it shall be deemed that he has accepted the said details. The Commissioner may, by notification, require a class of transporters to obtain a unique Radio Frequency Identification Device and get the said device embedded on to the conveyance and map the e-way bill to the Radio Frequency Identification Device prior to the movement of goods.

E-way bill is a mechanism to ensure that goods being transported comply with the GST Law and is an effective tool to track movement of goods and check tax evasion. The national e-way bill system has been implemented in India with effect from 1st April 2018.

Under GST registration, filling of returns, tax payments, submission of invoices, claiming GST refunds and input tax credit all have been made compulsorily online. Apart from GSTN portal, taxpayers can file their returns from various platforms such as mobile apps or other portals developed by GSTN Suvidha Providers (approved by GSTN). In this manner GST aims to serve the Digital India Programme besides curbing tax evasion and improved tax compliance and administration in India.

III. CHALLENGES OF GST

India's Goods and Services Tax (GST), is being called a 'game changer' for its far-sweeping impact on business.The industry, at present, is struggling to get on with the destination-based tax from an origin-based tax structure. The shift from the previous tax regime and carry forward the input credits into GST is the biggest challenge that businesses are facing today.

The legislation cuts across all enterprises, requiring them to relook at their business models, business policies, and procedures.

Listed below are some of the biggest challenges the tax and finance professionals as well as businesses are facing today in the GST transition phase-

1) LACK OF CLARITY ON GST PROVISIONS AND PREPAREDNESS

Various provisions of GST are still ambiguous. Clients' understanding of GST provisions and its impact on their business is still at a nascent stage.

Categorisation of goods and services in various cases is still unclear. Provisions for anti-profiteering, as well as the newly implemented e-way bill, which tracks consignments across states, are unclear.The new tax regime requires transporters to generate e-way bills on the GST portals which includes incurring substantial costs to install radio frequency identification devices (RFIDs). To be on the right side of the GST anti-profiteering clause, businesses are also assessing their cost sheets while performing Comparable Analysis of the pricing of goods and services, pre-and post GST.

2) INCREASED COMPLIANCES

Businesses need to file multiple returns, a minimum of 37 in most cases for assessees, and this has increased multifold in accordance with business models. Clients will need to ensure timely compliance by registered suppliers to ensure there is no loss of input credit. This will necessitate correct data and reports to fill accurate GST returns.

3) LACK OF PREPAREDNESS OF IT SYSTEMS

Various businesses are yet to map the accounting software and IT systems in line with the new tax provisions, to create GST invoices, and extract required reports. Tax and accounting professionals jointly need to ensure that their clients' current systems are compatible with their GST Service Provider (GSP).

Seamless implementation will require six million micro, small, and medium enterprises (MSMEs) to adapt their invoicing approaches for which they do not have adequate IT support and systems.

4) LACK OF SKILLED RESOURCES AND NEED FOR RE-SKILLING

Continuous changes in the GST rates and provisions post implementation has created complexities. Skilled staff with updated GST subject knowledge and training are not easily available. This has placed an additional work load on personnel across industries, and created an urgent need for additional GST-skilled resources to ensure swift implementation.

5) DECLINE IN GDP

When GST was implemented it was claimed that it would bring great changes in the Indian economy in the market and increase country's GDP by 7% but reality is that it has made Indian economy worse as the economy was already in a death phase due to Demonetization. According to the latest report of Reserve Bank Of India the economic development rate of the country is decreased from 9.1% (March 2016) to 6.1% (January –March) and now suffering at 5.7% (April – June). Even the finance minister said that the rate 5.7 % in last three months is really a matter of concern.

6) MULTIPLE STATUTES

Dual GST model is implemented through multiple statutes, one for central GST and another state GST statue for every state. So more the number of statues more hurdles in the smooth implementation of GST. Article 279 A of the constitution says that GST council has only recommendatory powers. So it's up to state governments to implement its ideas. In this way state government levies its own GST and distorts the entire GST system of the country. On 11thNovember 2016, 9 judges on behalf of the Supreme Court of India gave its judgment regarding entry tax case that every state is as sovereign as parliament in its powers to levy taxes. So it gives freehand to state by which they can levy their own GST.

7) PROBLEMS IN THE GSTN PORTAL

Although GSTN has been formed for handling IT infrastructure of GST but its present status is not praiseworthy. . Even after nine months of its launch the GSTN(Goods and services tax network) portal is giving nightmare to the taxation professionals and business community. The technical glitches coupled with the slow processing on the portal are making matters worse for the stakeholders who are demanding that government revamps its system at the earliest or introduce offline return filing facility so that load on the portal is reduced. In many cases, either the data was not getting saved and where the data was saved earlier, the return could not get submitted. Atleast half of all taxpayers could not file their returns due to glitches in the GST portal. They want a thorough technology audit of the portal.

8) PROBLEMS FOR SMALL SCALE BUSINESSES

With the implementation of GST, the owners of small businesses have been the ones who have been negatively impacted the most. The SMEs are having trouble understanding and adopting the necessary requirements to comply with the new system of indirect taxation. Although GST Council has met several times post GST implementation to ease compliance burden of SMEs such as increase in the limit for composition scheme to Rs 1 crore, SMEs having an annual turnover of Rs 1.5 crore can file GST returns, quarterly and launch of

helpline systems on the social media to instantly address the problems and queries faced by businesses but other problems such as claiming GST refunds, blockage of working capital, lack of technical resources to comply with GST, increase in operating cost and declining profit margins are still faced by SMEs.Prior to GST, no Excise duty was paid by a manufacturer having a turnover of less than rupees 1.50 crores. But, post GST implementation, the exemption limit is significantly lowered. As a result, a large number of SMEs and startups are mandated to come under the tax net and will have to pay a large chunk of their earnings towards tax.

IV. SUMMERY, SUGGESTIONS AND CONCLUSION:-

Despite several challenges which GST has brought for the Indian economy, it is considered as the most important reform in the indirect taxation in India which aims to overcome the loopholes in the pre-existing indirect tax regime. Its implementation has brought several benefits such as rationalisation of the indirect tax structure, lowering of logistics cost and lowering of prices of many goods and services thereby favouring its implementation. However to fully exploit the benefits of GST, all the issues and challenges should be addressed expeditiously.Digitalization is the backbone of today's economy. Almost everything of our daily chores like shopping, buying tickets, watching movies etc are being digitalised, so why the activities on the part of govt remains non digitalised?

Digitalization brings more transparency, accuracy, no time barrier, geographical barrier, cost barrieretc. so it brings greater revenue to the government through wider tax base and makes compliance easier.

In nutshell GST when brought through digitalization adds to its beauty in all aspects and thus a win-win situation for both government n taxpayers at large.

Following are some of the suggestions to overcome challenges-

1) Government should focus on resolving the issue of increased compliance burden and cost under GST for small scale businesses in India. Some kind of grants or fund should be set aside by the Indian government which could be devoted for providing subsidies to the SMEs for cost incurred in installing accounting softwares for GST.
2) Government should to maintain adequate no. of experienced tax agents to handle taxpayers' grievances post GST implementation and at least 51 % share in the authorised capital in GSTN Private limited Company(at present the Government of India holds 24.5% equity in GSTN).
3) Government should focus on gradually reducing the number of GST rates from 4 to 2 or 3 in the long term to improve administration and compliance and avoid classification disputes.
4) Government shouldadopt major export scheme to relieve exporters from claiming GST paid on imports at a later time period which would reduce their working capital requirements as well as reduce their compliance burden and carrying out extensive audits post GST implementation to improve compliance among businesses.
5) Harmonization of central and state GST laws particularly state laws is very essential especially with respect to laws on chargeability, taxable event, classification of goods and services etc. Otherwise GST will not be different from current VAT regime in India.

6) While GST aims to streamline business and protect consumer interests, the legislation should not allow a sense of apprehension to impact industrial interests. GST is both a challenge and an opportunity for tax and accounting professionals, and knowledge of cloud, big data, analytics, and business applications along with financial knowledge is the need of the hour.

The stakeholders are demanding that government revamps GSTN system at the earliest or introduce offline return filing facility so that load on the portal is reduced. They want a thorough technology audit of the portal.

Careful planning, detailed preparation, strong political commitment, mass participation, extensive taxpayer education program and good timing are essential ingredients for successful implementation of GST in India. All stakeholders must cooperate in smooth functioning of GST in India.

Way Ahead

What will happen on rates?

What will happen to petro products?

What will be overall impact on economy?

REFERENCES

1. Mukherjee, S. (2015). Present State Of Goods and Services Tax(GST) Reform in India. *National Institute of Public Finance and Policy (NIPFP)*, Working Paper no. 6/2015.
2. Rao, M. G. (2009). Goods and Services Tax: Some Progress towards Clarity. *Economic and Political Weekly*, 44(51), 8-11.
3. Gupta, S. (2016). Goods and Services Tax: A Comprehensive and Uniform Indirect Tax Reform in India. *Vision: The Journal of Indian Taxation,* 3(2), 31-53.
4. Bagchi, A. (2006). Towards GST: Choices and Trade-Offs. *Economic and Political Weekly*, 41(14), 1314-1317.
5. The Modal GST Law, GST Council Secretariat, November 2016.
6. Report of the 14th Finance Commission, Chapter-13, "Goods and Services Tax", February 24, 2015
7. Gupta, S. (2017). Goods and Services Tax: A Comparative Study of the select ASEAN countries. *Vision: The Journal of Indian Taxation,* 4(1), 79-102.
8. The Economic Times (2009) Featured Articles from The Economic Times.
9. Gst India (2015) Economy and Policy.
10. Mehra P (2015) Modi govt.'s model for GST may not result in significant growth push. The Hindu.
11. Sardana M (2005) Evolution Of E?Commerce In India Part 3.
12. TRAI (2015) Highlights of Telecom Subscription Data as on 28th February.
13. Patrick M (2015) Goods and Service Tax: Push for Growth. Centre for Public Policy Research (CPPR).
14. SKP (2014) GST: Impact on the Telecommunications Sector in India.
15. https://hbr.org/2017/11/how-india-is-moving-toward-a-digital-first-economy
16. http://www.cygnet-infotech.com/blog/the-how-and-why-of-gst-and-complete-digitization
17. https://www.livemint.com/Politics/q8s0tn2ucWdJsDb8jccjwI/GST-New-tax-reform-to-draw-Indian-businesses-into-digital-e.html

24

Banking Reforms in India with Special Reference to Digital Banking

Dr. Anjali Gupta & Dr. Purushottam Kumar Arya***

ABSTRACT

Banking sector is an important part of the financial system of any country. Through this article an attempt is made to focus on the changes that have taken in different phases in the banking sector in India. The article highlights that the banking sector reform was undertaken early in the reform cycle in India. The changes were not driven by any crisis. The reforms have not been an outcome of multilateral aid. The design and detail of the modification were evolved by domestic expertise; though international experience is always kept in view. The banking sector is the lifeline of any modern economy. It is one of the important pillars of the financial system, which plays a vital role in the success/failure of an economy. Banks are one of the oldest financial intermediaries in the financial system. Through this discussion we try to highlight the different functions carried out by the Commercial banks in India. Also we have made an attempt to give an eyes view of the present setup in the Commercial Banking sector in India with special reference to Digital Banking.

1. Introduction

Banks in India were started on the British Pattern at the beginning of the 19th century. In those days, all the banks were joint stock banks and a large number of them were small and weak. A quiet a few of them were managed by wrong and dishonest management and naturally, there were a number of bank failures. Hence the Government had to step in and the Banking Companies Act, 1949 (which was subsequently renamed as Banking Regulation Act) was enacted which led to gradual elimination of weak banks that were not in a position to fulfill the various requirements of the Act. Before 1969, all banks, except the State Bank of India (SBI) and its seven associate banks, were privately owned. Under the Nationalization Act of 1969, the 14 largest private sector banks were nationalized; further six were nationalized in 1980. The commercial banking sector is dominated by the existing 27 public sector banks, which account for 84 percent of assets (the SBI and its associate banks alone account for 30 percent of assets). Since 1969, commercial banks have grown strongly, with the number of branches increasing from around 8,000 to well over 60,000 today, of which nearly 60 percent are in rural areas.

* Assistant Professor, Atma Ram Sanatan Dharma College, University of Delhi

** Assistant Professor, Atma Ram Sanatan Dharma College, University of Delhi

The Financial & Banking System of India is growing rapidly. India adopted new technologies and new approaches to improve the financial system of India. If we compared the pre and post financial period, then we find out the major improvement in working of various Financial and Banking Institutions. The government and the regulatory authorities have followed a step-by-step approach, not a big bang one. The entry of foreign players has assisted in the introduction of international practices and systems. Technology developments have improved customer service. On the whole, the cumulative effect of the events since 1991 has been quite encouraging. An indication of the strength of the reformed Indian financial system can be seen from the way India was not affected by the Southeast Asian crisis.

The banks offer a broad range of banking products and financial services to both corporate and retail customers. They do it through a variety of delivery channels and specialized subsidiaries in the areas of investment banking, life, non-life insurance, venture capital and asset management.

With the entry of New Pvt. Sector banks, in early 1990s the PSU banks have also embraced technology by leaps and bounds in the last decade or so. But the main change is the result of consumer's demand for real-time and always,(anytime/anywhere) banking. Also the there is a growing demand coming from explosive growth in use of personal computing devices and internet connectivity, innovative products (plastic cards, now contactless cards, future - internet of things) by consumers. The banks have also been trying to make their processes more efficient .They have been continuously looking for ways to leverage enhanced level of engagement with customers with a view to offering innovative products and services keeping in view cost, convenience and profitability factors. Being a largely service based industry, there is a high degree of dependency on technology for delivering services (be it from sourcing to servicing) by banks .Also there is a competitive pressures to continually innovate in order to retain customers in the wake of entry of niche players/new players/entrants (banks, small finance banks, payment banks).

2. Objective

The objective of the paper is to identify the various banking products with special stress on digital banking products and services. The paper also tries to highlight the challenges and innovations in digital banking system.

3. Methodology

In order to pursue the objectives, this study relied on secondary; already published; information and data sources. Reviewing available literature provided the theoretical underpinning for conducting the study and also provided assistance to the researcher in gaining the sound understanding of the subject matter. Accordingly, research papers appearing on the theme in prominent development economics and related journals were reviewed.

4. Review of Literature

Historically, the banking sector in India was dominated by State-owned institutions. The twin forces of deregulation and technology have increased the degree of competition in the Indian financial sector to unprecedented levels. The domination of Public Sector Banks has declined over the years with the entry and aggressive expansion of the Private Banks. Banks no longer provide on the financing function but compete also. Margins in the traditional fund based

business have come under pressure due to a sharp fall in interest rates, with a disproportionate reduction in the cost of deposits. Banks are increasingly focusing on the generation of fee-based incomes and have been expanding the range of retail product offerings.

Banking in India has undergone a significant change the past few decades. Developments during this period have completely changed the banking scene. Both qualitative and quantitative changes have been accrued in the banking business. The banking industry is expected to play a catalytic role in bringing about the much needed, socio-economic transformation in the country. The banks have to diversify their service in several new fields as merchant banking, international banking, investment counseling, etc. There is a fierce competition among the banks. The banks have to compete with the other financial institutions engaged in collecting saving from the public.

The advancements in technology and shift in consumer preferences have further brought on opportunities and challenges in terms of their utility/efficiency, complexity of products, deployment architecture etc. In the eagerness to provide innovative products and services through digital channels and reducing cost of transactions/services/processes, banks are resorting to outsourcing (managed products/services), quicker development and deployment cycle of products/services/processes without due emphasis/rigor in security design and testing and this, often leaves loopholes for attackers to exploit.

Digital banking refers to the digitization (or moving online) of all the traditional banking activities and programs that historically were only available to customers when physically inside of a bank branch. This includes activities like: Money Deposits, Withdrawals, and Transfers, Checking/Saving Account Management, Applying for Financial Products, Loan Management, Bill Pay, Account Services. It is different from online banking which primarily focuses on remote deposits, money transfers, bill pay, and basic online management of accounts. Other synonyms for online banking include internet banking, virtual banking, and e-banking. So, online banking focuses on digitizing the "core" aspects of banking, but digital banking encompasses digitizing every program and activity undertaken by financial institutions and their customers.

Various articles on some aspects of digital -banking appeared in various journals and magazines, but they are restrictive in nature and do not show a comprehensive picture. A brief review of some of the relevant literature is as under: Raj (1996) observed one reason why Indian banks are lagging behind their counterparts in the west that is because infrastructure needed to speed the process remains lacking. Mookerji (1998) expected that sophisticated highly competitive internet banking will develop in future. Ryder (2000) suggested that the legal challenges of internet banking in India comprise information security and regulatory compliance. Manmohan and Jai Ganesh (2002) examined the broad security issues related to banking on the internet and proposed a three staged capability model to facilitate brick and mortar banks take their services online as well as analyzed the stage of maturity of their banking services. Yibin (2003) analyzed the status, trends, challenges and implications of e-banking and concluded that e- banking could not only improve the access to finance but also with better and more competitive rates. Trehan et. al. (2004) analyzed how traditional banking differed from relationship banking with the Porter's 5-Forces Model in the banking industry. Parsad (2005) examined the nature and types of credit card frauds, its effects and preventive measures. Sali (2007) studies customers' satisfaction about ATM cards and concluded that to service the banks will increasingly need superior customer service along with good quality products and assets. Shajahan (2011) studied the level of customer's satisfaction on various modes of banking services such as internet, phone, branch and ATMs in India. Sinha (2014) explained the various aspects of debit and credit cards and

concluded that usage rate is very low in India. Hundal and Jain (2014) articulated the stimulating and inhibiting attributes in the adoption of mobile banking and outlined some managerial applications. Khan et. al. (2015) evaluated the service quality of internet banking services in India from customers' perspectives and concluded that customers are satisfied with service quality of four dimensions such as reliability, accessibility, privacy/security, responsiveness and fulfillment, but are least satisfied with the 'user-friendliness' dimension. Given this background, it is interesting to analyze the digital banking scenario.

Banks in India face new challenges of fast growing technology, consumerism, inflationary and unemployment. These changes have widened the role and responsibility of bank management.

5. Functions of Banks Classification

- Primary functions/main functions
- Secondary/ancillary functions.

5.1 Primary Functions of the bank are one on which bank's reliability and existence depends. The primary functions of a commercial bank are as follows:

1. Acceptance of deposit: the bank accepts deposit of money from the public.
2. Lending Money: receiving deposits and lending of funds are traditional and core of banking activities.
3. Investing funds: Bank undertakes employment of surplus funds by investing in gilt-edged securities, shares, debentures and bonds.
4. Rendering various services to customers as soon as money is deposited with the bank and the customers become their account holder.
5. Credit Creation: It is a vital function of bank. Out of total demand and time deposit bank retain a certain proportion of it as cash reserve and remaining is lent out. Funds so lent out in due course accrue again as deposits either with same/other bank.
6. Remittance of funds: Bank remit money from one place to other place at the request of their customers and non-customers.
7. Dealing in foreign exchange: Within the provisions of FEMA banks under take buying and selling of foreign exchange at spot or forward rates as prescribed by RBI from time to time.
8. Dealing in securities: Bank can acquire, hold/underwrite stocks, shares, debentures bonds etc. at the instance of customer.
9. Accepting safe custody of valuables/providing lockers:A bank may receive all kinds of valuables for safe custody on certain charges from customers.

5.2 Secondary/Ancillary Function: Of banks have expanded their activities to cater to the varied needs of their customers. These functions add to utility of banks and provide additional avenues for their revenue. Some of the important ones are:

1. Dealing with rights and property of bank.
2. Undertaking and executing trust.
3. Administration of estate as executor trustee or otherwise.

4. Acquisition, construction or maintenance of any building/works necessary for bank.
5. Dealing with any property received as security against any loan/advance.
6. Managing, selling and realizing any property in its possession in satisfaction of any claims.
7. Carrying on guarantee and indemnity business.
8. Managing issue of shares/debentures etc.
9. Contracting, negotiating and issuing public and private loan.
10. Acting as agents for any government local authority or any other customer.
11. Doing all business incidental or conductive to the promotion of the banking business.

6. Technological Developments and Products Offered in Era of Digital Banking

In India, banks, as well as other financial entities have entered the domain of information technology and computer networking. A satellite-based Wide Area Network (WAN) would provide a reliable communication framework for the financial sector. The Indian Financial Network (INFINET) was inaugurated in June 1999. It is based on satellite communication using VSAT technology and would enable faster connectivity within the financial sector. The INFINET would serve as the communication backbone of the proposed Integrated Payment and Settlement System (IPSS). Trends in Indian Banking Sector are and their impact on given below:

Today the technology driven banks are finding various means to reduce costs and reach out to as many customers as possible spread over a diverse area. Customers are increasingly accustomed to interactive and online technology. There is a manifest process of technological convergence in the integration of telephone, PC's and TV, which can be, extended to all areas of activity. Non-banking based electronic delivery systems including interactive kiosks; video smart phones and Internet are becoming popular.This has led to using multiple channels of delivery of their products:

- **ATM (Automatic Teller Machine):** it provides essential services like cash dispensing, making a deposit, loan repayment transfer of funds between accounts and account balance inquiry. ATM is an important alternative to keeping branches open in the evening and on weekends and reducing-teller line, staff, and cost.
- **NET BANKING:** it means carrying out banking transactions via the Internet. Thus the need for a branch is eliminated by technology.
- **PHONE BANKING:** This means carrying out of banking transaction through the telephone. A customer can call up the banks helpline or phone banking number to conduct transactions like transfer of funds, making payments, checking account balance, ordering cheques, etc.
- **MOBILE BANKING:** Banks can now help a client to conduct certain transactions through the Mobile Phones with the help of technologies like WAP, SMS, etc., which helps a bank to combine the Internet and telephone, leverage it to cut costs and at the same time provide its customer the convenience.
- **CONSUMER CREDIT CARDS:** It allows the holder to make purchases without paying cash immediately or establishing credit with individual stores. Credit cards eliminate the requirement to check credit ratings and to collect money from individual customers.

The issuing institution determines card terms including interest rate annual fees, penalties, the grace period and other features.

- **TRAVELERS' CHEQUE:** They eliminate the risk of carrying cash. Available on different denominations they are easy to carry and encash. Other banks depending upon the reciprocal arrangement with them accept travelers' cheque of a bank.
- **CASH MANAGEMENT SERVICES:** Larger clients may be offered the help to manage their funds worldwide by the bank. Such clients have subsidiaries worldwide each with their own bank account in local currencies.
- **ELECTRONIC FUND TRANSFER:** It facilitates quick movement of deposit money from the bank account of one customer to the bank account of another.
- **VIRTUAL BANKING:** It is one in which contacts may be made in variety of ways according to convenience but maintaining the same interface and accessing the same services .Also termed as digital-only bank provides end-to-end services through digital platforms like mobile, tablets and internet. It is paperless, branchless and signature-less banking offering 24*7 services to its customers. In India, the digital-only banking is based on Aadhaar infrastructure. The digital-only banks offer various services like account opening, term deposits, loans as well as financial products like insurance and mutual fund.
- **ARTIFICIAL INTELLIGENCE (AI):** can provide quick and personalized services by dealing with each customer and focusing on their specific requirements. It can be used to collect information, automatically build models based on that information, inference and communicate in natural way. In India, only large banks are currently seeking to introduce AI in their services. Indian banks are likely to use AI like machine learning to re-engineer back office processes. Presently, some Indian banks have started deploying robots to answer customer queries related to banking transactions, demat account, locker facility, fixed deposit, loan, etc. Apart from humanoid robots providing customer service, software robots are also getting deployed in functions such as retail banking operations, agri-business, trade & forex, treasury and human resource management to name a few.
- **BLOCK CHAIN TECHNOLOGY (BCT):** it can be used in banking activities like secure document management, reporting, payments, treasury & securities and trade finance. Banking industry can benefit from block chain technology as it helps in fraud prevention, increasing the resilience of the bank's IT infrastructure and also increases transparency of processes. Besides these advantages BCT is also cost efficient and provides auditability & provenance. Bitcoin is the decentralized digital currency as well as the decentralized peer-to-peer payment network that is powered by its users with no central authority. In India, the RBI hasn't yet authorized use of bitcoins and issued a press release on Feb 1, 2017, cautioning the users, holders and traders of bitcoins about the potential financial, operational, legal, customer protection and security related risks. Despite this, bitcoin exchange platforms like BTCX India, Coinsecure, Unocoin and Zebpay have been developed in India. Some banks in India are proposing to form a block chain consortium along with other global banks such as SBI, Citi, Deutsche, JP Morgan, Nomura, HSBC, UBS, Barclays, Bank of America, BNP, RBS, Macquarie, Westpac, etc.
- **AUGMENTED REALITY (AR) APP:** is integration of digital information with the user's environment in the real world. In India, AR mobile app has been launched by a bank

which lists all dining destinations, property lists, and shopping centres, bank ATMs, branches etc with real life pictures along with distance and directions .

- **DIGITAL SIGNATURES** : Banks are also collaborating with IT service providers for e-Sign(digital signature) facility to help digitally signing the loan documents. This will help in faster approval process, lesser paper work and lesser paper storage space.
- **AI-POWERED CHATBOTS COME TO BANKING:** Although India has been a bit of late bloomer in the adoption of some technologies, the country was quick to embrace chatbots, thanks to a large mobile- and messaging-friendly customer base. And the banking, financial service and insurance (BFSI) sector in India leads the usage of artificial intelligence (AI)-powered chatbots. Since its launch in March , HDFC Bank's AI chatbot "Eva" has answered some 2.7 million customer queries from more than over 530,000 users. Other banks, like the State Bank of India and ICICI Bank, have also set up chatbots to handle a range of customer queries, such as guiding them through product details, transferring funds and integrating with website search functions. Companies like these services because they lower operating costs and keep customers satisfied. According to a Kantar TNS's study, 36% of Indians say they are happy to interact with chatbots online.
- **UPI (UNIFIED PAYMENTS INTERFACE) :** is a mobile-based payment system that allows instant transfer of funds between two banks, continues to grow in popularity. Consumer adoption continues apace, while some leading technology players like Google and Paypal now rely on the system for their payment services. In November, the number of UPI-backed transactions grew 38% month-over-month, hitting 105 million transactions, according to the National Payments Corporation of India (NPCI) that runs UPI. According to the report, the value of transactions reached $1.44 billion in November, up from $1.05 billion in October. In August, Google's digital payments platform Tez reported the highest number of UPI-based transactions, followed by payment service competitors PhonePe and the BHIM app.
- **BIOMETRIC AUTHENTICATION :** Biometrics are reshaping India's national identity policies, and will have a far-ranging effect in the years to come. The government has rolled out Aadhaar, a 12-digit unique identity number issued to all Indian residents linked to their fingerprints, iris scans and certain demographic details. The Reserve Bank of India, the country's central bank, has required that all commercial banks, urban and state cooperative banks, payment banks, ATM operations and authorized card payment networks migrate to an Aadhaar-based biometric authentication method for electronic payment transactions by March 2018. The government claims Aadhaar is needed to fight welfare corruption and improve security as the country increasingly shifts to cashless transactions.
- **MISCELLANEOUS DIGITAL SERVICES:** Provide account statement (account info), Balance enquiry, balance statement and transaction reports used. Customers can even download and print the statement of accounts. Online Fund Transfe, Bill Payment Service, Requests and Intimation relating to : request for Cheque-book, Stop payment instructions, Opening a fixed deposit, Opening a recurring deposit, Intimate for the loss of ATM card, Register online for phone and mobile banking, Cheque status, Online application for debit card, Issue a DD or a Banker s cheque form account at special rates,Demat Account and Share Trading Demat Account

7. Trends and Growth in Digital Banking

In the banking sector today efforts are being made by the Government and policy makers to popularize digital banking in Indian Banking sector. Internet banking witnessed growth in 2000s owing to initiatives taken by the government, the RBI, falling internet costs and increased awareness. Online banking has enhanced customer satisfaction by providing anywhere anytime banking .It has benefitted banks through cost savings and increased penetration. The prominent point of digital banking is that it is very convenient for customers rather than traditional banking system and can available 24/7 and time saving. Customer can access their account anytime and anywhere no need to go the bank. Customer can also check their account information and also make funds transfer to their payee. The customer can update their profile such as changing their address, their phone number and so on and it can be very easily.

Table 1: Electronic Payment Systems - Representative Data (Updated as on March 06, 2018)

Data for the period	UPI*		USSD**		Debit and Credit Cards at POS &		PPI #	
	volume	value	volume (in thousand)	value (in Rs. thousand)	volume	value	volume	value
Nov-16	0.3	0.9	7.0	7302.6	205.5	352.4	59.0	13.2
Dec-16	2.0	7.0	102.2	103718.4	311.0	522.2	87.8	21.3
Jan-17	4.2	16.6	314.3	381760.2	265.5	481.2	87.3	21.0
Feb-17	4.2	19.0	224.8	357055.2	212.3	391.5	78.4	18.7
Nov-17	104.8	96.4	182.4	287309.6	244.6	483.3	92.8	32.0
Dec-17	145.5	131.4	179.9	299367.3	263.9	528.7	99.1	35.1
Jan-18	151.7	155.4	172.8	290020.0	271.1	521.9	113.6	38.3
Feb-2018	171.2	191.0	156.1	270260.0	247.1	465.9	113.1	36.5

1. Data is provisional.

2. *: Source is NPCI.

3. **:Figures Negligible, Source is NPCI

4. &: Card transactions of four banks.

5. #: PPI issued by 8 issuers for goods and services transactions only.

6. h: Holiday

7. Mobile Banking figures are taken from 5 banks. The total volume & value of electronic payment systems does not include mobile banking.

8. NACH figures are for approved transactions only

UPI - Unified Payments Interface

USSD - Unstructured Supplementary Service Data

POS – Point of sale

PPI – Prepaid payment instrument

In last few years, the Indian banking sector has realised the need of digital technologies and is rapidly moving to embrace digital banking. They are making considerable investment in creating digital infrastructure in order to offer various solutions like mobile banking, e-wallets and virtual cards, etc.

India being a country where 97% of transactions in volume terms still happen with cash is ready for a cashless digital economy was tested during recent demonetisation when 86% of cash currency in the country was withdrawn overnight on 8th November, 2016. Since then, consumers from various income strata, as well as large and small local vendors, quickly adapted to new and alternative payments – digital wallets, banking apps.

Although a disruptive move, demonetisation has seeded the growth of digital finance in India. Following demonetisation, consumers, the Indian government and private players came together and acted synergistically on a number of digital payment initiatives. While some of this coordination and swift action was a temporary reaction to demonetisation, other long-term factors demonstrate that India is ready for a digital revolution and permanent shifts to digital may be on the horizon.

Today, India is the second largest online market with over 348 million internet users, ranked only behind China. Despite the large base of internet users in India, only 26 percent of the Indian population accessed the internet in 2016. However, internet penetration is rapidly increasing and by 2021 the Indian internet user base is forecasted to reach 555.3 million, covering 44% of the country's total population. Increasingly, Indians turn to mobile internet; the large majority of the digital population in India were mobile internet users in 2016. According to a report by Internet and Mobile Association of India, about two-third of internet users accessed the internet through their mobile phones in 2015. Of that 72% mobile internet users living in urban communities, and 28% living in rural areas. 2021 growth forecast of internet user base demonstrates huge potential in engaging consumers via mobile and leveraging various mobile platforms for commerce in India.

M-commerce has boomed in tier-2 and tier-3 cities in India, in large part due to the availability and penetration of inexpensive smartphones. Mobile internet retailing, has grown significantly from 5% in 2012 to 17% of total internet retailing sales in 2016, with faster growth than internet retailing through other devices and channels (2012-16 CAGR for mobile internet retailing was 134% as against 68% for other internet retailing). Online retailers offering huge discounts on purchases via mobile app drove much of this growth, with retailers successfully bringing more consumers onto their mobile platforms and increasing traffic.

While the cashless economy will continue to grow via plastic cards, its growth will be restricted mostly to major cities due to lack of infrastructure supporting card payments in more rural areas. Indeed, such lack of infrastructure has been the primary reason card transactions remain at less than 1% of total transactions and will continue to be a major obstacle. In such a scenario, mobile wallets and m-banking via apps, which could be easily downloaded onto a smartphone, offer the only two instruments that could break the monopoly of cash transactions in India in near future

Table 2: Electronic Payment Systems - Representative Data (Updated as on March 06, 2018)

Data for period	Mobile Banking		NACH*	
	volume	value	volume	value
Nov-16	87.1	5419.2	152.5	606.6
Dec-16	130	6811.9	198.7	626.8
Jan-17	118.5	6618.4	158.7	541.4
Feb-17	100.4	5993.9	150.5	592.0
Nov-17	96.3	6633.9	197.5	724.1
Dec-17	94.6	6564.0	183.0	714.0
Jan-18	96.7	6792.6	208.1	727.7
Feb-2018	91.8	6453.6	199.1	850.9
1. Data is provisional.				
2. *: Source is NPCI.				
3. **:Figures Negligible, Source is NPCI				
4. &: Card transactions of four banks.				
5. #: PPI issued by 8 issuers for goods and services transactions only.				
6. h: Holiday				
7. Mobile Banking figures are taken from 5 banks. The total volume & value of electronic payment systems does not include mobile banking.				
8. NACH figures are for approved transactions only				
NACH – National automated clearing house				

Table 3 : Electronic Payment Systems - Representative Data (Updated as on March 06, 2018)

Data for period	RTGS		NEFT		CTS*		IMPS*	
	volume	value	volume	value	volume	value	volume	value
Nov-16	7.9	78479.2	123.0	8807.8	87.1	5419.2	36.2	324.8
Dec-16	8.8	84096.5	166.3	11537.6	130	6811.9	52.8	431.9
Jan-17	9.3	77486.1	164.2	11355.1	118.5	6618.4	62.4	491.2
Feb-17	9.1	74218.8	148.2	10877.9	100.4	5993.9	59.7	482.2
Nov-17	10.8	98410.5	162.0	13884.0	96.3	6633.9	89.5	782.6
Dec-17	10.9	100907.8	169.0	15779.2	94.6	6564.0	98.0	871.1
Jan-18	11.2	107488.4	170.2	15374.1	96.7	6792.6	99.6	882.1
Feb-2018 Total	10.6	91765.6	165.6	14843.9	91.8	6453.6	99.2	882.7

1. Data is provisional.
2. *: Source is NPCI.
3. **:Figures Negligible, Source is NPCI
4. &: Card transactions of four banks.
5. #: PPI issued by 8 issuers for goods and services transactions only.
6. h: Holiday
7. Mobile Banking figures are taken from 5 banks. The total volume & value of electronic payment systems does not include mobile banking.
8. NACH figures are for approved transactions only
RTGS – Real time gross settlement
NEFT – National electronic funds transfer
CTS – Cheque truncation system
IMPS – Immediate payment service

The fact that the Indian government is determined to spread financial inclusion by ensuring banking services are available for all will also contribute positively to the spread of digital payment services. Pradhan Mantri Jan Dhan Yojna – a national mission for financial inclusion to ensure access to financial services in an affordable manner – launched on 28th August 2014 and enrolled over 260 million unbanked Indian population majorly from rural areas into banking services. Now, Prime Minister Narendra Modi himself is endorsing digital payments for a cashless economy through Bharat Interface for Money (BHIM) app based on United Payments Interface (UPI). UPI facilitates the fund transfer between two bank accounts on the mobile platform instantly. It offers a common platform for all banks in India and will allow account holders across banks to send and receive money with ease via the BHIM app. The app was launched on 30th December 2016 in two majorly-spoken languages, English and Hindi, with support for other regional languages expected soon.

The Reserve Bank of India (RBI) issued licenses to 11 companies in 2014 to operate as payment banks and of those Airtel and Paytm have started operations. More recently, India Post, which is a government-operated postal system, too got the nod to operate as payment bank. Payment banks are meant to provide basic banking benefits to the rural unbanked population via mobile phones. This first-of-its-kind public-private partnership is expected to bring consumers and small merchants/ shopkeepers together on a digital platform. To lure consumers some of these payment banks, namely Airtel and Paytm, are offering interest as high as 7.25% on money stored in these wallets, as well as additional discounts on transactions. Efforts of both Government of India and RBI in the direction of financial inclusion via mobile phones will help more consumers adopt to m-banking and commerce in coming years.

8. Suggestions

Banks need to have dedicated resources, both people as well as infrastructure, to form an agile innovation unit, with a view to position themselves at the forefront of digital innovations amidst changing customer expectations and sea-change in the competitive landscape. Indian

banks are yet to experience extensive adoption of many technologies, however, significant investments and developing dedicated teams to test these technologies is a positive sign.

The total number of ATMs in India was reduced by 1,684 between June and October of 2017, according to the Reserve Bank of India (RBI). Despite the seemingly marginal shrinkage of 7%, this reflects an important shift as ATMs increased at a compounded rate of 16.4% over the past four years according to trends in study by TOI.The shutting down of ATMs is largely driven by operational costs and the migration of urban consumers switching to digital transactions and internet banking after the demonetization was enacted.

While digital banking is simple and cost effective, there are still security risks. The pace of growth in digital-only banks will depend on their ability to address security concerns. Innovations like Biometric technology allows the person to be identified uniquely by evaluating one or more distinguishing biological traits like face, hand, retina, voice and ear features. The use of biometric authentication can eliminate the requirement of multiple passwords and PIN codes. The Indian banking sector is also gradually adopting biometric authentication to provide simple and secure banking experience to its customers.

9. Conclusion

To cater to the fast changing expectations of customers, constant development of new products and services and enhancements, a dedicated focus on digital innovation is of prime importance. Innovation objectives to be identified early on and well-articulated by banks aspiring for a leadership position in the entire value chain. There was a time when cost leadership and service range leadership offered differentiation; however, the way to maintain sustainable leadership going forward will be 'experience leadership' through customer-driven Innovation. Customers are rapidly adopting technology in their daily lives driven by the growth in internet and mobile penetration, availability of low cost data plans and shift from offline to online commerce. Banks are keeping abreast of their evolving needs and behavior and have enabled access to a wide range of banking and financial services through different digital platforms. Now that digital innovation practice has reached a critical mass, banks are shifting gears to create a stronger innovation culture via the Internal Social Collaboration platform and adopting cutting edge technologies like Artificial Intelligence, Block Chain and Internet of Things (IOT), among others. Customers are taken into a new world of multi-channel banking, where they can access services from home, at the office, or on-the-go through Mobile Banking, SMS Banking, Phone Banking, ATMs and Net Banking. Banks in India are putting in place robust foundations for digital infrastructure and are innovating using digital technologies across all channels to deliver the power of speed and convenience to all customer segments across urban and rural markets. Some incumbents, in order to defend market share, have encouraged the development of a whole ecosystem of digital banking products and services built upon their infrastructure.

References

1. Asian Development Bank. (2007). Effect of Microfinance Operations on Poor Rural Households and the Status of Women. Philippines: Asian Development Bank.
2. Financialexpress. (2013, May 24). Aadhaar set to 'change the game' in financial inclusion. Retrieved July 09, 2013, from http://computer.financialexpress.com/: http://computer.financialexpress.com/sections/news/1351-aadhaar-set-to-change-the-game-in-financial-inclusion

3. Greenwood, J., & Jovanovic, B. (1990). Financial Development, Growth, and the Distribution of Income. The Journal of Political Economy, Volume 98 (No 5 Part 1), pp. 1076-1107.
4. Gupta, S. K. (2011). Financial Inclusion - IT as enabler. Reserve Bank of India Occasional Papers, 32 (2), pp.129-148.
5. Hundal, B. S. and Jain, A. (2014), "Adoption of Mobile Banking Services in India", The ICFAI Journal of Bank Management, Vol. 4, No. 2, pp 63-72.
6. Jain, L. C. (1929). Indigenous Banking in India. The Economic Journal, Vol 42 N0 167, pp470-472.
7. Kapur, B. K. (1992). Formal and informal financial markets, and the neo-structuralist critique of the financial liberalization strategy in less developed countries. Journal of Development Economics, 38, pp.63-77.
8. Khan et. al. (2015), "Service Quality Evaluation in Internet Banking: An Empirical Study in India", International Journal of Indian Culture and Business Management, Vol.2, No. 1, pp 30- 46.
9. Leeladhar, V. (2006). Taking Banking Services to the Common Man -Financial Inclusion. Reserve Bank of India Bulletin.
10. Mahadeva, M. (2008). Financial Growth in India : Whither Financial Inclusion? The Journal of Applied Economic Research , pp.177–197.
11. Manmohan T. R. and JaiGanesh H. (2002), Framework for Internet Banking Security, EBusiness, Vol. 3, No. 8, pp 39-44.
12. Mohan, R. (2006, November 3). Economic Growth, Financial Deepening and Financial Inclusion Address at the Annual Bankers' Conference. Retrieved from www.rbi.org.in: http:// rbidocs.rbi.org.in/ rdocs/ Speeches/ PDFs/ 73697.pdf
13. Mookerje N. (1998), Internet banking still in Evolutionary Stage, Retrieved on June 03, 2007, www.financialexpress.com
14. NABARD. (1992). NABARD. Retrieved from http://www.nabard.org/: http://www.nabard.org/
15. Parsad R. S. (2004), Credit Cards Fraud on Internet, Professional Banker, Vol. 4, No.9, pp 51-58.
16. Planning Commission. (2012, December). http://planningcommission.nic.in/. Retrieved January 2014, from http://planningcommission.nic.in/: http://planningcommission.nic.in/reports/genrep/ rep_hasim1701.pdf
17. Prasad (2005) , "Journal of Management Studies ",Vo.42, Iss. 4 ,June 2005, Pages 885–887
18. Radcliffe Comniittee. (1959). Report of the Committee on the Working of the Monetary System of the Report of the Committee on the Working of the Monetary System of the. England.
19. Raj S. (1996), On the road to virtual banking, Dataquest, Cyber media India Limited, Retrieved June 18, 2008, www.dqindia.com
20. Ramji, M. (October 2007). Financial Inclusion in Gulbarga: Finding Usage in Access. New Delhi: Institute for Financial Management and Research.
21. Ramji, M. (2009, January). RBI asks banks to offer credit through no-frill accounts. Institute for Financial Management and Research Centre for Micro Finance .
22. Rangarajan, C. (2008). Report of the Committee on Financial Inclusion in India. Government of India.
23. Reserve Bank Of India. (2008, Sep 04). Financial Inclusion. Retrieved May 2011, from rbi.org.in: http://rbi.org.in/scripts/PublicationsView.aspx?id=10494
24. Reserve Bank of India. (2006, January 25). Financial Inclusion by Extension of Banking Services - Use of Business Facilitators and Correspondents. Retrieved from http://www.rbi.org.in: http:// www.rbi.org.in/Scripts/BS_CircularIndexDisplay.aspx?Id=2718

25. Reserve Bank of India. (2005, January). Report of the Task Force on Revival of Cooperative Credit Institutions. Retrieved from http://www.rbi.org.in/: http://www.rbi.org.in/scripts/PublicationReportDetails.aspx?FromDate=01/11/2005&SECID=21&SUBSECID=0
26. Reserve Bank of India. (2009, August). Report of the Working Group to Review the Business Correspondent Model. Retrieved from http://www.rbi.org.in: http://www.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=555
27. Ryder, D. R. (2000), The Legal Challenges of Internet Banking, Retrieved on Nov. 09, 2008, www.britannicaindia.com
28. Sali, P. S. (2007), Electronic Banking: Customers' Satisfaction on ATM Cards, Emerging Trends in International Business and Financial Services, Excel Books, New Delhi, pp 15-30.
29. Shajhan, S. (2011), A Study of levels of Customers' Satisfaction on various Modes of Banking Services in India", The ICFAI Journal of Bank Management, Vol. 4, No.1, pp79-85.
30. Sharma, M., & Pais, J. (2010). Financial Inclusion and Development. Journal of International Development , 613-628.
31. Sinha, P. (2014), Plastic Power: Credit Cards see fall in rates, The Times of India, Jan. 01, 2014.
32. Tendulkar, S. D. (2013). Expert Group on Methodology for Estimation of Poverty. Retrieved from http://planningcommission.nic.in/: http://planningcommission.nic.in/eg_poverty.htm
33. The World Bank Institute. (2013). Innovations in Financial Literacy and Capability. Retrieved from http://wbi.worldbank.org/: http://wbi.worldbank.org/wbi/content/africa-regional-dialogue-financial-literacy-and-capability
34. Thorat, U. (2007, July). Financial Exclusion –The Indian Experience. The Reserve Bank of India Monthly Bulletin , pp. 1165-1172.
35. Trehan et. al. (2004), E-banking - The Indian Scenario, Emerging Trends in International Business and Financial Services, Excel Books, New Delhi, pp 80-93.
36. United Nations Department of Economic and Social Affairs. (2009, February 29). Doha Declaration on Financing for Development. Retrieved from www.un.org: http://www.un.org/esa/ffd/doha/documents/Doha_Declaration_FFD.pdf
37. Vaas, P. (2007). Solving Financial Exclusion Needs Joined-Up Government. Public Money & Management, 27 (1), pp 3-5.
38. Yibin (2003), "E-banking: Status, Trends, Challenges and Policy Implications", Paper of CRBC Seminar, November 24.

25

डिजिटल इकोनॉमी : चुनौतियाँ और सम्भावनाएँ

*डॉ. राम किशोर यादव**

वर्तमान समय विज्ञान और तकनीक का है। इस वैश्विक दुनिया में सूचना का प्रसार बहुत ही तीव्र गति से हो रहा है। सूचनाओं का संवर्द्धन, उनका मूल्यांकन और वैश्विक परिदृश्य में उनका उपयोग महत्वपूर्ण हो गया है। इन सूचनाओं का मूल्यांकन चुनौतियों से भरा है। इसमें अपार संभावनाएँ भी विद्यमान हैं। Digital economy refer to an economy that is based on digital computing technology that the digital economy is also sometimes called the internet economy. डिजिटल इकोनॉमी वर्तमान समय की मांग है। भारत में इसका प्रचलन 1991 के बाद प्रारंभ हुआ। 1991 के बाद भारत ने एलपीजी नीति को लागू किया। भारतीय अर्थव्यवस्था को पूरी तरह खोल दिया गया। पूरे विश्व के लोगों के लिए भारत के दरवाजे खुल गए। इसका सकारात्मक परिणाम भारत को मिला। लिब्रलाइजेशन, प्राइवेटाइजेशन और ग्लोबलाइजेशन की नीति ने भारत की अर्थव्यवस्था को समृद्ध करने में सहायता प्रदान की। इस चुनौती से भरे विश्व में व्यापार करना बेहद चुनौतीपूर्ण हो गया। इसे अधिक गति देने में डिजिटल इकोनॉमी की भूमिका महत्वपूर्ण है। डिजिटल इकोनॉमी ने व्यापार को सुगम बना दिया है। हम बिना नकद भुगतान के अपने व्यापार का संचालन कर सकते हैं।

डिजिटल इकोनॉमी में कम्प्यूटर तकनीक का कमाल है। इसे हम इंटनरेट इकोनॉमी भी कह सकते हैं। वेब आधारित इंटरनेट बैंकिंग प्रणाली इसमें मददगार साबित हुए हैं। क्रेडिट कार्ड, इंटनरेट बैंकिंग एल.ओ.यू. के जरिए संपूर्ण व्यापार का संचालन किया जा रहा है। ऐसे तकनीक के युग में पारदर्शिता तथा वैयक्तिक सूचनाओं को बचाकर रखने की गम्भीर चुनौती है। इसका दुरुपयोग संभव है। वर्तमान समय में बैंकिंग घोटाले इस तकनीक का उदाहरण मात्र है। किस प्रकार एल.ओ.यू. के जरिए करोड़ो रुपये लोन के रूप में दे दिए जाते हैं। उनसे किसी भी प्रकार की गारंटी नहीं ली गई जिसका गंभीर परिणाम भारत को भुगतना पड़ा। डिजिटल तकनीक के खतरे गंभीर हैं। इससे हमारे खाते से रुपये दूसरे जगह आसानी से भेजा जा सकता है। इससे सामाजिक, आर्थिक, राजनैतिक नुकसान संभव है। हमारे व्यापारिक गतिविधियों को झटका दिया जा सकता है। सूचना क्रांति का सहारा लेकर व्यापारिक संस्थानों के गुढ़तम सूत्रों की जानकारी प्राप्त की जा सकती है।

भारत एक कृषि प्रधान देश है। भारत की अर्थव्यवस्था कृषि पर ही आधारित है और भारत के किसान अशिक्षित हैं। वे अपने परम्परागत खेती पर ही निर्भर है। उन्हें कृषि हेतु बुनियादी सुविधाएँ नहीं मिल पा रही है। उत्तम प्रकार के बीज, कीटनाशक, उर्वरक तक का उन्हें अभाव रहता है। इस चुनौतीपूर्ण वातावरण में वे अपना काम करते हैं। भारत में बिजली अभी भी ग्रामीण इलाको में नहीं रहती है। कुछ जगहों पर तो बिजली अभी पहुँची ही नहीं है। भारत के सुदूर क्षेत्रों में बिजली की गंभीर समस्या है। ऐसे वातावरण में डिजिटल इकोनॉमी का सहारा लेना उनके लिए गंभीर चुनौती है। भारत सरकार को इस पर चिंतन करने की जरूरत है।

* श्री वेंकटेश्वर कॉलेज, दिल्ली विश्वविद्यालय, दिल्ली।

भारत सरकार ने स्टार्टअप इंडिया, मेक–इन–इंडिया, डिजिटल इंडिया जैसे महत्वपूर्ण योजनाएँ लागू कर दी है। वेब का एक ऐसा मायावी जाल खड़ा किया गया है जिसकी चमक से सभी चकाचौंध हो गए हैं। उन्हें अपना रास्ता तलाशने में कठिनाई हो रही है। डिजिटल इकोनॉमी में संभावनाएँ भी अपार हैं और चुनौतियाँ भी कम नहीं है। हमने भारत की आधी आबादी को इसका लाभ से वंचित नहीं रखना चाहिए। उन्हें शिक्षित कर समुचित सुविधाएँ प्रदान कर डिजिटल तकनीक का लाभ देना होगा। उन्हें सशक्त बनाकर तकनीक के साथ जोड़ना होगा। भारत में शिक्षा में गुणात्मक परिवर्तन लाना होगा। संपूर्ण विश्वविद्यालयों को रिसर्च के लिए प्रेरित करना होगा। उन्हें बुनियादी सुविधाएँ प्रदान करनी होगी। तभी भारत में डिजिटल इकोनॉमी का सपना साकार होगा।

डिजिटल क्रांति के विविध आयाम हैं। इसमें शिक्षा, स्वास्थ्य, कृषि, व्यापार, औद्योगिक संस्थान, उत्पादन केंद्र, रक्षा, अंतरिक्ष विज्ञान, औषधि निर्माण केन्द्र शामिल ह\। डिजिटल क्रांति का सर्वप्रथम प्रयोग शिक्षण संस्थानों में होता है। भारत सरकार ने थ्री टायर स्ट्रक्चर के जरिए 2030 तक सभी शिक्षा संस्थानों को पूर्णतः वेव आधारित बनाने का निर्णय ले चुकी है। यह चुनौतिपूर्ण कार्य है। संपूर्ण वित्तीय संस्थानों की गुणवत्ता को बढ़ाने के लिए उनकी कार्यशैली को बदलने के लिए, वैश्विक चुनौतियों से मुकाबला करने के लिए डिजिटल तकनीक को अधिक सुरक्षित बनाना होगा। डिजिटल तकनीक का आसानी से कक्षाओं में प्रयोग में लाया जा सकता है। इसमें विविध रूप है। इसमें ब्लैंडेड लर्निंग, ई–लर्निंग या डिजिटल लर्निंग, ब्लॉग, वेविनार तथा मूक प्रमुख हैं।

वर्तमान समय में अत्याधुनिक तकनीक आ गया है। ऑपन ऑन लाइन शिक्षण पद्धति का सहारा लिया जा रहा है। 'स्वयं' एक महत्वपूर्ण ऑन लाइन लर्निंग पद्धति है। वेविनार के माध्यम से सेमिनार, प्रजेंटेशन, व्याख्यान तथा वर्कशॉप आयोजित किये जा सकते हैं।

डिजिटल लर्निंग तकनीक पर आधारित शिक्षा है। डीवीडी, सीडी के माध्यचम से भी हम शिक्षा ग्रहण कर रहे हैं। ई–लर्निंग के द्वारा हम अपने शिक्षण मैटिरियल को नये रूप में प्रस्तुत कर रकते हैं। डिजिटल शिक्षा के तहत अपने प्रजेंटेशन बना लिया तो इसका हमेशा इस्तेमाल किया जा सकता है। ई–लर्निंग का प्रयोग तकनीकी माध्यम से विकसित किया जा रहा है। अपने स्रोत को पुष्ट किया जा सकता है। इसके कुछ नकारात्मक बिन्दु भी हैं जैसे विश्वविद्यालय में अत्यधिक तकनीक की जरूरत है पर उपलब्धता नहीं है। इसमें विद्यार्थियों से फेस–टू–फेस कॉन्टेक्ट नहीं हो पाता है।

डिजिटल तकनीक का लाभ यह है कि आसानी से बहुत ही कम समय में तात्कालिक खबरें और होने वाले परिवर्तनों की जानकारी प्राप्त कर सकते हैं। राष्ट्रीय शिक्षा आयोग ने नई तकनीक के प्रयोग से शिक्षा में गुणवत्ता को बढ़ाने पर जोर दिया है। ऑन लाईन कोर्स की भी अनुमति प्रदान की गई है। ब्लेंडेड लर्निंग का सहारा लिया जा रहा है। ई–कन्टेंट, पोर्टल की शुरूआत कर दी गई है।

SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) के तहत Video tuition, e-content, self assessment rFkk discussion forum की पूरी व्यवस्था है।

वैश्वीकरण और बहुराष्ट्रीय कम्पनियों ने डिजिटिलाइजेशन को गति प्रदान की है। वैश्वीकरण के बाद जो हाशिये पर थे वे भी केन्द्र में आ गए हैं। 1991 में भारत सरकार ने जो नई औद्योगिक नीति लागू की, जिसमें लाइसेंस व्यवस्था को उदार बनाने, विदेशी सहयोग को बढ़ाने, तकनीकी उन्नयन और उद्यमशीलता के विकास पर बल दिया गया है। द इकोनोमिस्ट 1994 के आँकड़ों के अनुसार, ''1993 में सबसे बड़ी बहुराष्ट्रीय कंपनी, विदेशी संपत्ति केसंबंध में रॉयल डच शेल की कुल संपत्ति 100.8 अरब डॉलर थी जिसमें 69 अरब डॉलर विदेशी थी। सबसे बड़ी कार कंपनी जनरल मोटर्स की कुल संपदा 167 खबर डॉलर (36 अरब डॉलर विदेशी थी)। इलेक्ट्रॉनिक कंपनी जनरल इलेक्ट्रॉनिक कीकुल संपत्ति 250 खबर डॉलर (31 खरब डॉलर विदेशी) थी। 1991 के बाद इनकी संपत्ति में अभूतपूर्व वृद्धि हुई।'[1]

भारत की आर्थिक प्रगति और संतुलित विकास को ईष्वर डींगरा ने अपनी किताब में प्रस्तुत किया है। नर्क्स के अनुसार, ''बाजार का सभी तरह से विस्तार करना चाहिए। कई पूरक परियोजनाओं से अधिक तथा श्रेश्ठ उपकरणों की सहायता से काम करने वाले लोग एक–दूसरे के ग्राहक बन जाते हैं। जन उपयोग के लिए उत्पादन करने वाले उद्योग इस अर्थ में एक–दूसरे के पूरक होते हैं, एक–दूसरे की वस्तु के लिए मांग निर्मित करते हैं तथा इस प्रकार एक–दूसरे की सहायता करते हैं।''[2]

डिजिटल इकोनॉमी ने बाजार नियंत्रण में महत्वपूर्ण भूमिका निभाई है। इसके लिए अनेक संभावनाएँ विद्यमान हैं। अभी भारत का पूरा आर्थिक, सामाजिक क्षेत्र डिजिटल तकनीक उपयोग के लिए खुला पड़ा है।

द न्यू कैपिटलिस्ट आर्डर, गिलन 1992 के आँकड़ों पर ध्यान दे तो पाते हैं कि, ''तृतीय विश्व के लोग वैश्वीकरण के अनुकूल माने जाते हैं। हालांकि यह देश सचल पूँजी, परिधि के सस्ते श्रम का लाभ उठा सकते हंै ये देश अपनी औद्योगिक इकाइयों में बढ़ोतरी कर सकते हैं। परन्तु औद्योगिक विकास की प्रकृति में बहुत स्पष्टता नहीं दिखाई पड़ती है। यह आय मूल्य उत्पादन और तृतीय विश्व के मजदूरों के अति शोषण पर आधारित है। राज्य विदेशी निवेश को आकर्शित करने के लिए तय मानदंड को घटाते हैं। परिणामस्वरूप शोषण बढ़ता जाता है। सस्ती मजदूरी, न्यूनतम नियंत्रण तथा कर सरलीकरण जैसे प्रलोभन षामिल हैं।''[3]

डिजिटल इकोनॉमी व्यापार वृद्धि में सहायक है। आर्थिक गतिविधि को आसानी से विश्व के एक भाग से दूसरे भाग में स्थानांतरित किया जा सकता है। वैश्विक बाजार का पूरा चरित्र ही बदल गया है। 'बीट क्वाइन' का प्रयोग इसका एक उदाहरण है। 'बीट क्वाइन' एक प्रकार से पूरी समानांतर इकोनॉमी हें जो डिजिटलाइजेशन के कारण ही संभव हो पाया है।

हिन्दी सिनेमा और पत्रकारिता उद्योग ने डिजिटिलाइजेशन का अत्यधिक उपयोग किया है। राष्ट्रीय चेतना, लोक कल्याण और समाज सुधार के उद्देश्य हेतु इसका प्रकाशन आवश्यक है। समाज में क्रांतिकारी बदलाव लाने में डिजिटल तकनीक का ही योगदान है। हिन्दी पत्रकारिता, स्वरूप और संदर्भ में डॉ. विनोद गोदरे में लिखा है, ''समाज में त्वरित और प्रभावशाली ढंग से सूचनाएँ एक ज्ञान विकसित करने के लिए, विकसित एवं विकासशील समाज में विकास की गति को तीव्रता प्रदान करने के लिए, व्यावसायिक समाज में लाभ एवं प्रतिस्पर्धा की वृद्धि के लिए, मनोरंजन के लिए, विश्वबंधुत्व की भावना के लिए, वैश्विक शांति स्थापना के लिए, इन पत्र–पत्रिकाओं का प्रकाशन किया गया। सबकी खबर लेना, सबको खबर देना।''[4]

डिजिटल तकनीक के इस्तेमाल करते समय हमें कुछ महत्वपूर्ण सावधानियाँ बरतनी चाहिए। यदि हम किसी को रुपये भेज रहे हैं या व्यक्तिगत जानकारी प्रदान कर रहे हैं तभी उसकी सत्यता की जांच अवश्य कर लेनी चाहिए। ऑन लाईन चीजों की विशेष जानकारी प्राप्त कर लेनी चाहिए। कभी भी क्रडिट कार्ड के द्वारा ऑनलाइन चीजें बिना सत्यता की जांच किये नहीं खरीदना चाहिए। अपने पासवर्ड को virtual keyboard के द्वारा प्रोटेक्ट रखना चाहिए।

भारत की आर्थिक व्यवस्था के विविध आयाम हैं। इन सभी क्षेत्रों में हमें तकनीक के इस्तेमाल से पूर्व विशेष रूप से गहन जानकारी प्राप्त कर लेनी आवश्यक है। सोशल मीडिया पर भी अपनी व्यक्तिगत जानकारी से बचना चाहिए। क्योंकि आज विश्व मे डाटा से ही बड़े–बड़े कमाल हो रहे हैं। भारत भी इससे अछूता नहीं है।

तकनीक का लाभ किसानों तक कैसे पहुँचे, यह गंभीर चुनौती है। अगर तकनीक ग्रामीण कृषि क्षेत्रों के उपयोग में लाया जायेगा तो बिचौलिए की भूमिका स्वतः खत्म हो जायेगी। The Times of India 14th April, 2018 ds Editorial esa Adil Zainulbhai and A.N. Roy ने लिखा है, "Technology can get insurance money into the hands of farmers in 24 hours. This means no middle man, no human error and no overhead costs. Digitized land records will have to be backed into this cake for all the other ingredients to make sense."[5]

भारत के किसान तकनीक पर विश्वास करने में संकोच कर रहे हैं। इसके नकारात्मक बिन्दुओं पर ध्यान चला जाता है। उन्हें हमें सहयोगी की भूमिका में रखना होगा। Adil Zainulbhai and A.K. Roy ने जोर देकर कहा है, "Farmers will not quick to trust technology after many bitter harvests but making them partner in the process is a baby step towards winning them over. Insurance policies for India's farmers must become a rite of passage in our fields with a smart phone and high quality connectivity."[6]

''भारतीय अर्थव्यवस्था के समक्ष सबसे बड़ी चुनौती केन्द्र और राज्यों के बीच बढ़ते हुए व्यापारिक ऋण की समस्या है।''[7]

भारतीय अर्थव्यवस्था के मूलभूत समस्याओं पर विचार करते हुए अर्थशास्त्रियों ने 10 मार्च 2018 को लिखा, ''अर्थव्यवस्था एक मानव निर्मित संगठन है जिसके माध्यम से लोग समाज की बेहतरी और विकास के लिए परस्पर सहयोग करते हैं।''[8]

भारत में नोट बंदी के बाद cashless economy पर बल देने को कहा गया। इस economy के उपयोग के कई खतरे हैं। बिना तैयारी के भारत सरकार ने नोट बंदी जैसे कदम उठाये जिससे भारतीय अर्थव्यवस्था पर प्रतिकूल प्रभाव पड़ा। औद्योगिक विकास दर घट गया। बैंकों में विविध प्रकार की जटिलताएँ आ गई। Cash inflow की समस्या आ गई। डिजिटिलाइजेशन का कार्य एक सतत् प्रक्रिया है इससे मूलभूत सुविधाओं को देकर लागू किया जाना चाहिए। इसमें कई आशंकाएँ हैं इनके निवारण के बिना संपूर्ण डिजिटल क्रांति की और बढ़ना खतरनाक कदम होगा। Cashless society की अवधारणा पूरी तरह चुनौतीपूर्ण है। इसमें संख्याओं का खेल छिपा है। इन संख्याओं का समावेशीकरण करके ही डिटिजल मिशन को पूरा किया जा सकता है। भारत इस दिशा में धीरे–धीरे बढ़ रहा है। शिक्षा की इसमें महत्ती भूमिका है। इस तकनीक का प्रयोग मानव हित में होना चाहिए तभी इसके साकारात्मक परिणाम मिलेंगे।

संदर्भ

1. द इकोनोमिस्ट, 1994.
2. भारत में आर्थिक विकास एंड नियोजन, ईश्वर डींगरा, पृ. 35.
3. द न्यू कैपिटलिस्ट ऑर्डर, गिलन, 1992.
4. हिन्दी पत्रकारिता स्वरूप और संदर्भ, डॉ. विनोद गोदरे, पृ. 18.
5. The Times of India, 14 April, 2018, p. 26.
6. The Times of India, 14 April, 2018, p. 26.
7. http://gshindi.com category economics.
8. वही।