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## Editorial

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Respected reader, I am very please to inform you that, this year the Luminous Journal has completed the journey of its fourth year with this issue Luminous Vol. 4(1). Since the last three years we have got all possible cooperation and support of the authors, research scholars, students, readers to make the journal and the content very worthwhile.

Our current issue has also raised the voice and ideas of the researchers open the 'Importance of Ethics and Values' in businesses, society, economy, family and for an individual. The concerns of young researchers regarding Environmental Issues, Corporate Governance, Cyber Security, Corporate Culture, Ethical Marketing, Information Security, Distance-learning, Socio-political Climate, etc. has been shown through their research articles in the current issue.

The journal was started with a vision that the ideas in the form of research articles and papers may contribute some good to the society and the public at a large. So far as, I am really very satisfied that we are able to do the same. This journey is just a mile stone for us and we have to move more miles ahead and to spread our motto of

**'LET YOUR LIGHT SHINE'.**

At the last, I would like to offer words of gratitude to all the contributors, members of the editorial board, our chief-patron, patron, staff of printing press, designing team and to the publisher of the journal for their constant support and motivation.



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## A Conceptual Comparison of Virtual Investment and Actual Investment

Madhavi Tarani\*

(\*Assistant Professor, St. Paul Institute of Professional Studies, Indore)

### **Abstract**

*As far as Investment is concerned normally we think about normal investment avenues like share market, debentures, money market instruments, mutual funds, life insurance, real estate, precious objects, derivatives, non-marketable securities etc. Compared to this in JAN 2009 under the crypto currencies a new digital currency was created i.e. Bitcoin. It follows the ideas set out in a white paper by the mysterious and pseudonymous developer Satoshi Nakamoto, whose true identity has yet to be verified. Bitcoin offers the promise of lower transaction fees than traditional online payment mechanisms and is operated by a decentralized authority, unlike government-issued currencies. In this Paper we will discuss both the investment avenue and will see which can be better for investment purpose.*

*Keywords: virtual Investment, actual investment, bitcoin, digital currency*

### **Introduction**

Investments are important because in today's world, just earning money is not enough. You work hard for the money you earn. But that may not be adequate for you to lead a comfortable lifestyle or fulfill your dreams and goals. To do that, you need to make your money work hard for you as well. This is why you invest. Money lying idle in your bank account is an opportunity lost. You should invest that money smartly to get good returns out of it.

The Indian investor has a number of investment options to choose from. Some are traditional investments that have been used across generations, while some are relatively newer options that have become popular in recent years and one of them is cryptocurrencies (Bitcoin). Before taking any decision related to investment it is very important to look out for various plus points and loopholes for the same.

### **Objectives of Research**

- To have clear understanding of Bitcoin.
- To know about how bitcoin works and how it achieves price appreciation.
- To know the plus points and negative points for both of the investment by comparing the same.

### **Conceptual Framework**

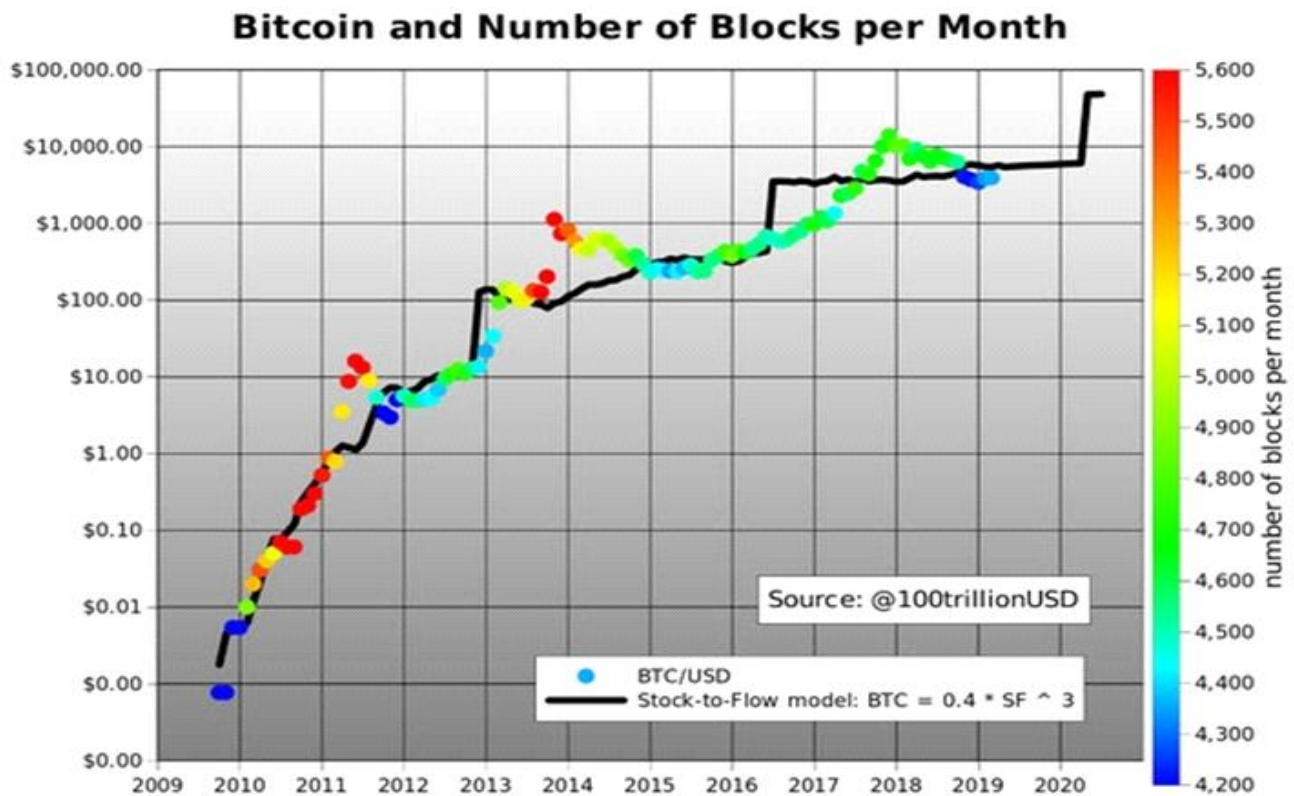
- Virtual Investment is like actual investment only but here we would invest our real currency in buying Virtual currency is known as Virtual Investment.
- This is a kind of investment on which investor don't have any influence. You cannot change anything as per your wish while investing in Virtual currency.
- Global CEO of Digital Currency Group, Bary Silbert said that Bitcoin investment has highest risk and

highest return.

- Warren Buffet, in 2014 said that, “It's a Mirage.... The Idea it has some huge intrinsic value is just a joke.”
- “People are not buying into the value of substance. They are buying into the value of Hype.” Until and Unless you can influence your investment, it is just a blind game.
- You don't know what is going to happen in the future but majority is in the queue of buying the bitcoins. Investment in Bitcoin is good for them who has huge amount of Personal Disposable Income.

### How Bitcoin Works?

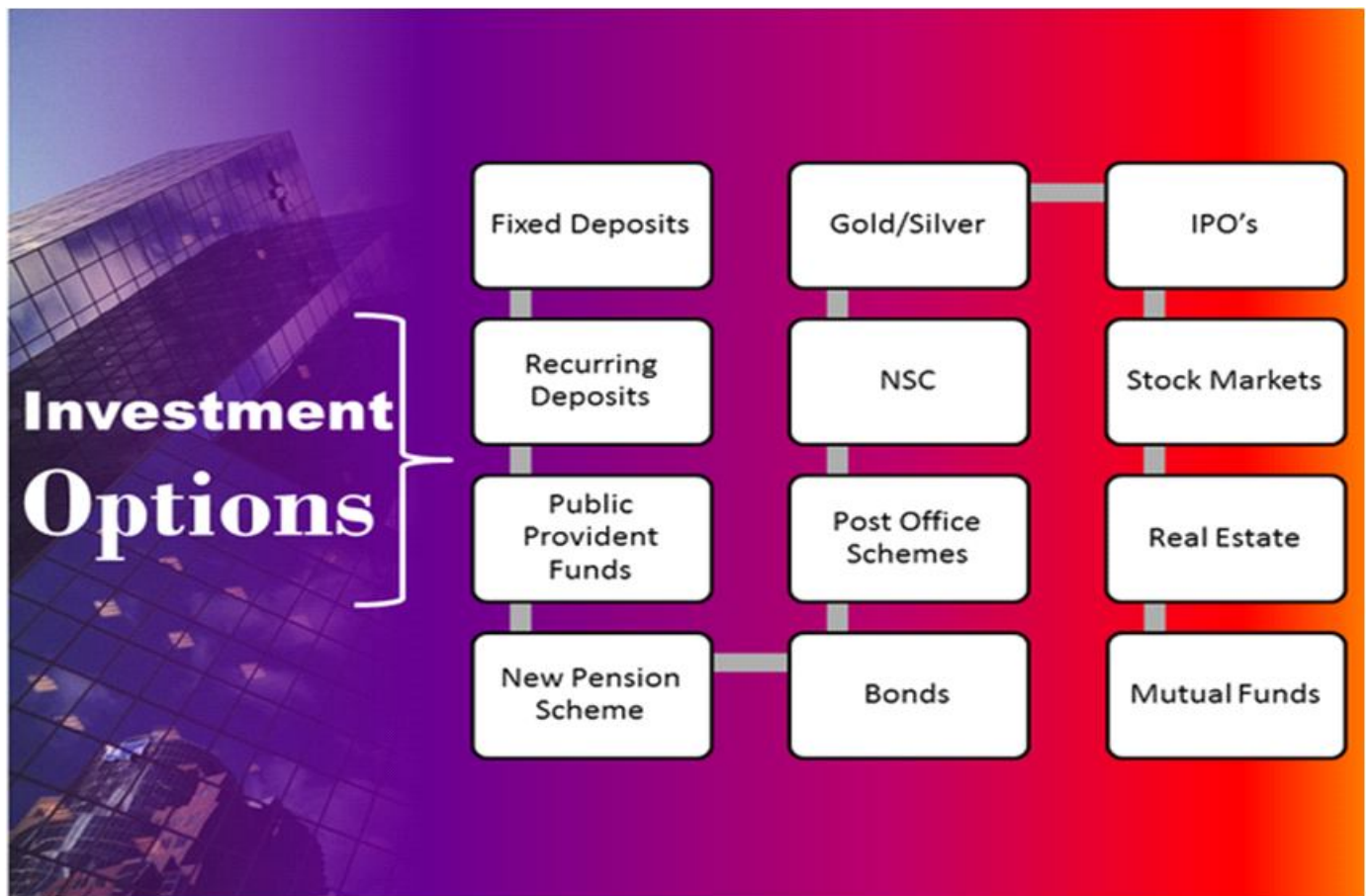
- It is a mechanism of generating Virtual money in peer to peer networks. There will be fixed, immutable and finitely number of generated Virtual coins in Bitcoin which will equal to 21 million units and there will be no more.
- Unlike other currency where it is generated by one or more central authority, Bitcoins are generated by the network peers. The network users run specialized software on their computers to solve complex mathematically puzzles and thus producing Virtual coins.
- The complexity of the puzzles ensures the slow of generating the coins which is then distributed randomly to the system users.
- The Virtual coins can be stored in local digital wallet in the users devices so the coins are fully controlled and managed by them.



From the above chart we can see that year by year investment in bitcoin is increasing and people are being crazy in buying it.

### What is Actual Investment?

- Actual investment is the investment where we would use our real and actual currency to invest in various short term and long term avenues. For ex. Debt fund, Equity fund, Gold, Share, Property, FD, PPF etc.
- It is a kind of investment where we can always influence the investment pattern as per our risk and return portfolio.
- Following image shows various alternative for actual investment where we can actually buy/ invest in any of them and can influence the initial pattern as per our risk and return portfolio.



### Virtual Investment I V. Actual Investment

- There is no calculation and Predictability behind the growth and slump of Bitcoin and because of this it is like a blind investment. There is no long term value proposition under the Bitcoin. If you have extra surplus money then you should invest in the same. While Actual Investment and its value can be predicted and calculated we can justify the slump and growth of the actual investment.
- Actual Investment is lazy, Slow and Predictable while Virtual Investment is Fast and Unpredictable.
- Compared to Actual Investment, Virtual Investment is very volatile so it's a kind of Gambling. You can not do any planning on the basis of bitcoin. Value of Bitcoin might become zero

- Bitcoin should not be considered like actual investment because investor can not influence the same like Actual Investment.
- Bitcoin is a novel concept so it has limited track and low credibility. While Actual Investment is a well established concept and Detailed track with higher credibility.
- No tax benefit is available under Virtual investment while return on Actual Investment avenues are moderately tax free.
- Bitcoin is mostly used for illegal activities in black market, money laundering and tax evasion by hackers, terrorists etc. while Actual Investment is completely legal and document supported avenues with complete track and history.
- Under Bitcoin no govt. regulation and govt. monitoring is there. So no sovereign support is there. While Actual Investment has complete sovereign support because of its legal and well accepted form.
- Bitcoin can be hacked by hackers easily and in the absence of third parties regulatory bodies it can't be reversible. While Wrong Transactions under Actual Investment could be corrected because of govt. involvement.
- Under Virtual Investment there is no central govt. agencies which guaranteed your bitcoin so Bitcoin can not be insured while Actual Investment can be insured against future risk.
- It is really very difficult to cash out the bitcoins under price fall While Actual Investment can be easily and conveniently cash out even under the price fall because of its legal form.

## Conclusion

From the above comparison we can see that although Bitcoin is gaining popularity now a days but it is not advisable to invest in such virtual currency. As we discussed it is just a blind game you can neither influence the investment pattern nor you can predict anything regarding its value. Because its growth/slump in value is completely dependent on supply demand factors. On the contrary Actual Investment Avenues are safe and secure. No doubt growth will be very slow but at least investor can see and understand the same and if not satisfied can go for withdrawal as well.

It can be concluded that this campaign has brought godliness all over the country in just few years and if the people will adopt it with full participation this campaign will change the face of nation. It can also be said that Indore city is a great example for the citizens of the country for their work and technologies used. This campaign for Indore city was a collective effort for both the citizens and the government. Government provided facilities, awareness, development and the citizens learned to use and respect it. this relation and combination made a big difference in the city. No doubt can be made on the fact that change begins at home and people of Indore have proved it now it is the turn of rest of the cities to make a mark in this run. Every citizen of the country should take it upon himself/herself to make this campaign a success rather than waiting for the govt. to do.

## References

- [https://www.google.com/search?biw=1707andbih=781andtbm=ischandsxsr=ACYBGNRLv8auODMJuhd0XqBb39tiEU0RDw%3A1577498129096andsa=1andei=EbYGXsjMBcTb9QP2-4boAgandq=bitcoins+buyers+statistics+in+indiaandoq=bitcoins+buyers+statistics+in+indiaandgs\\_l=img.3...561760.566955..567410...0.0..0.212.2993.0j19j1.....0....1..gws-wiz-img.....35i39.NtiaJbJl9t0andved=0ahUKEwiImfm8ntfmAhXEbX0KHfa9AS0Q4dUDCAcanduact=5#img=1Au-Af-vnulWTM:](https://www.google.com/search?biw=1707andbih=781andtbm=ischandsxsr=ACYBGNRLv8auODMJuhd0XqBb39tiEU0RDw%3A1577498129096andsa=1andei=EbYGXsjMBcTb9QP2-4boAgandq=bitcoins+buyers+statistics+in+indiaandoq=bitcoins+buyers+statistics+in+indiaandgs_l=img.3...561760.566955..567410...0.0..0.212.2993.0j19j1.....0....1..gws-wiz-img.....35i39.NtiaJbJl9t0andved=0ahUKEwiImfm8ntfmAhXEbX0KHfa9AS0Q4dUDCAcanduact=5#img=1Au-Af-vnulWTM:)
- <https://economictimes.indiatimes.com/wealth/personal-finance-news/six-best-investment-avenues-in-the-current-scenario/articleshow/47970333.cms>
- <https://www.coinbase.com/price/bitcoin>
- <http://www.economicdiscussion.net/difference-between/planned-and-actual-saving-and-investment-and-their-differences/701>
- Satoshi Nakamoto, *Bitcoin: A Peer to Peer Electronic Cash System* (<https://bitcoin.org/bitcoin.pdf>)



## A Review Paper on E-learning

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### **Abstract**

*The concept of e-learning involved from the shift of developing countries to developed countries. It is indeed a promising reform with a positive outlook and no specified boundaries. e-learning refers to learning supported by electronic media. The use of ALT (Advanced Learning Technologies) creates dynamic sharing and exchanging between open source communities that diffuse e-learning systems. In our opinion, the designer practices define new perspectives on e-learning design which are not structured and highlighted enough. This article shows the capabilities of a generic framework to analyse the design practices on an open-source project and to explicit these practices. We describe how the semantics for architectural specifications proposed by RM-ODP (Reference Model-Open Distributed Process) framework were applied on an e-learning system project to analyse the principles of invariants, structural and functional. With the vast development of various technologies, learning today is no longer confined to classrooms with lecture delivery as the only method of conveying knowledge, rather, an electronic means of learning has continued to evolve. e-learning facilitates education using communications networks and has made learning possible from anywhere at any time using the Internet, wide area networks or local area networks. The students who used to spend their time in the library searching for information in books and journals can nowadays, use search engines and figure out the web sites for the information needed, thus making information sharing a very easy task. The present paper is the review of the studies done on the concept of e-learning and m-learning.*

*Keyword: Advance Learning Technologies, E-learning, Reference Model-Open Distributed Process etc.*

### **Introduction**

Since the Internet was further developed as a means of communication by educational institutions in the 1970s, academics have been aware of its massive potential as a learning tool. In recent years, governments of both developed and under-developed nations have become increasingly excited about the possibilities of online learning to deliver cost-effective, easily accessible and ever-current education to all ages and social backgrounds.

In the 'Information Age' where the need for 'knowledge workers' increases as the need for manual workers decreases, 'lifelong learning' is seen as key to the continued success of modern society. 'e-Learning' is considered by many as the only viable solution to the problem of delivering the resources required to facilitate lifelong learning.

Understanding eLearning is simple. eLearning is learning to utilize electronic technologies to access educational curriculum outside of a traditional classroom. In most cases, it refers to a course, program or degree delivered completely online.

There are many terms used to describe learning that is delivered online, via the internet, ranging from Distance Education to computerized electronic learning, online learning, internet learning, and many others. We define eLearning as courses that are specifically delivered via the internet to somewhere other than the classroom where the professor is teaching. It is not a course delivered via a DVD or CD-ROM, videotape or over a television channel. It is interactive in that you can also communicate with your teachers, professors or other students in your class.

'e-Learning exploits interactive technologies and communication systems to improve the learning experience. It has the potential to transform the way we teach and learns across the board. It can raise standards and widen participation in lifelong learning. It cannot replace teachers and lecturers, but alongside existing methods, it can enhance the quality and reach of their teaching, and reduce the time spent on administration. It can enable every learner to achieve his or her potential, and help to build an educated workforce empowered to change. It makes possible a truly ambitious education system for a future learning society.'

It is the employment of technology to aid and enhance learning. It can be as simple as High School students watching a video documentary in class or as complex as an entire university course provided online. e-Learning began decades ago with the introduction of televisions and over-head projectors in classrooms and has advanced to include interactive computer programs, 3D simulations, video and telephone conferencing and real-time online discussion groups comprised of students from all over the world.

It is a recognized educational practice that supports a flexible model of access to knowledge, enabling education and training a numerically larger audience than what is traditional education models can effectively support (Som Naidu, 2006). "The success of Web 2.0 inspired e-learning to evolve into e-learning 2.0, which exploits the collective intelligence to achieve education-centric user" (Huang Shiu, 2011).

e-learning is being changed modified and adapted as expected. The distances are no longer an obstacle to someone who wants to study any science up to a point. Nevertheless, in some cases, the use of e-learning requires some initiation/training to achieve familiarization on these.

### **Literature review**

Urdan & Weggen (2000): They related that online learning constitutes just one part of e-learning and describes learning via the internet, intranet, and extranet. They added that levels of sophistication of online learning vary. Doug Valentine (2002): Distance Learning and its relationship to the emerging computer technologies have together offered many promises to the field of education. Their paper examines some of the current research and thought on the promises, problems, and future possibilities in modern distance learning, particularly types that are delivered via electronic means.

Sanjaya Mishra (2003): In this research paper, the author makes the projection of enrolment of students in Distance Mode of Education and emphasizes that with an estimated increase in student enrolment, the present

system of Distance Education has to plan for how to accommodate this gigantic enrolment and thus prepare itself to meet the challenges, before it happens.

Monika Mital, & Renu Luthra (2006) they discussed technological advances are dramatically altering company in-service training and development in India. The authors found no age correlation in attitude towards e-learning or towards its uptake and effectiveness. Findings suggested that eliciting actual e-learning needs from the employees, rather than company top-down directive, would enhance attitudes, uptake, and effectiveness.

Ashok Gaba and Shinja Koo (2007) in their study the first part of the paper compares the growth of distance education through analysis of the admission policies, enrolment trend, students support services and instructional system of both these institutions. The second part of the paper highlights the status, review, and areas of research and research policies of these institutions. The findings of the paper are based on primary and secondary sources of information.

Deborah Joy Carter (2009) they say in the last decade, China and India have seen large increases in their literacy and graduation rates and increasing emphasis on distance education and training initiatives. This report outlines the consonances and dissonances of Distance Education in China and India and the policy alignments required for its stable development.

Arun M. Sherry (2010) he highlighted various benefits of distance mode of education and elaborates on how in a globalized society like that of India, the need for quality based higher education through distance learning a mode is on the constant rise. The author also examines various factors that are contributing to the growth of Management education through distance learning.

Claire de la Varre, Julie Keane and Matthew J. Irvin (2011), This study examines on-site facilitator practices and activities that support rural high school students taking online courses. Authors compare online instructors' perspectives of facilitator practices with facilitators' own reports of their practices and activities. A qualitative analysis of end-of-course interview data from instructors and facilitators was undertaken. The resulting codes were mapped onto and used to expand the teaching presence element.

## **Conclusion**

- Creating certified and verified content
- Two-way communication for better interaction.
- Introducing online counselling sessions to motivate students.
- To schedule daily routine as per physical needs.

E-learning is a good platform for learning especially for those who are busy and doesn't manage their schedule as per routine of their classes but learners have some issues and complain about learning platforms which we see in our research, so what are the basic things which should be the focus by learning programs is being

discussed . The learning concept for learning is very good and convenient but the guarantee of content in such platforms plus the issue of authenticity of content is always there so as solution of the issue there should be some organizations or boards which are specifically responsible for checking of content provided by the learning sites and duly verifying it whether it is being stood with given parameters or there may be possibility of further betterment .

There is also a chance of misguidance of students from some unauthenticated and antisocial sites of e-learning, so the authorities concerned should focus on the sites or the mindsets of people working with wrong intentions, as a result, these anti-social sites should be banned.

When it comes to our physical fitness, Finding and adopting the right daily routine will re-energize you and help you regain wasted time. Your mind and body will thank you for the decreased anxiety and extra care you've given it. Many of the students are so much dedicated towards their studies that they don't even have time to look over their physique thus introducing such sources

that are planned and synchronized with your body will ultimately beneficial for your body. Regular exercise boosts brain health, and a fit brain is generally able to learn, think and remember better. So, initiating such types of sources will a boon to learners.

## References

- <http://shodhganga.inflibnet.ac.in>
- <https://link.springer.com>
- <https://scholar.google.co.in/>
- [http://www.elearningnc.gov/about\\_elearning/what\\_is\\_elearning/](http://www.elearningnc.gov/about_elearning/what_is_elearning/)
- <https://techknowledge.td.org/>
- <https://en.m.wikipedia.org/wiki/>

## A Study on Digital Marketing in India: A Brief Review

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### Abstract

*The world is in digital space now. Millions of internet & social media users are actively participating in the field of digital marketing. In India a country with 130 crores of population, numbers of professionals as well as internet users are familiar with digital marketing. Digital marketing is growing at the rate of 20-25% approximately year by year in India. Ad spending in the Digital Advertising market amounts to US\$6,622m in 2019. The market's largest segment is Social Media Advertising with a market volume of US\$3,283m in 2019. Commercial websites have to incur enormous marketing expenditure to set themselves apart from the crowd, inspire web shoppers to visit their sites and then get them to actually make a purchase. This paper is an attempt to throw light upon scenario of digital marketing in India which expresses that as the time is passing, trends are getting changed and technology is getting advanced the scope of digital marketing is increasing day by day.*

*Keywords: Digital Marketing, Social Media, Internet User, Sell, Promotion, Online.*

### Introduction

In every era, marketing has evolved based on what the customer is using. If we go back in history, we can see that at times when customers used Radio, it gave birth to radio advertising and marketing. Next, we got the boom of televisions; it is one of the widely used devices globally, which allowed the companies to reach a mass audience with TV ads. Even today TV advertising is one of the most used advertising strategies for companies. Since the boom of the Internet, more customers started using the Internet, which gave birth to a new era of marketing originally called Internet marketing, which is now called Digital Marketing.

The journey of Digital Marketing began from 1980s and still revolutionizing and fascinating.

India's online marketing landscape is currently emerging. The golden age of digital marketing is yet to come. Thus, marketers need to embrace the fact that effective interaction with potential customers through digital channels is becoming a necessity. Opportunities can be maximized by establishing effective digital marketing strategies which include social media influencer campaigns, rich SEO implementation, video content, personalized customer content, optimizing voice search, producing vernacular content, and developing smarter interactive chat bots. These are but some of the ways to penetrate the Indian market amid the constant changes in the digital landscape.

### Objective

Following objectives are determined to prepare this paper-

- To study the concept of digital marketing
- To describe the scenario of digital marketing in India



- To review the scope of digital marketing in India briefly
- To study the future perspective and challenges of digital marketing
- To study the trend of digital marketing in India

### **Research Methodology**

For preparing this paper the descriptive method of research is used. This paper is prepared with the help of secondary data sources i.e. online publications, articles available on internet. The scope of the paper is limited to national level i.e. Indian territory.

### **Digital Marketing**

The method to promote product online it referred as Digital Marketing. Simply it can be said that to promote & sell product to the customers who are using internet.

The use of the Internet and other digital media and technology to support 'modern marketing' has given rise to a bewildering range of labels and jargon created by both academics and professionals. It has been called digital marketing, Internet marketing, e-marketing and web marketing and these alternative terms have varied through time.

Simply put, digital marketing is the promotion of products or brands using electronic devices or the internet. It also includes text messaging, instant messaging, video, apps, podcasts, electronic billboards, digital television and radio channels, etc. Digital marketing uses multiple channels and technologies that allow an organization to analyse campaigns, content and strategy to understand what's working and what isn't – typically in real time.

### **Digital Marketing in Indian Scenario**

The earliest examples of online connectivity were demonstrated with the introduction of Michael Aldrich online shopping system in India. In the following years, the Thomson Holidays UK was launched, and then came the India MART B2B in 1996. It was ultimately in 2007 that the launch of Flip kart, an e-commerce marketing website changed the structure of marketing in India. What followed was a rise in the number of people picking up mobile phones, online shopping, at-home delivery, and internet marketing as a means to popularize the brands. And over the years the Digital Marketing Industry has prospered into bringing a large percent of business online with its promising ability to create a global network and flourish even the small businesses internationally.

According to the International Journal of Advanced Research Foundation, India is undergoing a golden period of digital marketing growth ever since 2013 and the trend continues till 2020 at least.

With the utilization of the internet, Digital marketing has become essential with the internet being accessible by all and forming opinions and their buying decisions on the basis of what they read online. While every single industry is battling with a growth rate of 5 to 10 %, the advanced media industry is going high with 40% development rate. Such reports are sufficient to advise the place to digital marketing in next couple of years.

Emerging as one of the most rapidly developing economies worldwide, India offers tremendous opportunities for the growth of businesses. This rings true, especially for digital marketing. Currently, there are of 35% of the Indian population that has access to the internet. This figure may seem low, but considering that India's population exceeds a billion, this means that there are about 462 million internet users in the country. In addition, the internet penetration rate is expected to reach above 55% by the end of 2025 due to the fast development of telecommunications infrastructure. According to the Mary Meeker Annual Internet trends report for 2017, the country's rate of internet use is quickly growing indicating that the Golden Age of digital marketing is yet to come in India.

Most of the users globally today use mobile phones for communication. As per a report 4.77 billion mobiles phone users globally, which will increase to 5.07 billion by 2019. Today's majority of mobile phones are smart phones with internet access, which allows to customers to connect with businesses anytime & anywhere.

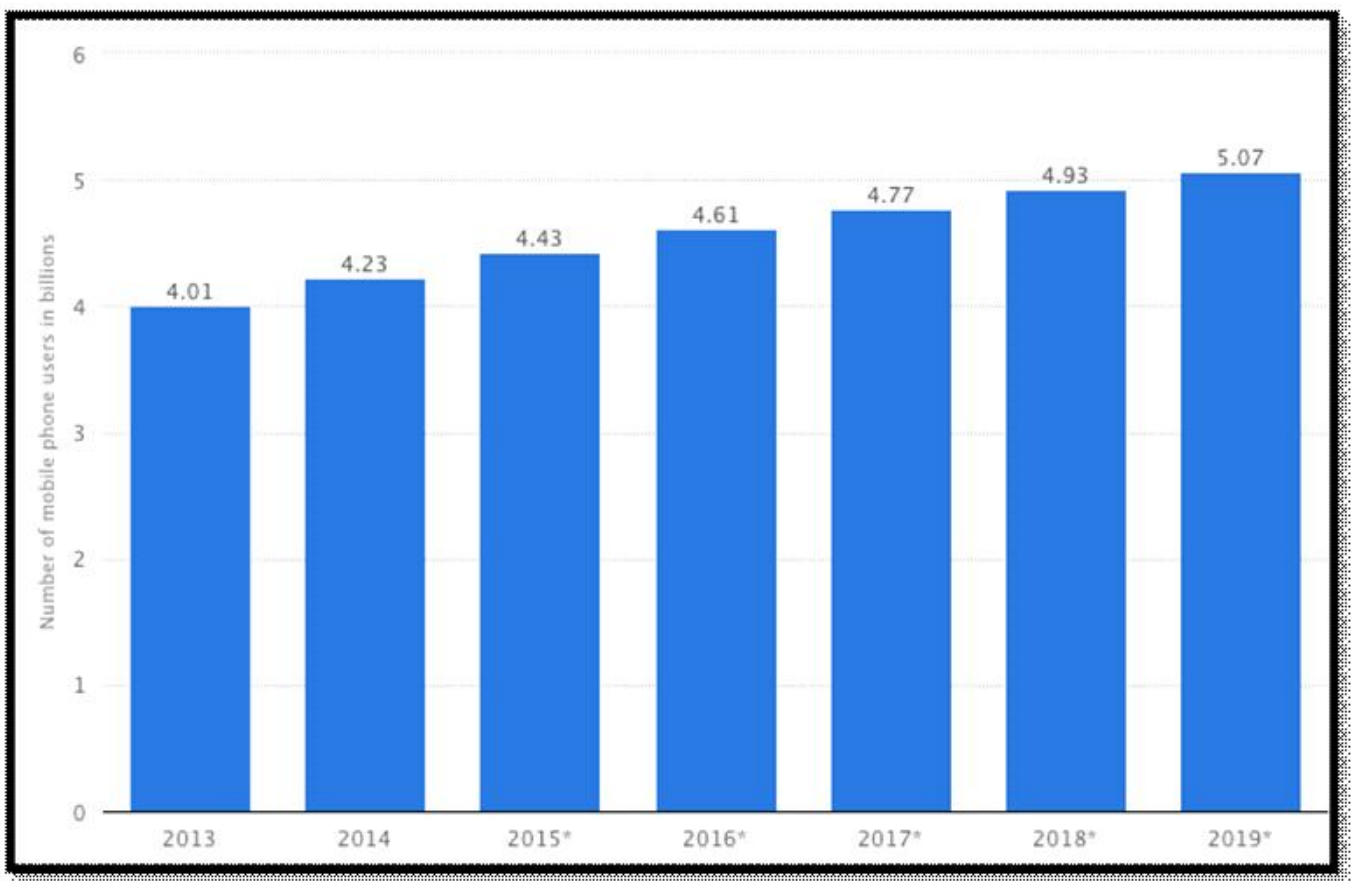


Figure 1. Mobile Phone Users in All All-Round the World

#### Top Digital Marketing Companies/ Agencies in India

1. Page Traffic- India's top SEO, Digital Marketing Company
2. ROI Minds- Helping Businesses Grow
3. Rams Creative Technologies Pvt. Ltd.- India's Top Internet Marketing Company

4. Social Pulsar Inc- Get More Sales , Revenue and Growth
5. SEO.com- Stress-Free SEO & Online Marketing Solutions
6. Shoot Order- An Order For Better Business
7. LAD Solutions- Converting Dreams Into Reality One Click at a Time
8. First Launch- A Full Service Digital Marketing Agency
9. Marketing Masala- Growth Hacking & Digital Marketing Agency
10. Sweans Technologies- Digital Marketing Agency & Social Media

### **Average Ad Spending**

The average ad spending per internet user in the Classifieds segment amounts to US\$0.7 in 2019. Average amount on Ad spending by Indian marketers is as follow-

**Table 1**

<b>Ways of Digital Marketing</b>	<b>2017</b>	<b>2018</b>	<b>2019*</b>	<b>2020E</b>
Video Conference	55.33	60.99	64.55	67.38
Social Media Advertising	315.65	333.37	347.58	356.78
Banner Advertising	82.28	86.53	90.08	92.21
Classified	63.13	56.04	51.78	48.94
Search Advertising	116.33	133.35	146.83	156.76

Source: Statista

E=Expected

\*Approximate

Note: Amount in Crore Rupees

### **Interpretation**

The above table shows that average amount spent on advertisement in India with traditional way of advertisement i.e. classified is decreasing year by year whereas modern ways of digital marketing i.e. social media advertising & search advertising are increasing year by year. Hence it shows there is wider scope for digital marketing in future.

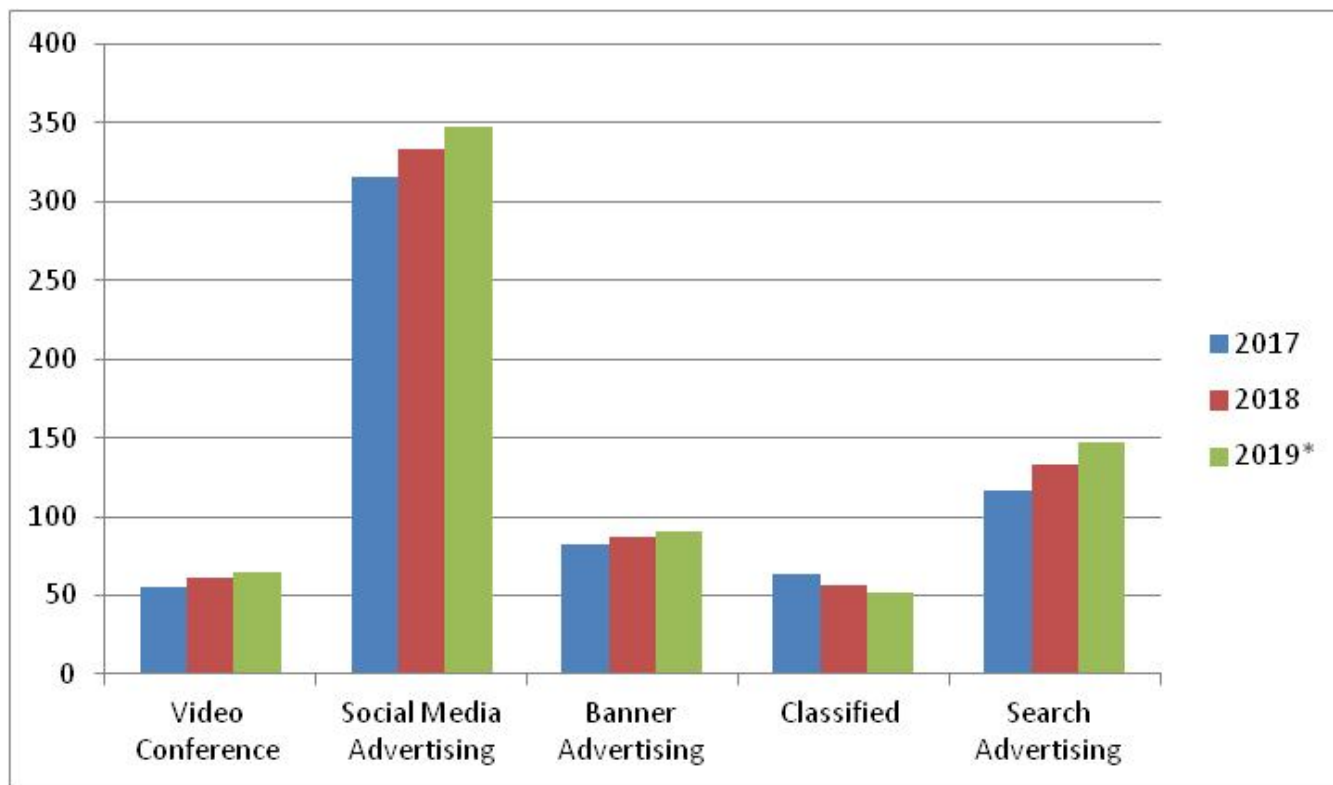


Figure 2

#### Average amount spent by Industries on Digital Marketing

Table 2

Sector	Percentage of Amount Spent on Total Expenditure (Average)
Retail	23.9%
FMCG	12.3%
Automotive	7.0%
Financial Service	6.6%
Travel	5.1%
Telecommunication	4.5%
Pharma & Healthcare	2.3%
Electronics & Computers	2.3%
Entertainment & Media	0.7%
Services & Others	35.2%

Source: Statista

#### Interpretation

The above table shows that average amount spent on total expenditure by industries on digital marketing has

significant share in total expenditure and this amount is spent as investment which is important in terms of profit maximization. Along with this table indicates that retail (23.9%), FMCG (12.3%) and service sector (35.2%) are spending big share of their total expenditure on digital marketing.

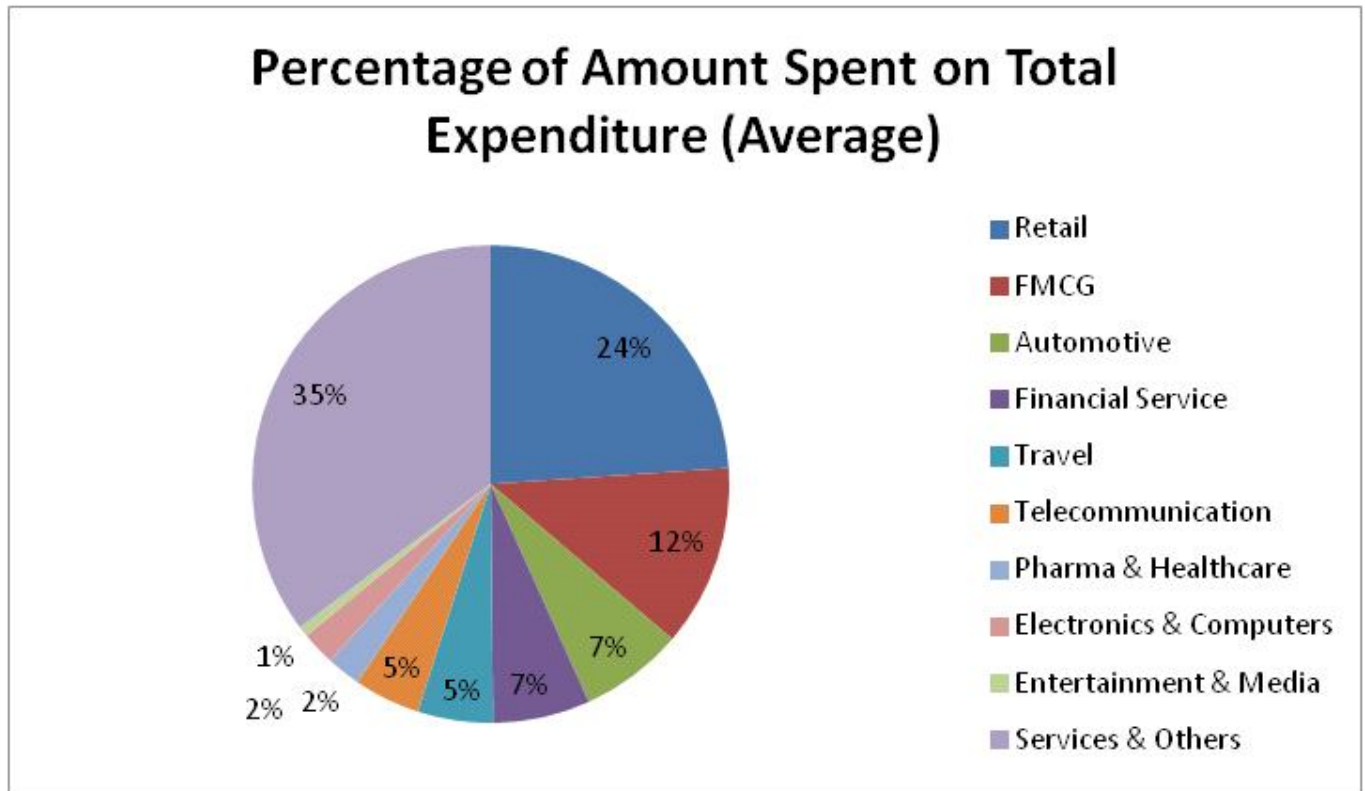


Figure 3

### Perspective

Scope of digital marketing in India for Professionals:

As we know that the digital marketing industry is growing, this brings more opportunities to professionals in this industry. Following are opportunities available for professionals.

- **Get a Job in Industry**

The simple and best way to start one's career in digital marketing is to find a job. In digital marketing, we have many different specialisations so one will have different options to start one's career.

- **Junior & Mid-Level Career Options**

- Digital marketing intern
- Digital marketing executive
- SEO Executive
- Link Building specialist
- Social media specialist
- Google Ads specialist



- Email marketing specialist
- Web Analyst
- Online reputation executive
- Content marketing executive
- Higher Level Digital Marketing Job Titles
- Digital marketing strategist
- Digital marketing manager
- Social media manager
- Digital Marketing Head
- Paid Advertising manager
- Digital Branding Head

### **Scope of Digital Marketing in Online Business**

Apart from above list, there are more specialised job roles to choose in digital marketing.

#### **1. Become a Professional Blogger**

Many digital marketing professionals choose full time blogging as their career choice. With dedication and hard work, many professionals are not successful bloggers in their chosen niche. Bloggers can generate income with advertising & affiliate marketing strategies.

#### **2. Earn with Affiliate Marketing & Ad Sense**

One can start one's blog/website/app in a specific niche of one's interest and initially work hard to build traffic & viewers. After generating good traffic, one can make a good income with Ad Sense & affiliate marketing techniques.

#### **3. Start Freelancing Services**

Freelancing is the concept of offering one's services to clients on a part-time basis from one's home. Sitting at one's home one can build one's clients globally. Thanks to online websites like fiverr.com, freelancer.com etc. one can start offering ones freelancing services.

#### **4. Start one's own agency**

If one has experience in managing a business & have resources, contacts. One can start one's own full-time digital marketing agency. With one's agency, one can able to build marketing strategies for clients and implement them with digital marketing.

#### **5. Become a You Tuber**

One can choose to become a full-time You Tuber in a selected niche. One needs to focus on the quality of content and building ones audience base on YouTube. Once one starts getting subscribers and views, one can make money with YouTube monetisation.

## **6. Start ones Drop shipping business**

Drop shipping a business model in which one can able to sell products online to customers without owning the inventory physically with one. Generally, in this business one need to develop an e-commerce website in Shopify and select one's products based on one's research. Then one connects one's store with manufacturer and online retailers from China from Ali Express. All the product prices are marked up and when ones sell a product, the manufacturer will directly send the product to customer and one make a profit.

### **Challenges**

Here are some of the common digital marketing challenges:

#### **1. Lack of a clear digital marketing strategy-**

This is the case with most brands. Most of us have some general idea about what to do- but if one do not have a proper digital marketing strategy in place; one will never be able to beat ones competition. Most brands make the mistake of relying solely on “hunches”, short-lived trends, mindlessly mimicking competitors and nonsensical actions like creating a social media handle and sharing content there. Probably this is one of the biggest problems in marketing management today.

#### **2. Not defining the**

There is no product in the world that appeals to everyone. So, when one starts marketing his products and services, be clear on whom exactly it is that one is marketing to. Have a profile for target customer in mind, and orient marketing strategy accordingly.

#### **3. Not allocating marketing budget wisely**

Marketing can be done in many ways via many channels. But not all of them will carry the same cost or give the same returns.

For e.g., a share by one's friend on their social media page will cost one nothing, but hiring a celebrity to be ones brand ambassador will be an expensive investment.

A common digital marketing mistake that brands make is they often concentrate on only one way of marketing, and put all their eggs in one basket.

#### **4. Under-utilising SEO techniques**

SEO or search engine optimization is no longer an option, it is an absolute necessity when it comes to digital marketing.

It is a no-brainer that more people are using the internet than ever before, and online purchasing has gone up exponentially in the last few years. Efficient SEO is more complicated than what most of us know- it comprises many elements, and its methods are changing constantly.

#### **5. Ignoring conversion rates**

Remember, that one's ultimate goal is to turn one's visitors to customers so that one can reach ones revenue goals. Many brands do their best to increase traffic to their websites, but do not pay attention to maximise their

conversion rates. This diminishes ROI.

In order to convince one's visitors to buy one's products, one must optimise one's landing pages and make sure that the visitors have a great brand experience on one's website.

## **6. Making one-way communication**

Most brands speak at the audience, but do not engage in conversation with them. This is a mistake. This is one of the biggest content marketing problems facing small business in India.

Any relation is give and take, and online communication should not be an exception. This kind of content marketing mistakes cost a lot. Small businesses keep investing in content in the form of social media post or blogs, never paying attention to what essentially is the need of a customer.

## **Conclusion**

The scope of digital marketing as a way to promote business and reach the global village is boundless. Digital marketing as a career option too is a sector that will undoubtedly bloom. Moreover, in a diverse country like India where there is a vast customer base, digital marketing truly will reach every person with an access to a smart phone and internet connection. The 'Digital India' campaign is critical for the surging and spiralling growth of digital marketing in India.

Digital marketing is vital to all kinds of businesses, but it is even more important for small businesses. If one keeps the above in mind while designing one's digital marketing strategy, one will be able to reach out to a wide audience and ensure better ROI. So, map out a good digital marketing strategy that avoids these mistakes and one can build up one's brand sustainably.

## **References**

- <https://yourstory.com/mystory/the-growth-of-digital-marketing-in-india>
- <https://www.statista.com/outlook/216/119/digital-advertising/india#market-revenueYearIndustry>
- <http://www.yourarticlelibrary.com/internet-marketing/3-different-ways-to-acquire-customers-in-internet-marketing/13528>
- <https://www.webtrainings.in/what-is-scope-of-digital-marketing-in-india/>
- <https://www.chakreview.com/industry/review-digital-marketing-industry-in-india/>
- <https://www.brandloom.com/digital-marketing-problems>
- <https://www.smartinsights.com/digital-marketing-strategy/what-is-digital-marketing/>
- [https://www.sas.com/en\\_us/insights/marketing/digital-marketing.html](https://www.sas.com/en_us/insights/marketing/digital-marketing.html)

## A Study on Digital Marketing

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### **Abstract**

*In this world of digitalization, Digital marketing is a vogue that is spreading across the entire world. This trend of digital marketing is growing day by day with the concepts of internet marketing. Internet marketing is an important platform of digital marketing along with all the new electronic gadgets like the digital billboards, mobiles, tablets, smartphone, gaming consoles and many such gadgets that help a lot in digital marketing. Amazon with its innovative and creative digital marketing have created a niche market in online stores with a huge competition with the conventional stores showing the power of online marketing. the case also study and it also analyses how amazon.com has brought an array of digital & online marketing. Strategies to succeed and make a big digital marketing sector. A few years from now it will be eventually seen that the conventional marketing has been replaced by digital marketing. Digital marketing is going to be top on the agenda of many marketers, and they might be looking for innovative ways to market their business online. Digital marketing reduces cost per lead, increase click through rates and discover only what is hot and trending in marketing.*

*Keywords: Digital Marketing, Business Model, Social Media, Internet Marketing, Internet Technologies, Online Marketing, etc.*

### **Introduction**

Digital marketing being a comparatively newer field, many individuals are curious to know about it as they are not aware. In simple terms, Digital marketing can be called as the process of promoting brands or products using the electronic media. It mainly takes place on the Internet. Other platforms include mobile phones, digital displays and any other digital medium. As the name suggests, it makes use of the digital technologies. The primitive way of marketing included business owners to publicise their services or products on print media like radio, TV ads, hoardings, business cards and in numerous other comparable ways were not utilized for promotional activities. Traditional marketing strategies had constrained customer reach ability and extent of driving customers purchasing patterns.

### **Inclusive in digital marketing**

Fundamentally, it's a collective term which is utilized where advertising meets the web innovation and different types of new forms of media.

SEO (Search Engine Optimization): Search engine optimization (SEO) is a method of optimizing the content of a site to enhance its ranking on the search engine results page (SERPS). An assortment of strategies is utilized to accomplish this and its not a task for beginners truly as there are numerous pitfalls

### **Inclusive in digital marketing**

- Site structure.

- Keyword research and analysis and its use (both on-page and off-page).
- Analytics.
- Link building.
- Content delivery.

**SMM (Social Media Marketing):** The process of promoting your brand image and your content via social networking media channels to build brand value, draw in traffic, and generate leads for your business. Twitter, Facebook, Pinterest and LinkedIn are all social media platforms which can be utilized as a part of your advertising endeavors, in spite of the fact that they are a long way from the only ones.

**SEM (Search Engine Marketing):** Search Engine Marketing (SEM): resembles to and includes SEO and utilizes a significant number of similar techniques. The primary contrast between the two terms is that SEM additionally incorporates paid online promotional models, like pay-per-click (PPC).

**Pay per click (PPC):** A strategy for directing traffic to your site by paying a publisher each time your ad is clicked. A standout amongst the most widely recognized types of PPC is Google Ad Words. SEM additionally requires keyword research as the words and expressions utilized as a part of the ad and site and these should be checked precisely to mirror the market and existing search engine rules.

**Email Marketing:** Businesses utilize email marketing as a method for communicating with their target audiences. Email is regularly used to promote content, occasions and discounts, and additionally to direct individuals towards the business' site.

**Content Marketing:** Is a method where content is created and circulated with the goal of providing relevant, intriguing content to pull in and draw in a specific audience that a business is focusing on. The creation of useful content is a method for initiating communication with the consumer so as to drive engagement and customer activity. Content can mean anything from videos to blogs and white-papers tend to function admirably utilizing content promoting systems as well.

**Objectives of digital marketing:** The objectives of digital marketing may be completely different for different type of businesses. For example, if you are an online apparel brand doing direct sales of your products on your website, the goals of digital marketing for you may be completely different compared to a company which is in the business of selling cars.

The difference is that the customer can decide and make the complete purchase online in the first case. However, in the second case, the online medium only acts as a first contact point where the customer can just see the product or raise an inquiry, but the actual purchase happens offline.

**Increase direct sales:** This is one of the primary objectives of digital marketing. Since you would be utilizing resources- time and money on digital marketing, you would definitely expect direct sales coming in as a result of the same. If you have an online portal where you sell products or services, it is pretty straight forward.

**Maintain a continuous flow of new leads:** If you have your own website selling products, you can expect direct

sales. However, if you run an offline business like a car dealership, you can use digital marketing to generate leads online which can be then taken up offline.

Having a continuous lead pipeline is essential so that your sales guys have sufficient prospective customers to work with. Digital marketing helps you generate highly qualified leads at a fractional cost- depending on which medium you use.

**Reduce the cost of acquiring new customers:** In most of the businesses, the cost of acquiring new customers is generally quite high. Companies do such high spends on acquiring new customers thinking that they would turn into loyal brand followers and do repeat purchases which will induce profits.

However, markets are now flooded with hundreds and thousands of product options which makes it difficult to keep loyal customers- even though you have the best in class products. Hence, it is extremely necessary to keep a close eye on the cost of acquiring new customers so that it happens moderately without overspending.

**Keep the customer engage in your brand:** In any business, just acquiring new customers and expecting him to do repeat purchases further on doesn't work. You need to make sure the customer is connected to your brand and/or products, and digital marketing comes in very handy in such cases.

Digital marketing mediums like social media marketing are the best medium for such campaigns. run specific retargeting campaigns using AdWords or Facebook/Instagram only for your existing customers or people who have previously been your website visitor, showing them their new products, offers, etc.

**Benefits of digital marketing:** New enterprises are focusing more on digital marketing to boost up their productivity. The recent years have seen significant growth in this realm. Higher salaries, secured job profiles, and broad goals are some of the benefits of digital marketing course.

**A wide range of career options:** Digital marketing does not restrict you to one specific job profile. Even leading companies such as Google, Twitter, and Facebook provide a wide array of job opportunities. Making a choice depends on the professional who has to set up his career in digital marketing. New online jobs are declared regularly for different organizations and enterprises.

**Better salary:** Yes, Digital marketing course benefits can help you in getting a better salary this is the most fascinating advantage of digital marketing course. Since the scope of digital marketing is increasing; it will definitely affect the budgets of individuals. The demand and supply for digital professional are inversely proportional to each other. The demand is more and the supply being meager.

**Flexible:** Work Timings in digital marketing are always flexible. The complete task is based on the Internet. There are no worries about the working location. You can even work from your home, so the location does not matter. The ubiquitous presence of the Internet makes it easy from work from a distant place. Also, thousands of people keep on surfing the Internet 24×7. They may encounter a problem or a bug at any time. Thus, resolving their issues at any point in time is more beneficial. They can respond when assistance is needed.

**Creativity:** Digital marketing aims to add life to the dormant blogs and websites. This needs creativity and logic.

Writing effective content and making strategies requires lots of imagination and innovative ideas. Digital Marketing Careers will soon become an important part of the marketing world. It is better to pick this dynamic career option. Those who desire to experiment with new tools and adapt to the changes should go for the job profile.

### **Advantages and Disadvantages of Digital Marketing**

Advantages and disadvantages of digital marketing are very necessary information for today's modern world. Nowadays social media affects us in all the aspects of our life. Advantages and disadvantages of digital marketing are very necessary information for today's modern world. Nowadays social media affects us in all the aspects of our life.

#### **Following are the advantages of Digital Marketing**

- Extremely low risk
- Reduction in costs through automation and use of electronic media
- Faster response to both marketers and the end user
- Increased ability to measure and collect data
- Opens the possibility to a market of one through personalization
- Increased interactivity
- Increased exposure of products and services
- Boundless universal accessibility

#### **Following are the disadvantages of Digital Marketing**

- Dependability on technology
- Security, privacy issues
- Maintenance costs due to a constantly evolving environment
- Higher transparency of pricing and increased price competition
- Worldwide competition through globalization

### **Conclusion**

The conclusion of digital marketing is very much important for the digital marketers. Digital marketing is a dream business project for digital marketers. If you want to get success in the digital marketplace, you should have sound knowledge about the benefits and limitations of digital marketing. It is a growing field of business. Digital marketing is nothing but the utilization of digital technology to achieve marketing objectives. Digital marketing and marketing department is not different from each other. The aforementioned information will help the digital marketers to understand the strengths and weaknesses of Digital Marketing. However, the conclusion of digital marketing is a useful term because digital marketing requires nothing but certain skills to utilize the digital technology. After acquiring the above knowledge, you may take the risk to invest in the digital marketplace. This is a growing field of business. So, do not neglect the opportunity that digital marketing offers

to you. Digital marketing may fulfill all your cherished dreams within the short span of your life. Digital marketing is a place where anybody can make his or her career without so much effort. Only you should have to keep patience to get your desired goals.

### References

- <https://yourstory.com/mystory/introduction-to-digital-marketing-a-step-by-step-g-nqro9lt4zi>
- <https://www.marketing91.com/objectives-of-digital-marketing/>
- <https://sinansoft.com/blog/advantages-and-disadvantages-of-digital-marketing/>
- <http://www.shoutersvoice.com/conclusion-of-digital-marketing/>
- <https://www.hindustantimes.com/indore/>
- <https://timesofindia.indiatimes.com/city/indore>



## A Study on Digital Payment in India

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### **Abstract**

*In present scenario entering into a new velocity in payment structure by using digital wallets overflowing with coupons and offers. The Digital India programme is a flagship programme of the Government of India with a vision to change India into a digitally empower the general public and information economy. Faceless, Paperless, Cashless is one of supposed role of Digital India. Considering the benefits like clearness in dealings, scope for curtailing parallel economy and improving the ease of business, it is very essential that the transformation towards digital payments. Many changes took place in the recent past like launch of many digital wallets like -Paytm, Mobiwik, Free Charge etc. and central government started many United Payment Interface (UPI) solutions and BHIM app for easy transition to digital payments.*

*This research paper focused on the different modes of payments, reimbursement of cashless financial system and prepared for the achievement of the cashless economy by Indian Government. This study initiates that, the payment system initiatives in use by the government and Reserve Bank of India have resulted in bigger acceptance and deeper infiltration of non-cash payment modes. This study designed to identify the problem and challenges of electronic payment systems and propose some solutions to get better the e-payment system.*

*Keywords: Digital Wallets, Paytm, Digital Payment System, Business Correspondent, Telecom Service Providers, etc.*

### **Introduction**

The Digital India programme is a flagship programme of the Government of India with an idea to convert India into a digitally empowered the public and awareness of economy. “Faceless, Paperless, Cashless” is one of professed role of Digital India. At present in India increasing use of internet, mobile phone and government scheme such as Digital India are performing as channel which leads to exponential development in use of digital payment. Payment system plays a key role in the economic and public development of our country. The most recent decade has seen marvelous development in use of internet and mobile phone. Electronics Consumer transaction made at point of Sale (POS) for goods and services either through mobile banking or internet banking using card or smart phone payment are called as digital payment. Main challenges that can hold back the execution of the strategy are cyber fraud, high illiteracy rate, attitude of people, lack of transparency and effectiveness in digital payment system. The winning implementations of electronic payment systems depends on how the protection and secrecy proportions supposed by customers as well as sellers are commonly managed, in turn would develop the market confidence in the system. The beginning of cashless payment system in India can be seen as a footstep in exact path. It helps in increase and growth of economy in India.

## Objectives of the Study

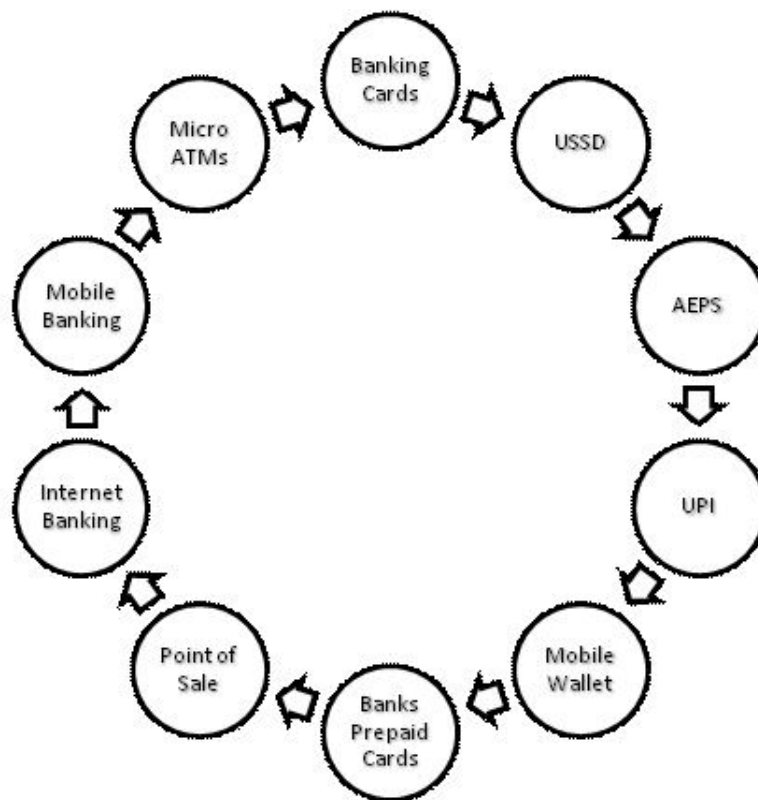
- To identify the different modes of payments.
- To study the profits of cashless economy in India.
- To evaluate the awareness for the implementation of the cashless economy and give suggestions

## Research Methodology

The study is based on secondary data. The required data has been collected from different sources like newspapers articles, research journals, government publications, periodicals, authenticated websites and magazines.

## Types of Digital Payments in India

As part of promoting cashless transactions and convert India into less-cash the general public different types of digital payments are offered-



- 1. Banking Cards (Debit / Credit / Cash / Travel / Others):** Banking cards recommend customers extra safety, convenience, and manage than any other payment method. The large range of cards presented – include credit, debit and prepaid – offers enormous elasticity, as well. These cards make available 2 factor authentication for safe payments e.g secure PIN and OTP. MasterCard RuPay, Visa, are some of the exemplar of card payment systems. Payment cards provide community the power to buy things in stores, through mail-order catalogues, over the telephone and on the Internet. They safe equally consumers and business man time and wealth and thus make possible them for easiness of transaction.

2. **Unstructured Supplementary Service Data (USSD):** The pioneering payment service workings on Unstructured Supplementary Service Data (USSD) channel. This facilities allow mobile banking transactions with essential element mobile phone, there is not required to have mobile internet data facility for using USSD based mobile banking. It is envision providing financial deepen and insertion of underbanked society in the normal banking services. USSD service has been launched to get the banking services to all common man from corner to corner of the nation. Banking consumers can avail this service by dialing \*99#, a “Common number across all Telecom Service Providers (TSPs)” on their mobile phone and manage through an interactive list of options displays on the mobile screen.
3. **Aadhaar Enabled Payment System (AEPS):** AEPS is a bank lead model which allows online interoperable financial transaction at POS (Point of Sale / Micro ATM) through the Business Correspondent (BC)/Bank Mitra of any bank using the Aadhaar verification.
4. **Unified Payments Interface (UPI):** Unified Payments Interface (UPI) is a scheme that powers several bank accounts into a particular mobile application (of any participating bank), inclusion several banking features, seamless fund routing & business payments into one hood. It also caters to the “Peer to Peer” assemble request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPIApp for Android mobile platform.
5. **Mobile Wallets:** A mobile wallet is a method to bear cash in digital format. You can link your credit card or debit card information in mobile phone to mobile wallet application or you be able to transfer money online to mobile wallet. As an alternative of using your physical plastic card to make purchase, you know how to pay with your smartphone, smart watch or tablet. An individual account is required to be linked to the digital wallet to load money in it. Mostly banks have their e-wallets and various private companies. e.g. Paytm, Airtel Money, Jio Money, SBI Buddy, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, SpeedPay, Freecharge, Mobikwik, Oxigen, mRuppee, etc.
6. **Point of Sale:** A point of Sale (POS) is the place where sales are made. On a global level, a POS may be a mall, a bazaar or a city. On a micro level, retailers considered a POS to be the area where a consumer complete a business deal, such as a sign out counter. It is also well-known as a point of purchase.
7. **Internet Banking:** Internet banking also well- known as online banking, virtual banking or e-banking is an electronic payment system that enable consumers of a bank or other financial organization to accomplish a range of financial transactions throughout the financial institution's website.
  - a) **National Electronic Fund Transfer (NEFT):** National Electronic Funds Transfer (NEFT) is a countrywide payment system facilitate one-to-one money transfer. In this Scheme individuals, firms and company can electronically transfer money from any bank branch to any individual, firm or company having an account with any other bank branch in the country participated in the system. Individuals, firms or company maintain accounts among a bank branch can transfer funds using NEFT. Even such individuals

who do not have a bank account can also deposit cash at the NEFT-enabled branches with in order to transfer funds using NEFT. On the other hand, such cash remittance will be controlled to a maximum of Rs.50,000/- per transaction. NEFT therefore, facilitates originator or remitters to start funds transfer transactions even without having a bank account. Presently, NEFT operates in hourly batches - there are twelve settlements from 8 am to 7 pm on working days (Monday to Friday) and on Saturday six settlements from 8 am to 1 pm.

**b) Real Time Gross Settlement (RTGS):** RTGS is define as the continuous settlement of funds transfers individually on an order by order source. 'Real Time' means the dealing out of orders at the time they are common rather than at some after time. 'Gross Settlement' means the settlement of funds transfer orders occur independently. Taking into consideration that the funds adjustment takes place in the books of the Reserve Bank of India, the payments are final and unalterable. The RTGS system is principally means for big amount transactions. The minimum amount to be send through RTGS is 2 lakhs. There is no upper limit for RTGS transactions. The RTGS service for consumer's transactions is available to banks from 9.00 hours to 16.30 hours on week days and from 9.00 hours to 14:00 hours on Saturdays for settlement at the Reserve Bank of India. On the other side, the timings that the banks follow may vary depending on the customer timings of the bank branches.

**c) Electronic Clearing System (ECS):** ECS is an replacement method for effecting payment transactions in respect of the utility-bill-payments such as loan installment ,telephone bills, electricity bills, insurance premium, and card payments etc. which would avoid the necessitate for handling and issuing paper tool and thereby make possible better customer services by banks , companies , corporations , government departments etc. collecting the payments.

**d) Immediate Payment Service (IMPS):** IMPS provided an immediate 24\*7 interbank electronic fund transfer service through mobile phones. IMPS is an perfect tool to transfer money instantly within banks diagonally India through mobile, internet and ATM which is not only safe but also economical both in financial and non-financial outlook.

**e) Mobile Banking:** Mobile banking is a service provided by a bank or further financial institution that allow its customer to conduct various method of financial transactions remotely using a mobile device such as a mobile phone or tablet. It uses a software, generally called an application provided by the financial institution or banks for the purpose. Every Bank provides its personal mobile banking Application for Windows mobile phone and Android phone.

- 8. Micro ATMs:** Micro ATM meant to be a device that is used by a million Business Correspondents (BC) to provide basic banking services. This stage will enable Business Correspondents to conduct instant transactions. The micro station will enable function through low cost devices (micro ATMs) that will be connected to banks crossway the country. This would allow a person to directly deposit or withdraw money regardless of the bank associated with a particular BC. This device will be based on a mobile phone

connection and would be made available at all BC. Customers would just have to get their individuality authenticated and withdraw or deposit money into their bank accounts. This money will come from the cash drawer of the BC. Basically, BCs will perform as bank for the customers and all they need to do is confirm the validity of customer using customers' UID. The basic transaction types, to be supported by micro ATM, are Deposit money, Withdrawal money, Fund transfer and Balance enquiry.

- 9. Prepaid Card:** A prepaid card is a card that everybody use to access funds that you load onto it in advance. There are many types of prepaid cards. For example, “Reloadable” prepaid cards are those that you can add funds to and continue using over and over. “Non-reloadable” prepaid cards cannot be used again after you use the initial value on the card. Prepaid cards are sold online, in retail locations, over the telephone, and by some banks and credit unions. Other types of prepaid cards include payroll cards, government benefit cards, and cards used to distribute student loans. Prepaid cards may look like debit cards, credit cards, or gift cards, but they are quite different. Most prepaid cards carry a network logo (Visa, MasterCard, American Express, or Discover) and can normally be used anywhere cards for that brand are accepted.

### **Suggestions**

For soft implementation of cash less system in India, the following procedures are suggested-

1. Government of India has to bring clearness and effectiveness in e-payment system and RBI to promote cashless transactions by licensing payment banks, promoting mobile wallets.
2. As a part of Make in India initiative by the government, RuPay cards, Aadhar based payment systems should be given preferential treatment. Government should remove service charge on digital payments.
3. To go faster the implementation of digital payments, women should be educated through operation. Financial literacy will lead to empowerment of women.
4. A financial literacy operation should be conducted by government of India time to time to make public awareness of benefits of electronic payments.
5. To get better financial inclusion, in addition to business correspondents, E-Seva Kendras etc may be permitted to make micro receipts and payment transaction using Aadhar card verification.
6. Measures to discourage use of cash, by introducing charges on withdrawal of funds beyond a limit.
7. In schools also basic banking skills may be imparted. This will lead to digital and social revolution.

### **Conclusion**

Demonetization has presented a single platform for adoption of digital payment, as a substitute to cash for Indian customers. Cashless Indian economy will help in decrease of black money storage. In other hand Cashless Indian economy is also help in fighting against terrorism, reduce cash related robbery, helps in improving economic growth of our country. The payment system initiatives taken by the Government of India and Reserve Bank of India have resulted in bigger acceptance and deeper penetration of non-cash payment modes.

Ever-improving telecommunication and technology services have boost to substitute electronic payment

system. Cheque as a mode of payment has lost its relevance and will remain at least in the medium term. Government of India initiatives such as the introduction of Goods and Service Tax, demonetization etc. is likely to expand the tax net and enlarge the formal economy.

### References

- [www.consumerfinance.gov](http://www.consumerfinance.gov)
- [http://cashlessindia.gov.in/digital\\_payment\\_methods.html](http://cashlessindia.gov.in/digital_payment_methods.html)
- [www.google.co.in](http://www.google.co.in)

## A Study on Distance Learning

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### **Abstract**

*In an era known as the society of technology and knowledge, Where lifelong learning is a way of life, it is important that educational institutions have as a priority the goal of finding effective ways of providing new learning opportunities according to their environment, student characteristics, teacher training, economic crisis and advancing technology in an effort to make learning more efficient, equitable and innovative in higher education. Distance learning is one such way; it is a computer based educational tool or system that enables you to learn anywhere and at any time.*

*Keywords: Distance learning, Virtual learning, Distance Studies, Students, etc*

### **Introduction**

When it comes to education, the model has been pretty straight forward-up until the early '90s education was in or classroom of student with a teacher who led the process. Physical presence was a no-brainer and any other type of learning was questionable at best. Then the computer evolution happened and it radically changed the learning landscape.

In essence, Distance learning, sometimes called e-learning is a formalized teaching and learning system specifically designed to be carried out remotely by using electronic communication. Because distance learning is less expensive to support and is not constrained by geographic considerations it offers opportunities in situation where traditional education has difficulty operating. Student with scheduling or distance problems can benefit as can be more flexible in terms of time and can be delivered virtually anywhere

Popular distance learning technology includes:

### **Objectives of the Study**

- Voice-centered technology, such as CD or MP3 recording or web cats.
- Video technology, such as instructional videos, DVDs, and interactive videos conferencing.
- Computer- centered technology delivered over the internet or corporate intranet. Students indicate that distance learning can be as effective as the traditional format when the method are appropriate to the teaching tasks, there is student teacher interaction and the teacher provide students with appropriate and timely feedback.

### **Objectives of the Study**

- To understand the concept of distance- learning and its importance in today's era.
- To identify nature of programs' offered through distance- learning.
- To identify how new technologies are influencing the way of learning.
- To review growth and development of Distance- learning programme.

## Research Methodology

The research in values the exploratory research and is focused on newspaper, Journals internet and the secondary data collected from the reliable sources. Collected secondary data was extensively used for the study. The research is both qualitative and quantitative in nature.

## Literature review

**Shachar M., & Neumann, Y., (2010)** The research findings reveal the interesting nature of adopting and adapting to the technology-based course design and faculty engagement, to the online proprietary learning environment worldwide, and our insights may radically change educators' mostly negative views of distance education.

**BATES, T. (2011)** Dr. Bates concludes his report by describing a number of timely opportunities for growth and development in online/distance learning. These include course redesign, applications to accommodate greater student mobility, expansion of open educational offerings, greater inclusion of multimedia materials in online courses, implementation of learning analytics to improve instruction, and growth in shared services as a means of cost-saving

## Advantages and Disadvantages of Distance learning

- **Time and money saving:** It reduces time away from the workplace, eliminates the need for travel and removes the need for classroom-based training.
- **Scalable:** It enables us to quickly create and communicate new policies, training, ideas and concepts. Entertainment or formal education, distance learning is nimble.
- **Flexible:** You can give employees and students the freedom to learn at their own convenience and at a pace that is right for them.
- **High learning retention:** Blended learning approach results in a higher knowledge retention rate. It also helps refers and update the learning material needed.
- **Reduction of the carbon footprint:** By leveraging for online testing and quizzing, the need for printing out paper-based assessment is reduced. In fact, it's.

## Disadvantages are as follows;

- **No self-discipline:** You have to be self-discipline over you because here you need to sit daily for an hour or long upon the course you opt.
- **Costly:** It's costly as compared to traditional learning.
- **Basic computer skill:** it's require a computer skills And you have to be good in this.
- **Requires internet access:** Basically, it requires an internet connection than only you can access you programm.
- **Lack of interpersonal communication:** Communication between people is lacking because another person is not physically present there.

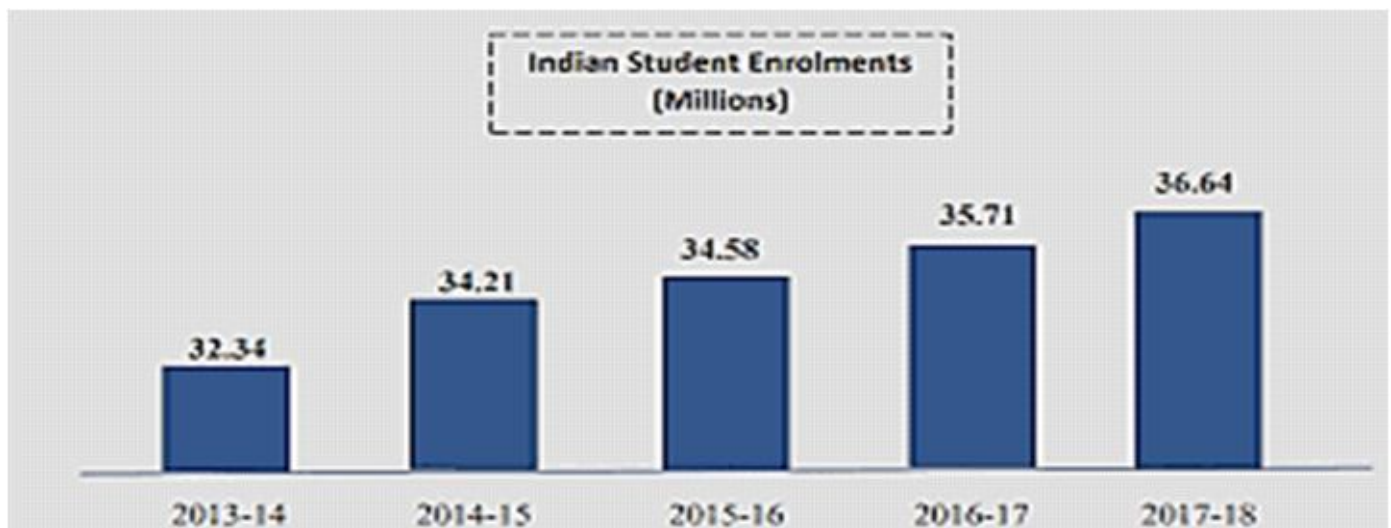


### Ways of learning through technology

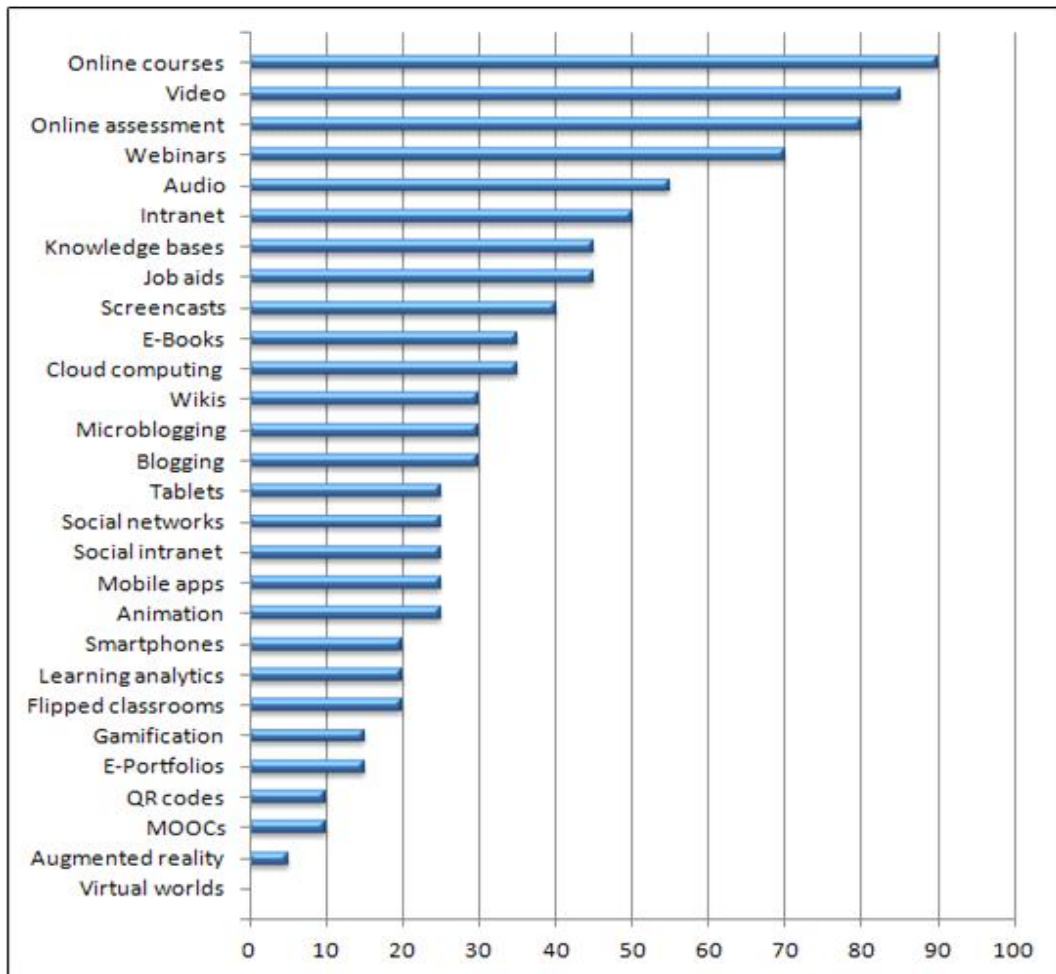
- **Virtual reality (VR):** It's an artificial environment that is created with the software and presented to the user in such a way that the user suspends belief and accepts it as real.
- **Augmented reality:** It's a technology that superimposes a computer-generated image on a user's view of the real world, thus providing a composite view.
- **Mobile based learning:** It's a new way of accessing learning content via mobile. It supports continuous access to the learning process whenever and wherever you want!
- **Video based learning:** By this you can acquire knowledge or skills being taught via video. It provides control of content selected to the learner. It is most effective for corporate learners.

### Approaches to Distance learning

- **Synchronous learning:** Means “at the same time,” involves interaction of participants with an instructor via the web in real time. For example- VCRs or virtual classrooms that are nothing else but real classrooms online. Participants interact with each other and instructors through instant messaging, chat, audio and video conferencing etc and more all the sessions can be recorded and playback.
- **Synchronous learning method:** Means “not at the same time,” allows the participants to complete the WET (Web-based training) at their own pace, without live interaction with the instructor. Basically, it is information that is accessible on a self-help basis, 24/7.



Number of Indian Enrolment students on yearly basis.



**Nature of Distance-learning**

## Conclusion

Distance learning brings with its new dimension in education. Many of the unique features of distance-learning have a smart way to learn difference courses user feel a friendly environment anywhere & anytime. Opening up broader education option 24/7 accessibility makes scheduling easy and allow a greater number of people to attain classes on-demand.

## References

- [www.technology.com/glossary/terms](http://www.technology.com/glossary/terms)
- [http://jolt.merlot.org/vol6no2/shachar\\_0610.pdf](http://jolt.merlot.org/vol6no2/shachar_0610.pdf).
- <http://search.contactnorth.ca/en/data/files/download/Jan2011/2011%20Outlook.pdf>.

## A study on Impact of Digital Marketing

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### **Abstract**

*This paper views on how the Digital Marketing creates an impact on the business. We experience radical change in the India towards digitalization. The effectiveness of internet marketing with respect to different business can be analyzed. The consumers are looking and searching more on internet to find the best deal from the sellers around India as compared to Traditional marketing we acknowledge that business can really benefit from digital marketing. Such as Search Engine Optimization (SEO), Search Engine Marketing (SEM), Content Marketing, Influencer Marketing, Content Automation, E-Commerce Marketing, Camping Marketing and Social Media Marketing, Social Media Optimization, Email Direct Marketing, Display Advertising, E- book, Display Advertising, Optical Disc and Games are becoming more and more common in our advancing technology. The study can further be extended to compare the interest of marketing techniques with specific to various businesses that has been in this Era which will be very useful we will also so get to know that how digital marketing is beneficial for the same.* Keywords: Digital Marketing, Social Media Marketing, Online Marketing, SEO.

### **Introduction**

Marketing is a restless dynamic business activity. The way of marketing has been changing time to time from many years. There was an era when marketing mediums were big hoardings, pamphlets, flyers, Billboard, TV ads, Radio ads, Print Advertisements, Newspaper ads etc. But now this scenario has changed. People are more engaged on internet. So, the best medium for promoting one's business, Products or services is going digital. And that is called Digital Marketing. Digital marketing is the marketing of products or services using digital technologies mainly on the internet, but also it includes mobile phones, display advertising and any other digital medium. It is cost effective and have great impact on the business. Awareness of consumer motive is important because it provides a deeper understanding of what influences users create content about a brand or Store. Large multinational corporations such as Google, Facebook, Amazon, Alibaba, eBay and Uber, unheard of twenty years ago, have emerged as key players in our modern economy. It is against this backdrop that this paper seeks to understand how the in digital marketing are re-shaping the process and the strategy of marketing, and the implications of this transformation for research in the broad space we call “digital marketing”.

### **Literature review**

KAINI (1998) Innovation of new technology that is vide internet, helps in opening the gate for marketers and do online marketing to achieve their business goals. Song (2001), More choices are available for customers. So it is difficult to enterprise to build brand image. Online advertising is powerful marketing tool used for creating brand image and helps the corporate to increase the sale up to many extents.

Mort, et al (2002) Due to advancement in technologies and market dynamics, digital market is rapidly growing. TEO (2005) The survey was conducted by firms in Singapore and findings revealed that digital marketing is effective marketing tool for gaining results. KUCUK and Krishnamurthy (2007), The study revealed that internet and virtual communities helps the consumers, societies and marketer to access and share information with others. It too helps in enhancing the communication skills also. Basheer et al. (March,2010), The Study is on the impact of mobile advertising on consumer purchase decision. Findings revealed that there is a positive relationship between perceived usefulness of advertisement and consumer purchase decision. KEE (2008); GODES & Silva (2012), The Study revealed that 90% of consumer read online reviews of other consumer before make purchase decision. Consumer read at least four reviews before make their final decision of purchase. Reviews play important role in purchase decision.

### **Objectives of the Study**

- The main purpose of this paper is to recognize the usefulness of digital marketing in the competitive market
- To study the importance of digital marketing on consumer purchase
- To study is digital marketing good for business or not.

### **Discussion**

#### **Types of Digital Marketing**

Search Engine Optimization (SEO): In layman's terms, Search Engine Optimization or SEO is essentially tweaking your website so that it comes up naturally or organically for search results in Google, Yahoo Bing or any other search engine. Google updates its algorithms regularly so that only the relevant results come up. From that perspective, many experts say that SEO is dead and the effort is futile. However, the truth is that Google tries to prevent algorithm manipulation and filters sites that don't deserve to be on the top of SERPs (Search Engine Result Pages). So there is no doubt you should invest in SEO work. Your website should address the technicalities related to content and query matching, indexing, and interpreting non-text content. Remember, it is the most cost-effective marketing strategy that will bring organic traffic to your business.

Search Engine Marketing (SEM): Search Engine Marketing or SEM is the comprehensive strategy to drive traffic to your business, primarily through paid efforts. Hence it is also called Paid Search Marketing. The universe of SEM is diverse and complicated. Based on your business structure, you may choose PPC (pay per-click) or CPC (cost-per-click) model, or CPM (cost-per-thousand impressions) model. There are different platforms for SEM. By far, Google Ad Words (on Google Network) and Bing Ads (on Yahoo Bing Network) are the most popular. SEM also includes Display Advertising, Search Retargeting & Site Remarketing, Mobile Marketing and Paid Social Advertising.

Content Creation: Content can be presented in different formats, including blogs, white papers, e-books, case studies, how-to guides, question and answer articles, forums, news and updates, images, banners, info graphics,

podcasts, webinars, videos, or content for micro blogging and social media sites. All recent changes to Google's algorithm - be it Panda, Penguin or Hummingbird - point to the fact that content is the most important metric while filtering search results. You can be creative and create content on any topic and then link it indirectly to your business. You may like to read our article on how to include content and market your start up or business free of cost. Also, you need to customize your content for different platforms. For example, the content for mobile phones should be crisp and short. Remember, an effective strategy will engage your readers and leave them interested in more information from you. Good content is shared and is the best way for branding your business.

**Social Media Marketing (SMM):** Social Media Marketing or SMM is an offshoot of your SEM efforts. It involves driving traffic to your sites or business through social sites like Facebook, Instagram, Twitter, Pinterest Google+, LinkedIn, etc. As we mentioned above, good content is shared and liked. So create and customize content for different social media platforms. Remember to be prolific and original; you need to engage with users on a daily basis, at least four to five times a day. Your SMM efforts can be especially helpful for branding and driving sales. The tools and approaches for communicating with customers have changed greatly with the emergence of social media; therefore, businesses must learn how to use social media in a way that is consistent with their business plan (MANGOLD and FAULD 2009). In order to create a successful marketing campaign via social media, a consumer must be open to the technology-driven.

**Digital Display Advertising:** This again is a subset of your SEM efforts. You may use a variety of display advert be it text, image, banner, rich-media, interactive or video ads. You can customize your message based on interests, content topics, or the position of the customer in the buying cycle. However, note that Digital Display Advertising is relatively costly. You need experts to drive good ROI for your business.

**Mobile Marketing:** Mobile marketing is a relatively new branch of marketing, referring to the two-way mark between company and customers that takes place via mobile devices. The website, apps and content is being customized for mobile devices. The mobile users are growing day by day and it is the most effective way of marketing. DUSHINSKI (2009) in his paper defines mobile marketing as a revolutionary tool for connecting companies with each of their clients via their mobile devices in the right time, on a right place and with appropriate direct message.

**Interactive Marketing:** Make sure your advertising strategy engages the potential customer in a conversation. According to a survey by ExpoTV.com, 55 percent respondents preferred to have ongoing communications with the companies they buy from; and 89 percent felt more loyal to the companies if they were invited to provide feedback. Use tools like widgets and opt-in features to make your website interactive, solicit feedback and track user behaviour. Engage with the customers actively and customize offers based on their preferences and browsing activities.

**Viral Marketing:** Viral is today's electronic equivalent of old-fashioned word of mouth. Viral Marketing is a strategy where a unique content spreads exponentially online, because the content is appreciated, shared and

liked immensely. This is a great way to brand and drive traffic to your website. The content can take any format; all you need is to be creative. Marketers have caught the bug and are increasingly weaving viral components into their marketing plans. Not only is the approach relatively inexpensive, but also it can sometimes be more believable than standard ads.” (Howard, 2005)

**Email Marketing:** When you send a commercial message through email to a list of potential customers, the strategy is called Email Marketing. With effective email marketing software, you can maintain email lists that are segregated based on several factors, including customers’ likes and dislikes, and spending habits. Remember to send personalized emails; this helps to develop trust. However, note that Email Marketing may also be considered as spamming and there are laws against it in some countries.

**Affiliate Marketing:** Affiliate Marketing is a performance-based marketing program, where you pay publishers who bring you customers. The performance may be based on conversions - promotions, leads or simply sales. You may like to be part of the affiliate programs of different publishers. Essentially, the publishers will give you space in their pages to advertise your business and help you drive conversions; and you will pay them based on the compensation model. Affiliate Marketing is especially useful for start-ups, as it will bring in more traffic to their business through high-traffic sites. In essence, Affiliate Marketing is a win-win situation for both the merchants and publishers. Sites like Amazon, eBay, Link Share and Flipkart run Affiliate Programs.

### **Advantages of digital marketing**

1. **Strategize with the Valuable Data and Analytics:** With digital marketing, you can have an idea of the exact number of people who have viewed your website's homepage in real time. With google analytics, you can track stats and information about your marketing website. It will let you know about the number of people visiting your business page. By displaying a breakdown of all of this traffic information, this intelligence helps you to prioritize the marketing channels. Mind blowing, isn't it? The real-time data analysis provides you with a better understanding of the effectiveness of your marketing tactics. With access to this information, you can also optimize your marketing budget by investing in the well-performing marketing campaigns.
2. **Content Performance and Lead Generation:** Imagine you've created a product brochure and delivered it to people as an offline content. Does it seem to be convenient enough? The problem is that you have no idea how many people have gone through that or, in the worst scenarios, how many people threw it into the trash! Once you create an impactful visual content, start promoting it on social media. Through such networks, buyers would be able to learn about products and services through influencers and peers. The more engagement you get, the more Google considers your content to be worthy. And in turn, it will boost your SEO rankings with ease. Through digital marketing, you can measure exactly how many people viewed your marketing content. Thereafter, you can collect the contact details of those who download it by using forms. Additionally, you're also generating qualified leads when people download it. With a solid lead

nurturing strategy, you can build better awareness and affinity for your brand.

3. **Improved Conversion Rates:** Converting a customer online is not a big deal. All you need to do is just make your marketing strategy an engaging one. Targeted traffic offers bigger chances for conversion. Unlike other types of advertising, digital marketing lets you have a two-way conversation with customers and leads. Through digital marketing, you can reach out to your customers at any time. Instead of bothering them with multiple phone calls, reaching customers online seems to be a better idea. Just send an email and let them make a purchase and learn more about your organization. From such interactions, important leads can be generated, which would eventually bring an increase in conversion rates.
4. **More Cost Effective Than Traditional Marketing:** Digital marketing lets you save your money to a substantial extent. This has the potential to replace costly advertising channels such as television, radio and yellow pages. With email marketing automation, you can boost your leads. Thus, it will allow you to pre-load content and schedule it for sending out the content at key times.
5. **Higher Revenues:** It's a well-known fact that higher conversion rates can be generated by effective digital marketing techniques. Hence, it will deliver loads of profitable benefits for your business in terms of better and higher revenues. While advertising your brand:
  - have a good layout that enables easy navigation
  - use the digital platform to understand customer purchase patterns
  - offer the right idea that meets the needs of your customers
  - use multiple digital marketing channels to gather useful data

With better revenue growth expectancy, small and medium enterprises will have better chances of expanding their workforce.

6. **Higher ROI from Your Campaigns:** Digital marketing companies optimize conversion rates to achieve maximum Return on Investment (ROI) for businesses. With smarter branding and better revenues, digital marketing can fetch a better ROI than traditional marketing. With effective tracking and monitoring methods, results can be analyzed. It helps the organizations to take necessary measures as soon as possible. With digital marketing, you can generate a steady flow of targeted traffic that gets converted into sales and leads. And, the more your business generates this kind of traffic, the faster you can enjoy your ROI.
7. **Compete with Large Corporations:** Does digital marketing sound as foreign as binary code to you? Don't worry if you are dealing even with a small industry. The importance of digital marketing also lies in the fact that it lets you compete head to head with big brands and large corporations. From a small vendor to a large powerhouse, digital marketing offers an affordable and effective marketing tactics. Small brands can drive traffic both locally and across the country by reaching out to their target consumers.

### **Outcomes of the study**

Digital marketing strategies and managing the process has been complicated by the fragmentation of media and

proliferation of devices and channels, as marketing investments and measurement of returns are spread across many entities. The design and the implementation of marketing operations and related processes is becoming a key differentiator between success and failure. In this context, the key research questions are: How can one go digital for branding, for marketing etc.? What are the key metrics of digital marketing? What is the different type of digital marketing that can be used? All these points have been discussed above in this research paper.

### Conclusion

Our key objective in this paper was to set an agenda for research in digital marketing. We have defined digital marketing in the broadest sense and we have developed and proposed a framework that highlights the touch points in the marketing process as well as in the marketing strategy process where digital technologies play a key role. Using this framework, we have organized and reviewed the extant research around these touchpoints. We also went through the type of digital marketing process which is beneficial. We have seen the most and useful advantages of it. At last by summing up we can say that Digital Marketing is a best platform for getting your business or product at reach to people very conveniently.

### References

- Abou Nabout, N., Skiera, B., Stepanchuk, T., & Gerstmeier, E. (2012). *An analysis of the profitability of fee-based compensation plans for search engine marketing*. *International Journal of Research in Marketing*, 29(1), 68-80.
- Agarwal, A., Hosanagar, K., & Smith, M. D. (2011). *Location, location, location: An analysis of profitability of position in online advertising markets*. *Journal of marketing research*, 48(6), 1057-1073.
- Amaldoss, W., Desai, P. S., & Shin, W. (2015). *Keyword search advertising and first-page bid estimates: A strategic analysis*. *Management Science*, 61(3), 507-519.
- Amaldoss, W., & Jain, S. (2008). *Research Note-Trading Up: A Strategic Analysis of Reference Group Effects*. *Marketing science*, 27(5), 932-942.
- Anderson, E.T. and Simester, D.I., (2014), *Reviews Without a Purchase: Low Ratings, Loyal Customers, and Deception*, *Journal of Marketing Research*, 51(3), 249-269., M., Luo, X., Fang.



## A study on impact of Physical Activity on Health Control

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### **Abstract**

*The benefits of exercise extend far beyond weight management. Research shows that regular physical activity can help reduce your risk for several diseases and health conditions and improve your overall quality of life. Several environmental factors which are linked to urbanization can discourage people from becoming more active. Globally, around 28% of adults aged 18 and over were not active enough in 2019 (men 25% and women 32%). In high-income countries, 31% of men and 39% of women were insufficiently physically active, as compared to 15% of men and 28% of women in low-income countries. Low or decreasing physical activity levels often correspond with a high or rising gross national product. The drop in physical activity is partly due to inaction during leisure time and inactive behavior on the job and at home (WHO Report). This research paper tries to throw light on the impact of Physical Activity on Health Control. The data used in this research are based on the secondary sources.*

*Key words: Physical Activity, Health Control, WHO,*

### **Introduction**

The term "Physical Activity" should not be confused with "Exercise", beyond exercise, any other physical activity that is done during leisure time, for transport to get to and from places, or as part of a person's work, has a health benefit. Further, both reasonable- and forceful intensity physical activity improves health. Regular physical activity of moderate intensity – such as walking, cycling, or doing sports – has significant benefits for health. At all ages, the benefits of being physically active outweigh potential harm, for example through accidents. Regular physical activity participation throughout childhood provides immediate health benefits, by positively effecting body composition and muscular-skeletal development (Malina and Bouchard, 1991), and reducing the presence of coronary heart disease risk factors (Gutin et al., 1994). In recognition of these health benefits, physical activity guidelines for children and youth have been developed by the Health Education Authority [now Health Development Agency (HDA)] (Biddle et al., 1998).

### **Objectives of the research Paper**

- To study the meaning of Physical Activity.
- To study the benefits of Physical Activity.
- To study the impact of physical activity on health control through secondary data sources.
- To suggest some measures for spreading awareness of benefits of Physical Activities among country people.

## Meaning of Physical Activity

WHO defines physical activity as any bodily movement produced by skeletal muscles that require energy expenditure – including activities undertaken while working, playing, carrying out household tasks, travelling, and engaging in recreational pursuits.

Physical activity helps you control your weight by using excess calories that would otherwise be stored as fat. Most foods you eat contain calories, and everything you do uses calories, including sleeping, breathing, and digesting food. Balancing the calories, one eat with the calories one use through physical activity will help one reach and maintain a healthy weight.

Calories in Food > Calories Used = Weight Gain

Calories in Food < Calories Used = Weight Loss

Calories in Food = Calories Used = Weight Control

## Benefits of physical activity and risk of insufficient physical activity

Regular physical activity of moderate intensity – such as walking, cycling, or doing sports – has significant benefits for health. At all ages, the benefits of being physically active outweigh potential harm, for example through accidents. Some physical activity is better than doing none. By becoming more active throughout the day in relatively simple ways, people can quite easily achieve the recommended activity levels.

Regular and adequate levels of physical activity:

- improve muscular and cardio respiratory fitness;
- improve bone and functional health;
- reduce the risk of hypertension, coronary heart disease, stroke, diabetes, various types of cancer (including breast cancer and colon cancer), and depression;
- Reduce the risk of falls as well as hip or vertebral fractures; and are fundamental to energy balance and weight control.
- Prevent chronic diseases such as heart disease, cancer, and stroke (the three-leading health-related causes of death)

Insufficient physical activity is one of the leading risk factors for global mortality and is on the rise in many countries, adding to the burden of NCDs and affecting general health worldwide. People who are insufficiently active have a 20% to 30% increased risk of death compared to people who are sufficiently active.

## Tips to a Safe and Successful Physical Activity Program

Check with your health care provider. If you have a chronic health problem such as obesity, diabetes, heart disease, or high blood pressure, ask your health care provider about what type and amount of physical activity is right for you.

- **Start slowly.** Incorporate more physical activity into your daily routine and gradually work up to the 30-minute goal to improve health and manage your weight.

- **Set goals.** Set short-term and long-term goals and celebrate every success.
- **Track progress.** Keep an activity log to track your progress. Note when you worked out, what activity you did, how long you did the activity, and how you felt during your workout.
- **Think variety.** Choose a variety of physical activities to help you meet your goals, prevent boredom, and keep your mind and body challenged.
- **Be comfortable.** Wear comfortable shoes and clothes, and ones that are appropriate to the activity you will be doing.
- **Listen to your body.** Stop exercising and consult your health care provider if you experience chest discomfort or pain, dizziness, severe headache, or other unusual symptoms while you work out. If pain does not go away, get medical help right away. If you are feeling fatigued or sick, take time off from your routine to rest. You can ease back into your program when you start feeling better.
- **Eat nutritious foods.** Choose a variety of nutritious foods every day. Remember that your health and weight depend on both your eating plan and physical activity level.
- **Get support.** Encourage your family and friends to support you and join you in your activity. Form walking groups with coworkers, play with your children outside, or take a dance class with friends.
- Regular physical activity will help you feel, move, and look better. Whether your goal is to achieve and maintain a healthy weight or improve your health, becoming physically active is a step in the right direction. Take advantage of the health benefits of physical activity and make it a part of your life.

### How many calories are used in typical activities?

The following table shows calories used in common physical activities at both moderate and vigorous levels.

Calories Used per Hour in Common Physical Activities		
Moderate Physical Activity	Approximate Calories/30 Minutes for a 154 lb Person <sup>1</sup>	Approximate Calories/Hr for a 154 lb Person <sup>1</sup>
Hiking	185	370
Light gardening/yard work	165	330
Dancing	165	330
Golf (walking and carrying clubs)	165	330
Bicycling (<10 mph)	145	290
Walking (3.5 mph)	140	280
Weight lifting (general light workout)	110	220
Stretching	90	180
Running/jogging (5 mph)	295	590
Bicycling (>10 mph)	295	590

Calories Used per Hour in Common Physical Activities		
Moderate Physical Activity	Approximate Calories/30 Minutes for a 154 lb Person <sup>1</sup>	Approximate Calories/Hr for a 154 lb Person <sup>1</sup>
Swimming (slow freestyle laps)	255	510
Aerobics	240	480
Walking (4.5 mph)	230	460
Heavy yard work (chopping wood)	220	440
Weight lifting (vigorous effort)		440
Basketball (vigorous)	220	440
<p>1 Calories burned per hour will be higher for persons who weigh more than 154 lbs (70 kg) and lower for persons who weigh less.</p> <p><b>Source:</b> Adapted from Dietary Guidelines for Americans 2005, page 16, Table 4External.</p>		

### Some measures for spreading awareness of benefits of Physical Activities among country people.

Countries and communities must take action to provide individuals with more opportunities to be active, in order to increase physical activity.

Policies to increase physical activity aim to ensure that:

- In cooperation with relevant sectors physical activity is promoted through activities of daily living;
- Walking, cycling and other forms of active transportation are accessible and safe for all;
- Labor and workplace policies encourage physical activity;
- Schools have safe spaces and facilities for students to spend their free time actively;
- Quality physical education supports children to develop behaviour patterns that will keep them physically active throughout their lives; and
- Sports and recreation facilities provide opportunities for everyone to do sports.

Policies and plans to address physical inactivity have been developed in about 80% of WHO Member States, though these were operational in only 65% of the countries in 2019. National and local authorities are also adopting policies in a range of sectors to promote and facilitate physical activity.

### Conclusion

Experts recommend at least 30 minutes of moderate-intensity physical activity on most, if not all, days of the week. To achieve and maintain a healthy weight, particularly after you have lost a large amount of weight, you may need to do 60 minutes or more of moderate-intensity physical activity each day.

Physical activity may include structured activities such as walking, running, basketball, or other sports. It may also include daily activities such as household chores, yard work, or walking the dog. Pick a combination of structured and daily activities that fit your schedule.

If you have been inactive for a while, start slowly and work up to 30 minutes a day at a pace that is comfortable for you. If you are unable to be active for 30 minutes at one time, accumulate activity over the course of the day in 10- to 15-minute sessions.

## References

- Bailey, R. (2005). *Evaluating the relationship between physical education, sport and social inclusion. Education Review*, 57 (1), 71-90.
- Barton, G.V., Fordyce, K., & Kirby, K. (1999). *The importance of the development of motor skills to children. Teaching Elementary Physical Education*, 10 (4), 9-11.
- Fox, K.R., & Harris, J. (2003). *Promoting physical activity through schools. In: McKenna J, Riddoch C, eds. Perspectives on health and exercise. Basingstoke, New York: Palgrave-Macmillan.*
- Gonzalez, M.C., Regalado, M.N.M., Guerrero, J.T. (2010). *Teaching and learning social values: Experience of resolution of conflicts in the classroom of physical education across the learning of social skills. Journal of Human Sport and Exercise*, 5 (3), 497-506.
- <https://www.mentalhelp.net>
- <https://www.hhs.gov>
- <https://www.researchgate>
- <https://www.cdc.gov>
- <https://www.who.int>
- <https://www.medicinenet.com>

## **A Study on radical changes in Indian banking scenario: conventional banking to convenience banking**

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### **Abstract**

*Indian Banking sector plays a very essential task in the monetary structure of Indian economy. It makes easy the creation and maintenance of a healthy payment system to meet the necessities of businesses, the government and citizens. It also provides as a credit release mechanism, which can be accessed by those who are in need of funds. In general, the banking sector symbolizes the centre of the economic activities of a nation. Thus, a strong and healthy banking system is essential for economic growth. The Indian banking sector, at present is on looking a digital revolution i.e. conventional banking to convenience banking for its customers and banks as well. The internet and IT has entirely changed the way of execution of banks and the financial institutions.*

*The modernization of banking sector, after the introduction of IT and internet has benefitted both the customers as well as banks. The current phase of banking may be aptly called as 'Digital Banking'. This paper is based on the secondary data collected from different journals, articles, websites etc. The objectives of this research paper is to through light on the journey of digitization of Indian banks, benefits of digital banking and its challenges. The paper also tried to find out some measures to solve the problems faced by the banks due to digital revolution.*

*Keywords: Digitization, Convenience banking, Conventional banking, banking sector.*

### **Introduction**

“Earlier in Indian Banking Sector manual system of recording and retrieval of banking data was in use. Now a days, all banks have adopted the use of electronic banking. It has become a rule rather than an exception. Under traditional banking, the functions of the banks were more or less limited to accepting deposits and giving loans and advances. With the advent of Information Technology, the banking and financial sector has moved forward and we are witnessing innovation in the product designing and their delivery to cater to needs of the customers.” (CMA Dheeraj Kumar Pradhan). Digitization made the radical change in Indian banking Scenario totally different from conventional banking to convenience banking. A report by the Columbia University has identified that Digitization has a larger contribution to GDP than stand-alone technologies. It states that a 10 point increase in Digitization yields a 0.74% increase in per capita GDP.

Meaning of Digitization: Digitization of banking is also called internet banking or online banking. When a bank provides its services online and customers can make transactions, submit requests, and handle other banking activities online, it is called digital banking. Today most of the banks provide online banking facilities. Digitization is the process of converting data into digital format. Digitalization means the adoption of technology. These two words are being used interchangeably.

## Objectives of the Study

- To throw light on the journey of digitization of Indian Banking.
- To show the advantages of digitization of Indian Banking for customers as well as banks.
- To discuss the disadvantages of digitization of Indian Banking
- To show the challenges faced by the digitization of Indian Banking
- To find out measures to solve the problems faced by the digitization of Indian Banking so that the country can go ahead in the path of becoming a digital economy.

**Journey of Digitization in Indian Banking Scenario:** Banks in India have observed a radical change from 'conventional banking to convenience banking'. "Today, they are on the edge for 'digital banking' at a rapid pace. "The need for computerization was experienced in the Indian banking sector in late 1980s, in order to improve the customer service, book-keeping and Management Information System reporting. In 1988, Reserve Bank of India set up a Committee on computerization in banks headed by Dr. C. Rangarajan. Banks began using Information Technology initially with the introduction of standalone PCs and migrated to Local Area Network (LAN) connectivity. With further advancement, banks adopted the Core Banking platform. Different Core Banking platforms (softwares) such as Finacle designed by Infosys, BaNCS by TCS, Oracle FLEXCUBE by FIB, gained popularity. The process of Computerization gained pace with the opening of the economy in 1991-92. A major driver for this change was propelled by rising competition from private and foreign banks. Several commercial banks started moving towards digital customer services to remain competitive and relevant in the race." (www.forbesindia.com) . "As the networks grew and banks began to connect together, Core Banking came into being. Centralized Online Real-time Exchange (CORE) banking thus allowed customers to perform financial transactions and access their account from any of the participating bank's branches. Then Automated Teller Machines (ATMs) arrived on the scene, and electronic fund transfers were made possible. Recent years have seen the growth in mobile banking services and other innovative services online." (www.enterpriseedges.com).

1. **Benefits of Digitization:** Indian banks are coming up with innovative variants of these products and show the newest features added to these products to attract more customers.
2. **Reducing costs and increasing revenue:** E-banking has resulted in reducing costs radically and has helped generate revenue through various channels. As per last available information, the cost of a bank transaction on Branch Banking is estimated to be in a range of Rs.70 to Rs.75 while it is around Rs.15 to Rs.16 on ATM, Rs.2 or less on Online Banking and Rs.1 or less on Mobile Banking (<http://www.forbesindia.com>).
3. **Banking from anywhere anytime:** The number of customer base has also increased because of the convenience in 'Anywhere Banking'. Digitization has reduced human error. Commercial Banks in India have moved towards technology by way of Bank Mechanization and Automation with the introduction to MICR based cheque processing, Electronic Funds transfer, Inter connectivity among bank Branches and implementation of ATM (Automated Teller Machine) Channel have resulted in the convenience of Anytime

banking.

4. **Decrease documentation & Provide simple and easy way to use cloud space on the internet:** With the digitization of Indian banks Internet banking has been growing faster. It saves the data of transactions of customers by using cloud space on internet and with security of passwords. This helps customers to view their accounts statements any time without visiting to the branches anywhere any time.
5. **Beneficial in fast decision making:** Inter-connectivity among bank branches through the use of common software has helped in faster decision making and access to data. Technology is non-discriminatory. Everyone will be treated same at banks.

**Factors adversely affect digitization in Indian Banking:** Digital Banking has made banking more convenient and accessible 24 hours a day. However, there are some downsides to digital banking. There are a number of factors that adversely affect the scope of digital banking in India. Some of them are enumerated below:

1. **Lack of knowledge about banking:** A lack of awareness about E-Banking in itself is an obstacle for many. The lack of knowledge about computers and the use of the internet is a challenge. A survey was conducted by Standard & Poor's Financial Services LLC, where it was found that 76 percent of Indian adults are unable to understand key financial concepts, which is seven percentile points lower than the worldwide index.
2. **Internet access:** "As per a report titled "Internet in India 2017" by Internet and Mobile Association of India (IAMAI) and Kantar IMRB, the number of Internet users stood at 481 million in December 2017, which is second highest in the world. Urban India with an estimated population of 455 million has 295 million internet users whereas rural India, with an estimated population of 918 million as per 2011 census, has only 186 million internet users leaving out potential 732 million users in rural India. This indicates a very low internet penetration, which is a major obstacle in the path of digital banking." (CMA Dheeraj Kumar Pradhan)
3. **Training:** There is much confrontation from inside the banking industry itself. All the employees are not trained in the use of innovative digitization/ technology. Most of them in Public sector banks are incapable to operate different features of digital banking and hence are suspicious about its execution.
4. **Technology and Service Interruptions:** In the current year, India has already witnessed 95 internet shutdowns as against 79 such cases in the whole year of 2017, as per the data compiled by Software Freedom Law Centre (SFLC), a legal services organization. Although the problem of shutdown exists across many states, Jammu & Kashmir and Rajasthan are foremost states. Frequent internet shutdowns result in serious interruptions and loss to individuals and businesses, and may prevent the nation from realizing the benefits of digital economy.
5. **Safety and individuality stealing concern:** No system is completely foolproof and accounts can be hacked, resulting in identity theft via stolen login credentials. Banks will be more vulnerable to cyber attacks. Individual privacy may have to be compromised. "The total malware infections have been on the rise for the



last ten years from the year 2009 by 12.4 million to 812.67 million in year 2018. Ransomware attacks worldwide rose 350% in 2018. And 25% of businesses are estimated to have been victims of cryptojacking.” (<https://purplesec.us>) The flip side is that it has increased the risk of cyber crimes.

### **Conclusion & Solutions to the Challenges:**

- 1. Business Analytics and Artificial Intelligence:** AI has a potential to bring a major change. Robotics, enabled by AI, is expected to be the future game changer in the banks. Many private banks are planning to deploy Robots for customer service, investment advisory and credit-approval process to improve the services and be cost effective in the long run.
- 2. Create awareness in rural areas also:** Indian banks must create awareness among people on importance of digital banking services, increasing financial literacy through various modes of creating awareness among the rural people.
- 3. Digital Literacy can be given to the children from school time itself:** The banking sector must reach out to the schools and colleges where the students can understand it easily and convey it to their family members like making payment of electricity bills, transferring funds and different kinds of online payments and thereby helpful in implementing the digitalization to rural banking.
- 4. Formulate Policies that Address Cyber security:** It is essential to implement internal corporate policies that help prevent any fraud or cyber crime.
  - a) Customer data must be regularly secured and backed up.
  - b) Every employee should have a separate user account and with a policy that stipulates the changing of passwords every three months.
  - c) Administrators must prohibit employees from downloading and installing unauthorized software.

### **References**

- *Dun & Bradstreet, India's Top Banks 2016*
- *Prof. Bijoy Bhattacharyya, Dean Banking & Ms. Swati Pradhan, Deputy Manager - Research, S. P. Mandali's Prin. L. N. Welingkar Institute of Management Development and Research (WeSchool), Mumbai*
- *CMA Dheeraj Kumar Pradhan: [www.icmai.in](http://www.icmai.in), January 2019*
- [www.rbi.org.in](http://www.rbi.org.in)
- [www.ibef.org](http://www.ibef.org)
- <https://byteacademy.co>
- <https://purplesec.us>
- <https://smallbusiness.chron.com>
- <http://www.forbesindia.com>
- [www.enterpriseedges.com](http://www.enterpriseedges.com)

## A Study on Social Network Analysis

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### **Abstract**

*This paper gives a detail information on the expansion of social network analysis. It contends that the social network analysis come up with a powerful model for social formation. It has been used in the learning of social mobility, international trade exploitation, it helps in understanding online behaviour of individuals, organizations and between websites.*

*Keywords: Expansion, social network, powerful model, social mobility.*

### **Introduction**

Social Network Analysis determine the connections and move between the people, groups, computers, organizations and other information. It is a new but it quickly captures multidisciplinary area that involves statistical, mathematical, social, computer science. It is the procedure of systematic inquiry of social structures through networks and graphs. It begins in both social science and in a wide sector of social network analysis and graph theory. It involves itself in the modulation and solution of difficulties that network structure has such things are usually captured in a graph.

Graph theory gives idea and techniques for the examination of graph. Social network analysis does not focus only on micro social structures but it also more focus on the macro social structures. It gives more importance on the relations between individual group or social institutions.

### **Literature Review**

Diestel (2001), Social network analysis has many different application areas. It can be applied in sociology, social, psychology, anthropology, economics, information technology.

Cross et al (2002), The social network analysis is a tool that enables you to evaluate important networks within an organization, to make invisible group visible in interaction and to work important groups to facilitate effective collaboration.

### **Objectives of the Study**

**1. Networks:** - To represent various social networks In whole network anybody can gives information but in ego network there is one main person who gives information to all.

**2. Tie Strength:** - To find out strong/weak ties in the network –

By homophily, transitivity and bridging we can easily identify the strong/weak ties in the network.

Homophily: - It connects people with same characteristics. It relates to that group where relations are simple. It can be strong or weak

Transitivity: - It connects the ties. Strong ties are more exist in transitive than weak ties.

For ex- If there is tie between C and D and one between D and E than C and E will be connected.

Bridge: - It connects across the groups. They are usually weak ties.

**3. Key Players:** - To find out central nodes in network

- In this network node 10 is the most central.
- But nodes 3 and 5 will reach more nodes.
- Besides the tie between them is analytical, if severed, the network will shatter into two sub networks.
- It sees that other things being equal, players 3 and 5 are more central to this network.

**4. Cohension:-** To discriminate network's structure-

We can discriminate network structure by-

- Reciprocity- The ratio of number relations which are reciprocated over the number of relations in the network.
- Density- It is the ratio of the number of edges in the network over the total number of possible edges between all pair of nodes.
- Average and Longest Distance- The longest, shortest path between any two nodes in a network is called network diameter.
- Small World- It is a network that looks most random but exhibits significantly high clustering coefficient and a relatively short average path.

**Government Interference: -**

Social media has also transformed how government organization communicate during an emergency.

- Promote evacuation protocols to help get hundreds of thousands impacted by fires to get to safety.
- Connect evacuated civilians with emergency relief resources.

**Advantages: -**

- It has a worldwide connectivity.
- Real time-sharing centre.
- Targeted advertising.
- Increased news cycle speed.
- Benefits for non-profits.

**Disadvantages: -**

- Cyberbullying and crimes against children.
- Risks of fraud or identity theft.
- Fake news.
- Depression and loneliness.

**Outcomes of Study**

At the end we come to know that how it influences health, mind and it is form on the theoretical constructs of sociology and mathematical foundations of graph theory.

From this research I come to know that it has a worldwide connectivity, real time information sharing centre, targeted advertising, it increased news cycle speed and how network analysis used by the computer scientist, law agencies to find the difficulties and solutions of the problems.

### **Conclusion**

Network analysis gives us insights into social media that can help individuals and organizations to make decisions about online conversation. Networks can disclose the structures of the crowd and that call attention to strategic locations or roles in these webs of connection.

Social network analysis gives insights as to how individual customers behave in the context of large communities. It discovers social network behaviour rather than posting behaviour. Large scale analysis of networks and documents reveals hidden patterns. It discovers connections between group members and people outside the group.

### **References**

- [journals.sagepub.com/doi/abs/10.1177/0038038588022001007](https://journals.sagepub.com/doi/abs/10.1177/0038038588022001007)
- [onlinewiley.com/doi/abs/10.1002/widm.1256](https://onlinewiley.com/doi/abs/10.1002/widm.1256)
- [socialnetworking.lovetoknow.com/about-social-networking/pro-cons-anonyms-social-media](https://socialnetworking.lovetoknow.com/about-social-networking/pro-cons-anonyms-social-media)
- [orgnet.com/sna.html](https://orgnet.com/sna.html)
- [scholar.google.co.in/scholar?q=outcomes+of+social+network+analysis&hl=en&as\\_sdt=0&as\\_sdt+0&as\\_vi=1&doi=scholar](https://scholar.google.co.in/scholar?q=outcomes+of+social+network+analysis&hl=en&as_sdt=0&as_sdt+0&as_vi=1&doi=scholar)
- [mailman.columbia.edu/research/population-health-methods/social-networkanalysis](https://mailman.columbia.edu/research/population-health-methods/social-networkanalysis)

## Analysis on online marketing v/s Traditional marketing

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### **Abstract**

*E-marketing is leveraging the unique. Capabilities of new form of interactive media to create new form interactions and transactions between consumers and markets. Also, it can be considered as innovative way of marketing in digital market place which includes online mark research online pricing models. To make it successful there are different strategies such as targeting product strategy, pricing strategy, distribution and promotional strategy. This paper tries to identify and analyze the advantages of e- marketing over traditional marketing. It also focuses to identify that how companies can be benefited. This paper also determines the impact of online marketing and society.*

*Keywords: E-marketing, E-Commerce, E-strategy, etc.*

### **Introduction**

In this era of innovation, almost all the spheres of human life have been touched upon by the applications of ever-growing technology. E-business is a natural extension of internet. The concept refers to the transaction of business via an electronic means, usually the internet or any of its mediums. E-business has certain characteristics which include internet, information system for handling its business, an online selling platform. Business models that work the compile data on various customer and market segments and then make, this information available to third parties for fee and online selling platform. Business models that work to compile data on various customer and market segments and then make this information available to third parties for a fee and online financial exchange facility.

### **Literature review**

HOGUE[1993], Internet marketing is the transfer of goods services from seller to buyer that involves more electronic methods or media. It has begun with the use of telegraphs in the nineteenth century. With the advent and mass acceptance of the telephone, radio, television and then cable, electronic media have become the dominant marketing forces.

CHESTON AND MANGLES [2003], Examined the influence of marketing style on the utilization of the internet among small UK manufacturing firms. They employed a quantities methodology to determine whether, in business-to-business markets, the internet is a technology that will be managed by different firms that have adopted a relationship virus a transactional marketing orientation. These different theories about the internet have been discussed a lot in recent marketing literature.

### **Objectives**

- To identify and analyze the advantage and disadvantages of online marketing over traditional marketing
- To identify how the business can be benefited with online marketing

- To determine the impact of online marketing on marketing.

### **Conceptual Framework**

Traditional Marketing refers to conventional methods of marketing used ever since concept of advertisements or marketing came into existence. This primarily includes the following models for brand promotion.

### **E-Marketing**

E-marketing is a subset of e-business. It is the means through which a business promotes the product or services that it is offering on the internet. The practice of running an enterprise with distinct advantages. E-marketing must be defined to include the management of the customers online experience of the product from first encounter through purchase to delivery and beyond. There are reasons for building the concept of e-marketing around consumer experience

- This approach forces marketers to adopt consumer's point of view.
- It forces manager to pay attention to all aspects of their digital brands interactions with the consumers, from the design of the product or service to the marketing message the sales and fulfillment processes and after-sales customer service effort.

Any business that aims for development is linked to basic marketing stages

- Market research
- Development of the product
- Distribution
- pricing

On the basis of these five-stage marketing, in this paper. We will be trying to discuss various issues related to marketing strategy.

### **Online Marketing Vs Traditional Marketing**

- Online marketing is more measurable than traditional marketing. Internet marketing allows organization to see exactly. What and how much they are paying for.
- Online market is better at reaching target audience
- Internet marketing is a constant source as compare to traditional. If we catch an ad in passing and we missed some information we can't go back and review it in case of traditional whereas online marketing provides a permanent address that can visit anytime.
- Online marketing provides better word of mouth, feedback, and review of the product and services are the good example of it.

### **Advantages of E-Marketing**

- Global reach- No geographical bar for e-marketing. [targeted e-mails]
- Personalized- E-mails enable to personalize and greet every person which is to be targeted. It helps in creating a special bond with the prospectus

- Lower cost- Cost incurred in designing, executive, testing, sending and receiving an e-mail is up to 78% less for a run of 5000 over paper based direct mail version
- Interactive- A business can innovatively initiate campaigns using graphics, video, music, quiz.
- faster response- The business or a company get the response through e-mail within three days with maximum responses on day one itself, while a direct mail campaign would take minimum ten or twelve days to generate any response.
- Simplest- Executing an e-mail campaign is simple and can be done sitting at home without any extensive resources.
- Targeted Marketing- With help of prepackaged and custom-built lists one could reach only those who might require services and product, without bothering those who don't. one can select the target customer based on geography, age, income and other parameters.
- Measurable Result- In online marketing one can accurately determine click through rate, to enable and to assess the success of different e-mail campaigns.

#### **Disadvantages of E-Marketing**

- Low penetration of computer technology
- Potential for deception
- Dependability on technology
- Maintenance cost due to constantly evolving environment
- Higher transparency of pricing and increased price competition

#### **Outcomes of Study**

- Global Reach: Online marketing helps in increasing the access between a company and their current and potential customers through the use of internet.
- Lower Cost: Online marketing helps to reduce the cost of connecting with customer.
- Interactive: Online marketing helps to focus on individual customer and prospect section.
- Measurable Result: Online marketing helps to measure the result easily with online data and statistics.

#### **Challenges Faced by Today's E-Marketers**

- Having a mobile responsive website.
- Making your website dynamic
- Offering a booking solution
- Optimizing your website for search engines
- Increasing your numbers on social media

#### **Suggestion to the Challenges**

- Segment your audience
- Channel management

- Effective Web design
- Improving search engine optimization
- Hubspot's free email to marketing tool

### Conclusion

- Modern methods of marketing are better than the traditional ones as they help in customer attraction and retention. Their emotional appeal is also high leading to repeat purchase of the product and customer satisfaction.
- Even traditional methods of marketing with innovation will work wonders.
- Social media is very popular right now and it's only getting more popular. You can tap into that by using social media to use your product.

### References

- Joseph[Hieinen][1996]. *"Internet marketing practices"*, *Information management & computer security*, 415, pp-7-14
- Strauss J and Frost R [1999]- *"marketing on internet: principles of online marketing"*. *"Prentice – hall upper saddle river, NJ"*.
- Staphan lograsen[2005], *"Effects the internet on marketing communication of services companies"*, *of services marketing*.
- Yazadanifard R [2011], *"Internet marketing"*, *the new era of innovation in e- commerce. DCSIT Vol 9*, pp-192-197, IACSIT PRESS SINGAPUR



## Artificial Intelligence in Game Development

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### **Abstract**

*Artificial intelligence is a growing resource for video games in recent years however games and artificial intelligence have a long history together. Most video games whether they're racing games, shooting games, or strategy games have various elements that are controlled by AI, such as the enemy bots, other racers or other neutral characters in a sandbox style game.*

*These are just a few of many examples that tell us about the importance of AI in game development. The goal of these AI is to generate a unique yet challenging way to play a game. Using AI we can accept a completely unique environment in games. For long time AI has been the first approach to use the AI in games. It was in 1996 when the first game AI won the Chess match against a Grandmaster. Goal of this research is to presents an overview of Artificial intelligence in game development and to update the people and to explore more how it works.*

*Keywords: Artificial Intelligence. Mobile Game Development, Machine Learning, etc.*

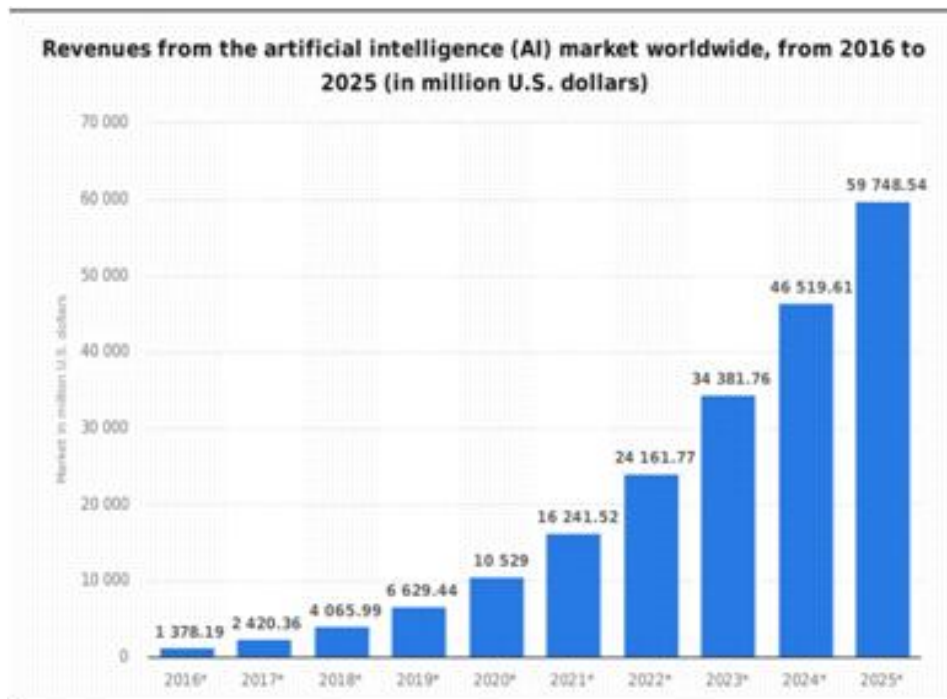
### **Introduction**

AI today is getting smarter and has gone under major changes in the field of computer game development. One of the basic goals of AI is to understand and develop a system which is having human like capabilities. AI in any game is there to enhance the player's experience.

However, to do this AI must be provided with lots of information to have a reaction in a proper direction. But the large amount of data needed to train the AI algorithms is not available to everyone yet, and due this fact machine learning hasn't been adapted in every industry out there. AI don't require much knowledge, the only knowledge we need to put in are the rules and certain set of valid moves and conditions of winning or losing the game. The AI we are familiar with in Google home devices or Alexa, self-driving cars are actually quite different from the AI in games, AI in most electronic devices are constantly learning and are able to produce some really different results which if implemented in games can end up crashing the whole game.

For long time AI has been the first approach to use the AI in games. Alan Turing, reinvented the Minmax algorithm to play Chess and won a game against 32-year-old Russian Grandmaster Garry Kasparov on Feb. 10, 1996. The computer was Deep Blue, a machine designed by IBM which was capable of computing 100 million positions per second which is far more than a human can do. Another example of AlphaGo- a computer program developed by 'DeepMind Technologies' which could play traditional board game of China invented more than 2500 years ago named 'Go'. In March 2016, Lee Sedol was beaten in a five-game match, the first time a computer Go program has beaten a 9-dan (Rank in Go depending upon skills) professional without handicaps with a score of 4-1. Over the years AI has become really good at playing certain games, just try beating computer in chess with maximum level of difficulty, it would turn out to be very difficult.

Some of the games that make best use of AI are: Tom Clancy's Splinter Cell: Blacklist, Rocket League, Minecraft, F.E.A.R., Last of US.



Graph 1 Source: Statista

Looking at the graph it is clear that the demand and revenues from the field of AI is increasing at a very fast rate and at the end of 2025 it will be close to 60,000 mark.

Brains of games are created by AI. The non-playable characters (NPCs – Those who are not controlled by a player) need to make decisions and behave such that it is believable, unique and gives the player a new challenge. Here is a control executional flow of an NPC in a game.

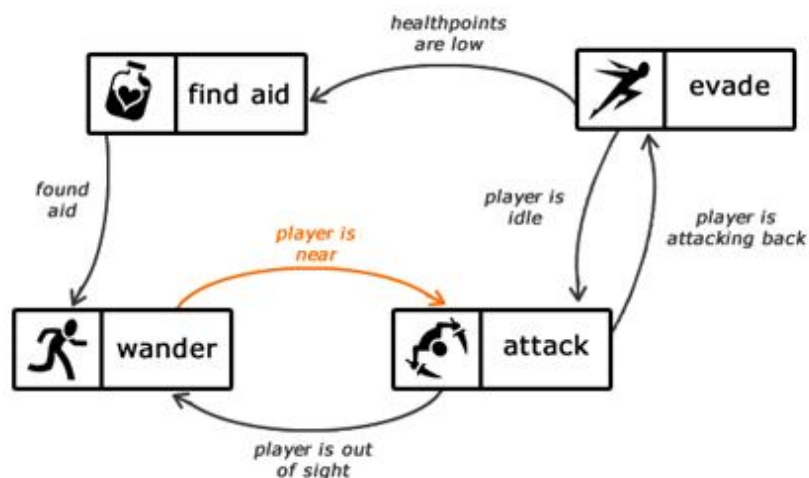


Fig 1

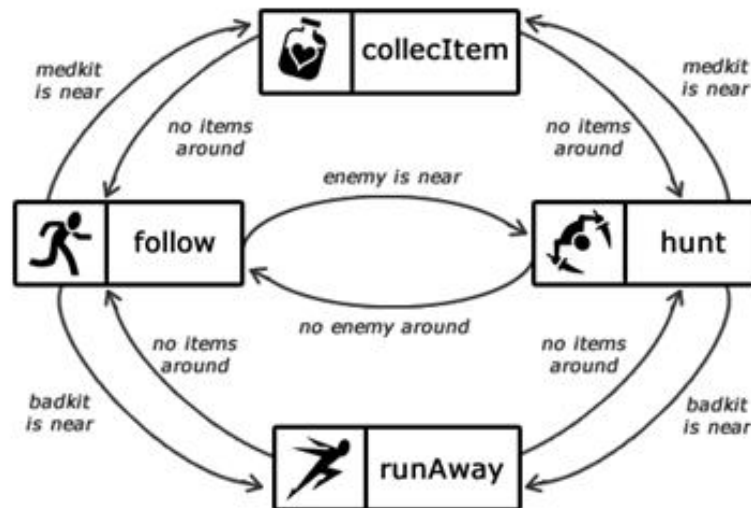
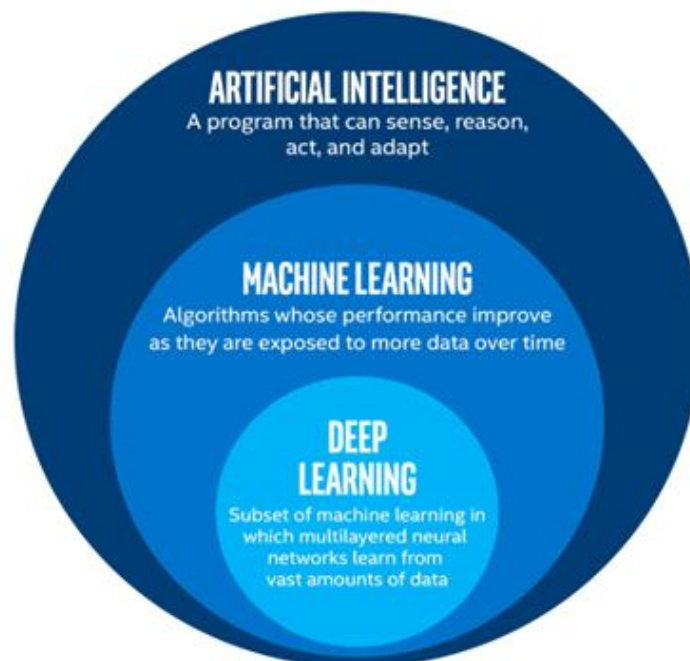


Fig 2

The above images show Finite State Machine or FSM, it is a model of computation based on a hypothetical machine made of one or more states. Only a single state can be active at the same time, so the machine must transition from one state to another in order to perform different actions. SMS (Finite-State Machine) are commonly used to organize and represent an execution flow, which is useful to implement AI in games. The "brain" of an enemy, for instance, can be implemented using a FSM: every state represents an action, such as **attack** or **evade**.

#### AI vs. Machine Learning vs. Deep Learning:



Dig. 1

Artificial intelligence, Machine Learning and Deep Learning are the trending topics worldwide with the applications being deployed in all the major business segments.

**AI:** Whenever a machine completes tasks based on a set of stipulated rules that solve problems (algorithms), such an “intelligent” behavior is what is called artificial intelligence. For example, such machines can move and manipulate objects, recognize whether someone has raised the hands, or solve other problems.

**Machine Learning (ML):** ML is a subset of artificial intelligence; in fact, it's simply a technique for realizing AI. It is a method of training algorithms such that they can learn how to make decisions. Training in machine learning entails giving a lot of data to the algorithm and allowing it to learn more about the processed information.

**Deep Learning (DL):** DL algorithms are roughly inspired by the information processing patterns found in the human brain. Just like we use our brains to identify patterns and classify various types of information, deep learning algorithms can be taught to accomplish the same tasks for machines. The brain usually tries to decipher the information it receives. It achieves this through labeling and assigning the items into various categories. Whenever we receive new information, the brain tries to compare it to a known item before making sense of it — which is the same concept deep learning algorithms employ.

### **Objectives of AI in games**

In order to deliver entertainment for the user AI should aim to achieve these goals

- a. No clear cheating: Game AI has to be active without deceit.
- b. Non predicting behavior: Game AI behavior should not be predictable by the user.
- c. No obvious inferior behavior: Game AI should not exhibit obvious inferior behavior against the user, so that it cannot be defeated easily by the user.
- d. Use of the environment: Game AI has to exploit in a smart way the characteristics of the game environment.
- e. Self-correction: Game AI should be capable of correcting its behavior in order to avoid repeating mistakes.
- f. Creativity: Game AI should be capable of generating novel solutions to unforeseen game circumstances.
- g. Human-like behavior: The behavior exhibited by game AI should be equivalent in complexity to the human behavior.

### **Theories and Algorithms used**

Practical AI for video game development involves applying algorithms, such as the Minimax algorithm, into machine learning in order to provide the technology with all of the information it needs to outsmart a human. After applying game theories and formula information into AI technology, scientists found that they could program a computer with enough information to beat professionals at no-limit. According to Author and Engineer, George Epstein, “The AI researchers used game theory — the mathematics of strategic decision making — to find the best strategy for each hand, while faced with a variety of uncertainties. Because the possibilities are so vast, this usually involves making appropriate approximations — quite a task!”

AI is able to do this because the information it holds brings each decision down to a science. All of the information used by machine learning came from humans, but with enough information from enough resources, the machine has more strategic knowledge than is possible for a human to have in mind at all times.

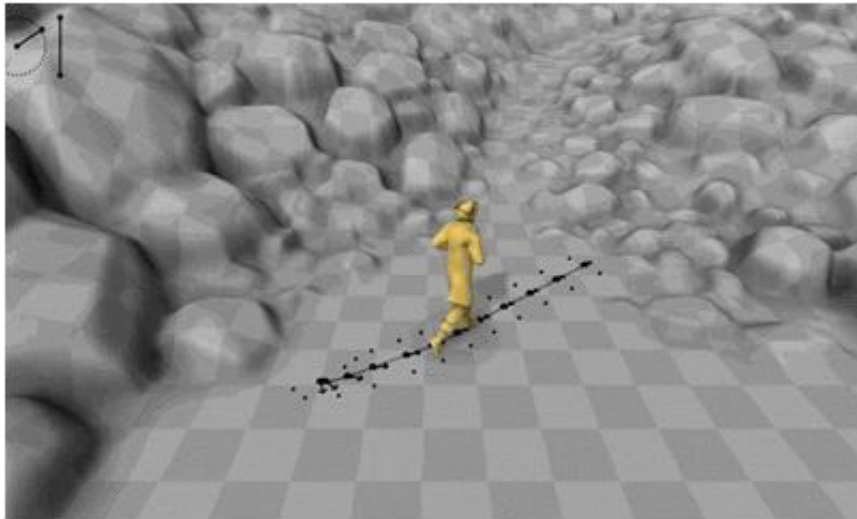
**Languages:** Here are some brief introductions of languages that are used in AI development

1. **Python:** Python is considered to be in the first place in the list of all AI development languages because of its simplicity. The syntaxes belonging to python are very simple and can be easily learnt. Therefore, many AI algorithms can be easily implemented in it.
2. **R:** R is one of the most effective language and environment for analyzing and manipulating the data for statistical purposes. Using R, we can easily produce well-designed publication-quality plot, including mathematical symbols and formulae where needed.
3. **Lisp:** Lisp is one of the oldest and the most suited languages for the development in AI. It was invented by John McCarthy, the father of Artificial Intelligence in 1958. It has the capability of processing the symbolic information effectively. It is also known for its excellent prototyping capabilities and easy dynamic creation of new objects, with automatic garbage collection.
4. **Prolog:** This language stays alongside Lisp when we talk about development in AI field. The features provided by it include efficient pattern matching, tree-based data structuring and automatic backtracking. All these features provide a surprisingly powerful and flexible programming framework. Prolog is widely used for working on medical projects and also for designing expert AI systems.
5. **Java:** Java can also be considered as a good choice for AI development. Artificial intelligence has lot to do with search algorithms, artificial neural networks and genetic programming. Java provides many benefits: easy use, debugging ease, package services, simplified work with large-scale projects, graphical representation of data and better user interaction.

### Advantages

1. **Saving labor cost:** Gaming companies urged to save labour-costs in game design as the human game artists and developers can turn out to be both demanded and expensive. Today the development cost of successful games has ramped up and a game developed by hundreds of people on period of several years is everywhere now. Due to this reason gaming industry is turning their heads toward the cutting-edge artificial intelligence to free their staff from time consuming tasks in order to create content faster and a lot cheaper. Will Wright, a renowned game designer, indicated in a 2005 Game Developers Conference talk that “a game development company that could replace some of the artists and designers with algorithms would have a competitive advantage.”
2. **Unique content generation:** Games cannot exist without characters, whether it is a player character which is controlled by the player or a non-player character (NPC's) those characters which are not in control of the player rather they are controlled by game master. Creating a character is a time-consuming job as there are

many things to be taken into account. Making a 2D character like Super Mario in a game is a really simple task as compared to creating a human like 3D character in GTA for example. A research team from the University of Edinburgh and Method Studios keeps their eyes on motion simulation. They choreographed a machine learning system that is fed by motion capture clips showing various kinds of movement. The system correspondingly generates an animation (fig. 3) that can, for example, go from a jog or hop over a small obstacle.



**Fig 3**

3. Invents new games: Just recently, researchers at George Tech took a step forward by using GANs (Generative Adversarial Network) to invent new games! In their paper, they sought input in the form of video game levels from already developed games and converted them into an output that lays out the environments, objects, and rules for a new video game. The system learns from two Nintendo games Super Mario Bros. and Kirby's Adventure and outputs a new game akin to Mega Man.



**Fig 4**

The research suggests AI cannot replace the human developers yet as it only generates simple games with the most basic game rules and scenes. But researchers believe further development could lead to the automated development of games with 3D environments and complex rules and menu systems.

**4. Enhancing Gaming Experience:** Another primary use of AI in games is modelling a human player to understand how the interaction with a game is experienced by individual players. Generally speaking, AI needs to understand what a player does and how a player feels during the play. To gauge a player's in-game experience, developers use machine learning methods, such as supervised learning like support vector machines or neural networks to build the models of player experience. The training data here consists of some aspect of the game or player-game interaction, and the targets are labels derived from some assessment of player experience gathered. Developers usually identify four main player modelling subtasks that are particularly relevant for game AI:

- Develop a smart and human-like NPCs to better interact with gamers.
- Predict human players' behaviours that lead to improved game testing and game design;
- Classify their behaviours to enable the personalization of the game;
- Discovery frequent patterns or sequences of actions to determine how a player behaves in a game.

### Advantages

- 1. High cost:** For an AI to work efficiently we need a lot of computational power is needed which can cost a lot. Since the machines are very complex, maintenance and repair require huge cost. They have software programs which need frequent up gradation to cater to the needs of the changing environment and the need for the machines to be smarter by the day. In the case of severe breakdowns, the procedure to recover lost codes and reinstating the system might require huge time and cost.
- 2. Storage:** In order to train an AI lots and lots of data needs to be fed into the system and all these data needs to be stored somewhere due to which it creates the need of more and more storage devices.
- 3. No Replicating Humans:** Intelligence is believed to be a gift of nature. An ethical argument continues, whether human intelligence can be replicated or not. Machines do not have any emotions and moral values. They perform what is programmed and cannot make the judgment of right or wrong. Even cannot take decisions if they encounter a situation unfamiliar to them. They either perform incorrectly or breakdown in such situations.
- 4. Unemployment:** Replacement of humans with machines can lead to large-scale unemployment. Unemployment is a socially undesirable phenomenon. People with nothing to do can lead to the destructive use of their creative minds. Humans can unnecessarily be highly dependent on the machines if the use of artificial intelligence becomes rampant. They will lose their creative power and will become lazy. Also, if humans start thinking in a destructive way, they can create havoc with these machines.

## Conclusion

In this paper I have presented an overview of Artificial intelligence in game development and to aware people about its recent trends and the languages to be known to work on AI.

As Artificial Intelligence is one of the most efficient technologies in solving complex problems and is an emerging field that many people may not be aware of. The addition of artificial intelligence in games can revolutionize the industry and enhance the gaming experience.

## References

- <https://www.cc.gatech.edu/faculty/ashwin/papers/er-07-04.pdf>
- <https://medium.com/aifrontiers/an-overview-of-artificial-intelligence-for-video-games-f491229c0e7d>
- <https://becominghuman.ai/artificial-intelligence-game-development-recent-trends-a08a67769a63>
- <https://www.theverge.com/2019/3/6/18222203/video-game-ai-future-procedural-generation-deep-learning>
- <https://www.popsoci.com/science/article/2010-12/fyi-how-many-different-ways-can-chess-game-unfold/>
- <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.384.9845&rep=rep1&type=pdf>
- <https://www.cc.gatech.edu/~riedl/pubs/cig13.pdf>
- [https://www.researchgate.net/publication/330290637\\_Artificial\\_Intelligence\\_and\\_Game\\_Development](https://www.researchgate.net/publication/330290637_Artificial_Intelligence_and_Game_Development)
- <http://index-of.co.uk/Misc/AI%20For%20Game%20Developers.pdf>
- <https://www.geeksforgeeks.org/top-5-best-programming-languages-for-artificial-intelligence-field>
- <https://www.screenskills.com/careers/job-profiles/games/programming/ai-programmer/>
- <https://content.wisestep.com/advantages-disadvantages-artificial-intelligence/>
- <https://towardsdatascience.com/cousins-of-artificial-intelligence-dda4edc27b55>
- Fig 1: <https://gamedevelopment.tutsplus.com/tutorials/finite-state-machines-theory-and-implementation--gamedev-11867>
- Fig 2: <https://github.com/Dentrax/Finite-State-Machine>
- Graph 1: <https://existek.com/blog/ai-programming-and-ai-programming-languages/>



## Blue Eyes Technology

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### **Abstract**

*How do you feel or how good it would be if someone asks you, "how was the day" when you reach your home after a tiresome work in your college or office with absolute low energy in your body? I would be in the seventh heaven if some asked me this question, because I am lucky to have a person to know about me and I would surely be sharing my full days experience in that I would let out my feelings whether my day was happy or sad or surprised or anger etc....but still I would be glad to have a person so that I don't feel that I am lonely or alone.*

*Present scenario of this era is speed and smartness. Only these two things matter to all, whereas we don't bother what is actually happening to our neighbor and sometimes we don't want to know too. It might be our friend in class, our sub-Ordinate or colleague at our workplace, a child of parents, etc... who always might be feeling nothing exists in this world for them except ending their lives. It is because there is no one for them to listen or share. So the people get into depression and some get into addiction and some say goodbye to this world. Here comes the technology "Blue Eyes Technology" telling, I am there for you so that you can share, cry, laugh and much more. One question arises does a machine understand the feelings of humans like a human? It is secondary whether it has feelings like humans or not.*

**KEYWORDS:** Blue Eyes, Emotion Mouse, Magic, Sensor.

### **Introduction**

Imagine oneself in a world of technology and we human beings can communicate with the computer. How wonderful the feeling, when you sit in front of your computer and it can interact with you as a normal person or like a friend, then we can share our feelings with it. No one would have ever thought a day will arrive, when a computer has got power to gather information about oneself and a dialogue through using some special techniques like eye movement sensor, facial, identification, artificial intelligence, speech identification, etc... it is very surprising to see, that it has the power to understand our emotions at one touch of the mouse. It makes the presence very vibrant in its way by interacting with you in possible ways. Even you can ask it to call or message someone, it will see or do it as per the need, but it needs only our emotions in the form of instructions. It easily understands what you or a user needs at that particular moment or juncture, at what a user is looking and even understands his/her physical or emotional state, even without explaining to it.

It even understands the person without telling it by the behavioral pattern of the person. All it needs is only the hand and eyes to do its works, it will take care of the rest. No need for further explanation, the machine will do its duty in systematic order as per the programming or coding.

### **Techniques of Blue Eyes Technology**

**Emotional Mouse:** The user only needs to do one work i.e, to place his hand on the mouse by placing the hand on

the mouse, it gathers the physical and emotional data of the person such as skin temperature, heartbeat, pulse, etc... Just by one touch on the mouse in which many sensors are fixed like pressure sensor, heartbeat sensor, temperature sensor, GSR (Galvanic Skin Response) sensor. Then it gives or does the complete report of the person.

**Manual and Gage Input Cascading (Magic):** Computer or Blue Eyes Technology uses the webcam to rapidly identify the glints and pupils of the user in real lightning conditions and takes the cursor or pointer to every new object user looks at. Then the user gets the command of the target by hand.

**Artificial Intelligent Speech Identification:** A microphone is used by the user to talk with the computer and that talk gets filtered by using ADC (Analog and Digital Converter) and saved in RAM (Random Access Memory). The input words are scanned and matched against internally stored words. Voice matching is done based on variations in loudness, pitch, frequency difference, time gap, etc... the identification of voice takes place in the instant.

**Simple User Interest Tracker (Suitor):** When the user builds an eye contact then the Blue Eye enables suitor to become active and then it detects the user's area of interest and starts searching for it.

According to Ekman, the relationships between various movements of the facial muscles and particular emotions differ such as:

- Happiness: The eyes are relaxed.
- Anger: the forehead is pulled down and inward.
- Sadness: The eyebrows are down together with inner corners raised and the outer lowered; eyes are glazed.
- Surprise: The eyebrows are raised and curved.

**Play Song According to The Mood Matched:** According to the detection the sound files in the database are played by the computer as per the songs which are kept in the library or a library created of songs on the computer. Various audio clips can be saved in different supported forms or formats.

### **Application Areas of Blue Eyes Technology**

- Blue Eyes Technology can be used in the medical field.
- Blue Eyes Technology can be used in automobiles.
- It can be used in the field of psychology and treat the people who are suffering from such illness.

As per the recent information released by the WHO (World Health Organization) for every 40 seconds, we are losing a life that means, per year we are losing almost 80 lakhs of lives as the depression people committing suicide and their age is 15 to 29. Even WHO has taken up the theme for this year (2019) "SUICIDE". Blue Eyes Technology will be one of the best ways to deal with such things So that we can reduce the suicide rates and we can save our younger generations from such painful acts.

## Conclusion

Where a technology can do such greater things why cannot the human beings who invented this technology are not making such a difference. As we are the people who invented this technology, we have to take initial steps to find and help out our friends, family members, Sub-Ordinates, etc.

- The gap or distance between the MACHINE and HUMAN BEINGS is reduced.
- It helps the person to be stress-free.
- It helps to improve the quotient levels of brain.
- It also reduces suicide rates.

## References

- <https://www.slideshare.net/RudraBhatt/blue-eyes-37543969>
- <https://www.irjet.net/archives/V4/i4/IRJET-V4I4601.pdf>
- <http://dSPACE.cusat.ac.in/jspui/bitstream/123456789/2221/1/BLUE%20EYES%20TECHNOLOGY.pdf>
- <http://pnrsolution.org/Datacenter/Vol4/Issue1/70.pdf>

## Confidential Data Storage and Deletion

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### **Abstract**

*With the decrease in cost of electronic storage media, more and more sensitive data get stored in those media. These laptops contain confidential information, in the form of documents, presentations, emails, catch data, and network access credentials. This confidential information is typically for more valuable more than the laptop hardware, If it reaches right people. First, data must be stored in a confidential manner. Second, we must make sure that confidential data once deleted can no longer be restored. Various methods exist to store confidential data such as encryption programs, encryption file system etc. This seminar also describes some of the confidential data erasure methods such as physical destruction data overwriting methods and key erasure.*

*Keywords: Privacy of data, Confidential Data Storage, Encryption, Advance Encryption Standard, etc.*

### **Introduction**

As the cost of electronic storage declines rapidly, more and more sensitive data is stored on media such as hard disks, CDs, and pen drives. Many computers store data about personal finances, online transactions, tax records, passwords for bank accounts and emails. All this sensitive information are vulnerable to theft. Sensitive data may also be leaked accidentally due to improper disposal or resale of storage media. To protect the secrecy of the entire data lifetime, we must have confidential ways to store and delete data.

Traditional method for protecting confidential information rely upholding system integrity. If a computer is safe from hackers and malicious software, then so is its data. Ensuring integrity in today's interconnected world however, exceedingly difficult. There are two major components to safeguard the privacy of data on electronic storage media. First, the data must be stored confidentially without incurring much inconvenience during normal use. Second, data must be removed from the storage medium in an irrecoverable manner, at the time of disposal.

The general concept of secure handling of data is composed of three aspects: Confidentially, integrity and availability. Confidentially involves ensuring that information is not read by unauthorized persons. Using encryption to store data or authenticating valid users are examples of means by which confidentiality is achieved. Integrity ensures that the information is not altered by unauthorized persons. Finally, availability ensures that data is accessible when needed. Having multiple servers with stand a malicious shutdown of a server is one way to improve availability.

### **Encryption**

Encryption is the process of transforming information using an algorithm to make it unreadable to anyone except those processing special knowledge usually referred to as a key. The unreadable text created is known as cipher text. There are two basic techniques for encrypting information: symmetric encryption and asymmetric encryption.

Symmetric encryption is the oldest and best-known technique. A secret key, which can be a number, a word, or just a string of random letters, is applied to the text of a message to change the content in a particular way. This might be simple as shifting each letter by a number of places in the alphabet. As long as both sender and recipient know the secret key, they can encrypt and decrypt all messages that use this key.

### Confidential Data Storage

Achieving confidentiality means storing data in a way that can be read or deciphered only by authorized persons should be able to read or otherwise obtain meaningful information from this data, even with physical access to the storage media.

When a Windows application makes a file system call, that call gets passed to the I/O Manager. The I/O Manager translates applications file system calls into device-specific calls. The file system Drivers are high-level drivers such as FAT and NTFS. These drivers rely on the storage devices Drivers are high-level drivers, which are lower-level drivers that directly access the storage media. Note that both UNIX and WINDOWS storage data paths share almost one-to-one mapping in terms of their internal structures. Thus, a confidential storage solution designed for one can be generalized to both platforms.

### Confidential Data Erasure

When confidential data have to be removed, we must be sure that once deleted, the data can no longer be stored. A full secure data lifecycle implies that data is not only stored securely, but deleted in a secure manner as well. However, typical file deletion only removes a file name from directory or folder, while a file's content is still stored on the physical media until the data blocks are overwritten.

Many forensic techniques are available to the determined attacker to recover the data. Magnetic force microscopy and magnetic force scanning tunneling microscopy analyze the polarity of the magnetic domains of the electronic storage medium and can recover data in minutes.

Confidential data deletion can be accomplished in three ways: physical destruction of the storage medium, overwriting all of the sensitive data, and secure overwriting the key of encrypted sensitive data. Each method has its relative strengths and will be addressed in the following sections.

### Other Challenges

When confidential data have to be removed, we must be sure that once deleted, the data can no longer be restored. A full secure data lifecycle implies that data is not only stored securely, but deleted in a secure manner as well. However, typical file deletion only removes a file name from its directory or folders.

- 1. Hard Disk Issue:** In other words, the defective sector is replaced with a sector on a different part of the hard disk. The defective sector cannot be accessed again by the hard disk itself. These caches may not only defer writing to the actual physical media, but may also aggregate multiple writes to the same location on the disk as a single write. In this case, the write cache of the disk must be disabled.
- 2. Data Life Time Problem:** The data lifetime problem address the phenomenon of various copies of sensitive

data, such as passwords or encryption keys, being scattered all over computer system during normal system operation.

### Conclusion

This seminar took a look at the methods, advantages, and limitations of confidential storage and deletion methods for electronic media in a non-disturbed, single user environment with a dead forensic attack model.

Following ideal characteristics:

- High confidential storage and deletion granularity.
- Acceptable performance overhead in terms of storage and deletion.
- Confidential storage and erasure of file and directory metadata.
- Easy to use with minimal user awareness.

### References

- Parno, Bryan. *“The Trusted Platform Module (TPM) and Sealed Storage”*. TPM Documentation. June 21st, 2007.
- Behrouz A. Forouzan. 2008. *“Cryptography & Network Security”*. New Delhi: Tata McGraw-Hill Publishing Company Limited.

## Cyber Security and Associated Laws

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### **Abstract**

*Cyber security is an essential consideration to Information Technology as well as to Internet services. We need to focus on various threats that exist in online world dealing with the importance of cyber security and laws related to it. Whenever we think about cyber security, the first thing that clicks to our mind is 'Cyber Crime' and protecting our data is an important article. With an exponential growth the number of cyber-attacks in last few years has increased, the demand for strict compliance and security has increased to confidential data across sectors, such as government, military, public data, service insurance, IT and telecom, manufacturing service, etc. This paper centralise the major cyber-crimes against society, government, property and associate with various laws and acts to protect the grandeur of our nation.*

*Keywords: Cyber Security, Cyber Threats, Cyber Laws, etc.*

### **Introduction**

Crime is both a social and economic phenomenon. It is as old as human society. Many ancient books right from pre-historic days, and mythological stories have spoken about crimes by individuals be it against another individual like ordinary theft and burglary or against the nation like spying, treason etc. Kautilya's Arthashastra written around 350 BC, considered to be an authentic administrative treatise in India, discusses the various crimes, security initiatives to be taken by the rulers, possible crimes in a state etc. and also advocates punishment for the list of some stipulated offences. Different kinds of punishments have been prescribed for listed offences and the concept of restoration of loss to the victims has also been discussed in it. Crime in any form adversely affects all the members of the society. In developing economies, cybercrime has increased at rapid strides, due to the rapid diffusion of the Internet and the digitisation of economic activities. Thanks to the huge penetration of technology in almost all walks of society right from corporate governance and state administration, up to the lowest level of petty shop keepers computerizing their billing system, we find computers and other electronic devices pervading the human life. The penetration is so deep that man cannot spend a day without computers or a mobile. Snatching some one's mobile will tantamount to dumping one in solitary confinement! Cyber Crime is not defined in Information Technology Act 2000 nor in the I.T. Amendment Act 2008 nor in any other legislation in India. In fact, it cannot be too. Offence or crime has been dealt with elaborately listing various acts and the punishments for each, under the Indian Penal Code, 1860 and quite a few other legislations too. Hence, to define cyber crime, we can say, it is just a combination of crime and computer. To put it in simple terms 'any offence or crime in which a computer is used is a cyber crime'. Interestingly even a petty offence like stealing or pick-pocket can be brought within the broader purview of cyber crime if the basic data or aid to such an offence is a computer

or an information stored in a computer used (or misused) by the fraudster. The I.T. Act defines a computer, computer network, data, information and all other necessary ingredients that form part of a cyber crime, about which we will now be discussing in detail. In a cyber crime, computer or the data itself the target or the object of offence or a tool in committing some other offence, providing the necessary inputs for that offence. All such acts of crime will come under the broader definition of cyber crime.

### **Background and Significance**

Internet does not identify the boundaries of Nations and States .It works with enormous speed equally for virtue and Sin. The giant size, enormous speed with prevalence of anonymity is responsible for making it as a sword in the hands of technically proficient Criminal Minds. The nature of crime is becoming multinational and law of any single nation is helpless to apprehend miscreants.

Concept of any crime starts from its elements definition and ends in its punishment and prevention. Today law and Technology are working together to create a standard framework for defining various Cyber crimes, their jurisdiction, ways of Investigation, authentication of evidences and preventive measures. But there is lack of uniformity. In the present study we will discuss weaknesses of current international efforts done in this regard.

There are difficulties in defining cyber crimes due to their constantly changing & dynamic nature. Jurisdiction views also differ from country to country .The liability to investigate a crime is uncertain .There are no any particular criteria [like citizenship of offender / place of crime / effect of crime] which can fix liability of investigation on any particular country or government. Even there are differences in rules of evidence. There are geographical limitations on investigating agencies. It is mandatory to overcome these lacunae to triumph over the challenge of these transnational crimes. The present study is to compile all challenges present in dealing with transnational cyber crimes.

### **Causes of Cyber Crime**

Cyber criminals always choose an easy way to make big money. They target rich people or rich organizations like banks, casinos and financial firms where the transaction of a huge amount of money is made on an everyday basis and hack sensitive information. Catching such criminals is difficult. Hence, that increases the number of cyber-crimes. Computers are vulnerable, so laws are required to protect and safeguard them against cyber criminals. Following are the reasons for the vulnerability of computers:

- 1. Easy to access** – The problem behind safeguarding a computer system from unauthorized access is that there are many possibilities of breach due to the complex technology. Hackers can steal access codes, retina images, advanced voice recorders etc. that can easily fool biometric systems and bypass firewalls can be utilized to get past many security systems.
- 2. Capacity to store data in comparatively small space** – The computer has the unique characteristic of storing data in a very small space. This makes it a lot easier for the people to steal data from any other



storage device and use it for their own profit.

3. **Complex** – The computers run on operating systems and these operating systems are programmed of millions of codes. The human mind is imperfect, so they can do mistakes at any stage. The cyber criminals take advantage of these gaps.
4. **Negligence**– Negligence is one of the characteristics of human conduct. So, there may be a possibility that protecting the computer system we may make any negligence which provides a cyber-criminal the access and control over the computer system.
5. **Loss of Evidence**– The data related to the crime can be easily destroyed. So, Loss of evidence has become a very common & obvious problem which paralyzes the system behind the investigation of cyber-crimes.

### Types of Cyber Crime

Cybercrime can be committed in 2 ways- one in which the computer is the target of a cyber-attack, and the other in which the computer is used to commit a cybercrime against any person or entity. Cybercrime in India is categorised into four types which include:

**Cybercrime against a person:** This type of cybercrime is committed against a person using an electronic domain as a medium.

Cybercrime against a person includes:

1. **Cyber stalking:** Generally, the term 'stalking' means, repeated acts of harassing someone. Whereas, Cyber stalking is online harassment when a person is stalked using the internet as a medium. Generally, the stalker is aware of the victim or gains knowledge about victim's family and their activities, instead of stalking them in reality, the stalker keeps a track of a person's online activities to stalk the victim. A Stalker can use the internet, emails, SMS, webcams, phones calls, websites or even videos to harass his target.
2. **Hacking:** Hacking means getting an unauthorised access to someone's personal information stored in a computer system without the permission of either rightful owner of the computer or person in charge of that particular system for illegal gains or misuse. Every act committed towards breaking into a computer system and /or network is hacking. Hackers get access to the user's personal and sensitive information. They can also monitor every online activity of a person like logging in credentials added, banking transactions made, etc.
3. **Cracking:** Crack generally refers to the means of achieving software cracking. Cracking refers to digitally removing the Copyright protection code which prevents copied or pirated software from working on computers which do not have the software vendor or owner's authorisation. The person who is involved in such activity is different from a hacker and is known as a cracker. Cracker uses his knowledge to break the cyber law and tampers with the computer.
4. **Defamation:** Online or cyber defamation involves damaging someone's reputation in the society using a

computer or the internet as a medium. This is done by writing a derogatory statement about a person on social media, posting vulgar pictures or videos, sending derogatory E-mail to the victim's friends etc.

5. **Online Fraud:** Online fraud is one of the most common types of cybercrime. It involves stealing a person's sensitive information like banking credentials by using phishing sites and withdrawing money from victim's account. Online lottery scams are also rampant these days, one such example is the Nigeria lottery scams.
6. **Dissemination of Obscene Material:** It includes distribution of obscene materials or pornography on social media. It includes hosting of websites containing pornographic material which tends to deprave or corrupt the minds of individuals.
7. **Child pornography:** Circulation of any material that tends to deprave the mind of the minor children is also a cybercrime. It involves the use of electronic devices to create, distribute or access material which is obscene in nature and tend to corrupt young minds.
8. **Spoofing:** Spoofing involves misrepresentation of the origin of any data. While an Email/SMS is generated from one source, it shows that it has been generated from another. Cyber criminals use this means to get personal information of the user like bank details, etc.
9. **Phishing:** It involves sending spam emails to the user while claiming to be an established enterprise in order to obtain his personal information.

#### **Cyber Crime against property:**

Cybercrime against property is committed using an electronic device as a medium. Here, the property does not mean any immovable property but includes movable and intangible property like computers, Intellectual Property, etc.

#### **Different cybercrimes against property are:**

1. **Transmitting virus:** A computer virus is a malware programme that infects files, disk drives, and computer programmes. Programmes that multiply like viruses and spread from computer to computer are called 'worms'. Virus, Worms, Trojan Horse, Timebomb, Logic Bomb, Rabbit, and Bacterium are some examples of malicious software that infect the computer.
2. **Cyber-squatting:** Cyber-squatting is when two or more persons claim the same domain name. Squatting is unlawfully occupying an uninhabited place. The hacker claims that he was the first one to use the domain name before the actual owner of the domain name.
3. **Cyber Vandalism:** It involves the destruction of data on any electronic medium during the period when the network service is not available.
4. **Intellectual Property Crimes:** IPRs are intangible property rights. IPR thefts are the most common cybercrime in India and include online piracy, software piracy, infringement of patents, designs,

trademark, copyright, theft of source code, etc.

### **Cyber crime against Government:**

The government of a country may become the target of a cybercrime. A cybercrime against a government is committed to threatening the unity, honour, and security of the target country. Cybercrime against government includes:

- 1. Cyber Warfare:** Cyber warfare is an Internet-based war conflict wherein the cybercrime is politically motivated. It can disable official websites and networks, disrupt essential services such as Internet connection, steal classified data such as Sensex details and break down sensitive data like the payment gateway.
- 2. Cyber Terrorism:** It is an act of creating fear in the mind of people by using the internet as a medium. Section 66-F of the Information Technology Act, 2002 deals with Cyber Terrorism.

### **Cyber crime against society:**

When a cybercrime is committed against numerous individuals, it is known as cybercrime against society. Cybercrime against society include:

- 1. Online Gambling:** Gambling is prohibited in India under the Public Gambling Act, 1867. Online gambling is illegal all over India, except in Sikkim.
- 2. Cyber Trafficking:** Trafficking involves dealing in illegal trade activities such as human trafficking, slaves.

### **Laws related to Information Technology**

- **Section 43** –Penalty and Compensation for damage to computer, computer system, etc (Related Case: Mphasis BPO Fraud: 2005)
- **Section 65** –Tampering with Computer Source Documents (Related Case: Syed Asifuddin and Ors. Vs. The State of Andhra Pradesh)
- **Section 66**–Computer Related offenses (Related Case: Kumar v/s Whiteley)
- **Section 66A**–Punishment for sending offensive messages through communication service
- **Section 66C** –Punishment for identity theft
- **Section 66D** –Punishment for cheating by impersonation by using computer Resource
- **Section 66E** –Punishment for violation of privacy
- **Section-66F**- Cyber Terrorism
- **Section 67** –Punishment for publishing or transmitting obscene material in electronic form
- **Section 67B**– Punishment for publishing or transmitting of material depicting children in sexually explicit act, etc. in electronic form
- **Section 69** – Powers to issue directions for interception or monitoring or decryption of any information

through any computer resource.

### **Conclusion**

To sum up, though a crime-free society is Utopian and exists only in dreamland, it should be constant endeavour of rules to keep the crimes lowest. Especially in a society that is dependent more and more on technology, crime based on electronic offences are bound to increase and the law makers have to go the extra mile compared to the fraudsters, to keep them at bay. Technology is always a double-edged sword and can be used for both the purposes – good or bad. Steganography, Trojan Horse, Scavenging (and even DoS or DDoS) are all technologies and per se not crimes, but falling into the wrong hands with a criminal intent who are out to capitalize them or misuse them, they come into the gamut of cyber crime and become punishable offences. Hence, it should be the persistent efforts of rulers and law makers to ensure that technology grows in a healthy manner and is used for legal and ethical business growth and not for committing crimes.

### **References**

- <https://www.google.com/search?q=cyber+security+laws&oq=cyber+security+laws&aqs=chrome>
- <https://www.google.com/search?client=ms-android-xiaomi&sxsrif>

## Digital Innovation and Hindrances in Indian Industry

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### **Abstract**

*With the evolution of digital era, the entanglement of people with the digital technologies had been proved to be an integral part of their lives whether it be professional or personal life. With the emergence of digital innovation in the field of corporate world a new digital wave has been observed to create a value-based information for profitable revenues with the combination of digital information and physical resources. This creation of value has a great impact on customer satisfaction, industrial productivity and overall economic growth which serve to be the key factors for any country to take a league in such a ever changing competitive world. The prime objective of our study is to analyse why Indian industries are left behind in the fast pace of digital revolution and what are the bottlenecks of Indian industries that abstain them from attuning Digital Innovation. Along with this we intent to provide professional imperative solutions that will enhance the benighted current scenario of the Indian Industries.*

*Keywords: Digital Technologies, Innovations, Information, Digital Revolutions, Indian Industries.*

### **Literature Review**

Digital Innovation is a means to revolutionize the pre-existing technology in a way to enhance its overall effectiveness and to increase the workforce efficiency. New digital technologies like social media, mobile and analytics are advancing rapidly on the economic landscape. These innovations are used widely by consumers and employees alike. Facebook alone has more than one billion users, and there are more than six billion mobile phones.<sup>1</sup>

A daunting challenge that enterprises face today is how to design and diffuse innovations to effectively tap into local demand in emerging country markets. Although extant literature focuses on the dominant innovation models of multinational enterprises from developed countries, little attention is directed to carefully examining the alternative models of innovation offered by local players from emerging markets.<sup>2</sup>

The need to imbibe digitalisation in the Indian industries is eminent, as no industries can survive and aim to thrive in this post globalisation era without adapting to these changes. According to 3The industries should aim at providing following features to increase digital inclusion-

- **Mobile-first:** to capitalize on the increasing mobile penetration and falling cost of accessing the internet on mobile
- **Regional languages:** to cater to a diverse and multi-lingual user base in a language familiar to them
- **Voice-enabled:** to ensure that even those who are unable to operate a mobile phone can be included in the fold.

- **Assisted mode:** to support and assist familiarizing of technology for first-time users
- **Lowest tech:** to ensure that simple and uncomplicated technology is offered to as many individuals as possible
- **Offline inclusion:** to ensure that remote places with limited connectivity have 'centres' that offer digital payments, financial, and e-governance services

With 1.2 billion mobile connections, 1.23 Aadhar enrollments, 612 million unique bank accounts, 560 million internet users, and 375 million social media users, India has set a solid foundation for a hyper-connected future. The model followed in the Indian market has been to acquire, manage, retain, and then monetize users. On the back of data-driven actionable insights and reduced customer acquisition costs, this model has given a fillip to how new-age digital companies and programs are operating in India. As we step into the future, we must balance development, innovation, and access with privacy as well.

### **Discussion**

Building workforce efficiency and enhancing existing technology to suit the needs of the dynamic industrial environment is the gist of digital innovation. With the advent of digital technologies, the industries have witnessed digital transformation by utilizing the digital resources to their fullest potential.

The need for digital innovation becomes a dominant concern when it comes to conquering global competition and attaining customer satisfaction.

With the aggrandizing customer expectations it can be certainly stated that only those industries which will make an attempt to be digitally transformed will be able to make a close connection with customers. This act of transformation will help provide more satisfaction to customers as it will include better interaction with them, good after sale service, timely updates, effective response to customer queries and grievances.

The world is growing rapidly and so is competition. And after globalization the competitive edge for the Indian industries is on elevation. The Indian industries are banging to compete with the top leading industries of the world. So the need of the hour is that Indian industries need to understand that change and innovation goes hand in hand and without this they can't be at par with the fast leading global industries.

Today only those industries which take an initiative to get digitally transformed will have an edge over other industries and tomorrow only these industries will be on the verge of success.

### **Types of Digital Innovations**

#### **1. Artificial Intelligence and Machine Learning.**

Artificial Intelligence and Machine learning is one amongst the most popular Digital Innovations which is been widely discussed in technology and business circle. AI is the contrivance and development of computer system being able to perform tasks normally which usually require human intelligence such as visual perception, speech recognition, decision-making, and translation between languages

AI has a great role in reversing the downfall of industries into exaltation. It enhances production chain and offers huge advantage over traditional automation. It allows industries to delegate the low value-added tasks of the workers to AI and assign workers with the main result oriented tasks. AI contributes in profitability by reducing redundancy and overlapping costs.

Though this technology is at its early phase but more and more companies are willing to make investment in this field of technology

With the high trend of Digital innovations. We are connected to these devices in our daily lives in one way or another. May it be Siri, Alexa or Watson.

- SIRI: A professional assistant offered by Apple in iPhone and iPad is one of the most recognized AI application. She has a friendly female voice which interacts with its users on daily basis and is efficient enough to find information, get directions, make voice calls, open application and many more. In order to get smarter and capable of understanding various language questions and requests it is bound to use machine-learning technology. It is an AI innovation in the telecom industries
- TESLA: One of the most freaking AI innovation in the field of automobiles that is capable enough to grab attention of customers who are a car geek. This car has been successful enough to achieve many accolades and has features like self-driving, predictive capabilities and absolute technological innovation.
- PANDORA: It is a kind of internet radio that has the ability to provide you with a list of songs that best suits your choice and uses ingenious algorithms to automatically play those songs which you may like on the basis of your previously played song. It is an AI automation in the field of music.

## 2. Big Data Analytics

It is a complex process which involves usage of predictive models, various software's and statistical algorithms where in large and varied data is collected from various sources and then is examined and analyzed in order to abstract hidden patterns, unknown correlations, market trends and customer preferences which in turn help an organization to make practical business decisions.

Industries using big data analytics come in for new revenue opportunities, are in a better position to gain competitive advantage over rivals, are able to render better customer services and are able to foresee future trends and changes and formulate appropriate plans to sustain in such a competitive and dynamic world.

Various sources of big data analytics are:

- LOYALTY CARDS: In this each time when you use a credit card or a loyalty card while purchasing your data is tracked as well as stored which is further used by retailers to make out which product is in trend and what kind of customer base that product is having.
- SATELLITE IMAGERY: Satellites placed 250 miles above our planet provides a lot of information to the companies on the basis of something that is visible from the sky. This worldwide data is now publically

available due to advent of latest technologies like Google maps, Google earth etc.

- **SOCIAL MEDIA:** Large part of Global population is in one way or another connected to various social networking platforms. All the personal information and our activities online are keenly observed and analyzed to collect data and forecast future certainties.

### 3. AR & VR

Every trend has a basic nature - it changes. and so is the case with trends in technology since last 5-6 years the focus on AR and VR has been increased in a significant way.

AR refers to augmented reality and we are referring to virtual reality. Augmented reality makes the world we see much more entertaining and user friendly. In augmented reality the components of digital World blend into a person's life in real world, not just as simple display of data but an accurate 3D mixture of virtual and real objects generally and digital elements to any live view by using smartphones camera.

Virtual reality is a concept by which a person can completely shut out the physical world and can get completely immersed in various kinds of imaginary environments like in middle of a lions find, under sea life, et cetera. With virtual reality, we can enter in an environment, and move around and look in any direction- up, down, sideways, behind, as if we are physically present there. AR and VR is a medium that changes the way we look at the world.

### 4. CLOUD COMPUTING

The word cloud computing is made up of two words cloud and computing. Here cloud solutions for internet, so the phrase cloud computing means type of internet-based computing.

Cloud computing is a way of providing services through a network with the introduction of cloud computing, user can access files in data from any device that can access internet. In this can send files in data is saved in a ground on a virtual space rather than any local storage device. Cloud computing is a very helpful and beneficial option for people as well as other ways industries as this the user does not need to be in a specific place to gain access to data.

#### Advantages of Digital Innovations to the Industries

- 1. Growing the markets:** Use of technology and digital innovation helps the micro enterprises to compete on a global level innovation such as internet allows an enterprise to reach to a large number of public providing him with better growth opportunities and customers with wider choices.
- 2. Interacting customers in real time:** There are certain businesses like transport industry, airline companies, etc. which needs to communicate with large number of customers during a single day. So in this case AI powered apps can be used to interact with customers, send travel information and providing travellers with real-time updates like estimated arrival time.
- 3. Reduction in costs:** Every business follows the process of cost cutting with innovation the business costs



can be kept to a minimum level. As the use of automation increases, a micro enterprise can reduce its dependence on human beings, which will result in reduction in the cost of the enterprises.

4. **Elimination of problem of server failure:** In any business, server failures can happen anytime and can be proved pretty disastrous. Service failures can result in companies coming to work complete standstill and losses can be significant. However, introduction of cloud computing totally eliminated the issue of server failure.
5. **Ability to predict outcomes:** With digital innovation an enterprise can predict the outcomes on the basis of the data analysis. It helps in knowing whether a particular product is being liked by a customer or not. And predicting the time or season when the demand of a particular product is expected to increase or decrease helps a lot. This process helps enterprises to alter the production according to the demand of the product, does saving both the time as well as their money and helping the enterprise to work in an effective and an efficient manner.
6. **Getting timely information:** The world is growing really rapidly and so is competition. To get success in this highly competitive world, being well informed and getting that information at correct time is very important. With digital innovation, the data processed and derived from daily activities and transactions, computer software can let a person quickly access the data thus saving the time of the employee and eliminating any chances of errors.

#### **Challenges in the way**

1. **Low Research and Development Expenditure:** The expenditure needed to finance Research and Development projects are massive and government can only allocate a small part of budget towards these projects. Thus, the investment in R&D are usually low and it becomes a hindrance in overall growth of Indian industries and they are unable to become the first movers on global scale.
2. **Lab to Land time:** The time expended to diffuse the new innovations in the market becomes a constraint for Indian industries as the time lag is usually high. The delay in processing time causes a diminution in the overall value that the innovation could have generated.
3. **Biasness in Decision Making:** Countless Innovations are introduced every year by each market player and government and private enterprises cannot invest in all these innovations. Thus, they have to choose among the various alternatives available and this is where corruption kicks in. The decision taken is usually biased in favour of the top market player. Therefore the 'required' innovation is replaced with 'redundant' innovations.
4. **Low Digital Literacy:** Digital Innovations are flooding the global market and each year more and more innovations are introduced. But the problem arises when the ultimate customer doesn't know how to use these innovations in their daily routine. The acceptance of these innovations is a major threat to industries.

- 5. Slow and Delayed Digital Infrastructure:** India is heading towards the verge of becoming a digital economy. But the biggest challenge faced by India is slow and delayed infrastructure. India is lacking behind in providing even the basic necessity like high speed uninterrupted data services, neither in urban areas nor in rural areas. The lack of digital infrastructure poses a big threat to the Indian economy as it becomes a hindrance as we move to industry 4.0.
- 6. Fear of cybercrime:** Crime is the biggest loophole of any system. Likewise, in the path of digital innovation, crime is one of the main hurdles. People now a days are not ready to accept new technologies and new ways of doing things as they fear that they may become a victim of cyber-crime and that their traditional ways of doing the things are the appropriate ones. With growing technology and enhanced skills anyone can access the data of the customers and then use that data for further fraudulent activities.

## **SOLUTIONS**

- 1.** The need of the hour is to promote 'Public Private Partnership'. Huge cost is incurred on Research and Development projects and only a fraction of budget is allocated to these projects. Therefore private enterprises should show active participation in financing such research. This will enable Indian industries to become the first movers in the global market and will allow them to be at par with the competition.
- 2.** From automobile to smartphone, every industry is a part of the innovation process to become more cost effective and work efficient. This enables them to innovate and bring new digital innovation in the market. Therefore 'Innovation Fairs' should be organised for each sector of economy wherein all the innovations and reforms gets equal opportunity to be showcased and promoted and be accepted by other market players to provide the paramount service to the society.
- 3.** The cost incurred to initiate a new innovation in the market is mammoth and thus not every innovator can kick off their innovation directly in the market. The need to promote 'test marketing' is therefore paramount. It involves testing the innovation on a small scale market and allows the innovator to learn about the positive and negative aspects of the product before it is launched in the market.
- 4.** To proselytize the concept of digital literacy and to encourage customers to become well versed with it, workshops should be promoted at micro and macro level. Workshops should be arranged at schools, offices, universities and rural areas to boost the overall digital literacy rate.
- 5.** To set up a team of intellects and ethical hackers at micro and macro level to deal with cyber-crimes and battle cyber bullies In order to protect and safeguard the interest of every customer and industrialists.

## **Conclusion**

With advent of globalisation every country in the world is open to global market competition and only those industries will survive and thrive who are ready to change to the dynamic scenario, adapting the new changes and innovations being introduced in the industry. Indian industries are also in running to become the largest

economy in the world, and in order to realize this dream they need to enter the mainstream and evolve accordingly. The gap between the nation we are and the nation we want to be can only be bridged by digital innovations and digital evolution. The digital era will enable industries to revolutionize their existing technologies and allow them to be at par with the competition. The great leap towards becoming a new nation can be realised in this industrial era- Industry 4.0 with digital innovations acting as a means to the end, the end being a revolutionized India.

The industries have to cope up with the rapid changes occurring in digital trends and innovation. Only those companies that are effective in delivering digitally instrumented products and services will be able to gain competitive advantage over its competitors.

The big revolution in industries will be marked with dawn of digitalisation and will move towards providing a better and optimised digital experience for its customers. Internet of things, augmented reality, Virtual Reality, Big data are amongst the forces that drive companies to grow and evolve as these changes affect the mind-set of customers to accept new reality of modern world.

The vision of digital India is grand. The era of digitalisation is the next revolution. The need of time is to promote digitalisation at the floor level. Digital innovation have resulted in economic growth business productivity and has created an interactive source of platform in virtual world.

## References

- Westerman, G., Tannou, M., Bonnet, D., Ferraris, P., & McAfee, A. (2012). *The Digital Advantage: How digital leaders outperform their peers in every industry*. MIT Sloan Management and Capgemini Consulting, MA, 2, 2-23.
- Christensen, C. M., Hang, C. C., Chai, K. H., & Subramanian, A. M. (2009). *Editorial managing innovation in emerging economies: an introduction to the special issue*. *IEEE Transactions on engineering management*, 57(1), 4-8.
- Manav Seth (2019, August 16). *Digital innovation in India*.
- NITI Aayog (2018, November). *Strategy for New India @75*. Retrieved from [https://niti.gov.in/writereaddata/files/Strategy\\_for\\_New\\_India.pdf](https://niti.gov.in/writereaddata/files/Strategy_for_New_India.pdf)
- IEC group of institutions (2018, January 30). *DIGITAL INDIA: OPPORTUNITIES & CHALLENGES*. Retrieved from <http://iec.edu.in/blog/digital-india-opportunities-challenges/>
- Nylén, D., & Holmström, J. (2015). *Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation*. *Business Horizons*, 58(1), 57-67.
- Barrett, M., Davidson, E., Prabhu, J., & Vargo, S. L. (2015). *Service innovation in the digital age: key contributions and future directions*. *MIS quarterly*, 39(1), 135-154.

## Digital Payment System in Banking: An Innovative Ethical Practice

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### Abstract

*Banking system has evolved over the period of time. There has been great transformation in its functioning. Traditional banking system grew, developed and became matured in last century. Simultaneously information processing technique became digitalized. Digital era brought revolutionary changes in banking transaction. During last two decades new banking system evolved. This is called core banking which uses ICT tools for data processing and data transmission. Core Banking Solution (CBS) helped bank customers in operating their bank accounts from anywhere, anytime. Recently RBI introduced new concept of banking in form of Payment Banks. The central bank has initiated to issue license to private company for operating Payments Bank. The new payment methods like Card payment, NEFT, RTGS, M-Banking, Internet banking, UPI, etc. been developed. Performing banking transaction has become much easier for customers. Traditional wallets have been replaced by M-Wallets. Banking is now available on fingertip. Customers need to have digital literacy and financial literacy for using these new digital payment methods. This paper discusses some of important digital payment methods highlighting their usage, growth and development during last decade and also a short analysis of effect of demonetization on banking transactions in India and how these digital payment methods are proving to be a roadmap to cashless India.*

*Keywords: Core Banking Solution, M-Banking, M-Wallets, NEFT, UPI, Payment Bank, Digital literacy, NPCI, Demonetization, Cashless India., etc.*

### Introduction

The traditional banking system in India started in eighteenth century. Banking system developed in 19th century and got matured in 20th. With the advancement in ICT (Information and Communication Technology) tools, data processing and data transmission became easier. Thus, banking system in India got radical change in its functioning in 21st century. This new system of banking was called Core (CBS) Banking. Core banking has changed the concept of banking from Banks' Customers to Customers' Banks'. Now customers can move from one bank to another very easily if they are not satisfied with their present bank. Thus, customers became the king. In India, digital banking system has grown at faster rate in last decade. Bank customers are adopting digital method for making various types of payment. Indian Central bank, RBI has been promoting CBS system in banking. Banks have cooperated in promoting digital payment by simplifying the mode of making payment. Indian government is trying to motivate the citizens for using digital mode of payment. For this purpose, government established National Payment Corporations of India (NPCI) which works as an umbrella organization for cooperating all banks for digital payments all over India. Digital payment method uses digital

technique to transfer fund from payer to payee. It is simple, instant and 24x7 payment method. There is no requirement of hard cash. Various payment method are RTGS, Cards, NEFT, IMPS, PPI (Prepaid Payments Instruments) - m-Wallets, Mobile Banking, UPI, AEPS (Adhaar Enabled Payment Service).

Present paper discusses only three methods of digital payment: NEFT, m-Wallet and Mobile-banking. These have become very popular method of making payment in recent years. NEFT stands for National Electronic Fund Transfer. It is Nation-wide payment system facilitating one-to-one transaction of funds. NEFT method can be used by individuals, firms and industry for electronic transfer of funds. M-wallet is another method of digital payment. It is a mobile-based platform. It provides the facility of transacting fund on a finger-tip. It helps businessman and individuals to receive and send money through mobile device. M-banking helps in doing banking from mobile device. It helps the bank customers to perform banking functions with the help of mobile by sitting at remote place.

### **Literature Review**

A lot of study has been made on digital payment method. Large numbers of literatures are available. Few of them has been included in our study.

**Baghla, A (2018)** in his study found that the move towards cashless economy will take much time to have completely cashless economy. The biggest challenge in front of government is the lack of knowledge and awareness among people and fear of loss of money by use of digital payment methods. to give a boost to digital payments to provide sustainable economic development to the country in the long run.

**Sagayarani D.** presented a paper in international conference on “Paradigm Shift in Taxation, Accounting. The author found that many people actually agree with the government on the usefulness of cashless economy as it helps to fight against terrorism, corruption and money laundering but main problem to achieve cashless economy are cybercrime and illegal access to primary data.

**Singh P. (2013)** in her study she found that the ability to carry out banking transactions through the Internet has empowered customers to execute their financial transactions within the comfort of their homes. Internet banking provides benefits both bankers and customers alike.

### **Research Objectives**

Following are the research objectives of this paper.

1. To illustrate the digital transformation in banking payment system.
2. To study the trend in digital payments through NEFT, m-Wallet and M-Banking.
3. To understand the trend in online payments before and after demonetization.

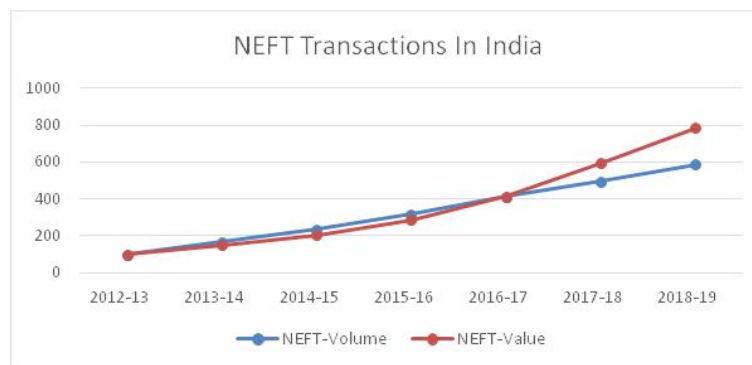
### **Research Methodology**

The paper is descriptive in nature to understand the trend in digital Payment method. The study is based on secondary data source. Data were collected from RBI website and other source. These data were classified and

processed. Trends of the payment method were obtained using basic statistical and mathematical tools.

## Result and Discussion

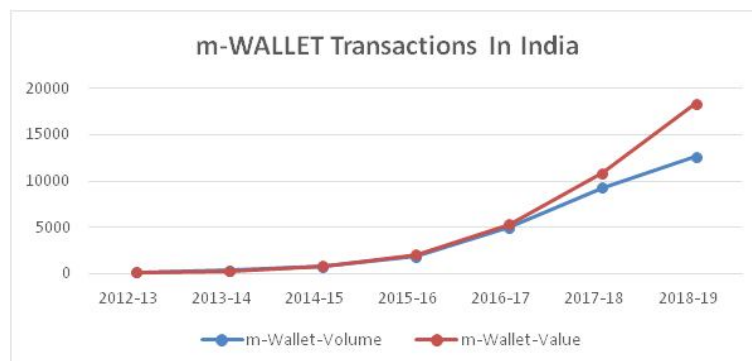
For the purpose of study of the digital payment methods and its progress, digital transactions over seven years from have been analyzed on the basis of data collected from RBI source. For this purpose, these data have organized, classified and summarized. Year 2012-13 has been taken as base year for making the study and indexation has been done. Further, graphs have been drawn to make inference. The effect of demonetization has also been included in this study. An effort has been made to investigate and compare the digital transactions in pre-demonetization and post-demonetization period. Following graphs show trend and inferences have been



elaborated.

Figure 1.1 Trend showing NEFT transactions in value and volume, Data source RBI, (For reference see table no. 1.1)

Figure 1.1 shows the growth in volume and value over past seven years. Figure shows that the number of transactions has continuously grown. Growth in value is showing an increasing trend. Total volume (number of transactions) is more than total value during 2012-13 and 2016-17. It means that NEFT transactions was performed was of smaller amount (value). Further during 2017-18 and 2018-19, total value of transactions has been more than total number of transactions. It means that more amount of money was transacted using NEFT



mode of digital payment.

Figure 1.2 Trend showing M-Wallet transactions in Value and Volume, Data source RBI, (For reference see table no. 1.2)

Trend of M-Wallet transactions shown in figure 1.2 indicates very poor growth during 2012-13 and 2014-15. But after year 2014-15, there is an exponential growth of m-Wallet transaction in both value and volume. It has grown at an increasing rate in recent years. It seems from above figures that users of m-Wallet have been transferring money of smaller denominations. Therefore, number of transactions are larger than their amount.

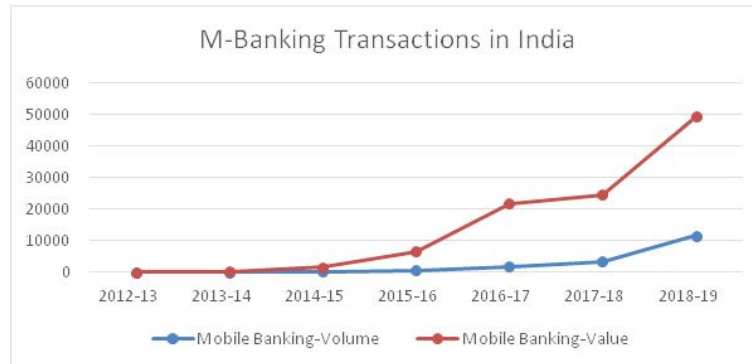


Figure 1.3 Trend showing M-Banking transactions in Value and Volume, Data source RBI, (For reference see table no. 1.3)

Figure 1.3 indicates trend of digital transactions through M-Banking in last seven years. M-Banking transactions were very poor during period 2012-12 to 2014-15. But after 2014-15, it showed highly exponential growth. During last four years, m-banking payment method showed an extraordinary growth. Graph also shows that value of transactions was very high as compared to volume of transactions. It means that people made payment in high denominations through m-banking mode of payment.

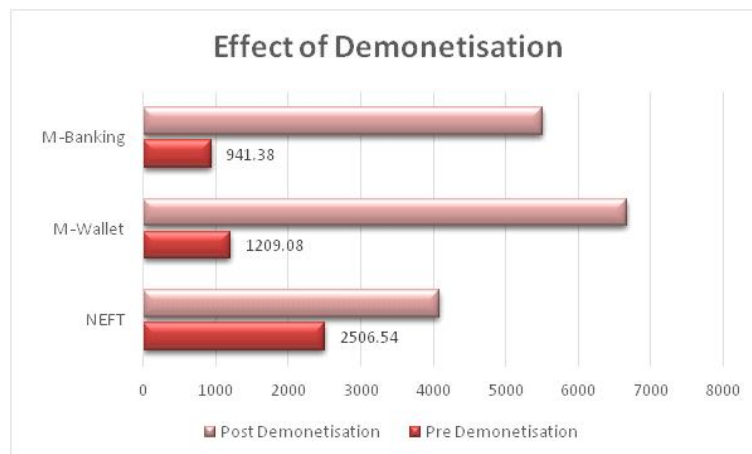


Figure 1.4 Showing Pre and Post effect of demonetization in Digital Payment (2 years)

Data source RBI, (For reference see table no. 1.4)

Figure 1.4 indicates the effect of demonetization on NEFT, M-wallet and M-Banking. Graph has been prepared by taking total value of transactions during pre-demonetization period (November 2014 to October 2016) and post-demonetization period (December-2016 to November-18). High growth is observed in M-

wallet and M-banking in which transactions were more than five times after demonetization. It was mostly due to various discount and cash-back offers in digital payment by various companies. After announcement of demonetization, Indian government ordered to banks to charge nil amount on various digital payment. People were lacking in the hard-cash. That is why people started to adopt digital payment. Outcome is clearly seen in above graph.

### **Findings**

The increase in digital transactions can be anticipated from the fact that demonetization affected the habit of paying through digital mode instead of hard-cash. There has been exponential growth in use of NEFT, M-Banking and M-wallet mode of payment in the last decade. One of most important point to be noted is that people are using these payment mode frequently but of smaller denominations (values). It may be due to fact that people may be afraid of paying high amount of money through digital mode. Another fact may be lack of digital literacy. It is evident from the above analysis that demonetization has considerably affected the payment habit of most of people in the country.

### **Suggestions**

From above discussion, following suggestions may be made which will help in increasing digital transactions:

- Citizens of the country should be made digitally literate.
- Digital frauds must be minimized. A strict law must be enacted to prevent these.
- Robust digital system must be developed.
- Transactions charges on digital payment must be minimized.
- Development of user-friendly environment in digital payment mode will enhance the digital transactions.
- Banks should create awareness among their customers about digital mode of payment.

### **Conclusion**

It may be concluded that NEFT, M-banking and M-wallet have emerged as an innovative practice of digital payment in India. These are ethical mode of payment because these help in reducing paper wastages and increasing transparency in payment. After demonetization various developments took place which again helped in increasing usage of digital mode of payments. Recently Paytm, PhonePe and other such companies are offering various discount and cash-back offers to their customers which encouraged customers to pay digitally. Banks have also reduced various transactions charges. These developments have increased digital circulations of money. India is progressing towards cashless economy at an amazing speed.

### **References**

- <https://rbi.org.in/Scripts/NEFTView.aspx>
- <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home>



- Baghla, A (2018); *A Study on The Future of Digital Payments in India*; IJRAR, Vol 5 Issue 4, Oct. – Dec. 2018; 85-89
- Sagayarani D. (e-ISSN: 2278-487X) *Journal of Business and Management*; PP 28-33
- Singh, P. (2013). *An Exploratory Study on Internet Banking Usage in Semi - Urban Areas in India*. *International Journal of Scientific and Research Publications*, 1-5
- Singh S. and Rana R, *Study of Consumer Perception of Digital Payment Mode*; *Journal of Internet Banking and Commerce*, December 2017, vol. 22, no. 3.
- Matthew NO Sadiku, Mahamadou Tembely, Sarhan M Musa: *Digital Money: Journal of Scientific and Engineering Research*, 2016, 3(6):113-115
- Saini. B. M, *Demonetization – Metamorphosis for Cashless India*, *International Journal of Science and Research*, 2015.

### List of tables:

Table no.-1.1

Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
NEFT-Volume	100	168	235	318	412	494	588
NEFT-Value	100	151	206	287	414	593	785

Table no.-1.2

Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
m-Wallet-Volume	100	329	780	1847	4983	9251	12654
m-Wallet-Value	100	291	818	2058	5324	10868	18365

Table no.-1.3

Year	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Mobile Banking-Volume	100	178	323	731	1832	3512	11619
Mobile Banking-Value	100	374	1728	6745	21874	24601	49357

Table no.-1.4

Method	NEFT	M-Wallet	M-Banking
Pre-Demonetization	2506.54	1209.08	941.38
Post Demonetization	4087.24	6675.67	5513.39

## Electronic Voting Machines in India: Challenging the Norms and Standards of Election Administration

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### **Abstract**

*Free and reasonable races are foundation of democracy, the utilization of Electronic voting machines for electorates has been being used since the 1960s when punch card frameworks appeared. The more current optical sweep voting frameworks enable a PC to check a voter's blemish on a vote. Coordinate Chronicle Electronic (DRE) voting machines which gather and arrange votes in a solitary machine, are utilized by all voters in all races in Brazil and India, and furthermore on an expansive scale in the Netherlands, Venezuela, and the Unified State, In India, electronic voting machines (EVMs) were presented with the goal of decreasing constituent extortion . In this study an attempt has been made to know about role of EVMs in state assembly elections, its advantages and disadvantages and to study its role of Technical Expert Committee on Electronic Voting Machines.*

*Keywords: Electronic Voting Machine, Advantages, Disadvantages, Expert Committee, etc.*

### **Introduction**

Democracy depends relies upon free and reasonable, exact, and straightforward constituent process with results that can be autonomously checked. Regular voting achieves a significant number of these objectives. Paper based polls give a checked result that can be re-tallied if essential. Be that as it may, "the exactness and security of appointive courses of action are vital to the imperativeness and validity of vote based system" taking note of "one thing is for sure; open trust in just decisions takes a very long time to create and flares to pulverize". The utilization of Electronic voting machines for electorates has been being used since the 1960s when punch card frameworks appeared. The more up to date optical sweep voting frameworks enable a PC to check a voter's blemish on a ticket. Coordinate Recording Electronic (DRE) voting machines which gather and arrange votes in a solitary machine, are utilized by all voters in all decisions in Brazil and India, and furthermore on an expansive scale in the Netherlands, Venezuela, and the United States, Internet voting frameworks have picked up prominence and have been utilized for government races and submissions in the United Kingdom, Estonia and Switzerland and in addition party essential races in the United States and France. As Nigeria think about the selection of electronic voting in favor of her voting framework, the security and believability of the framework has been an issue of open deliberation. Data innovation acquainted with appointive framework is a standout amongst other methods for having a dependable constituent framework, extortion free electronic voting and security cognizant framework. Without a solid, viable, subjective and blunder free methods for appointive process which is the "Electronic Voting Machine" (EVM) that check mate any demonstration of redirecting as well as controlling the certainties, its fundamental target can't be

accomplished. Electronic Voting Machine is the best device for tackling Nigeria's race issue. Electronic voting innovation can speed the checking of votes and can give enhanced openness to crippled voters.

### **Objectives of the Study**

- To study about the Electronic Voting Machines in India.
- To study about the Advantages and disadvantages of Electronic Voting Machines
- To study about the role of Technical Expert Committee on EVMs

### **Research Methodology**

For the purpose of the study, both published and unpublished secondary data as well as primary data has been utilized. Secondary data have been collected from various books, research papers and articles. In addition to this study, data have been collected from various journals also. The research is also based on the referred sources- published, unpublished and electronic.

### **Electronic Voting Machines in India**

The Electronic Voting machine has been attempted effectively in India where there was an enlisted voter populace of around 600 million individuals and 400 million individuals supposedly voted. It is recorded that when the machine was utilized without precedent for India, the restriction party won against the officeholder government which embraced the machine. The Electronic Voting Machine (EVM) that is being proposed for the Nigeria's 2007 General Elections, has an ongoing clock, which shows unmistakably when race begins and when race closes. It is said that no one can mess with it. The possibility of some individual going to utilize the machine previously or after the race is additionally expelled. The machine resembles a specific recording device that records everything and prints it precisely as it has happened. The EVM is likewise intended to catch the in excess of 30 enlisted political gatherings around then and give space to more openings in the occasion INEC acknowledges autonomous candidature. There is likewise arrangement for a circumstance where concurrent decisions can be held without a moment's delay. This implies the Presidential and governorship decisions can be held on the double, on a similar machine. The possibility of electronic voting is one that has been gotten with blended sentiments; and doubt. There is substantial dread that the framework can be controlled. There is additionally the issue of inescapable absence of education especially in the rustic zones. By what method will uneducated people know how to utilize the machine? These feelings of dread can't be rejected with a flood of the hard. The unmistakable ramifications of this is more work should be done to persuade the electorate that the framework won't and can't be controlled. Voter's training in such manner will likewise should be sought after with energy. Most importantly, great confidence with respect to the race executives ought to be certifiably appeared. In a few nations, history is covered with cases of races being controlled utilizing paper tally keeping in mind the end goal to impact their results. In 2004, India had received Electronic Voting Machines (EVM) for its races to the Parliament with 380 million voters had thrown their

votes utilizing in excess of a million voting machines. The Indian EVMs are composed and created by two Government Owned Defense Equipment Manufacturing Units, Bharat Electronics Limited (BEL) and Electronics Corporation of India Limited (ECIL). The two frameworks are indistinguishable, and are produced to the details of Election Commission of India. The System is an arrangement of two gadgets running on 6V batteries. One gadget, the Voting Unit is utilized by the Voter, and another gadget called the Control Unit is worked by the Electoral Officer. The two units are associated by a 5-meter link. The Voting unit has a Blue Button for each competitor, the unit can hold 16 applicants, however up to 4 units can be affixed, to suit 64 hopefuls. The Control Units has three catches at first glance, to be specific, one catch to discharge a solitary vote, one catch to see the aggregate number of vote cast till now, and one catch to close the decision procedure. The outcome catch is covered up and fixed; it can't be squeezed unless the Close catch is as of now squeezed. The Electronic Voting machine has been tried successfully in India where there was a registered voter population of about 600 million people and 400 million people reportedly voted. It is recorded that when the machine was used for the first time in India, the opposition party won against the incumbent government which adopted the machine. The Electronic Voting Machine (EVM) that is being proposed for the Nigeria's 2007 General Elections, has a real time clock, which indicates clearly when election starts and when election ends. It is said that nobody can tamper with it. The idea of somebody going to use the machine before or after the election is also removed. The machine is like a specialized tape recorder that records everything and prints it exactly as it has happened. The EVM is also designed to capture the more than 30 registered political parties at that time and provide room for more slots in the event INEC accepts independent candidature. There is also provision for a situation where simultaneous elections can be held at once. This means the Presidential and governorship elections can be held at once, on the same machine. The idea of electronic voting is one that has been received with mixed feelings; and suspicion. There is palpable fear that the system can be manipulated. There is also the problem of pervasive illiteracy particularly in the rural areas. How will illiterates know how to use the machine? These fears cannot be dismissed with a wave of the hand. The clear implication of this is that more work needs to be done to convince the electorate that the system will not and cannot be manipulated. Voter's education in this regard will also need to be pursued with vigor. Above all, good faith on the part of the election administrators should be demonstrably shown. In some countries, history is littered with examples of elections being manipulated using paper ballot in order to influence their outcomes. In 2004, India had adopted Electronic Voting Machines (EVM) for its elections to the Parliament with 380 million voters had cast their ballots using more than a million voting machines. The Indian EVMs are designed and developed by two Government Owned Defense Equipment Manufacturing Units, Bharat Electronics Limited (BEL) and Electronics Corporation of India Limited (ECIL). Both systems are identical, and are developed to the specifications of Election Commission of India. The System is a set of two devices running on 6V batteries.

One device, the Voting Unit is used by the Voter, and another device called the Control Unit is operated by the Electoral Officer. Both units are connected by a 5 meter cable. The Voting unit has a Blue Button for every candidate, the unit can hold 16 candidates, but up to 4 units can be chained, to accommodate 64 candidates. The Control Units has three buttons on the surface, namely, one button to release a single vote, one button to see the total number of vote cast till now, and one button to close the election process. The result button is hidden and sealed; it cannot be pressed unless the Close button is already pressed.

The Election Commission in India has experienced numerous progressions. Amid the initial two General Elections to the Lok Sabha in 1952 and 1957, every applicant was allocated a different voting booth stuck with the image of the hopeful. The names and images of the applicants were not imprinted on the vote paper and voters needed to drop a pre-printed tally paper in their preferred polling booth of the hopeful. This framework touched off feelings of trepidation of altering, stalls catching, and control in the brains of the different partners and was soon supplanted. In 1960-61, a checking framework on the ticket paper was presented amid the mid-term decisions to the Legislative Assemblies in Kerala and Odisha and this framework proceeded till the 1999 Lok Sabha races. Before presentation of the EVM, the pervasive Ballot papers were utilized to cast votes in the Indian Elections, with extensive achievement. The utilization of ticket papers was tedious, inclined to misbehaviors like corner catching and voting booth stuffing, huge number of invalid votes because of wrong/inaccurate stamping, subject to delayed checking drills, more debate and deferred result declaration other than being an eco-sensibly stressing and non-condition and well-disposed technique.

### **Advantages of Electronic Voting Machines**

1. In the greater part of the propelled rendition of electronic voting machines, there are no outside correspondence ways which make it troublesome for the programmers to hack the machine and alter the tally numbers.
2. Electronic voting machines with get in contact screen are ended up being worthwhile for the physically tested individuals. In a paper vote, these physically tested individuals were not ready to cast their votes in private. Be that as it may, with the new EVM set up, even crippled individuals can utilize their entitlement to vote in private.
3. Electronic voting machines are savvy and efficient. In the paper vote, the measure of crude material utilized is higher. It specifically impacts nature as paper ticket utilizes papers to cast votes. Be that as it may, the cost related with holding decisions with EVMs is thought to be insignificant.
4. The best thing about electronic voting machines is that they are continuous savers. With electronic voting machines set up, one can include the votes couple of minutes which makes life less demanding for the race officers on obligation. In a paper poll, the vote checking process is very monotonous and tedious.
5. Electronic voting machines are very successful against the sham votes. Electronic voting machines are

customized to catch a most extreme of five votes in a moment. Because of which a solitary vote can't cast counterfeit votes. Likewise, in few progressed electronic voting machines, a sound of beep comes after one makes their choice which tells the officer on obligation that the vote has been thrown by a person.

6. Electronic voting machines are planned in a way that they monitor number and subtle elements of votes recorded. The race commission can even spare the information for a more drawn out timeframe which may be useful for referencing in future.
7. In a to a great extent crowded nation where a large number of individuals turn out to cast their votes, the electronic voting machine functions as a ponder. In a paper ticket, it sets aside a tremendous measure of time for everybody to cast votes.
8. Electronic voting machines are less demanding to convey and transport starting with one place then onto the next with no issue. One single machine can record a few votes caught through that machine.
9. Scarcely any electronic voting machines likewise accompany a voice support to help the outwardly disabled voter. In such cases, the outwardly tested individual can make their choice with no issue.
10. In electronic voting machines one can see every one of the images and names of the hopefuls together which makes it less demanding for the voter to pick among the numerous and cast their votes.

#### **Disadvantages of Electronic Voting Machines**

Alongside the focal points, electronic voting machines are likewise famous for its abuse. There have been situations when individuals have blamed a specific part for EVM altering. We have scribbled down best ten impediments of utilizing electronic voting machines.

1. With late races in the United States, numerous product software engineers have asserted that the electronic voting machines are powerless against vindictive programming and on the off chance that it gets influenced then any programmer can hack the machine and can alter the vote checks effortlessly.
2. Numerous physically tested individuals have griped that the get in contact screen isn't sufficiently productive to catch the vote precisely. Some of the time it prompts the voter winding up voting in favor of another person accidentally.
3. In spite of the fact that it requires the investment to tally votes that were caught utilizing paper vote yet individuals completely believe the procedure as high innovation are likewise defenseless against programmer's assault.
4. The greatest change with innovation is that regardless of how much information it records however a solitary infection can annihilate the whole information stockpiling. The electronic voting machines which were utilized amid the races are vulnerable to harm which will bring about loss of information.
5. The very moist territory and those zones which get visit precipitation are not reasonable for throwing votes utilizing electronic voting machines. As machines are inclined to harm because of high mugginess level

along these lines utilization of electronic voting machines are not prudent in such regions.

6. A large portion of the electronic voting machines utilized as a part of the nation were outside fabricated, which implies the mystery codes that control the electronic voting machines are in remote hands and they can be utilized to impact the decision comes about.
7. Counterfeit show units could be introduced in the electronic voting machines which would indicate controlled numbers yet initially counterfeit votes could be created from the back end. This procedure does not require any programmer to hack the product. Such phony show units are effortlessly accessible in the market.
8. The greater part of the electronic voting machines utilized as a part of the nation don't have any system by which the voter can check their personality before making the choice because of which counterfeit voters can cast various phony votes.
9. The electronic voting machines likewise don't produce a slip affirm the competitor one voted post squeezing the catch. In these cases, it is simple for a criminal or a programmer to control the votes. On the off chance that the machines would produce such slips, at that point individuals could check if the quantity of votes caught by means of EVMs was in accordance with the subtle elements on slips got by the voter.
10. Electronic voting machines can be altered amid its assembling and in such cases; it doesn't require any programmer or malware to control the genuine voting.

#### **Role of Technical Expert Committee on EVMs**

Decision Committee of India has kept up an autonomous Technical Expert Committee to help assess particular specialized highlights, outlines and execution change of Electronic Voting Machines. The part of Technical Experts Committee has been to:

- Give specialized guidance to fabricate details and plan of more up to date forms of EVMs/VVPATs with the goal that they join most recent Technology both in Hardware and Software Design and Improving Robustness against altering
- Examine plan proposition of makers on EVMs and offer suggestions for development
- Mentor outlines process wherever inquired.
- Examine concerns raised on EVMs alter capacity.
- Any other exhortation that Commission may look for or whatever other specialized work that the Commission may endow every now and then.

#### **Conclusion**

As is clear, the EVM utilized as a part of Indian decisions have experienced a long voyage of development in the midst of difficulties and has risen as a powerful machine of appointive change throughout the years since its presentation. It has upgraded open certainty and also authenticity of Indian decisions according to the world.

- The Indian EVM remains as a standout amongst the most dependable, non-alter capable and straightforward machine among every such machine utilized as a part of different parts of the world. Indian EVMs have pulled in the consideration of numerous Afro-Asian nations moreover. Till date, nobody could really show that EVMs possessing ECI and utilized by it, can be messed with or controlled. What has been shown or asserted to have been exhibited is on a secretly amassed "resemble the other alike of ECI-EVMs" and not the genuine ECI-EVM utilized by ECI. As of late, on a claim of EVMs yielding votes in favor of just a single political gathering in Bhind (Madhya Pradesh) and Dholpur (Rajasthan), the ECI immediately led an enquiry which discovered that such charges were observed to be outlandish.
- Today, the ECI indeed totally reaffirms its confidence in the non-alter capacity of the EVMs of ECI in perspective of the specialized security highlights and the stringent regulatory conventions and procedural protections which are obligatorily to be taken after amid and after the surveys. All in all, it will be germane to allude to the decision of the Karnataka High Court in this regard, which watched that EVM in India is a "national pride" and the way that Indian Races are broadly universally recognized as the "Worldwide Best quality level".
- The Commission and discretionary framework partners have taken a cognizant choice that EVM is the correct response to the considerable undertaking of decision administration and the colossal strategic difficulties it tosses. The ECI trusts that once the VVPATs cover all the surveying corners in the nation, the certainty and straightforwardness will be additionally upgraded.
- The Commission solidly trusts that the presentation of VVPAT machines with the EVMs in every single future decision will acquire most extreme straightforwardness and validity the EVM-based voting framework in our nation and decisively put to rest all misled questions and doubts in regards to these machines. The Commission will dispatch a complete, purposeful and across the nation voter training and mindfulness program under its leader SVEEP activity, to teach, arrange and illuminate the voters about the working, utilization and favorable circumstances of the VVPAT machines and their gigantic utility in strengthening the straightforwardness, believability and legitimacy of the voting procedure. The Commission truly requests the participation and coordinated effort of all the crucial partners, especially the political gatherings, to hold delivers spreading mindfulness about the benefits of VVPAT machines. The Commission is sure that the community endeavors of the considerable number of partners in the discretionary procedure will prompt consistent changes in the constituent administration and make our framework more straightforward, participative, educated and solid.
- The Commission immovably has confidence in an open, productive and exhaustive exchange with every vital partner in the appointive procedure and the political gatherings are a basic partner of the



popularity-based building in the nation. Considering the current issues with respect to utilization of EVMs, the Commission offered to gather an All Gathering. The goal behind the said meeting is to encourage beat up exchanges and itemized consultations among the essential players in the appointive field on this fundamental issue, so all perspectives and counter-sees are put on the table and exploded straightforwardly and pertinently. The Commission truly requests the perspectives and recommendations of the different political gatherings on assist change in the appointive framework.

## References

- A. Aviv, P. Cern\_y, S. Clark, E. Cronin, G. Shah, M. Sherr, and M. Blaze. *Security evaluation of ES&S voting machines and election management system*. In *Proc. USENIX/ACCURATE Electronic Voting Technology Workshop (EVT)*, San Jose, CA, July 2008.
- Brunner. *Evaluation & Validation of Election-Related Equipment, Standards & Testing (EVEREST)*. Ohio Secretary of State, Dec. 2007. <http://www.sos.state.oh.us/SOS/Text.aspx?page=4512>.
- D. Bowen. *"Top-to-Bottom" Review (TTBR) of voting machines certified for use in California*. California Secretary of State, Aug. 2007. [http://sos.ca.gov/elections/elections\\_vsr.htm](http://sos.ca.gov/elections/elections_vsr.htm).
- Dr Bimal Prasad, "Electoral Reforms in India-Issues and Challenges" *International Journal of Humanities and Social Science Invention* ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714 [www.ijhssi.org](http://www.ijhssi.org) Volume 2 Issue 3 || March. 2013 || PP.01-05.
- Dr Nani Bath, "Role of the Election Commission of India in Strengthening Democracy in India" IPSA Paper No.1269, 2006.
- <https://www.ukessays.com/essays/politics/electronic-voting-machines-for-electorates-politics-essay.php>
- <https://www.worldblaze.in/advantages-disadvantages-of-electronic-voting-machines-evm/>
- R. Anderson and M. Kuhn. *Tamper resistance: A cautionary note*. In *Proc. Second USENIX Workshop on Electronic Commerce*, Oakland, CA, 1996.

## Impact of AI on Future Generations: A Conceptual Research Paper

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### **Abstract**

*This Paper examines the Impact of Artificial Intelligence on Future Economy and its different conditions. We model A.I. as the latest form of automation, a broader process dating back more than 200 years. Electricity, Internal combustion engines, and semiconductors facilitated automation in the last century, but A.I. now seems poised to automate many tasks once thought to be out of reach, from driving cars to making medical recommendations and beyond. How will this affect different types of economy. What about the negative consequences of A.I. humanity will face? Does it good to create more conflicts in world for the boost of economy? At the same time, risks in the form of further increases in inequality need to be addressed if the benefits from AI-based technological progress are to be broadly shared. The paper calls for a moderately optimistic outlook on the opportunities and risks from artificial intelligence, provided policy-makers and social partners take the particular characteristics of these new technologies into account.*

*Keywords: Artificial Intelligence, Future Economy, Technical Upgrade, etc.*

### **Introduction**

Artificial intelligence (AI) is a term used to describe machines performing human-like cognitive processes such as learning, understanding, reasoning and interacting. It can take many forms, including technical infrastructure (i.e. algorithms), a part of a (production) process, or an end-user product. AI looks increasingly likely to deeply transform the way in which modern societies live and work. Already today, smartphone smart assistants, such as Siri, perform a variety of tasks for users; furthermore, all Tesla cars are connected and things that any one of them learns are shared across the entire fleet. AI also matches prices and cars when one orders an Uber ride, and curates what social media offer to a user based on their past behaviour. With the rise of AI come the important questions of how much it will affect businesses, consumers and the economy in more general terms. Employees are increasingly interested in knowing what AI means for their job and income, while businesses are also keen to find ways in which they can capitalise on the opportunities presented by this powerful phenomenon. There is a global accord that AI technologies have the potential to revolutionise production and contribute to addressing major global challenges.

Over the last five years, there have been many projections of the numbers of jobs likely to be lost, gained, or changed by AI technologies, with varying outcomes and using various timescales for analysis. Most recently, a consensus has begun to emerge from such studies that 10–30% of jobs in the UK are highly automatable. Many new jobs will also be created. The rapid increase in the use of administrative data and more detailed information on tasks has helped improve the reliability of empirical analysis.

## **Impact on Jobs**

A two-year study from McKinsey Global Institute suggests that by 2030, intelligent agents and robots could replace as much as 30 percent of the world's current human labour. McKinsey suggests that, in terms of scale, the automation revolution could rival the move away from agricultural labour during the 1900s in the United States and Europe, and more recently, the explosion of the Chinese labour economy.

McKinsey reckons that, depending upon various adoption scenarios, automation will displace between 400 and 800 million jobs by 2030, requiring as many as 375 million people to switch job categories entirely.

## **Objective of the Study**

To find the Impact of Artificial Intelligence on Future Economy in terms of employment will be Positive or Negative.

## **Research Approach and Data Source**

This is a conceptual paper and hence used the conceptual framework. Further it has used only secondary data which has been collected from related research works, published books, journals, and reports of Various Studies and Experiments of Researchers and other authorized sources of data. The data so collected is further processed and then the analysis has been presented in this paper.

## **Impact of Artificial Intelligence**

Looking back on history, it seems reasonable to conclude that fears and concerns regarding AI and automation are understandable but ultimately unwarranted. Technological change may eliminate specific jobs, but it has always created more in the process.

AI is different because it can be applied to virtually any industry. When you develop AI that can understand language, recognize patterns, and problem solve, disruption isn't contained. Imagine creating an AI that can diagnose disease and handle medications, address lawsuits, and write articles.

It will eventually lead to less people on high expertise work as well as labour work that is facing unemployment problem in many urban areas.

In Past, consider the ATM. If you had to point to a technology that looked as though it would replace people, the ATM might look like a good bet; it is, after all, an automated teller machine. And yet, there are more tellers now than when ATMs were widely released. How can this be? Simple: ATMs lowered the cost of opening bank branches, and banks responded by opening more, which required hiring more tellers.

This piece suggests the positive outcome on this issue by taking a past example but we can't assume the same outcome on every industry or profession.

You may recall waking up one morning to the news that “47 percent of jobs will be lost to technology.”

That report by Carl Frey and Michael Osborne is a fine piece of work, but readers and the media distorted their 47 percent number. What the authors actually said is that some functions within 47 percent of jobs will be

automated, not that 47 percent of jobs will disappear. That's good news.

Here's another one: A January 2018 Accenture report titled "Reworking the Revolution" estimates that new applications of AI combined with human collaboration could boost employment worldwide as much as 10 percent by 2020.

Automation may not lead to declining employment in the areas that are most affected. However, evidence on the impact of automation on wages is less clear.

Moreover, there is evidence of a negative impact of automation specifically on employment and earnings of workers most directly substituted by industrial robots: low-educated and (to a lesser extent) middle-educated workers in manufacturing industries.

To simplify the analysis, Acemoglu & Restrepo (2018a) first analyse effects of technological change on workers considered as one group:

In the short run, AI substitutes labour in performing specific tasks that are automated. This can lead to job losses (displacement), reduce the share of income that flows to workers (compared to owners of capital) and falling earnings.

In a survey of U.S.-based manufacturers, almost three-fourths of them have not introduced new types of AI-related jobs into their companies, and only 20% have comprehensively re-evaluated job roles, titles, levels, and pay scales, in recognition of the need to attract employees with AI skills. But the authors note that this is changing quickly.

According to Genesys opinion survey, 1,001 employed Americans were asked about the current and future effects of AI in the workplace. Participants across industries were asked to select the three jobs most likely to be replaced by AI from among the following options: Accountant/Tax Preparer, Data Entry, Food Service, Insurance Underwriters, Manufacturing, Paralegal, Pharmacist, Retail/Checkout Clerk, Telemarketer, Transportation/Driver, and Other.

The results showed that U.S. employees working in education/training and doctor/nurse/caregivers were the least afraid that AI/bots would take their jobs within the next 10 years. Meanwhile, those in the media and those with assembly line/manufacturing jobs were the most afraid.

That's the word from Erik Brynjolfsson and Daniel Rock, with MIT, and Tom Mitchell of Carnegie Mellon University, who points out that the impact of machine learning, the self-programming, self-adjusting core of AI, on jobs, is iffy. "ML will affect very different parts of the workforce than earlier waves of automation," they state in a recent paper.

Many researches have been conducted on this unemployment issue of Artificial Intelligence. Some are positive and some are negative. We can't tell which one is false as all of them is backed by strong research, arguments and studies.

This type of research and studies exists tells in a way that Issue of Unemployment will exist. On which level, we can't fully predict that.

### **Suggestions**

It is likely that artificial intelligence will soon replace jobs involving repetitive or basic problem-solving tasks, and even go beyond current human capability. AI systems will be making decisions instead of humans in industrial settings, customer service roles and within financial institutions. Automated decisioning will be responsible for tasks such as approving loans, deciding whether a customer should be onboarded or identifying corruption and financial crime.

Organisations will benefit from an increase in productivity as a result of greater automation, meaning more revenue will generated. This thus provides additional money to spend on supporting jobs in the services sector. Ultimately, the key to success in this emerging environment is to be able to marshal and capitalize on AI capabilities to deliver more value and service to customers. Employees can play a vital role in identifying opportunities, training models and algorithms, and taking a leadership role in determining if the systems are delivering business value in an ethical way.

Jobs will be enriched and elevated by AI and machine learning, but the best jobs will be those created to employ AI that links customers to the services and products they need.

Economy will significantly boost by Implementing AI as it will increase its capacity of Production. Hence, GDP will increase. But some people have to look another direction for their jobs.

### **Conclusion**

Every Coin have two sides. Like the Coin, AI have its Pros and Cons. As a Growth, it is the biggest leap humanity will take in upcoming years or decades. Because AI have a power to change the way we perceive reality, can take over humanity and also destroy the world. But It is advancing day by day, although some consequences of AI related to Mental Health and Unemployment, we will truly face.

On the Other Side, We can HOPE for the Best.

But We Humans are not yet ready for AI. As We have many Other problems from terrorism to dangerous diseases, etc.

### **References**

- <https://www.iotforall.com/impact-of-artificial-intelligence-job-losses/>
- [http://www.europarl.europa.eu/RegData/etudes/BRIE/2019/637967/EPRS\\_BRI\(2019\)637967\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2019/637967/EPRS_BRI(2019)637967_EN.pdf)
- [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms\\_647306.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_647306.pdf)
- [https://cisse.info/pdf/2019/rr\\_01\\_artificial\\_intelligence.pdf](https://cisse.info/pdf/2019/rr_01_artificial_intelligence.pdf)

## Impact of Social Media on Marketing

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### **Abstract**

*From a marketing perspective, being able to distinguish your brand in a sea of competition is a difficult challenge. Your success as a marketer relies heavily on your ability to tell your story in a way that allows the consumer to relate to you, and your product. With the emergence of social media as a trusted marketing tool for businesses over the last decade or so, it comes as no surprise that these same social media channels now play an important role for small business owners. By providing a platform and a vehicle for messaging, social media marketers can now reach a wider more specific target audience with their products and services.*

*Keywords: Marketing, Social, Media, Marketer, etc.*

### **Introduction**

Social media marketing is a process that empowers individuals to promote their websites, products, or services through online social channels and to communicate with and tap into a much larger community that may not have been available via traditional advertising channels. Social media marketing connects service providers, companies and corporations with a broad audience of influencers and consumers. Using social media marketing companies can gain traffic, followers and brand awareness – and that's just the tip of the iceberg. Social media, most importantly, emphasizes the collective rather than the individual. Communities exist in different shapes and sizes throughout the Internet, and people are talking among themselves. It's the job of social media marketers to leverage these communities properly in order to effectively communicate with the community participants about relevant product and service offerings. Social media marketing also involves listening to the communities and establishing relationships with them as a representative of your company. As we will discuss later in this book, this is not always the easiest feat.

In essence, social media marketing is about listening to the community and responding in kind, but for many social media marketers, it also refers to reviewing content or finding a particularly useful piece of content and promoting it within the vast social sphere of the Internet. Social media marketing is a newer component of search engine marketing, but it is really in a class of its own. It does not relate only to searching; it relates to a broad class of word-of-mouth marketing that has taken the Internet by its horns. Fortunately, the phenomenon is only growing at this point. In the end, social media marketing can achieve one or many of the goals.

### **Literature Review**

Hill, Provost, and Volinsky's (2006) research establishes that a firm can benefit from social networks to predict the likelihood of purchase intention. This can be done by taking into account a firm's choice of network and by examining that network's data. Assessing a network's data substantially improves a company's marketing

efforts because it provides the company with vital information on the network's users, which helps determine the best social media tactics for that particular site (Hill, Provost, and Volinsky's 2006). Based on this study, it can further be argued that knowing which social media sites a company's target market utilizes is another key factor in guaranteeing that online marketing will be successful.

Sorescue et al. (2011), stress that a retailer must go beyond the advertising aspect of social networking sites and find groundbreaking ways to use them as a way to conduct conversations with consumers, instead of a one-way communication network

Vogus (2011) determined that large companies are regarding social media sites as strategic tools and some businesses are even hiring employees to oversee their social media pages. "Consumers are no longer passive receivers of marketing messages; instead, they are using Facebook, MySpace, YouTube, and Twitter to voice their opinions-both positive and negative". Consumers' participation with a brand on social media reinforces the need for retailers to be active participants in social networking sites and the virtual brand communities they create.

Mangold and Faulds (2009) recommend that social media should be regarded as an integral part of an organization's integrated marketing strategy and should not be taken lightly. As Curran et al. (2011) points out, almost 1 in every 13 person in the world is an active Facebook user, which points to the potential of finding a ready market for any product or service.

Kelly et al. (2010) determined that three factors influencing ad avoidance online: interruption of task, perceived clutter on the Internet sites, and negative past experiences with Internet advertising. "Research shows the believability of trustworthiness of the medium influences how the consumer views the credibility of the information offered". Based on this study, it has become clear that advertisements that provide entertainment are usually liked and accepted which reconfirms the results of some previous studies.

### **Objectives of Study**

- Getting an insight into the unique methodologies used by companies for marketing their product as being a marketer you require daily new methods so customer find it's attractive.
- To get data of numerous platforms used by brands to multiply their sales as in this century there are numerous platforms used for marketing.
- To know about the influencing power of social media to fascinate the customers as through video marketing there is a longer impact in customer's minds of anything that they see and due to it they become tempted to try it which directly benefits the brand.
- To know about the change social media has brought in our lifestyle because in metros most of people are busy so these apps have brought a drastic change in our lives.

### **Social Media Marketing Challenges**

Though social media marketing is considered as an effective strategy for reaching and engaging with customers, it comes with its share of challenges. With high competition on social media, it has become much more difficult for a marketer to derive valuable return from social media marketing. There are numerous challenges that a marketer faces some of which are listed below:

1. Establishing trust and transparency - In previous some years a no. of sites leaked the user's data so now users are very conscious of providing their private data so it is important to make transparency about how their data will be used.
2. Designing a social media strategy - Social media is being used by more than 3 billion users worldwide with that comes up a huge challenge of designing the right social media strategy to increase engagement and ultimately get more leads.
3. Getting Followers - Getting more followers on social media is one of the biggest challenges so brands are more interested in increasing followers since they are perceived as future customers.
4. Analyzing Social media performance - The humongous amount of data available on social network makes it close to impossible for a marketer to categorize useful data that can be used to learn about the behavior of your audience to avoid chances of missing out on new leads, industry trends, audience conversations and brand mentions.

### **Outcomes of Study**

Social Media Marketing is having a tremendous impact on business and market as business growth and performance are taking place at an astronomical rate. Social media helps in developing business tactics. Social media platforms like Facebook, Twitter, LinkedIn etc., show an opportunity for marketers to grab the attention of the customers while simultaneously building a brand image. These social networks allow businesses to use tactics to build and create brand profiles like fan pages, contests etc. Through Social media marketing, one can figure out the likes and preferences of customers as well as the latest trends adopted by the public. Social media marketing helps a brand/company to build a strong online presence by innovative social media marketing techniques and customer satisfaction. The social media apps have brought an enormous change in marketing pattern and have become a requisite for marketing as customers spend a lot of time on these apps. These apps have given a massive boom to business as they provide unique ways to introduce product to customers by which the memory of it is alive in their minds for longer period. Social media has made easy for marketers to easily reach their audience and receiving instant feedback to serve them best, which is beneficial for both.

### **Conclusion**

Social Media Marketing gives big impact today from small companies to big giant but social media marketing requires creativity and experts who can manage the social platforms because this landscape is big, moreover system and technology is growing vastly. Also the benefits and advantages that social media gives , no one can



give and in this modern era the old methods of marketing doesn't work so without updating with time and technology no one can progress .

Thus social media plays a vital role in marketing moreover this can be a challenging task for some marketers but promises a lot of opportunities and challenges so one should be prepared for it to achieve massive success. Social network analysis gives insights as to how individual customers behave in the context of large communities. It discovers social network behaviour rather than posting behaviour. Large scale analysis of networks and documents reveals hidden patterns. It discovers connections between group members and people outside the group.

### References

- [http://www.academia.edu/Documents/in/Social\\_Media\\_Marketing](http://www.academia.edu/Documents/in/Social_Media_Marketing)
- <https://www.sciencedirect.com/science/article/pii/S096969891730591X>
- [https://www.researchgate.net/publication/256296291\\_Social\\_Media](https://www.researchgate.net/publication/256296291_Social_Media)
- [https://en.wikipedia.org/wiki/Social\\_media\\_marketing](https://en.wikipedia.org/wiki/Social_media_marketing)
- <http://www.iosrjournals.org/iosr-jce/papers/sicete-volume2/21.pdf>
- <https://www.oreilly.com/library/view/the-social-media/9780596806576/>
- [https://digitalcommons.uri.edu/cgi/viewcontent.cgi?article=1001&context=tmd\\_major\\_paper](https://digitalcommons.uri.edu/cgi/viewcontent.cgi?article=1001&context=tmd_major_paper)
- <https://www.rankmyapp.com/market/social-networks-and-apps/>
- [https://www.scribendi.com/advice/social\\_media\\_and\\_business.en.html](https://www.scribendi.com/advice/social_media_and_business.en.html)
- <https://www.cloohawk.com/blog/overcome-7-top-social-media-marketing-challenges>

## Improving Sales Performance through Digital Marketing (With Special Reference to Automobile Companies)

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### **Abstract**

*Digital media is so persistent that customer has access to information any time and any place they want. Digital media is an ever-growing source of entertainment, news, shopping and social interaction, and now customers are exposed not just to what any company says about your brand, but what the media, friends etc., are perceiving as well. This study is all about how automotive companies saw a significant change after using Digital Marketing in their Sales, Brand Presence, and Future Customers prospects etc. In this Research Paper we are screening the Scope of Digital marketing and its scope in the future.*

*Keywords: Digital Media, Marketing, Sales, Brand, etc.*

### **Introduction**

Digital marketing is the advertising, promotion, selling etc. of products or services using digital technologies, not only on the Internet, but also including mobile phones, advertising, and any other digital medium. Digital marketing channels are systems based on the internet that can create, accelerate, and transmit product value from producer to the terminal consumer by digital networks. Digital Marketing is the term used for the targeted, measurable, and interactive marketing of products or services using digital technologies to reach the viewers, turn them into customers, and retain them. Traditional marketing policies had limited customer reach ability and scope of driving customers' buying behavior.

In order to successfully deliver digital strategies within your plan, you should make sure that it provides your customers with valuable and engaging content. Without an effective digital marketing strategy, your business can fall short in gaining new customers, lose current ones in this extreme competitive era. If not applying this technique, then ultimately companies will lose their competitive ability and share in the marketplace.

Before considering the strategies of any digital marketing plan, one need to have a clear vision of what their business wants to achieve, by setting goals, establishing the right tactics that leads businesses in the right direction. There are a number of strategies that can be incorporated; Blogs, SEO Tactics, Social Media, Content Marketing, Webinars and more. It is not necessary to make use of all the tools available but applying the appropriate on as per the situation.

### **Literature Review**

Ngai, E.W. (2003) conducted Internet Marketing Research (1987-2000) and apprise that This paper presents a literature review of, and classification scheme for, Internet marketing (IM) research. The review covers 270 journal articles published between 1987 and 2000 in three types of journals: marketing;

economics, business and management; and information systems and information technology. The results show that an increasing volume of IM research has been conducted in a diverse range of areas. A total of 96 percent of the papers were published in the last five years (1996-2000) of this 14- years study, and the significance of IM to e-commerce will increase in the future.

Koiso-Kanttila, N. (2004) from his study revealed that, purely digital products are increasingly part of the commercial landscape. Technology-facilitated environments in general have received considerable attention in the literature on marketing & review the existing knowledge base on digital products and the differences these products suggest for marketing activities. It first positions digital content in relation to other offerings, and then further analyzes the marketing implications with an adjusted marketing mix framework.

Järvinen, J., et al. (2012) their study contributes to the emerging B2B digital marketing literature by providing a realistic overview of the usage, measurement practices, and barriers surrounding digital marketing in the era of social media. Investigating 145 B2B firms from various industries reveals that despite the interest in social media, companies continue to focus on one-directional communications with established digital tools. Furthermore, the results indicate that the advances in digital measurement tools remain largely unexploited.

Klein, L. R., & Ford, G. T. (2003) the research explores whether earlier findings on the economics of consumer information search still hold in the digital age. Through an Internet-based survey conducted with automobile shoppers and purchasers, they examine how individuals differ in the use of the Internet and in the patterns of substitution they exhibit across sources and media.

### **Objectives of Research**

1. To determine the presence of Social Media as a Key influencer in marketing the brands.
2. To know the Impact of Digital Marketing in Automotive brands.

### **Research Methodology**

The study is qualitative and descriptive in nature and considers the facts of the previously available literature and is based on the secondary data as the sales growth percentage of the automotive companies in the past few years after utilizing Digital Marketing as one of the front marketing strategies. Various experts from the Brands Marketing & Sales were approached they helped by giving useful information, Also the data was collected through various articles published in News-papers, Magazines, and Websites etc. which further helped in the Analysis.

### **Social Media as Key Influencer**

A Social Media Influencer is a user on social media who has established credibility in a specific industry. A social media influencer has access to a large audience and can persuade others by virtue of their authenticity and reach. Auto motive Industry also focuses on Social Media Influencers. Scott Schuman, creator of “The Sartorialist” and the largest influencer involved in the campaign, is a blogger and photographer who describes

his interest in, “Creating a two-way dialogue about the world of fashion and its relationship to daily life.” His Instagram feed is an ideal medium for Maserati to reach more than one million interested in elegance and luxury.

### **Digital Marketing in Automotive Companies**

Automotive marketers now wonder whether this trend of modern marketing can continue, like many industries, automotive has experienced dramatic transformation in recent years. Connected technologies, digital and mobile channels, and longer vehicle lifespan have changed the way people shop for cars.

OEMs and established car dealers have been joined by third-party sites such as THE WHEELS. In and Car Fax that position themselves as one-stop shops for researching across brands. Tracking consumer behavior is complicated by lead aggregators and wrap-around services and review sites such as Kelley Blue Book and Edmonds. Other new channels such as YouTube have emerged as a source of information for car buyers, and views of test drives, features and options, and walk-through have doubled in the past year. Google research revealed that 70 percent of people who used YouTube as part of their car buying process were influenced by what they watched.

### **Challenges of Digital Marketing for Automotive**

Automotive marketers are finding that the keys to success may be fueled by increasing adoption of highly effective digital marketing tactics. These marketers face three common challenges:

- Tying TV, online, display, and paid search media exposure to actual car sales
- Identifying prospects as they move from their Smartphone to the dealer
- Measuring marketing effectiveness by channel

### **Performance Analysis of Audi & BMW utilizing Digital Marketing<sup>1</sup>**

**Audi:** Marketing Campaigns results in 3X the Sales with the help of digital marketing. Audi got a very great response in the market after they utilizes digital media as their marketing Idea. By using econometrics, Audi has found ads that cut-through are three times more efficient at driving orders, making creativity “really key” for the business, a learning it is taking to the rest of its communications.

In 2017, the company saw volume sales increase from 166,000 to 172,000 and Audi was able to model not only how much it needed to spend on marketing to achieve that uplift, but also how many of each model. That Audi understands marketing effectiveness should come as little surprise. The brand picked up the IPA Effectiveness Grand Prix at last year's awards for its 'beauty and brains'.

**BMW:** Now BMW is using Digital Marketing to enlarge the upper sales funnel. There is 125% of Growth in the sales of BMW from Past 3 Years World Wide (Reference:- Automotive Analytics & Attribution Summit 2018). BMW believes a mobile-first; content-led approach will help it attract a wider audience and claims the

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<sup>1</sup> The Source of above indicated numerical figures are retrieved from: [www.marketingweek.com](http://www.marketingweek.com) and <http://insights.digitalmediasolutions.com>

recent re-launch of its website has already increased mobile visitors by 27%. Speaking at Mobile World Congress 2019, the German carmaker's global head of digital marketing, Jorg Poggenpohl, explained how BMW is extending its content beyond automotive to “enlarge the upper sales funnel”, meaning it is now also creating content around lifestyle, design, innovation and fashion. BMW claims the new mobile site loads in 1.9 seconds – three to four times faster than before – and said the click-through rate from BMW.com to regional sites where customers can find further product information has increased by 44% – four times higher than before. Poggenpohl added that BMW is now getting 49% more site visits through SEO and the average user is spending 3.13 minutes on the site on mobile.

### Findings

- Digital marketing is now a day's used as a very effective medium of advertising as it is acting as a key influencer.
- Through digital Marketing companies can target those who have the need for the Vehicles and inspire them towards their brand. Even for the existing pioneer brands it was found that this platform has increased their sales performance.
- Digital Marketing helps Brands to increase their Sales Funnel.
- Digital Marketing also leads Brands to think in a more creative manner and hence influence targeted audience according to the taste, preferences & trend of the Environment.

### Conclusion

The research and practice of Digital Marketing is improving with the advancement in technology fosters the Growth. In the Automotive Industry Digital Marketing, helps when it comes for marketing their brand, as to utilize their limited resources Effectively & Efficiently. There is Potential Growth and Values in using digital Marketing aimed to Automotive Industry as the Digital Marketing strategies is perceived positively by the online Generation.

### References

- Ngai, E. W. (2003). *Internet marketing research (1987-2000): a literature review and classification. European journal of marketing*, 37(1/2), 24-49.
- Klein, L. R., & Ford, G. T. (2003). *Consumer search for information in the digital age: An empirical study of prepurchase search for automobiles. Journal of interactive Marketing*, 17(3), 29-49.
- Koiso-Kanttila, N. (2004). *Digital content marketing: a literature synthesis. Journal of Marketing Management*, 20(1-2), 45-65.
- Chu, C. W., & Lu, H. P. (2007). *Factors influencing online music purchase intention in Taiwan: An empirical study based on the value-intention framework. Internet Research*, 17(2), 139-155.
- Järvinen, J., Tollinen, A., Karjaluoto, H., & Jayawardhena, C. (2012). *Digital and social media*

*marketing usage in B2B industrial section. Marketing Management Journal, 22(2).*

- Royle, J., & Laing, A. (2014). *The digital marketing skills gap: Developing a Digital Marketer Model for the communication industries. International Journal of Information Management, 34(2), 65-73.*
- Bruhn, M., Schoenmueller, V., & Schäfer, D. B. (2012). *Are social media replacing traditional media in terms of brand equity creation? Management Research Review, 35(9), 770-790.*
- Järvinen, J., & Karjalainen, H. (2015). *The use of Web analytics for digital marketing performance measurement. Industrial Marketing Management, 50, 117-127.*
- Kannan, P. K. (2017). *Digital marketing: A framework, review and research agenda. International Journal of Research in Marketing, 34(1), 22-45.*
- Nunan, D., Sibai, O., Schivinski, B., & Christodoulides, G. (2018). *Reflections on “social media: Influencing customer satisfaction in B2B sales” and a research agenda. Industrial Marketing Management, 75, 31-36.*
- <https://www.marketingweek.com/audi-creativity-marketing-effectiveness/>
- <https://www.marketingweek.com/bmw-content-sales-funnel/>
- <https://insights.digitalmediasolutions.com/articles/audi-campaigns>

## Innovative Storage System: DigiLocker

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### **Abstract**

*Digital India Initiative have emerged as catalysts for the rapid growth of economy and empowerment of citizens. One of the flagships programme under the Digital India initiative is DigiLocker, it aims to eliminating the usage of physical documents and enable sharing of e-documents across government agencies via a mechanism to verify “authenticity” of the documents online. Residents may also upload their own electronic documents and digitally sign them using the e-sign facility. These digitally signed documents can be shared with Government organizations or other entities*

*Keywords: Digital Technologies, e-documents, Digital India Initiative, etc.*

### **Introduction**

DigiLocker system is a flagship initiative of Ministry of Electronics & IT under Digital India Programme. its motive is to provide a digital wallet to every citizen of the nation so that all lifelong documents/certificates can be electronically protected under a single secure digital wallet.

To manifest the idea of paperless governance, it is a platform for issuance and verification of documents and certificates in a digital way, so as to eliminate the use of physical documents. Indian citizens who avail for a Digi Locker account get a benefited cloud storage space that is linked to their Aadhaar (UIDAI) number. Digital wallet is available electronically at one place and can be accessed from anywhere anytime.

### **Objectives**

1. To explain the various uses of DigiLocker facility being provided by Government to the citizens of India.
2. To ascertain the challenges and its solutions.
3. To showcase the outcomes and growth of DigiLocker usage in India.

### **Research Methodology**

This is secondary data based on descriptive study done to know the benefits and challenges of DigiLocker and its active user. This study aims to know the one of the digital initiatives taken by Government of India. The sources of data would be related to the books, internet, project reports of various agencies, programs, and application over internet. Tables and chart based on secondary data was drawn with the help of Microsoft Excel. Simple analytical statistical tool would be used.

### **Literature Review**

(Peter et.al) the objective of the Digital India Group is to come out with innovative ideas and practical solutions to realize Hon'ble Prime Minister Narendra Modi's vision of a digital India. Digital locker will provide secure access to Government issued documents. It uses authenticity services provided by Aadhar.

Digital Locker will minimize the use of physical documents by use of the electronic documents.

(Gulati M., Verma. K.) Digital Locker scheme launched under the Digital India Campaign is a good initiative taken by the Govt. of India to ensure safe custody of the important documents such as PAN card; Adhaar Card etc. which determines the nationality of the Citizens of India electronically. This move would in turn result in much more transparency, authenticity and eradication of red tapism and corruption to the maximum extent possible. This is a refreshing move towards making India 'a digitized economy' and thereby ensuring broadband connectivity in the rural areas.

(Bharati S. J., Garg A.) The aim of paper is to know whether digital locker is useful that purpose for independent factors that are perceived Ease of use & variety of services, Social influence and Perceived Risk were taken into consideration. While ease of use & variety of services has positive impact on the usefulness of digital locker. Social influence can play an important role in creating more awareness among the citizen of India but it did not have strong influence on usefulness of digital locker.

(Kumar M.) The digital locker, which may be termed as a step of the Government of India towards accomplishment of its ambitious mission of Digital India, is one the revolutionary change initiated recently by Indian government. This facility has been provided to the citizens of India to help them to digitally store their documents, RC, DL etc. electronically.

### **Stakeholders of DigiLocker**

There are three major stakeholders of the scheme DigiLocker, namely citizens, issuers and requesters.

**Citizens:** Citizens have the facility to store or access their documents using the DigiLocker. They can store either an uploaded or issued document on the DigiLocker.

**Uploaded document:** Citizens may upload scanned copies of their documents including the driving license, voter's ID card (EPIC), passport, marks sheets, income tax statements, etc. They can use the DigiLocker to submit a digitally signed copy to a government agency if required by that agency. However, the agency must be registered as a requester with the DigiLocker.

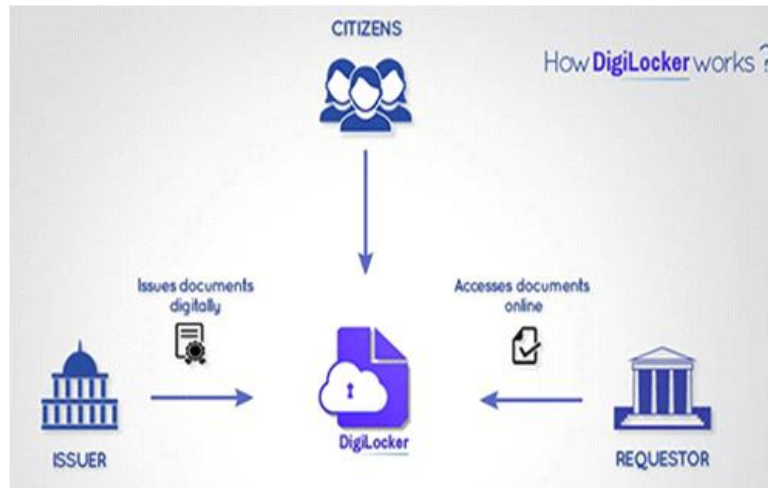
**Issued documents:** These are e-documents that have been issued on the DigiLocker by a registered issuer who pushes the Uniform Resource Indicator (URI) of the e-documents to the digilockers of citizens, based on their Aadhaar numbers. These are stored in a central repository, and citizens can see and share their respective URI links.

**Issuers:** Various government agencies are registered with DigiLocker as issuer and they can issue e-documents to citizens. These agencies include CBSE, Registrar Office, Income Tax Department, and so on. Also, all the CBSE results now onwards would be issued on DigiLocker.

**Requesters:** A requester is a government department that offers citizen services (the revenue department, a passport office or a municipality) or an organisation that requires documentation . In order to provide a



government service, a government agency needs to ascertain an individual's identity, age or nationality, for which various standard and supporting documents issued by multiple government agencies may be required. In order to provide its services, the requester can request for digital versions of those documents and accept those online through the DigiLocker.

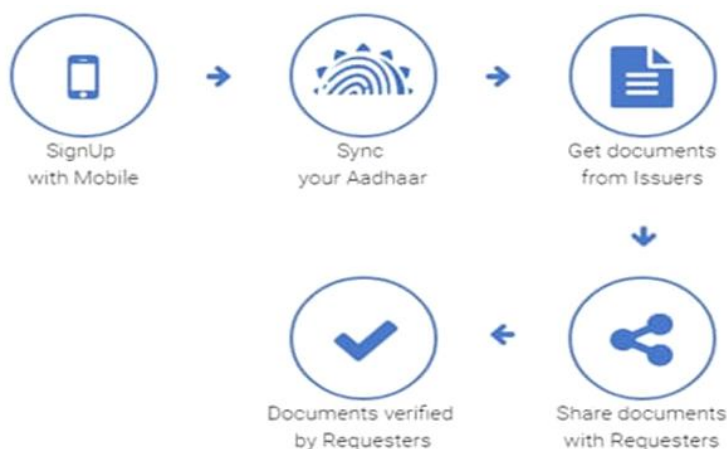


(Major Stakeholders of Digilocker)

**Accessibility:** DigiLocker is available both for the web, and mobile as well as the DigiLocker Mobile App. The DigiLocker Mobile App (mobile application) is available on Google Play Store and iOS App Store.

### Working of DigiLocker

- SignUp with Mobile
- Sync your Aadhar Card
- Get documents from issuers
- Share documents with requesters
- Documents verified by requesters



(Procedure for signing up in DigiLocker)

### Benefits of Digi Locker

- No risk of losing, spoiling, damaging the certificates/documents.
- DigiLocker helps to eliminate physical presence of citizens as well as helps in quick & reliable verification of the documents to avail higher studies, employment and other services provided by Government/private agencies.
- No Cost to the any organization for issuance of Digital Certificates.
- Expedite the document verification process by providing single window access to authentic documents
- Eliminate fake and forged paper certificates.
- Easy sharing of documents across departments and agencies
- Authentic documents, Legally at Par with Originals documents
- All document access and sharing upon citizen consent basis

### Challenges

The scheme was exciting for the people and were enthusiastic to use new app. The idea of having your documents on your fingertips was appealing to the citizens, specially to the youth and. But soon after the launch of the application, the following challenges were faced:

- Lack IT Literacy – The most important prerequisite for using the DigiLocker is IT Literacy and it is still elusive in both urban as well as rural India.
- Publicity – The plethora of schemes tend to confuse the literate , semi-literate and illiterates of the country , too many schemes and little follow up is another cause of unawareness among the citizens . Due to Lack of publicity of the initiative many IT literate citizens / professional who have taken the advantage of the app hardly acknowledge the Digi Locker scheme.
- Unable to provide inclusiveness in the society - Such initiatives are lacking behind in providing inclusiveness in the society. The rural India who don't have proper access to the basic education , certificates or driving license ; providing the facility to save their documents when they don't have many documents doesn't really attract them.
- Acceptance of the Scheme at Individual and Institutional Ends - The main issue is that the facility has to be adopted both at the individual and institutional ends and both the parties should be registered for the same.
- Security – The main barriers to the use of online services are privacy and security issues.

### Suggestions

- The government should take initiatives to provide mass IT knowledge along with making it a part of the curriculum at the school and college level and the targeted areas should be rural and semi-urban. Under assistance of various IT companies the youth should be groomed in this arena and they should

treat it as their Corporate Social Responsibility (CSR). The IT empowers the youth will definitely comprehend the benefits of this flagship programme of the government.

- Like the other schemes of GOI, DigiLocker should also be promoted on various communication platforms and regular follow up should be ensured
- The GOI should aim at making the use of DigiLocker mandatory for the educational institutes and other governmental agencies like, Licensing Authority, Banks etc. and other services that are availed commonly by the people so as to ensure success of the initiative.
- Security measures should be effective which would in turn encourage citizens to store their personal documents at the cloud storage. These shouldn't also be misused, This faith would really promote more and more takers for the same
- Citizens should be explained about the importance of digilocker, so they would readily come forward to avail the scheme.

### **Conclusion**

This is just a beginning of an era of faceless and contactless service delivery. Digilocker is continuously evolving with the aim to enable delivery of government service online and efficiently. It is being adopted in innovative ways to make citizens lives hassle free. They realize the vision of Digital India empowering citizens digitally.

Now there is no worry of theft and loss of documents During the recent kerala floods huge amount to documents were damaged and lost so, the kerala government in association with DigiLocker team recovered all the important documents of the citizens online.

Documents printed from DigiLocker are considered as original and authentic documents as they are approved by the Government of India.

This is a paperless initiative which benefits the environment too by being eco-friendly

It is also accepted by different Stakeholders, Ministry of Road Transport and Highways has been providing Driving Licenses and Vehicle Registrations through DigiLocker since last two years. As an important step to complement this initiative,

About 15 Education Boards, Skill Development Agencies and Technical Education Councils are providing digital certificates through DigiLocker.

With access to about 300 crore documents on a single platform, DigiLocker can become a key document verification platform for departments that need to verify documents such as educational certificates, birth certificates, proof of identification etc. DigiLocker has now started offering this facility to departments to help them expedite the electronic service delivery. This verification platform will soon evolve into a National Data Exchange platform.

## References

- [http://ijrar.com/upload\\_issue/ijrar\\_issue\\_20543086.pdf](http://ijrar.com/upload_issue/ijrar_issue_20543086.pdf)
- [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2786499](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2786499)
- <https://digilocker.gov.in/public/dashboard#>
- <https://www.ndtv.com/india-news/digilocker-documents-are-now-valid-here-is-all-you-need-to-know-about-digital-documents-1898643>
- <https://digilocker.gov.in/>
- <https://www.negd.gov.in/digilocker>
- <https://play.google.com/store/apps/details?id=com.digilocker.androi>

## Introduction of E-wallets in India and Customer's Acceptance

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### **Abstract**

*Human being has countless wants and demand, their urge to quench their demand is through expenditure of money on their wants. But the money of the real wallet may be robbed, therefore digital payment taking the place of actual wallets in the form of e-wallets. A mobile consist many applications of payment and nowadays the function of e-wallet in that payment application has become the basic need of users of the application for speedy and faster transaction, cost- saving with less chance of failure, for this many payment wallet companies trying hard. In this research paper, researcher talk about what type of challenges they faced and penetrated their need in customers day to day life and how demonetization boost up the demand. And what extent customer accepted e-wallets in their life?*

*Keywords - Digital Payment System, E-Wallet, NPCI, Customer's Acceptance, etc.*

### **Introduction**

The world is changing very fast with its changing technologies and up- gradation. One of most useful and innovative technology was introduced by Sam Pitroda in USA in 1996. Sam Pitroda asserted that the mobile wallet would be a user-friendly interface that would resemble a user's leather wallet (Pitroda S., Desai M., 2010). And in India, Wallet365.com was first e-wallet launched in 2006 by media firm Times Group in association with YES Bank. Since then many banking and non-banking financial firms have entered. To manage this sector Indian Government introduces, National Payments Corporation of India (NPCI), an umbrella organization for operating retail payments and settlement systems in India. NPCI is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a robust Payment and Settlement Infrastructure in India. The mobile wallet industry has been on a rapid growth trajectory as India moves to a less cash-dependent state after demonetization. On the very same time people were indirectly forced for digital payments and that time Paytm was the only known and become popular e-wallet, which helped a lot people to accept this change. This digital industry is leading the charge to making India a cashless economy.

A research report by Deloitte says that the mobile wallet industry is expected to maintain the pace of its current expansion. As the penetration of mobile internet and Smartphone aggregate, mobile wallets with their ease of use & convenience are expected to continue growing in popularity.

**Objectives**

- To get the knowledge of e-wallets.
- To know the awareness about e-wallets in the customers.

**Research Methodology**

The Present research paper is an exploratory as well as descriptive in nature and data collected for the research was primary and secondary. Primary data was collected through well-structured questionnaire and secondary data was taken from the sources like- journals, article, research paper, reports and government websites. An insight was done on available literature and the outcomes were made. The data collected from various sources were analyzed by applying appropriate mathematical and statistical techniques along with percentage analysis and descriptive test with the help of SPSS 25.

**Limitations of The Study**

- This study is limited to the customers of Indore City only. Therefore, the inferences cannot be generalized.
- The study relies on primary data, which could be biased and this study sample size only 125 respondents

**Discussion**

India adopted the digital payments to make people life easy and hustle free. The transformation of the current payment method to a total cashless one may not be possible soon, but continuous innovation in technologically aided payment system will certainly expand the society's accessibility to cashless payment (Hock-Han Tee and Hway-Boon Ong (2016). Researcher has collected data between the age group of 20 year to 60 year. Researcher found a fact that between the age of 20-40-year people are using e-wallets freely. But between the age group of 50 plus less people are using this method of payment due to less digital payment knowledge. For the convenience of the study researcher have divided variables into 8 parts which is shown in table 1.

Table 1- Mean and Standard deviation of variables

S.No.	Variables	Mean	S.D.
1	Usefulness	4.48	.727
2	Trust	3.92	.898
3	Security	4.39	.733
4	Transactions Speed	4.53	.703
5	Compatibility	4.20	.806
6	Connectivity	4.28	.705

S.No.	Variables	Mean	S.D.
7	Social Influence	4.22	.750
8	Perceived Risk	3.84	.800

### **Challenges**

After discussing the results, still there are a few challenges which is faced by customers as well as industry. That should be overcome, and they are as follows:

- Security, privacy and transparency of charges are still common issues among consumers. Industry players need to invest significant effort to overcome these barriers, through continuous product improvement.
- Security of the technological system is key, since unusual events of breaches can lead to large reputational and financial losses for companies. Maintaining privacy of the consumers is also an important challenge.
- Cards form is one of the biggest hurdles in the way of mobile wallets because card form provides wider limit.
- Consumers are looking for options that make transactions the most convenient, and issues with compatibility can hamper that experience.
- Lack of funding and growth in transactions between merchants and existing customers of wallet companies has forced consolidation. For this, e-wallet companies should minimize the cost.
- UPI has created greater competition for mobile wallets. UPI-powered apps are delivering services like minimum transaction costs and ease of use.
- E-wallets industry players have moving beyond their core service and delivering collateral services. For example, Paytm provides a broad range of m-commerce services. “Offline connect has become one of the significant domains adopted by mobile wallet players to democratize their platform.

### **Probable Solutions**

- To increase in the number of users e wallet company should promote the e wallets.
- Government should organize educational programs related to e-wallet system and digital payment system in rural areas.
- Charges should be reduced for traders for maintaining e-wallet system.
- National policy should be made to reduce security threats and to reduce the activity of hackers.

### **Suggestions**

Study also suggest some safety tips for the individuals who are using e-wallet system-

- Install anti-virus and malware scanner in the mobile phones
- Download apps from only trusted sources
- Maintain confidentiality of e-wallet

- While using public wi-fi one should not use internet banking
- One should not auto-save the details in mobile of credit/debit cards
- One should not give permission to untrusted applications to read messages and gallery

## Conclusion

Moving towards a cashless economy is not an easy task in a nation where cash is king. There will be hitches in the way, but the Government must take the lead to become cashless, to set an example. After discussing results, study shows we are using digital payment system for usefulness, connectivity, compatibility, security and to save the time but in result indirectly we are promoting green banking system. By the green banking practices customer is getting more aware about the global warming and contributing in environment sustainability to make this earth a better place to live in.

## References

- Pitroda S, D. M. *The March of Mobile Money - The Future of Lifestyle Management. The Mobile Wallet*, (2010) 127-155.
- <https://www.npci.org.in/about-us-background>
- <http://www.nationalistonline.com/blog/there-are-challenges-but-digital-payment-is-the-undeniable-future/>
- Campbell, D. (2017) *A Study of Customer Innovativeness for the Mobile Wallet Acceptance in Rajasthan*, Pacific Business Review International Volume 10 Issue 6
- Ashoka, M L. *CUSTOMER ACCEPTANCE OF MILLENNIAL GENERATION BANKING SERVICES: CHALLENGES AND PROSPECTS*, IJARMSS Vol. 6 | No. 2 (February 2017)
- Hock-Han Tee and Hway-Boon Ong (2016) *Cashless payment and economic growth*, Financial Innovation 2016, 2:4 DOI: 10.1186/s40854-016-0023
- Ragupathi M & Sujatha S (2015), *Green Banking initiatives of commercial banks in India* International research journal of business and management, VIII (2) ISSN-2322 083X, pp.74-75
- Dr Hem Shwetha Rathore. (2017), "Adoption of E-Wallet Payment System", BVIMSR's Journal of Management Research, Vol 8 Issue-1.
- Shamsher Singh, Ravish Rana (2017), "Study of Consumer Perception of Digital Payment Mode", Journal of Internet Banking and Commerce, Vol.22, no.3
- J. Sivasubramanian, M. Velavan, S. Arunkumar, P. Abirami, C. Therasa and G. Abirami (2017), "Preference Towards Digital Payment Among Gen X-ERS", International Journal of Economic Research, Vol 14, No 3.
- Karamjeet Kaur, Dr. Ashutosh Pathak, (february 2015) "E-Payment System on E-Commerce in India", Karamjeet kaur Int. Journal Of Engineering, Research and Applications, ISSN-22489622, Vol.5, Issue 2 (Part-1) pp.79-87.



## Opportunities and Challenges in Digital Marketing: An Overview

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### **Abstract**

*With the fast-emerging concept of digital economy, it demands the existing practices of marketing replaced with the promising and consistent marketing techniques using digital marketing that leads to the consumer attraction. The technological development leads to increasing use of digital platforms as digital marketing and social media marketing just to communicate promote and endorse their product at required marketplace. The purpose of this research study is to make an overview on the fast-growing concept Digital Marketing and how its play an important role for both, the consumer's and marketer's.*

*Keywords: Digital Marketing, Buying Behavior, Promotion, Consumer Interaction, etc.*

### **Introduction**

Digitization is the current scenario of today's business world and every nation wants to digitize their services which they are providing to its community. Now, the Governments of various developing nations create a depth indulgent of the different policies and practices that are concerned and involved in digital marketing. Digital marketing is the process where endorsement of products, services and brands by way of one or more forms of electronic media takes place and are differs from traditional and habitual marketing in that it includes the make use of channels and methods that facilitate an organization to investigate marketing campaigns and recognize what is functioning and what isn't – typically in a real time. The hasty advancement of digital media formed new opportunities and avenues for advertising and marketing to the producers. Digital marketing is also often referred to as 'online marketing', 'internet marketing' or 'web marketing'. The term 'digital marketing' became popular over time, particularly in certain countries. The Indian retail growth is anticipated to be at par with the controlled retail trade. It is forecasted that in future India will become the world's fastest e commerce market. This market is predictable to enlarge to US\$ 100 billion by 2020 from US\$ 3.5 billion in 2014.

Undertakings of Digital marketing media comprises of search engine optimization (SEO), search engine marketing (SEM), content marketing & automation, influencer marketing, campaign & e-commerce marketing, social media marketing & optimization, direct e-mail marketing, e-books, display advertising and some other appearance of digital media. It moreover encompasses non-Internet mediums that offer digital media, such as Cell phones (SMS and MMS), callback and on-hold mobile ring tones.

In the era of digitization, digital marketing not only allows & permits for brands to market and endorse their products and services, although also allows for the online customer support mechanism through 24/7 services to compose customers feel valued and supported. Making interactions through the social media allows brand

owners to perceive the positive and negative feedback and also the valuable suggestions from their ultimate customers. With this the concept of digital marketing has become the most increased and valued advantage for the brand owners and business houses. Now it is very familiar for consumers to post and share feedback on social media through online sources, websites and blogs about their personal experience with a product or services. To have direct get in touch with the customers and deal with the feedback they receive appropriately it has turn into increasingly admired for businesses to utilize and persuade these conversations all the way through their different social media channels.

Word of communications and peer-to-peer discussion often has a superior effect on customers, ever since they are not sent directly from the company. Now, Customers are more liable to trust additional customer's experiences. It is increasingly becoming advantageous for the business houses and the companies to utilize and exploit social media platforms to connect and communicate with their customers about their product and services and create these discussions.

### Review of Literature

**Elaine Sherman (1996)** conducted a study on “impact of technology through online retailing on consumers & retailers”. Under the research the opportunities and different threats were studies and discussed in detail as well as ease of use, opportunity to have the conversation with consumer and time saving approach.

**Ranganath et al. (2011)** conducted the study on “benefits of technology for the retailers”. It makes helps the businessmen to access essential information and acclimatize to the changing needs. Now, Technology has help to convert the retail environment and helped the managers to expand beyond their restrictions. Retail company managers access imperative information approximately up to the minute and thus to take timely and rapid decisions. There is boost in the distribution channels due to use of E- retailing.

**Steve Burt and Leigh Sparks (2003)** conducted a study on “the effect of e commerce on retail process outlets”. The study pays attention on the process as carry to B2C trade relatively than impact on the sales.

**Basheer et al. (March,2010)** Their Study was conducted on the “Impact of mobile advertising on consumer purchase decision”. There was so many assumptions were taken regarding this and the Findings exposed that there is a positive and significant relationship between apparent usefulness of advertisement and customer purchase decision.

### Traditional Marketing v/s Digital Marketing

The following table shows how a traditional marketing is different from the Digital Marketing:

Traditional Marketing	Digital Marketing
Communication is unidirectional. That means, a company communicates about its services with a set of people.	Communication is bidirectional. Customer can raise queries or suggestions about the Company's services.

Communication Media is commonly phone calls, letters, and Emails.	Communication media is generally through chats on social media websites, and Email.
Campaigning in the traditional format takes more time for designing, making, preparing, and launching.	There is fast way to develop a digital campaign. Using digital tools for campaigning is much easier.
It is carried out for a definite audience throughout from generating and creating campaign ideas up to advertising a product or a service	The content under digital marketing is available for general public also. It is then made to attain the specific viewers by employing search engine k type of techniques
It is best for getting local audience.	It is best for reaching a global audience.
Exposure of 24/7 year is not possible	Exposure of 24/7 year is possible
Conversation is one way	Conversation is two way
Customers get their responses only during operational hours.	Customers get their responses and feedback anytime they need.

### **Opportunities to Digital Marketing**

**Brand Coverage & Development:** Online & Digitalization of marketing process helps to broaden the brand transversely the globe, ignoring the national restrictions, boundaries and making the product accessible and available to the scattered customers by the use of internet.

**Viral Coverage Benefits:** By the means of social media we get the benefits of just pressing share button options on your website than the message & information about the services is shared immediately and quickly to the larger audience. The posts like on one advertisement make the product more popular than in traditional marketing also with no additional cost and gets popularity and status to the brand.

**Greater consumer engagement:** Using digital marketing also encourages prediction to take actions in the near future about the services and its updating. It also helps the consumers in directing the purchases, provides them with preferable choices and enables customers to select among different alternative modes of payment and to end with gets the product delivered across to customers place with no any additional cost.

**Convenience to customers:** Online & digital marketing is easily accessible 24X7 and 365 days of the year. The customers can buy as per their comfort level from their homes from the range of variety of offerings to select from. The transaction can be accomplished quickly as well.

**Express Advertising:** Digital Marketing enables direct and express advertising to the marketer's and also creates awareness in relation to a product, service or a brand. Now the brand owners can easily show and endorse their advertisements for products and services on different digital media channels. But we can also say a good online/digital advertising strategy and promotional tools & techniques can help digital marketers to execute and perform well manner in highly cutthroat competition marketing environment.

**Cost Efficient Media:** Using Digital Marketing mediums through internet is bring into being cost-effective and cheaper source of endorsement and advertising as compared to the mediums of traditional marketing channels such as Newspapers, T.V, Radio, Banners and Magazines etc. Digital marketing also allows marketers to situate their advertising campaigns as per the availability of their budget. Frequently, the business profiles from the websites display their ads and information about services and their brands generate huge amount of traffic for at no cost. Social media channels, with its plentiful benefits have played a imperative role in promoting the activities of digital marketing. Platforms such as Face book, Twitter, WhatsApp, Instagram, and You Tube etc. also provide a huge amount of traffic source.

**Serving Marketers' profession:** Digital Marketing has turn out to be a advantageous career for the individual persons who are familiar and use too with using and implementing digital marketing approach and helping business houses to make bigger their brands to target customers using internet.

### **Challenges and Threats to Digital Marketing**

**Restricted use of Internet:** The Digital marketing is strongly dependent on internet. In several areas, internet capability may not be easily reached to the customers or with also due to the poor internet connections. Many of the backward areas are not enough networks for accessing the internet services. The Digital Marketing process can be unsuccessful and ineffective in those areas and regions having no or limited internet network accessibility. Without the sufficient network one cannot think of using the social media platforms for digitizing there marketing campaigns.

**Inadequate Consumer linkage and Conversation:** As we all know digital marketing processes is exceedingly reliant on internet, every time it is not possible to reach the maximum customer base of the particular choice, as they have the only option available to make conversation with their preferable customers through other mediums other than social media therefore the marketers may possibly find it tough to make their advertisements campaigns more widespread and start a discussion with their customers about the business brand image or the products.

**High Competition between the Brands:** Digital Marketing has a downside disadvantage when a purchaser searches for a precise product of a precise corporation on internet, numerous competing commodities, and services having equivalent marketing strategies emerge on the customer's home page. This also conflicts the consumers and provide a substitute option to prefer cheaper and superior superiority product of another business. As a result, various customers lack the confidence on a bunch of advertisements that materialize on a website page or social media and believe it as fraud and appear like dishonest brand.

**Less Hacking strategy:** The threat of hacking endorsement strategies of a business for eternity rests on digital channels i.e (internet) so as to be one of the major drawbacks of digital marketing process. The hackers or big competitors can effortlessly track and duplicate the priceless promotional strategies of a glowing renowned business and can make use of for their purpose.

**Anti-Brand tricks (Doppelganger):** Another major disadvantage of digital marketing is that even a single human being or group of personnel can harm and damage the image of a known recognized brand through 'Doppelganger'. Anti-brand bloggers, activists and the judgment leaders increase the term 'Doppelganger' to criticize the brand image of a certain particular brand.

**Endorsements only for Limited specific Products:** An additional sensible and one of the major drawbacks of Digital Marketing channels is that it is merely advantageous for purchaser goods. It is always not suitable for very types of products or services. Other than this the engineering and industrial merchandise product and pharmaceutical goods cannot be marketed and advertise through using digital channels and social media platforms. The aforementioned set of information may help out digital marketers to realize the strengths and various weaknesses of Digital Marketing.

### Conclusions

This research paper discussed the various growth/opportunities and the challenges/threats in the ever-intensifying vicinity of Digital marketing. It has emerged as a buzzing expression in last partially decade. Digital marketing has the positive as well as negative impact on the business houses and customers in numerous behaviors. Using e commerce and digital marketing platforms enabled the producer's marketers to demonstrate and endorse array of products and services using the various interactive pages of websites. In terms of benefits it has condensed the marketing and cost, storage and the packaging charge. There is in addition enlarged price lucidity, adjustments due to digital marketing concept. The place constituent has also been familiar due to amplified market exposure. The ingredient of endorsement is also exaggerated due to digital marketing in provisions of comprehensive information and interactive sessions. Nevertheless, there are various endless challenges due to digitalization of marketing. There lies and exist a huge opportunity due to new technology, beside with the challenges. The achievement lies to what amount the challenges are conquer along with the traditional and conventional methods of marketing.

### References

- Anbumani, S., Rao, D. C., & Sankar, D. J. (2017). *Digital Marketing and Its CHallenges*. *Airo International Research Journal*, 12, Pp. 1-17.
- Bhojaraja, & Muniraju, M. (2018). *Challenges and Opportunities in Digital Marketing*. *IAETSD Journal of Advanced Research in Applied Sciences*, 5 (1), Pp. 170-172.
- D, D., & D, K. (2016). *A Study on digital marketing and its impact*. *Journal of Chemical and Pharmaceutical Sciences*, 9 (4), PP. 2059-2062.
- Kaur, A., & Sandhu, G. (2017). *Opportunities and Challenges to Digital Marketing in Developing Countries*. *International Journal of Science Technology and Management*, 6 (5), Pp. 322-327.
- P.Sathya. (2017). *A Study on Digital Marketing and its Impact*. *International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064*, 6 (2), Pp. 866-868.

- Panchal, H. (2018). *A Study on Digital Marketing and its Impact*. IJARIIIE-ISSN(O)-2395-4396 , 4 (4), Pp. 1038-1041.
- Vachhani, A. (2016). *Digital Marketing in India and Its Challenges and Opportunities Ahead*. *International Journal of Advanced Research(IJAR)* , 4 (12), Pp. 1554-1558.
- Elaine Sherman and Martin T. Topol (1996), *Anticipating the impact of new technologies on retailing*, *Journal of Retailing and Consumer Services*, Vol.3, Issue-2, pp.107-111.
- Ranganath, N. Santosh; Kama, Raju T. and Rao, P. Trinadha (2011), “*Emerging Role of Technology in Retail Sector*”, *International Journal of Research in Computer Application & Management*, Vol. 1, Iss. 5, pp. 71-75.
- Steve Burt and Leigh Sparks (2003), *E-commerce and the retail process: a review*, *Journal of Retailing and Consumer Services*, Vol.10, Issue-5, pp.275-286.
- Basheer. A.M. Al-alak. (2010). “*Mobile marketing: examining the impact of trust, privacy concern and consumers' attitudes on intention to purchase*”. *International journal of business management*,5.

## Pixel marketing: An Analytical Study

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### **Abstract**

*In every era, marketing has been changed according to need of the customer. Internet users are increasing day by day. As per the internet usage stats, as of July 2017, 50% of the world population is using the internet which is around 3.42 Billion Users. The total number of users in 1995 was less than 1% of the world population. Digital marketing has transformed how businesses and other organization communicate with their buyers. Consumers now have access to a much wider choice of products and services. Organizations have huge chance to expand their business though digitalization. The internet and technology also brings many threats to the audience. Marketers can take advantage out of the present market through different tools and techniques. Tracking pixel or pixel marketing is one of the tools that is used or can be used by the marketer for retargeting and remarketing. Almost every marketer owns a tracking pixel today. It can be a proper marketing tool if it is used and implemented correctly. Our study shows the positives of tracking pixel and how can we eliminate negatives from this marketing tool. The study shows the marketer's viewpoint.*

*Keywords: Tracking pixel, Digital Marketing, Consumers, Marketing, Marketers, Internet, Technology, etc.*

### **Literature review**

Coleman Parkes Research in one of their surveys identifies that 82 percent of respondents have adopted digital technologies for redefining their businesses. Reinvention is the key to survive in this dynamic market. Digital transformation of the business needs a special knowledge to be imbedded to the marketers. The world of digital business is rich, diverse and fast moving in ideas and structures. Innovation is all about the ideas and how they are used or processed for getting a desirable outcome. An entrepreneur is someone who idolizes the thought of innovation in different sectors and is in search of tools to grow his reach in this rich and diverse world of digital transformation. An idea is the first milestone in the process of building a huge business. Single idea can bring may innovations into existence and in case of digital world it can bring millions of innovations. A web browser is a general user interface for accessing content organized as hypertext. Many innovations can arise out the hypertext markup language and can ease the marketer's job.

Digital marketers live or die by the tools of the trade. Marketers are expected to be in millions at once. Effectiveness and efficiency of the tools make a marketer king of the market. In today's world social media platforms also plays a huge role in marketing process. Many of the marketers tend to promote their product or service through different social media platforms. This approach by the marketers, introduces several new tools in the market. Some of the tools used strategically are:

- Organic Social Media
- Paid Social Media

- Email Marketing
- Display Retargeting
- Programmatic Advertising

These strategies should be properly implemented for complete and efficient utilization of it.

Strategic tools mentioned above leads to introduction of the marketing tool on which this study is focused, **Pixel tracking**. A tracking pixel is a tool used for retargeting or remarketing. It is an HTML code snippet which is loaded when a user visits a website or opens an email and tracks the behavior of the visitor without being noticeable to them. With a tracking pixel, advertisers can get data for online marketing, web analysis or email marketing. It also brings some bleak factors with it and is not fully acceptable by the users at present.

### Discussion

Businesses nowadays are mostly focusing on automated analyzes of their audience. It helps to make optimal marketing plans with minimal cost and positive results. At this dynamic digital marketing platform, a marketer needs to focus on the needs of customers. For focusing onto the needs of the customer marketer needs to track or collect the behavior or data about them. Collection of data can sometimes be a very tricky process, as many factors affect the collected data and can severely affect the outcome of the process. The data should be filtered and tracked with proper knowledge and with a set objective. With file analysis, data evaluation or proper analytical tools, this data can be used for retargeting or remarketing.

A tracking pixel is an image or graphic with 1\*1 dimension that is loaded on any activity made by the visitors on the website or email. The pixel fires the cookies on the user's hard drive and cookies starts collecting the data. Pixel is a small image which is unnoticeable to any individual with a naked eye. Tracking pixels are designed to be fully transparent as they track the behavior and data of user being hidden. This is generally influenced by customer's buying behavior.

Tracking pixel acquires particular data about the user which is valuable for the marketer and his business. Data collected by the marketer is:

- IP Address (used for location and Internet Service Provider (ISP) information)
- Browser (Chrome, Firefox, etc.)
- Device Type (Mobile, Desktop, Tablet)
- Operating System (iOS, Android, Windows, etc.)
- Screen size
- Referrer (Where the visitor originated from IE: PPCMode.com)
- Users buying behavior

According to RETARGETER.com, only 2% of web traffic converts on the first visit. The other 98% is to be made aware of the product or service more than once. Pixel tracking helps to track this behavior and bounce the ads, as a process of remarketing and retargeting. Any advertising platform or website can use tracking pixels, as the



creation of the pixel is a simple process of attaching a small image to an HTML file that can execute when the page is accessed. The beauty of digital marketing, especially when using tracking pixels, is that you know when your audience takes action because of an Ad. Then, you can compare to see which tools are driving the most traffic.

### **Component description**

When discussing about tracking pixel, its components should not be left aside:

#### **Cookies**

Sometimes website greets its user by name or suggests likeable ideas. How a website knows personal details about you? These tricks are made possible by cookies, small files that a web server stores inside user's browser as to remember the user. Firstly, tracking pixel fires the cookies into the hard drive of the user and then cookies start collecting the data of the user.

#### **Tags**

A pixel tag is an element on the page and all of the terminologies relating to that pixel. To that end, sometimes the word tags and pixels can be used interchangeably. A pixel is always a tag but a tag is not always a pixel.

### **Process of pixel tracking**

**Step 1-** While surfing through the internet, user sees the marketer's ad and visits the source of the ad .

**Step 2 -** As soon as the user gets to the website, tracking pixel gets downloaded on the hard drive of his computer and user then browse different pages and products on the website.

**Step 3-** Then the user leaves the website but the pixel does not stop tracking him.

**Step 4 –** User surfs on other websites and other website checks for the pixel and show ads accordingly.

**Step 5 –** seeing the ads, user again jumps onto the first website of marketer.

Amidst all this, marketer through his statistical surveys and analysis collects all the data about new and returning users and their behavior. According to the data collected, marketer can evaluate himself on the scale of being effective.

### **Networks using tracking pixel**

At present few big companies use the tracking pixel for tracking their daily visitors. Some of them are:

- Facebook Ads
- Google Ads
- Snapchat
- Pinterest
- Quora
- Twitter
- LinkedIn
- Bing

Pixel tracking is extremely easy to implement. It is just copying and pasting HTML code on your website, you don't need to be a developer to set up tracking.

#### **Positives of tracking pixel**

- **Steer more conversions** – Only 2% of the users tend to convert their action in first visit. Marketer needs to focus on the 98% of the users who are not converting. Tracking pixel helps the marketer to induce more conversions through automatically analyzing and evaluating the data of customer.
- **Heat mapping** - Remarketing of the product should be done to the people who have visited a specific page of your site or who have taken a certain action on your site. Person who is willing to buy marketer's product is an element to the tracking pixel or retargeting. Heat mapping is visual method of analyzing your website and it tracks the actual time people spend looking at, clicking on and scrolling through various areas on your site. Pixel tracking helps in heat mapping.
- **Helps in analysis** – Pixel tracking helps the marketer in analyzing the market situation and data and using it in efficient way to earn more and more profit. Customer is of n number of types and is different from one another. Surveys and physical data collection partially complete the analysis. Tracking pixel completes the process and evaluates the result.

#### **Negative aspect of pixel**

- **Criticized for hiding the process** - Tracking pixels are mostly criticized by data protective people because they collect important and exclusive data about the user, without their knowledge.
- **Spamming** - Tracking pixels also ease the work of spammers. Spammers tend to send tracking pixel through an email and find that the email id is legitimate or not. If the user opens an email from spammer, the tracking pixel gets downloaded to the hard drive of the user and tracking process starts.
- **Partially works on mobile devices**- Pixel tracking works through the mobile browser but cannot perform its function through the app sources. If a product or service is bought or rendered by someone through the app, the behavior to that is not tracked by the tracking pixel. It is generally tracked by 'in-app permissions'.
- **Inclined to fraud** – Tracking pixel is more inclined or prone to fraud. Tracking process has certain loopholes which lead to several frauds and fraudulent activities. Generally, a user does not notice the pixel and has no information about it. The ignorance about tracking pixel makes it more prone to the negative activities.
- **Slows down the website**- Tracking pixel slows down the marketer website. The implementation of pixel on the website is an easy job but the execution of the pixel on the website is a more complex thing. The pixel is to be loaded from one server and transmitted to another server. Accumulation of tracking pixel is able to cause the site slowdown until it financially affects the marketer. According to the study of thegood.com, if a firm generates 1 million\$ and uses tracking pixel, it can also bear loss of 75000\$ due to

slowdown of the website.

## Solutions

This comprehensive study about pixel tracking brings out several solutions to make it a more digital marketing interlinked terminology. Some of these solutions are:

- **Who is your target audience?:** A marketer should focus on the particular set of audience who is willing to buy or showing interest in his product. When marketer tries to focus on all sides of market, either he bears loss or tends to make his resources and data inefficient. If a person mistakenly reached your website, it makes no sense to collect data or track his behavior.
- **To ask permission:** Marketer should build a tracking pixel, which asks the permission for tracking the behavior and data of the user. If the marketer will seek permission from user, he can make a positive psychological impact on the audience.
- **Awareness for pixel tracking:** Audience should be made more aware about the pixel tracking and uses of it. When people will have more knowledge about the pixels, they will trust the process of tracking and will implement the pixels on their website.
- **Proper optimizing and compressing the pixel:** Steps should be taken for reducing the load of the website through proper compression and optimization of the tracking pixel. A website can slow down because of the complex execution of tracking pixel. Optimization of pixel through choosing the proper guide and through several developers coding can reduce the workload of the website and can make it a fast process.
- **Secure process:** Pixel tracking should become a more secure process. The foes and loopholes in the tracking process should be eliminated through a proper study and analysis of the whole concept. Security is the number one priority for the user. If a user is assured of the security of the process, the negative point of view towards the process will not arise.

## Conclusion

Tracking pixels can be a huge boost to the digital marketing platform. Through proper study and evaluation of the data and behavior collected through the tracking, it can function as proper marketing tool and can do wonders to the websites and digital products. The use of tracking pixel is certainly beneficial for the website operators, search engine operators, email operators etc. Tracking pixels might be a teeny tiny, practically invisible piece of technology, but they play a huge role in our current and future digital marketing landscape. To stay in the know and to make good marketing money, pixel tracking seems to be a perfect tool. Amidst all this, tracking pixel should not make a false psychological impact on the prospects. At current, tracking pixel possess many loopholes and negative impacts on the people. If used properly and with correct data evaluation and analysis, the negative aspects will be eliminated and the good will open wide. The size of the marketer will also affect the usefulness of tracking pixel. If a marketer is a big organization like Google ads, the tracking pixel can collect

regular data from the user and can use it for better ad targeting and analytics for the websites. A small marketer can take help from these big organizations for implementing tracking pixel or can implement by himself. It will help the marketer to bounce back at the audience and perform certain marketing tricks. Many retargeting and remarketing campaigns are powered by the pixel tracking. Pixels can increase the e-commerce trend in this dynamic environment of digital industries and can take a marketer ahead of all. In the end, we can say “Never underestimate the power of the pixel”.

## References

- *Dave Chaffey, Fiona Ellis-Chadwick, Digital marketing: strategy, implementation and practice (2019)*
- *Dick Whittington, Richard Whittington, Digital innovation and entrepreneurship (2018)*
- *Leykin, A., & Tuceryan, M. (2005). A vision system for automated customer tracking for marketing analysis: Low level feature extraction. In Human Activity Recognition and Modelling Workshop (Vol. 3, p. 6).*
- <https://retargeter.com/what-is-retargeting-and-how-does-it-work/> (retargeting report)
- <https://www.tune.com/blog/hasoffers-pixels-vs-postbacks-tracking-methods/> (pixel tracking comparison)
- [https://en.ryte.com/wiki/Tracking\\_Pixel#Criticism\\_of\\_tracking\\_pixels](https://en.ryte.com/wiki/Tracking_Pixel#Criticism_of_tracking_pixels) (criticisms of pixel tracking)
- <https://thegood.com/insights/how-tracking-pixels-slow-your-site/> (workload on websites)
- <https://www.dreamstime.com/tracking-pixel-vector-illustration-bw-outlined-tagging-explanation-scheme-bug-web-beacon-technique-to-research-collect-user-image157112461> (process of pixel tracking)

## Role of Election Commission in Electoral reforms in India

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### **Abstract**

*Electoral reform is a wide area that falls into the domain of political changes instead of administrative administration of surveys. The ECI has a constrained part to purge survey governmental issues and has no part in sifting the better agents from a general public still leaked in station, class and religious fanaticism. It can just guarantee a free and reasonable survey according to principles of the diversion however in the event that the players and chiefs are not handled legitimately the amusement can't be perfect and testing. The present study is an attempt to understand the role of Election Commission in electoral reforms in India.*

*Keywords: Election Commission, Code of Conduct, Political Parties, etc.*

### **Introduction**

A standout amongst the most imperative highlights of a democratic polity is elections at regular intervals. Elections constitute the signpost of majority rule government. These are the medium through which the mentalities, qualities and convictions of the general population towards their political condition are reflected. Races give individuals an administration and the legislature has sacred ideal to oversee the individuals who choose it. Elections are the focal fair methodology for choosing and controlling pioneers. Elections give a chance to the general population to express their confidence in the administration now and again and transform it when the need emerges. Races symbolize the power of the general population and give authenticity to the expert of the legislature. Accordingly, free and reasonable races are crucial for the accomplishment of popular government. One of the most important features of a democratic polity is elections at regular intervals and in the present study is an attempt to understand the role of Election Commission in electoral reforms in India.

### **Review of Literature**

**Dr Nani Bath,** The study understands how the Election Commission of India has been able to nourish India's democratic health over the years by improving the quality of election management. When India adopted the path of democracy about fifty years ago, the future of democracy was doubtful. The path to democracy was rough, as democratic institutions in pre-independent India were not allowed to be functioned democratically. The durability of democracy in India today and its people's firm faith in the ballot very often baffled sceptics. Competitive nature of election is an essential requirement for a functioning democracy. The Constitution of India provides for periodic elections, which ensure democratic transfer of political power from one set of representatives to other. The Election Commission of India, a powerful non-partisan constitutional body, conducts the largest electoral exercise in the world. It is the responsibility of the Election Commission of India to organize free and fair election in this land of more than 670 million voters with diverse socio-political and

economic backgrounds. In recent years, the role being played by the Election Commission of India ensures greater participation of people in political affairs. The Commission is also deeply concerned about criminalization and communalization of politics.

**Dr. Bimal Prasad Singh**, India is the largest Democracy in the World but we feel that due to certain reasons, Democracy is not working properly. So, now the researchers feel that why this largest Democracy is not working properly? There is something wrong in the Electoral process. Here I have indicated the total happenings in the present days Electoral exercise and also suggested some remedies for the betterment of the Electoral system. This has been amongst the most widely discussed electoral reforms in India. Multi-cornered contests have become a norm in India rather than an exception due to the increase in the number of smaller and regional parties. There have been cases in the state assembly elections where a candidate has been declared winner with the victory margin of less than 100 votes. Apart from this anomaly, in most cases, a candidate wins the election by securing just 30-35 per cent of the total number of votes polled. Hence he or she cannot be deemed to be a choice of majority of the electorate. To overcome this limitation, the first-past-the-post system should be replaced with a two-stage electoral process. In this, a second round of election will be held if none of the candidates in the fray is able to get 50 per cent of the total number of votes polled in the first round. The two candidates who have obtained the maximum number of votes in the first round will fight in the second round. Whoever between the two gets more than 51 per cent of the total votes polled in the second round is declared the winner. Simultaneous elections for Union and state legislatures: Currently 3-4 states in India go for elections every year. This undermines the working of the union government as the regime in power cannot take tough decisions due to the fear of a backlash in the next round of assembly election. Hence simultaneous elections will not only ensure that governments at the centre and the states carry out their responsibilities in a smooth manner but also curtail unnecessary election expenditure. The arrangement of simultaneous elections can be extended to the elections for the municipal corporations and other Panchayati Raj institutions.

### **Objectives of the Study**

- To study about the history of Election Commission in India.
- To study the role of Election Commission in Electoral Reforms in India.

### **Research Methodology**

For the purpose of the study, both published and unpublished secondary data as well as primary data has been utilized. Secondary data have been collected from various books, research papers and articles. In addition to this study, data have been collected from various journals also. The research is also based on the referred sources- published, unpublished and electronic.

### **The Election Commission of India**

The Election Commission of India is a self-sufficient protected expert in charge of overseeing race forms in India. The body directs decisions to the Lok Sabha, Rajya Sabha, state Administrative Congregations in India,

and the workplaces of the President and VP in the nation. The Election Commission works under the specialist of Constitution per Article 324, and in this manner sanctioned Portrayal of the General population Act. The Commission has the forces under the Constitution, to act in a fitting way when the authorized laws make deficient arrangements to manage a given circumstance in the direct of a race. Being an established specialist, Election Commission is among the couple of organizations which work with both self-sufficiency and opportunity, alongside the nation's higher legal and of late the UPSC. The Election Commission was built up on 25th January 1950 with a goal of overseeing all races to the Parliament of India, state councils and to the workplace of the President and the VP of India. In the initial couple of many years of its reality, the body was driven by a Central Election Chief (CEC). Sukumar Sen was the primary CEC of India. Substantially later in 1989, two extra chiefs were selected to the commission out of the blue. Be that as it may, they stayed in office for a short period. With the establishment of The Election Official Alteration Act (1993), the survey commission turned into a multi-part body. The idea of multi-part Commission ended up noticeably operational by and by after two extra Election Officials were designated. One of the significant improvements achieved by the survey board was the presentation of EVM – Electronic Voting Machines. The idea driving this activity was to lessen misbehaviors and get more straightforwardness in appointive process. Discretionary Photograph Character Cards (Legends) were issued without precedent for 1993 of every an offer to guarantee straightforwardness. The Commission concocted its site in 1998 and around the same time it accepted the call of mechanizing discretionary rolls.

### **Role of Election Commission in Electoral Reforms in India**

The functions of the Election Commission of India are not counted in the Constitution but rather they infer in the duty of direct and superintendence of election fill in as endorsed by Parliament under the People groups Portrayal Act. Grown-up suffrage, reservation of seats or constituencies, acknowledgments of political gatherings, exclusions of competitors and the usage of standards of gather information like security store, tranquil battling, mechanical checking of votes, control over constituent costs and insidiousness hones in surveying, and so forth., are the multitudinous operations that have spilled out of the fundamental duty of directing free, reasonable, and acts of neglect confirmation races in the nation. It is a huge operation and its recurrence in states or in by-decisions needs a discretionary organization excessively unpredictable, making it impossible to be overseen by a little commission situated in Delhi and utilizing the managerial apparatus of the states and local and state police powers of the nation

### **Model Code of Conduct**

The Election Commission of India is viewed as gatekeeper of free and reasonable races, in each race the Election Commission issues a Model Implicit rules for political gatherings and contender to direct races in a free and reasonable way. The Commission flowed its initially Code at the season of the fifth general election held in 1971 and from that point forward the Code has been updated now and again. Regardless of the acknowledgment of the implicit rules by political gatherings, instances of its infringement have been on the ascent. It is a general

grumbling that the gathering in control at the season of races abuses the official hardware to advance the discretionary prospects of its hopefuls.

### **Registration of Political Parties**

The party system is an essential feature of parliamentary democracy, however there is no immediate reference of political gatherings in the Constitution of India. The statutory law identifying with enlistment of political gatherings was instituted in 1989 which was very liberal. Subsequently, an expansive number of non-genuine gatherings mushroomed and got enlisted with the Commission. A significant number of them didn't challenge decisions at all after their enlistment. It prompted perplexity among voters as to whom to vote. To wipe out the mushrooming of gatherings, the Race Commission needed to make some thorough strides. The Commission now enrolls a gathering which has no less than 100 enlisted voters as its individuals and is likewise charging an ostensible preparing charge of Rs 10, 0000 to cover the organization costs which it should bring about on correspondence with the gatherings after their enlistment.

### **Checking Criminalization of Politics**

Criminalization of governmental issues is a grave issue in India; this threat started in Bihar and steadily spread in each niche and corner of the country. In 2003, a law was acquainted with restrict the race of offenders to the authoritative bodies. In any case, people with criminal foundation keep on holding seats in Parliament and State Gatherings. This prompts an exceptionally unwanted and humiliating circumstance, when offenders progress toward becoming law – producers and move around police security. The Commission hosts asked every single political social affair to achieve an accord that no individual with a criminal foundation will be given the gathering ticket. The possibility to a decision are additionally obliged to present an affirmation in an endorsed shape announcing their criminal records, including feelings, charges pending and bodies of evidence started against them. The data so outfitted by the competitor might be spread to people in general and to the print and electronic media.

### **Limits on Poll Expenses**

To dispose of developing impact and foul show of cash amid decisions, the Race Commission has made numerous proposals in such manner. The commission has settled legitimate points of confinement on the measure of cash which a hopeful can spend amid the race battle. These points of confinement have been updated every once in a while. The Race Commission by designating use eyewitnesses watches out for the individual records of decision consumption made by a hopeful amid race crusade. The candidates are likewise required to give subtle elements of consumption inside 30 days of the revelation of the race comes about. In any case, political gatherings don't stick to the money related Lakshman Rekha (limits) as tremendous sums are spent by parties under the clothing of their supporters.

### **Use of Scientific and Technological Advancements**

The Election Commission of India has been trying to bring improvements in election procedures by taking



advantage of scientific and technological advancements. The introduction of “Electronic Voting Machine” (EVM) is one of the steps in that direction. The Election Commission has recommended the introduction of electronic voting machines with a view to reducing malpractices and also improving the efficiency of the voting process.

### **Conclusion**

Throughout the years, the Election Commission has led various excellent constituent changes to reinforce majority rules system and upgrade the reasonableness of races. These changes are very sufficient and splendid. Without a doubt, the race hardware, under the aegis of the EC, merits credit for directing races in a free and reasonable way. In any case, our framework is still tormented by numerous indecencies. To win votes, political gatherings fall back on foul strategies and degenerate practices. Such diseases energize the counter social components to enter the constituent shred. The issue isn't absence of laws, however absence of their strict execution. So as to stamp out these unjustifiable propensities, there is a need to reinforce the hands of the EC and to give it more legitimate and institutional forces. The EC must be endowed with forces to rebuff the errant lawmakers who transgress and damage the constituent laws. Our Decision Bonus tries its best to weed out the infection of acts of neglect. It is idealistic of fortifying and enhancing the working of vote-based system through free and reasonable decisions. It has dependably formulated better frameworks and is utilizing progressed logical advancements for keeping up the high notoriety of the Indian decisions. Notwithstanding, the achievement of changes will to a great extent rely on the will of the political gatherings to stick to and actualize such changes. An autonomous media and an illuminated popular conclusion have no substitute in pushing through changes. In the event that individuals vote as indicated by their feelings and rebuff the individuals who infract the standards, degenerate practices will consequently vanish. Also, this will go far towards empowering vote-based system to thrive and develop to its full limit.

### **References**

- Dr Bimal Prasad, “Electoral Reforms in India-Issues and Challenges” *International Journal of Humanities and Social Science Invention* ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714 [www.ijhssi.org](http://www.ijhssi.org) Volume 2 Issue 3 | March. 2013 | PP.01-05.
- Dr Nani Bath, “Role of the Election Commission of India in Strengthening Democracy in India” *IPSA Paper No.1269*, 2006.
- <http://www.yourarticlelibrary.com/india-2/role-and-functions-of-the-election-commission-of-india/46642>
- [https://en.wikipedia.org/wiki/Election\\_Commission\\_of\\_India](https://en.wikipedia.org/wiki/Election_Commission_of_India)
- N.D.Arora “Political Science book” *Mc Graw Hill Education*, New Delhi, 2016.

## Role of Mobile Applications in Today's Life

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### **Abstract**

*This paper presents the uses and effect of mobile application in individuals, business and social area. In Modern information and communication age mobile application is one of the most concerned and rapidly developing areas. This paper demonstrates that how individual mobile user facilitate using mobile application and the popularity of the mobile application. And the popularity of the mobile application. Here we are presenting the consequence of mobile application in Business sector. Different statistical data of the past and present situation of mobile application from different parts of the world has been presented here to express the impact. This paper also presents some effect of mobile application on society from the ethical perspective.*

*Keywords: Business promotion, Ethical views, Mobile application, social effect.*

### **Introduction**

Mobile application is called as a mobile app is a computer program or a Software application designed to run on a phone, tablet or watch. Apps were originally intended for productivity assistance such as email calendar and contact databases. Today's mobile applications have become the part of current culture at fast speed. Public demand for apps caused rapid expansion into other areas such as Factory automation, mobile games, GPS, order tracking, online purchases so that now there are millions of apps available. Apps are generally downloaded from application distribution platforms which are operated by the owner of the mobile operating system such as apple store (iOS) and Google Play Store. Some apps are free but some have price with the profit being split Between the application's creator and distribution platforms.

### **Literature review**

David Pogue (2009), usefulness of mobile devices has increased greatly in recent years allowing users to perform more tasks in a mobile context. This increase in usefulness has come at the expense of the usability of these devices in some contexts. We conducted a small review of mobile usability models and found that usability is usually measured in terms of three attributes; effectiveness, efficiency and satisfaction. Other attributes, such as cognitive load, tend to be overlooked in the usability models that are most prominent despite their likely impact on the success or failure of an application.

Dr. MD Rashedul Islam (2010) the mobile application has variety of uses and it is increasing day by day most of the people are trying to use mobile device and mobile application instead of desktop for easy task. The global impact of mobile application are going high. All of the manufactured companies and mobile application developer are increasing capacity, quality and functionality.

### Objectives of study

- To understand how mobile applications can help us time to time in several ways and make the work easier and efficient.
- To know the latest trends in Mobile applications and how these apps are having an impact on human lives.
- To know about the advantages and disadvantages of mobile apps.

### Discussion

There are many apps which we use daily for many purposes such as office work, online shopping, navigation, entertainment, etc.

**Navigation:** - the most use for mobile application is for navigation it's a new era in which to find a location is very easy and it is made easy by these apps which help us find the correct location and reach our destination.

**Online shopping:** - The second most used mobile applications are online shopping Apps. By the help of these apps we can easily order anything which reach us in time. Now we don't have to go out for shopping and visit markets for shopping.

**Entertainment:** - The third most used mobile applications are entertainment apps. In this world everyone requires entertainment and now these apps have reduced the cost of entertainment now we don't need to buy TV's or some other costly equipment for entertainment some apps provide free or reasonable price for entertainment.

**Mobile games:** - The most used apps are games which have no age boundaries. These are used or played by people of all ages it provides are great entertainment and pleasure to people not only it provides pleasure and entertainment but it also let people earn fame and money for.

**For example:** PUBG, Free fire, flip kart, amazon etc.

### Challenges of mobile applications

**Development Approach:** - Sometimes it becomes difficult for developers to choose the right option. Right from the beginning you need to be sure about your developmental approach and also need to set development timelines.

**Device Compatibility and Screen size:** - Device compatibility is perhaps the most important factor for a mobile app. Make sure, not once, but TWICE, your app should provide flawless service and compatible on multiple devices.

**Funding:** - Another commonly faced challenge for building an application is money. It is very important to have a fair idea of the overall cost associated with your mobile app. It is not a onetime investment. Your app needs money for any future value addition

### Shortcoming of mobile applications

**Dependability:** - Mobile applications have made humans dependable on mobile applications which is a serious threat for mankind because we have become dependable on these apps for every single thing, we use apps and

which is not good for long term.

**Poor encryption:** - A Lot of apps have poor encryption mainly the payment apps or social sites which contains the core and highly confidential information of the user's which is easily hacked by hackers and can be misused a study shows Hackers stole nearly 447 million of consumer Records containing Sensitive personal information in last year.

### **Outcomes of study**

The outcomes of study show that these apps help us in lot of ways from attaining entertainment, fulfil our daily needs and requirements and to help us reach our destination.

These apps help us in productivity Assistance such as email, calendar and contact databases. The mobile applications help us in many ways from a small calculation to help us reach us our destination but the fact that it helps us make work more easier and efficient it also reduces man work and increases dependability on these apps which will finally affect humans in long run

### **Conclusion**

The mobile applications help us in many ways and it is proven that a lot of mobile applications are making the world easier and in future it will remove most of the man work and the humans will be able to do things which they will never be able to do without any technical help. It will also help humans discover all those secrets which are unknown to humanity but as every coin has two sides these apps also have disadvantages the most Crucial disadvantage is dependability now we can see that how these apps make work easier but it will make humans dependable on these apps because for every little thing we use apps for example:- for a short calculation we use calculator available in mobile, and that is the major concern we are reducing the use of our brain which will affect the lives of people in the long run.

### **References**

- <https://www.nytimes.com/2009/11/05/technology/personaltech/05pogue.html?Pagewanted=all>
- <https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.hype>
- [rlinkinfosystem.com/blog/7-drawbacks-of-mobile-applications-know-how-to-avert](http://rlinkinfosystem.com/blog/7-drawbacks-of-mobile-applications-know-how-to-avert)
- [Them&ved=2ahUKEwiKyLiCwuLlAhVk63MBHeUWByMQFjACegQIERAO&usg=AOvVaw1ROiMfG9ToYuo0\\_bvgP\\_0c](https://www.them&ved=2ahUKEwiKyLiCwuLlAhVk63MBHeUWByMQFjACegQIERAO&usg=AOvVaw1ROiMfG9ToYuo0_bvgP_0c)

## Role of Panchayati Raj in Facilitating the Process of Social Change

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### **Abstract**

*It was understood just after post-independence era that social change of India is possible by continuous development of rural sectors, but despite knowing it, the main importance was given on Industry, communication, education and health. But when it was realized that social change and rest of the progress is not possible without appropriate improvement of rural sector than Panchayat Raj Institution was introduced and furthermore a special emphasis has been given to bring the people from grass-root level into the lime light of Indian democratic panorama. But, in early few years, the Panchayat Raj Institution was under the grip of elite society, who used to control different villages by virtue of their muscle and money power. It started changing after introduction of 73rd amendment in the year 1992; a special reservation policy i.e. 1/3 reservation policy has been implemented for scheduled caste, scheduled tribe and OBC (other backward class) candidates. Special provisions of 1/3 reservations policy has also been initiated for women candidates in all tiers new Panchayat Raj Institution. With the help of this scheme, Govt. of India started dreaming for wonderful rural India in future. There are many social changes have been watching by the rural people for last few years. It has been tried to discuss few structural changes occurred due to introduction of new Panchayati Raj Institution (a village council in India) since 1992. The entire shape has been given of this article with the help of secondary source followed by necessary analysis.*

*Keywords: Independence Era, Panchayat Raj, Social Change*

### **Introduction**

Society is fundamentally a dynamic organization. A social change means establishing a blueprint of Social relationship and change of status, value and entire structure.” The term social change is used to indicate the changes that take place in human interactions and interrelations. Society is a web of social relationships and hence social change means change in the system of social relationships. These are understood in terms of social processes and social interactions and social organization. Augusta Comte the father of Sociology has posed two problems- the question of social statics and the question of social dynamics, what is and how it changes. The sociologists not only outline the structure of the society but also seek to know it causes also. According to Morris Ginsberg social change is a change in the social structure. “The sociologists not only outline the structure of the society but also seek to know its causes also. According to Morris Ginsberg social change is a change in the social structure” Partial change is very common in social change”. Social Change in any system/equally introducing law that recommend punishment for turn the untouchables down to access in any Hindu temple or law that compel to stop the child marriage or exploitation to the people belong to lower rung of the society is simply considered as partial change. Despite enacting law and various norms, we never came across to total change of

social system.

Institutional change is the most important aspect in the social change. Since independence, many political and social development stalwarts have uninterruptedly been trying to fight against poverty, ignorance, illiteracy, inequality, irrationality and oppression but no proper machinery has been formed to reduce. In the year 1992, the 73rd amendment of the constitution of Panchayati Raj in India played a significant role to commence the process to offer an empowerment to the poor. It gave an opportunity for eradication of poverty. It also started improving the quality of life of underprivileged society and that makes them self-confident, conscious and powerful. With the introduction of 73 amendments in 1992, a great sign of social change took place, which are as follows: - (i) Maximum amount of social and economic power have been transferred to the rural people to enable them and to establish their own future. (ii) Maximum involvement of women representatives in the village has started. (iii) Maximum involvement of SC/ST/OBC has commenced and those increases their capabilities as well as make them understand about the grassroots level planning and democratic process. Social advancement is the process of planned institutional change to bring about better adjustment between human needs and aspiration on the one hand and social policies and program on the other. It is declaring war on poverty, Illiteracy, ignorance, inequality, irrationality and oppression prevalent in Society. It aims not merely at the upliftment of the weak, the under privileged and the disadvantaged people, but improving the quality of life of all citizens. It is privileged of all people to enjoy the benefits of this participation in common efforts.

With the introduction of 73rd amendment of the constitution on Panchayati Raj System in India, the Panchayati Raj (a village council in India) has been established on a sound footing and has been developed to shoulder the responsibilities entrusted to them. The most significant role of Panchayat (a village council in India) in poverty eradication is to help in the process of empowerment of the poor. When a development program involves poor people, it helps them to become self-confident, conscious and powerful. 73rd amendment of Panchayati Raj gave a nice base to the village people to make them self-reliant and the blueprint of Panchayati Raj has been established on an incredible platform and has also been developed to make them responsible to do their duties in systematic process. Since then for the first time one third of the seats at every stage are reserved for women. Formerly the lower rung of the various social categories exclusively SC, ST, OBC have not found a considerable place in panchayat. But these changes happened in the system of election, have been mobilizing the people and the response of the community in this matter. The present study is to keep up a correspondence the changes cropped up in terms of participation of ST, SC, OBC people of the village who have been deprived all the time by the village elite, the most powerful communities. The present role that played by Panchayati Raj is to give the governance to the poor people of the village followed by a great social change in terms of participation of women and the most backward class in all angle i.e. socially, politically and economically.

Simply removal the old institution and establishing the new institution or somehow changing the existing one is not enough to meet up social change. It is also required to understand, whether any true functional changes

occurred or not? It is through the discussion of major findings derived from historical survey, official-reports of Panchayati Raj (a village council in India) Institutions, reports published in the local newspapers many information have been collected.

Most unfortunately, the low level of social and political consciousness of the elected representatives can make the new Panchayati Raj degrading. The main reasons behind the no up gradation of the Panchayati Raj Institution are low level political awareness and the prevalence of feudal authority and feudal values. Though, after the introduction of the 73rd Constitutional Amendment, Madhya Pradesh was the first state to hold the election to the Panchayats, and thus the elected local bodies have come into existence, but news is appearing in the newspaper that most of them are not been able to cope with their functioning.

### **Research Methodology**

The primary concern in this subject as stated in the beginning is directed to study a social changes and status of the Panchayati representatives and rural people in all categories of the society and to probe into the factors that are related to the society and its change.

### **Tools and Techniques for Data Collection**

For gathering pertinent information, the data available from a range of Public documents that was readily obtainable for collecting essential information. The author has attempted to gather related data from aforementioned secondary source.

Mathematical calculations have been composed from the preceding research papers, who have offered an exact mathematical presentation of data, and the percentage and also a methodical explanation. For an appropriate investigation and statistical treatment of the research subject/ data is made in a suitable mode and has been attempted to be presented right through the black and white analysis in an organized way.

### **Results and Analysis**

1. Majority of elected representatives are grown up young and middle aged. This indication shows that there is a possibility of impressive change in the society in near future as they are capable enough to work in the ground level.
2. Majority of the representatives is married and majority of percentage have got married between 19-23 years of age. As it is customarily understood that married people are more responsible and matured than bachelor, so maximum representatives shall habitually show their responsibility in development work.
3. Majority of the members come from. Schedule caste (SC) and Schedule tribes (ST) are proportionate as per the provision of the 73 amendment.
4. In 1992 maximum elected representative were illiterate but now majority of representatives generally come from the people of average educational levels. even few representatives have been found highly educated up to Post Graduate level and even PhD also.
5. Majority numbers of representatives belong to joint family. A joint family of moderate size (neither too big, nor too small) expected to allow the members time to time for outside work families of large or medium size

can afford to release its members in terms of responsibility.

6. So far as women representatives are concerned, there is an endeavor to follow that one-third reservation policy was introduced in 73 amendments.
7. More than three-fifth of the members have told that women participating in discussion of social, political and economic issues. Female members from Zila (District) and Janpad Panchayat (a village council in India) are more interested and prone in this particular matter than village Panchayat members. But majority of the respondents discuss with each other after the completion of the entire discussion.
8. More than 80% of the representatives used women right of Franchise.
9. More than three-fourth of the female members have expressed their interest in participating in Panchayat meeting.
10. As far as degree of interest of women is concerned, it has been observed by many investigators that three fourth of the members have opined that they have equal (sometime more) interest as like those of male members.
11. Only around half of the members react positively when women raise any issue. Although in Zila (District) and Janpad (Block) Panchayat almost all are reacting positively, but overall impression is not good enough.
12. More than three-fifth of the female members used to get invitation for Panchayati meeting. In Zila (District) and Janpad (Block) Panchayat almost all are getting invitation to attend Panchayati meetings.
13. As far as participation of female members are concerned, more than four-fifth of the members are participating in decision making process though fairly good number of Zila (District) and Janpad (Block) members are participating in decision making process. Four -fifth of the members of SC and ST category participate in decision making process.
14. Representatives from Kerala, Karnataka, Tamil Nadu, Sikkim, Tripura and Rajasthan have already taken an initiative to increase school enrolment while Orissa and Uttar Pradesh, Goa and Utrkhand were the poor performers. In Maharashtra 100% men and 81% female pradhans worked to increase enrolment in schools. In Gujarat this ratio was 73: 90 while in Rajasthan 97% men compared to 84% women pradhans took initiatives. (Source -AC Nelson ORG through Vineeta Pandey, Panchayats leading social change).
15. Around eighty percent members of the members from SC and ST attend meeting regularly. It was very negligible before 1992 because few elite members used to take the decision. All members irrespective of any cast, creed and commune get invitation to attend Panchayati meeting.

It has been understood on the way of reviewing literature, Women reservation is a short term relief for women that is why Govt. of India started few programs to strengthen the 'Women Components' under the observation of Ministry of Rural Development like Swarnjayanti Gram Swarozgar Yojana (SGSY), Indira Awas Yojana (IAY), National Social Assistance Program (NSAP), Accelerated Rural Water Supply Program (ARWSP), Restructured Centrally Rural Sanitation Program (RCRSP), Integrated Rural Development Program (IRDP), Development of women and Children in Rural Areas (DWCRA) and Jawar Rojgar Yojana (JRY).



Apart from those there are lots programs have been implemented in the grassroots levels for alleviation of poverty and for making the women components as self-reliant and self-employment. Those programs are as like a) Support for Training and Employment program (STEP) for developing their skills and income b) Swadhar (Short stay at home) scheme to provide home for women at distress. c) Kishor Shakti Yojana (KSY) and Nutrition Program for Adolescent girl (NPAG) AND Integrated child development service ICDC), which are implemented school dropout girl. All those programs are rooted through Pachayati bodies in the rural areas and it has also been understood that elected representative is taking splendid interest to make those schemes successful with Impressive support of govt. official.

### **Findings**

1. One custom that still gives the ugly impression today is the preference of sex selective births i.e. having a boy rather than girl child, but it has been observed that maximum elected representatives are strongly taking interest to stop this customized issue.
2. They are also firmly trying to prevent the child marriage, which is common practice in India.
3. Panchayati representatives are continuously trying to tackle the problems of gambling as well as alcoholism too. It has been reducing onwards from 1992.
4. They have also taken up the assignment to increase female literacy rate and checking the incident of domestic violence.
5. School enrolment, particularly for girls, was an area of priority for many panchayat leaders and members.
6. The most important aspect has been noted by the investigator that in many places, elected representatives have started a new scheme by visiting door to door to resolve any problems confined within the family members. They also started awareness generation camps and trying to understand the reasons for escaping meeting regularly. They also resolve this problem in a cool and systematic process.
7. A remarkable number of SC/ST and OBC representatives are introduced in the system. The class background of the elected representatives has undergone a change from poor to rich, specifically in Gram (village) Panchayat level. Marginal farmers and landless laboures, who contribute majority number in Panchayati Raj seems to have shared some position in the rural politics.
8. Majority members are taking interest as well actively participating on health related campaigns matters,
9. Majority of elected representatives are also very much concerned about developmental issues and drinking water followed by road construction and sanitation as an area of priority.
10. While a huge number of elected women representatives passionately concern about the issues concerning to women and child, and sanitation, to provide street lights, drinking water, construction of bus shelters.
11. Women are carrying low educational back ground, still it has been observed by different researcher that maximum time woman representative are more responsible than their male members despite their low educational background.

### Suggestion

1. Special weightage should be given for adult education; particularly for the members of Village Panchayat. But as soon as they would come to realize their rights and responsibilities through the light focused by education, they would be more prone to their duty and thus would help to make the change of traditional and social structure.
2. More women organizations are to be introduced in all Villages and that should have functional connection with P.R.I.; Thus, women can establish them not only in Panchayati system, but also in the social structures too. And through these organizations' women would be able to bring their voice before government's attention and can argue for their development and thus would be able to establish themselves as a united force in the society.
3. Provisions are to be made in such a way by which it would be possible to minimize the caste discrimination. As long as the caste discrimination remains in the society, the progress of the society would be in a half. Above all, every one of us is human beings and that is our ultimate identity. So, caste discrimination should not only be minimized but should be tried to be abolished for the benefit of Panchayati Raj, as well as to make the society a refreshing one.
4. There are many researchers gave their ideas after thorough investigation pertaining to the process of untouchability in many parts of rural area. They affirmed that even after introduction of 73rd amendment followed by modified Panchayati Raj in the year 1992, the problems of untouchability either remain unaltered or very negligible changes occurred till now. Still there are many empirical researches are required to be conducted in the vicinity of untouchability and its remedy. The legal or policy implication is not enough to reduce this problem; it may be possible by changing of people's perception and by strengthening the interpersonal relationship.

### References

- Singh, Yogendra, *"Process and Problems of Social Change in India"* (Jaipur, Rajasthan University Studies in Sociology 1969).
- Marriott, MC. Kim, *Village India*, (Chicago, University of Chicago Press, 1955)
- Singer Milton (ed), *Traditional India: Structure and Change*, (Philadelphia, 1959).
- Dr. Pranab Kumar Rana, *Social Justice, Panchayati Raj and Women Empowerment*, Odisha Review, February- March, 2012
- Vineeta Pandey, *Panchayats leading social change: Survey*, 14 July 2008
- *The Hindu, Business line*, Simon Chauchard, *Panchayati raj and untouchability* June 5th, 2012
- <http://www.sociologyguide.com/social-change/>
- <http://sociology.about.com/>
- <http://www.dnaindia.com/india/report-panchayats-leading-social-change-survey>

## Rural Credit by Banks in Madhya Pradesh

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### **Abstract**

*There is immense potential for development in Madhya Pradesh but, due to excessive dependence on agriculture, unproductive credit, illiteracy, rising costs in agriculture, and insufficient exploitation of available resources villagers of these state are still backward. Rural indebtedness has also been a major problem here, but from last some years the scenario is changing. Apart from agriculture, now Governance is paying adequate attention towards MSME and new self-employment schemes are being conducted keeping in mind the rural classes. Now banks are distributing credit not only for agriculture but also for small industries. Some suggestions like, proper analysis of plans, monitoring, control on corruption, opening of rural branches, Training programs for entrepreneurship in rural areas may be important. If these suggestions are put into practice, the institutional credit system in MP, can play a vital role in the development of the state.*

*Keywords: Rural indebtedness, MSME, Credit-Deposit ratio, etc.*

### **Introduction**

Madhya Pradesh is situated exactly in the middle of the country. According to the 2011 census, the population of the state is 7.27 crores, and 72.37% of its population lives in villages. There is immense potential for development but ironically the villagers here are cut off from the mainstream due to the diverse complexities and insufficient exploitation of available resources. The average rural literacy rate in the state is 63.94 percent. Rural indebtedness has also been a major problem here. Along with the current loans, the villagers are being buried under the burden of parental loans. Excessive dependence on agriculture, unproductive credit, rising costs in agriculture are responsible for this disaster. Therefore, in the last few years, in addition to agriculture here, possibilities of employment and livelihood have also been explored in micro, small and medium enterprises. That is why, in the previous years, various banks are distributing credit not only for agriculture but also for small industries.

### **and Research Objective**

The research paper presented here will reflect the rural credit given by banks in state. This is the main objective of this research.

### **Hypothesis**

H0A: Banking facilities for rural credit in MP are insufficient.

H0B: In the banks, the rural credit system has not been able to meet the target.

### **Research Methodology and Data Collection**

Research is based on secondary data i.e. only secondary data have been collected to test the presented hypotheses. Information published on authorized websites, books, annual credit plans, etc. have been used in the

research and references are also mentioned at the end of the research. Conclusions have been drawn using the normal average, percent decrease / increase etc. The presented paper has been prepared using the analytical method.

### Bank Branches in Madhya Pradesh

In MP also, the structure of rural credit is same as to India. Under the directions of 'NABARD', authorized by the Reserve Bank of India and the Central Government, the network of banking branches for rural credit in the state is given in table no. 1.

From the table no 1, it is clear that there is a total of 7684 branches of various banks in the state, of which 36% i.e. 2755 branches are in rural areas. Most of the public sector branches are in rural areas, while Small finance banks have the least number of rural branches.

**Table no. 1**

#### **Banking Branches for credit management in MP (as on 31 March 2019)**

S.N.	Type of Bank	Rural Branches	Semi-urban and Urban Branches	Total Branches
01	Commercial Bank(Public Sector)	1344	2866	4210
02	Commercial Bank (Private Sector)	207	897	1086
03	Regional Rural Bank	854	466	1320
04	Co-operative Bank	297	580	877
05	Small Finance Bank	53	138	191
<b>Total Branches</b>		<b>2755</b>	<b>4929</b>	<b>7684</b>

(Source: [www.dif.mp.gov.in](http://www.dif.mp.gov.in))

### Credit-Deposit Ratio of banks in MP:

In the banking sector, the credit-deposit ratio is a measure of liquidity and health of banks. This ratio indicates the percentage of disbursing of its deposits in the form of loan. The low ratio indicates high burden on the resources of the bank due to insufficient leverage of its financial resources. In the state, the position of credit-deposit ratio in various banks can be explained in the table no. 2

Table no. 2 explains the credit-deposit ratio in rural and non-rural bank branches of MP. On the basis of table, it can be said that the rural credit-deposit ratio is 94.49. The ratio is very high which indicates pressure on the rural branches i.e. loans are being disbursed more than the available resources. In the context of non-rural branches, the ratio is 75.53, which can be considered satisfactory. Regional Rural Bank (71.06) is in the most appropriate position from this point of view.

**Table no. 2**  
**CD ratio in banks of MP (as on 31 March 2019)**

(Amount in lakhs)

S.N.	Type of bank	Rural			Semi urban and urban		
		Deposit	Credit	Ratio	Deposit	Credit	Ratio
01	Commercial Bank (Public Sector)	3545615	2945371	83.07	26472049	16209690	61.23
02	Commercial Bank (Private Sector)	69736	184202	264.14	4440699	6066777	136.62
03	Regional Rural Bank	940695	668433	71.06	1212647	517932	42.71
04	Co-operative Bank	919219	1367741	148.79	1529693	2269681	148.37
05	Small Finance Bank	2174	9979	459.02	185135	495572	267.68
<b>Total Branches</b>		<b>5477439</b>	<b>5175726</b>	<b>94.49</b>	<b>33840223</b>	<b>25559652</b>	<b>75.53</b>

(Source: www.dif.mp.gov.in)

**Targets of Rural Credit for banks and Achievements:**

Creation and distribution of credit is an important function of banks. As per the Reserve Bank's monetary policy, all banks have to distribute at least 40 percent of their loans to the primary sector. If there is a shortfall in it, that deficiency, have to be deposited by banks with the NABARD at the lower rate of interest. NABARD lends that amount to the state governments for rural development activities. Agriculture, education, small industries etc. are most important in primary areas. PSL (Priority Sector Lending) is important in achieving inclusive growth, capacity development, and equality of income. Government's finance schemes reach the rural masses only through bank branches. The targets and achievements of the Annual Credit Scheme in relation to rural credit can be explained by table no. 3.

**Table no. 3**  
**Targets and Achievements under Annual Credit Plan in MP**  
**(For the financial year 2016-17 and 2017-18)**

(Amount in crores)

S.N.	Type of loan	For the fy 2016-17			For the fy 2017-18		
		Targets	Achievements	%	Targets	Achievements	%
01	Agricultural Credit Crop Loan and others	75927	60077	79.12	88374	56469	63.90
02	Agricultural Infra-structure Loans	3184	888	27.89	3905	614	15.72
03	Other ancillary activities of agriculture	1877	3197	170.32	2589	3799	146.74
04	Micro, Small and Medium Sector (MSME)	16123	16516	102.44	18443	22512	122.06
05	Loans for other primary Sector	11993	7000	58.37	13570	6783	49.99
	<b>Total Loan for Primary Sector</b>	<b>109104</b>	<b>87678</b>	<b>80.36</b>	<b>126881</b>	<b>90177</b>	<b>71.07</b>

(Source: www.dif.mp.gov.in)

It is clear from the table no. 3, that agriculture and other priority sectors have achieved about 80 percent success, in terms of credit facility in the year 2016-17, while in the next year i.e. 2017-18, the percentage of success has been 71. The percentage of achievement in respect of agricultural loans in 2017-18 has been only 63.9 which is not satisfactory. It will be important to see the targets and achievements for the financial year 2018-19.

**Table no. 4**  
**Targets and Achievements under Annual Credit Plan in MP**  
**(For the financial year 2018-19)**

(Amount in crores)

S.N.	Type of loan	Targets	Achievements in first quarter	%
01	Agricultural Credit Crop Loan and others	102578	19433	18.94
02	Agricultural Infrastructure Loans	3733	196	5.25
03	Other Agricultural Activities	2953	1015	34.37
04	Micro, Small and Medium Sector (MSME)	20945	7462	35.63
05	Loans for other priority sector	13226	1307	9.88
Total	Total Loans for Primary Sector	143435	29413	20.51

(Source: Annual Credit Plan 2018-19)

Therefore, the table no. 4 is presented in this regard:

It is clear from the table no. 4, that the primary sector targets have increased year after year. At the same time, the percentage of achievement has decreased somewhat. An important fact is that the loan targets for the MSME sector have been increased every year. It indicates the increasing importance of this sector. The achievement of targets for the year 2018-19 has been about 20 percent in the first quarter. About 76 per cent loan for primary sector has been earmarked for agriculture and agriculture related works.

### **Conclusions and Suggestions**

After studying and analysing the targets and achievements of banks and credit schemes available for rural credit in rural areas of the country, the following points are reflected in the conclusion:

1. Only 36% bank branches in rural areas. While about 72% of population belongs to rural. In this view, these branches are insufficient.
2. The rural cd ratio is 94.49 (very high). Which indicates excessive credit load on rural banking branches. The ratio is 75.53 (satisfactory) for non-rural banks.
3. In the annual credit plan for the year 2016 to 2019, the credit targets for primary sector has increased year by year, while the achievement has decreased year after year.
4. In the first quarter of the year 2018-19, the achievements against the annual target for credit in the primary sector have been an average of 20%, which is not satisfactory.

Based on the above analysis, Banking credit facilities do not seem to be adequate, as well as their performance is also declining. So, on this basis, the hypotheses are proving correct, but it also does not mean that the situation is very difficult. Actually, in MP, the scenario is changing. Apart from agricultural, small industries are also looking for self-employment and employment opportunities. Governance is also paying adequate attention towards this direction and new self-employment schemes are being conducted keeping in mind the rural and lower classes. Some suggestions need further attention. Like:

1. After making plans, their proper analysis, monitoring, modification and effects should be studied.
2. Full control on the defects of bureaucracy, red tape, corruption in the government machinery is needed.
3. In the year 2017, very few bank branches (rural) have been opened whereas more and more bank branches need to be opened in rural areas.
4. Most of the training programs for entrepreneurship and skill development should be organized in rural areas and practical and technical knowledge should be made available.

If these suggestions are put into practice in a practical way, then the institutional credit system in the village-head Madhya Pradesh, can play an important role in the development of the state.

## References

- *Economic Development and Planning in India: Mr. SK Mishra*
- *Annual Credit Plan 2018-19*
- [www.dif.mp.gov.in](http://www.dif.mp.gov.in)
- [www.slbcmadhyapradesh.in](http://www.slbcmadhyapradesh.in)



## Social Network Security

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### **Abstract**

*In this study, we present the various aspect of social network and physical security related with the use of social networks, by introducing the mechanism behind each and summarizing relevant security studies and events related to each topic. We recommend specific action be taken to bolster stronger user awareness, more secure software designs as well as better organizational accountability.*

*Keywords: Security; Information Security, Social Networking Availability, Social Networking Services., etc.*

### **Introduction**

Information security is very important these days to anyone using a computer or to any organization that employs computers and networking in their day to day operations. That is nearly everyone. Information security should be at the forefront of everyone's mind since so much of our personal information is out there on the Internet. Information security is necessary because of the risk generated when technology is used to process information because information may be disclosed in the wrong way or to the wrong person. Information security is broken up into three major areas, which are called the CIA of information security. These areas are Confidentiality, Integrity, and Availability. Confidentiality deals with making sure only authorized people have access to the information. Integrity deals with making sure that the information is not tampered with or corrupted in any way. And finally, Availability is just making sure the information can be accessed and where it is supposed to be. This is about protecting information in storage, transmission and processing, using policy, education, and technology, Many companies and organizations that are just working with day to day data are taking all precautions to prevent hackers from causing attacks and data breaches, using firewalls, intrusion detection and prevention systems, honey pots, and appropriate training and policy enacted by their security managers.

It's a different game when talking about social networks though. Social Networking Service (SNS) like Face book are not as secure, despite the technologies implemented at their facilities or the policies put in place by their security personnel. The main reason for this is because of the information that users put on these social networks the staggering popularity of these social networks, which are often used by teenagers and people who do not have privacy or security on their minds, leads to a huge amount of potentially private information being placed on the Internet where others can have access to it.

### **Security and privacy risks in social networking**

Social networking is not without its security risks. A great majority of social networking deals with privacy, there are many information management issues with social media services, mainly in the area of privacy and personally identifiable information and how to properly store and protect it. "social networking sites create a central repository of personal information" which continues to grow as users keep adding to it. What makes this worse is teenagers, who are less worried about privacy and security, continue giving up information about them

willingly. Sometimes this is in the name of being popular, sometimes this is just carelessness. Parents are often very unaware, or not caring about, what their teens are putting online. Another main risk with the privacy and security of information in social networks is the centralized architecture.

Social media servers are a gold mine of personally identifiable information which is freely given up, by teenagers and adult users alike. This gives rise to grave privacy concerns and can give rise to things like identity theft and selling of user data to third parties. Users have a false sense of trust in their social network provider to protect their information, when it is often being sold to third parties or hacked by identity thieves Facebook added privacy settings that the user can control, their default setting is public when an account is first created. Thus, a brand-new user that does not change these settings to make them stricter is actually posting information that can be viewed by the public and non-friends. The amount of information that trusting users put in their profiles on popular social media sites can be pieced together to form a picture of the user, that contains enough information to trick their friends into thinking it's really them. An identity thief can then create a false profile of that person, re-friend all of their friends, and then trick their friends into revealing more personal information about the user. This practice is called "profile cloning." some thieves steal information about users from one site to create a fake profile on another. Information can also be tricked out of users through the use of phishing attacks, where information is gleaned from users via setting up fake Websites that ask for personal information or even passwords and social security numbers. Various other attacks are engineered to either take personal information from users, or infect their system with viruses. They include click jacking in which an attacker posts a video to a user and when the user plays it, malicious code is introduced into their system, and watering hole attacks, where a developer's forum is hacked and everyone that visits the forum gets their system infected by a Trojan horse virus. Other risks include scams and cyber bullying, too. The risk any user takes on will be proportional to the amount of personal information they choose to post, and how they set their security/privacy setting.

The biggest problem here is that many users are not aware of the privacy settings and how to use them. They are also not aware of the risks associated with uploading sensitive information. Studies have shown that social media sites are designed to get as many users together into one place, and many of these users are unaware of how to use the privacy settings. These sites value "openness, connecting, and sharing with others – unfortunately the very aspects which allow cyber criminals to use these sites as a weapon for various crimes Employees often post company information on social networks, introducing risk to the organization they work for. When you see how naïve and trusting some people are, and how much private information is stored in a central repository like a social media service, it is easy to see that this is a very big reason why attackers go after social networks.

Even though technology and policy may be used at the social networking sites the same as any other organization, the centralized structure and the huge repository of private information gives rise to huge security gaps. These can be addressed with more policy, some common sense by users, and some architectural changes.

### **Some possible solutions**

The rising tide of attacks on social networks, tell us that social networks and their millions of users have to do a lot more to protect themselves from organized cybercrime, or risk failing to identity theft schemes, scams, and malware attacks. Understanding these risks and challenges should be addressed to avoid potential loss of private and personal information. The area of internet information security is well developed and evolves continuously in response to new threats and so it must evolve with social media too.

Some important tips for social network users to follow to help protect themselves online. The amount of personal information posted should be limited, and not post home addresses or private contact information. This, and information about your likes and daily routine can all be pieced together by a cybercriminal. Also, think of the Internet as public. Even if privacy settings are in place, information posted can still get out there, through friends reposting, and it is stored on servers that can be hacked. Be comfortable with the public seeing whatever you are posting on social network sites. Also be skeptical and beware of strangers. Not everyone is who he or she claims to be, and they could have stolen someone's identity to commit cybercrime. Do not use the third-party applications that are often making their way around Facebook. They often install malware that tracks your online activities. Use strong passwords, use anti-virus software, and keep your software up to date to help protect against the latest security threats. For those with kids, they need to be monitored very closely because they often do not know the wise techniques of online security or don't care to keep themselves safe. Remember that once you post something, it never goes away even if you delete it, and know what to do to report someone that you suspect may be a security threat.

Parents need to be much more involved in the online activity of their children, since they are not experienced or wise enough to watch out for themselves or make the best decisions. Schools are also taking some actions in this regard, with policy and supervision, but not all schools are on the same page with this. Some are just letting kids suffer the natural consequences, and warning them that college and potential employers check their social networking pages and the posting of certain content is frowned upon and could result in non-admission or non-hiring.

In a complex study outlining the effects of unfriending people in your social profile, the main idea of this approach was that every friend, someone has in their profile, has a certain risk factor assigned to them by an algorithm, and this is based on the habits of how they interact with the user online, and how they pass on information, or repost things, to their friends. Due to this effect, even if you post online to just your friends, there is no guarantee they will not repost it to their friends, thus allowing the post to get outside your friend circle. So, once the most vulnerable friends are identified using this algorithm, they can be defriended and have the effect of making your online experience more secure and private. The math formulas that went into this calculation were extremely complicated and likely nothing that would be comprehended by the average user, but the upshot of all of this is clear; unfriend people that are leaking your information and your time online will be safer.

### **A novel proposed solution**

The biggest problem here is carelessness in what is posted online, and this is one of the easiest ways to solve conceptually. A possible solution is certainly not complete, but will help put a dent in the problem and reduce the amount of carelessness on the Internet, and fits in with the idea of using education as one of the three ways to secure information systems. A proposal that all social networks, including Facebook, Twitter, Flickr, LinkedIn, as well as all portable applications that serve a similar purpose is suggested to require all new users, when signing up for an account, to view a short video that discusses the topic of Internet safety, personally identifiable information, and instructs users on that network's privacy settings. The button to submit for an account should not appear until the video has played. This way it cannot be bypassed like the legal disclaimers that people just accept blindly. Also, any current users would have to watch the video on the day it goes online in order to continue using their accounts. The video could be required to be viewed once a year to remind users of its importance. Such an idea is rather easy to implement with the technology of today. With much better education, we can help combat this problem, especially if we also decentralize the information storage on these social networks.

### **Conclusion**

It is fairly clear from all of this research that social networks are big security and privacy risks. They have this risk because of their centralized architecture, their huge repository of all the personally identifiable information a hacker could ever want, and the general ignorance of the populace to how to properly use privacy settings to improve their online safety. There is also a large risk because many people, especially teenagers, are extremely trusting of other people and what type of information about themselves they reveal online.

This can only be combated in a limited way by technological means, or even by policy. We should consider any information sent through social media not secure, and therefore not transmit any sensitive information through social networks. The burden falls mainly on users to be smart about what they are doing online. The best thing we can do is to be smart when online. But with better education and some architectural changes, social networks can be used more safely. Education is the biggest part. People fall into complacency and need to be reminded of things sometimes. Lastly, it is important that research continue in the area of how to make social networks more secure even though trusting users are placing a plethora of personally identifiable information online

### **References**

- Barnes, S. (2006). *A privacy paradox: Social networking in the United States*. *First Monday*, 11(9). doi:10.5210/fm.v11i9.1394
- Kumar, A., Gupta, S. K., Rai, A. K., & Sinha, S. (2013). *Social Networking Sites and Their Security Issues*. *International Journal of Scientific and Research Publications*, 3(4), 3.
- Verma, A., Kshirsagar, D., & Khan, S. (2013). *Privacy and Security: Online Social Networking*. *International Journal of Advanced Computer Research*, 3(8), 310-315.
- *Research paper by David Hiatt, Young B. Choi, college of arts and sciences regent university Virginia beach, Virginia, usa*

## Status of Security in Social Media

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### **Abstract**

*Social Media has tremendously got its roots deep into the society as a whole in just twenty years. It has overshadowed our economical, social, cultural and personal life. With the creation and development of newest gadgets, devices and tools it has reached to remote and far corners of the globe. With its advancement, there are evils also gigantically increased, the most common is unethical hacking. The present paper discussed about the status of security with social media and some examples were quoted which were effected by hacking.*

*Keywords: Cyber Security, Social Media, Ethical Practices*

### **Introduction**

The earliest strategies of communicating throughout outstanding distances used written correspondence delivered by using hand from one man or woman to another letters. The earliest form of postal provider dates returned to 550 B.C. In 1792, the telegraph was designed. This allowed messages to be delivered over a lengthy distance a long way quicker than a horse and rider should raise them. Although telegraph messages were short, they were a modern way to convey information and facts

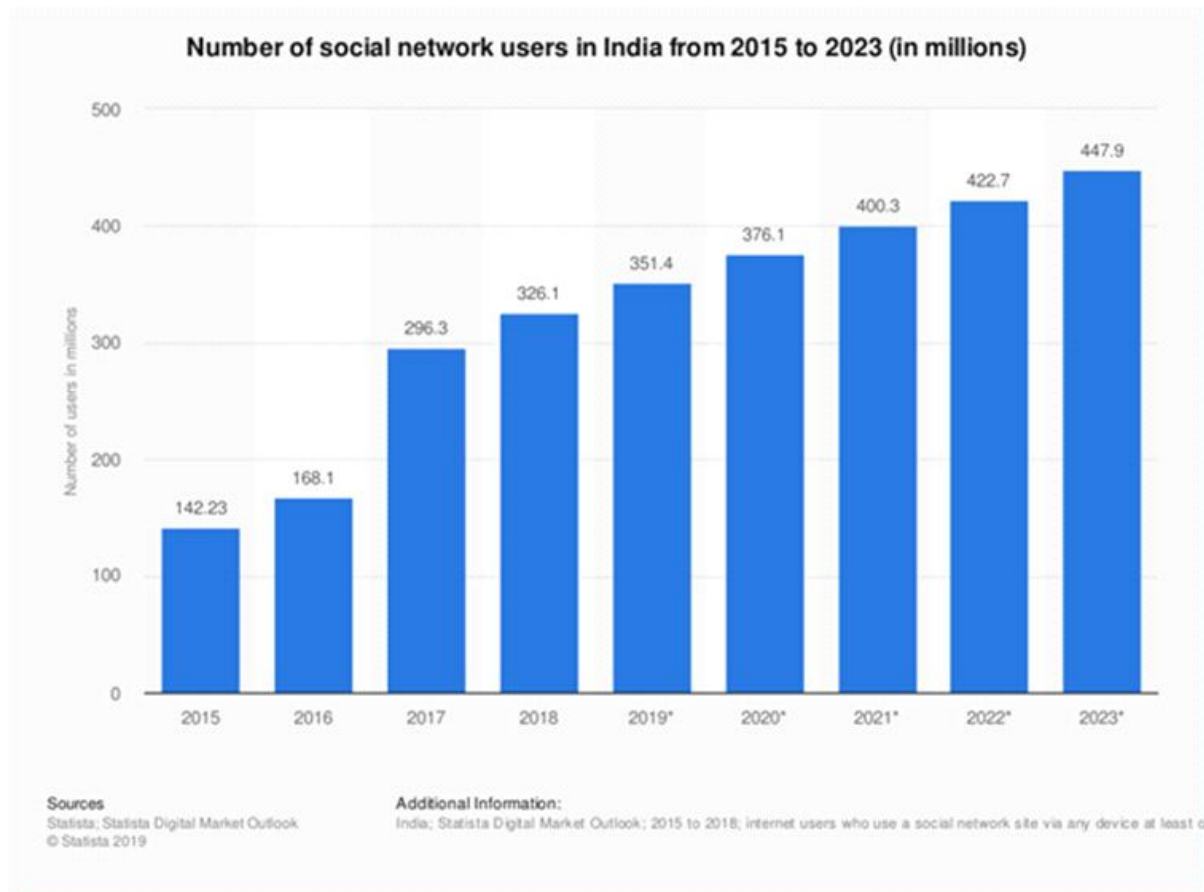
Technology began to exchange very swiftly in the 20th Century. After the first terrific computer systems have been created in the 1940s, scientists and engineers began to increase methods to create networks between those computers, and this would later lead to the start of the Internet.

With the ease of internet access, the variety of social media customers in India stood at 326.1 million in 2018. This increase is particularly lower as in contrast to the boom that occurred between 2016 and 2017. Nevertheless, the social community users in the use of a were anticipated to be nearly 448 million in 2023.

Social media is the collective of on line communications channels committed to community-based input, interaction, content-sharing and collaboration. Websites and purposes dedicated to forums, microblogging, social networking, social bookmarking and social curation.

### **Key Usages of Social Media in today's Era**

- Social media analytics is the practice of gathering facts from blogs and social media web sites and examining that statistics to make commercial enterprise decisions. The most common use of social media analytics is to mine patron sentiment to guide marketing and customer centric services.
- Social CRM (customer relationship marketing) can be a very effective business tool. For example, organizing a Facebook web page approves humans who like your brand and the way you behavior commercial enterprise to like your page, which creates a venue for communication, advertising and marketing and networking. Through social media sites, you can comply with conversations about your manufacturer for real-time market statistics and comments



### Why security in social media is important?

A Giant majority of us today use social media. Whether your desired platform is Facebook, Twitter, Tumbler, or any of the other social media networks, we all share one element in common. We can also now not be as tightly closed as we suppose we are. Based on research and even current information stories, there is evidence that criminals can without difficulty analyses anything they want to know about us, and with a huge range of pics and data in their hands, they can proceed to create havoc that can also adversely have an effect on us.

The risk of cybercrime to agencies is rising fast. According to one estimate, by means of McAfee, the damages associated with cybercrime now stands at over \$400 billion, up from \$250 billion two years ago, with the expenses incurred by way of UK commercial enterprise additionally strolling in the billions. In a bid to stave off e-criminals, establishments are increasingly investing in ramping up their digital frontiers and security protocols

- The rising cost of breaches: The reality is that cyber-attacks can be extremely costly for corporations to endure. Recent statistics have counselled that the common cost of an information breach at a large association is £20,000. But this simply underestimates the real cost of an assault towards a company.
- Increasingly sophisticated hackers: Almost each and every business has a website and externally uncovered structures that may want to furnish criminals with entry factors into inner networks. Hackers have a lot to reap from profitable facts breaches, and there are limitless examples of well-funded and coordinated cyber-attacks in opposition to some of the biggest corporations in the UK.

- Widely available hacking tools: While well-funded and exceedingly professional hackers pose a big risk to your business, the wide availability of hacking equipment and programmes on the internet also potential there is also a growing chance from much fewer professional individuals. Many other new viruses or hacking programs like,
- Boot Sector Virus: Boot area viruses infect both the grasp boot file of the difficult disk or the floppy drive. The boot record program responsible for the booting of working gadget is replaced by using the virus.
- File or Program Viruses: Some files/programs, when executed, load the virus in the reminiscence and function predefined features to infect the system. They infect software archives with extensions like .EXE, .COM, .BIN, .DRV and .SYS.

### **Some issues related to security of social media**

When famous vlogger Amayra (26) received a 'direct message' on Instagram to have her account verified, she didn't see anything suspicious. She was, in fact, happy that a more secure and authentic account would help add to her 1.2 million followers.

"I remember the message that came in March. It asked me to click on a link. After I did that, I could not access my account again," she said. She registered a complaint with Instagram and also reported the matter to Delhi Police's Cyber Cell. "But I'm yet to get my account back," she said.

Rinku Aggarwal (34) had a flourishing online business of supplying niche products. He would get lots of orders because of his 2.3 million Instagram followers. Early this month, he couldn't log into his page. "I approached the police. About 70% of my clients are unable to see what I'm doing or contact me because my Instagram page doesn't exist," he said.

Yashmita Grover (25) is a lifestyle blogger in South Delhi. She had 80,000 followers on the photo and video-sharing social networking app, not too long ago. "In May, I received a personal message on Instagram that asked me to click on a link to verify my account in one simple step. I did and lost access to my account. I approached the police and also wrote e-mails to the Police Commissioner, after which the Cyber Cell contacted me and helped me block that account," she said.

About 50 cases of Instagram account hacking are being reported in Delhi every day. Hackers are targeting those who have a substantial following. These accounts are then being sold to those looking to exploit the followers and push their products on Instagram that has about 1 billion

### **Probable Solutions to the Problem**

- Be selective with third-party applications: When you use a third-party application, such as a social media publish scheduler, they will require get admission to your account. Make positive you are only authorizing reliable applications to achieve access. And be certain to study the details of what exactly you are authorizing the specific utility to acquire get right of entry to
- Use strong passwords: Create your password the usage of eight characters or more. It can be any mixture

of letters, numbers, and symbols (ASCII-standard characters only). Accents and accented characters don't seem to be supported.

- Install antivirus software: Many internet provider vendors (ISPs) will furnish some shape of protection safety -- you can examine nearby ISPs to see if there are better selections available in your immediate area, or you can install an antivirus program, such as AVG, which does provide a free version.
- Enable two-factor authentication: Two-factor authentication confirms a user's identification by utilising a mixture of two distinctive components, generally the account password and a affirmation code, which is dispatched to the consumer by using textual content message or email.
- Move passwords to a administration program: LastPass is application that remembers all of your passwords, forcing you to solely have in mind one master password. With so many "difficult" to take into account passwords, oftentimes you have to give up resetting your password, giving you but any other impossible-to-remember password to add to the mix. You can additionally sync the service throughout all of your browsers and devices

## Conclusion

After study of the current status of security in social media finding is very clear and lucid i.e. as the number of social media accounts either of an individual user or a business enterprise are increasing majorly day-by-day the need of security in social media is also increasing as well. Every day new types and methods of hacking practices are arising majorly by which any unauthorized person or an unethical hacker can cause loss to a business enterprise or any individual user. Everyone can run their accounts securely and safely just by a little 'awareness' about the hacking methods. Everyone must be updated and aware of the new types of viruses and hacking techniques.

## References

- <https://smallbiztrends.com/2013/05/the-complete-history-of-social-media- infographic.html>
- <https://whatis.techtarget.com/definition/social-media>
- <https://www.statista.com/statistics/278407/number-of-social-network-users-in- india/>
- <https://socialnomics.net/2016/06/07/the-importance-of-securing-social-media- platforms/>
- <https://hackersonlineclub.com/virus-types/>
- <https://www.indiatoday.in/mail-today/story/hackers-target-celebrities-instagram- pages-1550913-2019-06-18>
- <https://www.entrepreneur.com/article/284282>
- <https://support.google.com/accounts/answer/32040?hl=en>
- <https://www.entrepreneur.com/article/284282>
- <https://www.entrepreneur.com/article/284282>



## Waste Management System Based on Internet of Things (IOT)

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### **Abstract**

*Waste management is one of the primary problems that the world faces irrespective of the case of developed or developing country. The key issue in the waste management is that the garbage bin at public places gets overflowed well in advance before the commencement of the next cleaning process. It in turn leads to various hazards such as bad odor and ugliness to that place which may be the root cause for spread of various diseases. To avoid all such hazardous scenario and maintain public cleanliness and health this work is mounted on a smart garbage system. The main theme of the work is to develop a smart intelligent garbage alert system for a proper garbage management. This paper proposes a smart alert system for garbage clearance by giving an alert signal to the municipal web server for instant cleaning of dustbin with proper verification based on level of garbage filling. This process is aided by the ultrasonic sensor which is interfaced with Arduino UNO to check the level of garbage filled in the dustbin and sends the alert to the municipal web server once if garbage is filled. After cleaning the dustbin, the driver confirms the task of emptying the garbage with the aid of RFID Tag. RFID is a computing technology that is used for verification process and in addition, it also enhances the smart garbage alert system by providing automatic identification of garbage filled in the dustbin and sends the status of clean-up to the server affirming that the work is done. The whole process is upheld by an embedded module integrated with RFID and IOT Facilitation. The real time status of how waste collection is being done could be monitored and followed up by the municipality authority with the aid of this system. In addition to this the necessary remedial / alternate measures could be adapted. An Android application is developed and linked to a web server to intimate the alerts from the microcontroller to the urban office and to perform the remote monitoring of the cleaning process, done by the workers, thereby reducing the manual process of monitoring and verification. The notifications are sent to the Android application using Wi-Fi module.*

*Keyword: Waste Management, RFID, Garbage, IOT.*

### **Introduction**

The generation and disposal of waste in large quantities has created a greater concern over time for the world which is adversely affecting the human lives and environmental conditions. Wastes are the one which grows with the growth of the country. Segregation of waste is important for proper disposal of vast amount of garbage modern society produces in an environmentally sensible mode. People became adapted to tossing things away and never realize the consequences of their action. The common method of disposal of the industrial waste is by uncontrolled and unplanned, and exposed dumping at the river sites and open areas. This method is injurious to plants, human health and animal life. Curb side collection is the most common method of disposal in most countries, in which waste is collected at regular intervals by specialized trucks. Waste collected is then

transported to an appropriate disposal area. Now days, cities with developing economies experience exhausted waste collection services, in adequately manage dunduns-controlled dump site sand the problems are worsening. Waste collection method in such countries is an ongoing challenge and many struggles due to weak institutions and rapid urbanization. At present, the volume of generation of municipal solid waste (MSW) is increasing very highly with the increase of population, economic uprising, industrial development, change in consumption habit and life style of urban population. It became a great challenge to manage MSW to the authorities in charge for waste management. Due to the lack of proper management solution, a considerable amount of 85% of the total MSW management budget is exhausted on waste collection and transportation. As a result, the improvement of the solid waste management system is much needed in recent time which requires a well-organized and proper way to monitor the status of solid waste bin in real time whereas confirming green environment and viable advance of the society. Smart cities have been identified as a promising potential application domain for the Internet of Things, with a wide range of possible services that can benefit city administration and citizens alike. One service that can be provided in a smart city is smart waste management. Public trash cans detract from the surrounding environment when they are full for long period soft time. On the other hand, it can be an expensive operation to send garbage truck to every trash can in the city; if cans are empty, the journey accomplishes nothing. Cities develop rough algorithms for minimizing cost of various municipal services such as collecting trash, but Internet of Things sensors can improve the services by notifying relevant public works officials when particular trash cans are full.



Figure 1. Illustration of an Internet of Things (IoT) general framework with several vertical applications.

### Problem Statement

Instead of using plenty of bins in an unordered fashion around the city, we can have minimal no. of smart bins that can be placed that are feasible and affordable. As we have seen all around us, the dustbins are getting overflown

and concerned municipal authorities usually do not get information within the stimulated time.

### Methodology

**Ultrasonic Sensor:** The sensor is used to detect the level of the dust in the dustbin. It uses a sound transmitter and receiver. An ultrasonic sensor creates a ultrasonic pulse called ping and listen for the reflection of pulse. The sound pulse is created electronically using a sonar projector consisting of signal generator, power amplifier, and electro-acoustic transducer array. A beam former is usually employed to concentrate the acoustic power into the beam.



Figure 2: Ultrasonic sensor module

#### **Ultrasonic sensor module consists of 4 pins:**

*VCC - 5V of power supply*

*TRIG - Trigger Pin*

*ECHO - Echo Pin*

*GND - To ground*

### Proposed Methodology

While considering the need of technology and innovation, this is not an original idea. The idea has been proposed. But however, we need an original plan for designing a Smart Bins with ultrasonic sensors. Already existing system involves complex circuitry and high costs and features are also limited. In India, if we have a costly garbage bin that will not be a priority experiment for people. Thus, here we are deploying such kind of system that is not only cheaper but with extended features that has never been implemented. For detection of trash in the bin, many sensors can be used like weight sensors, IR sensors, etc. But here we are using ultrasonic sensors which gives us directly information about percentage of trash in the dustbins. It is advantageous over weight sensors because weight sensors only tell us about the weight of the garbage, but this does not let us know the level of garbage in the bins. Dynamic Routing and Intelligent Transportation System is a novel solution to the problem arises with Waste Management. The system will provide high QOS to the citizens of smart city.

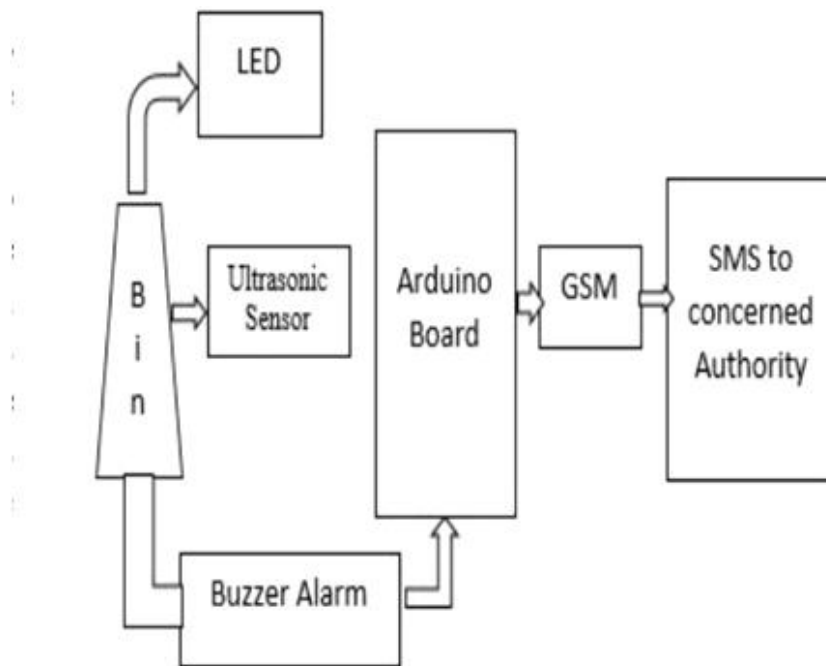
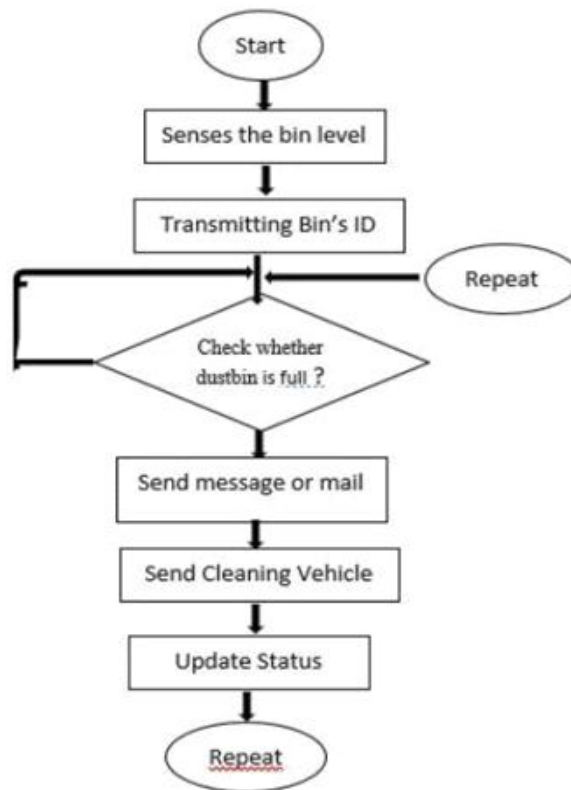


Fig 3: Example of a One-Column figure caption

#### Flowchart

The flow chart of the project is shown in fig. It basically provides the idea of this project. The flow of the project of smart Waste Management System begins with option start. Ultrasonic sensors are deployed that senses the level of trash in the bins and when it crosses the threshold level, message is send to the concerned authority via GSM so that the concerned authority can clean the dustbin as soon as possible. The process gets repeat itself again and again until the dustbin is not cleaned.



## Conclusion

The objective of the project is for the real time access of information about the dustbin. This waste Management System using IOT has implemented the management of waste in real time using smart dustbin to check the fill level of dustbin to check if it is full or not. The novel cloud-based system for waste collection in smart cities. Providing the services for the different kind of stake holders involved in this area. On-board surveillance cameras and reporting system. Development of application for city administration, municipality staff. In this information is send and action is taken immediately based on the aspect.

## References

- D. Eason, B. Noble, and I.N. Sneddon, "On certain integrals of Daniel Hoornweg et al., "what a waste- A Global Review of Solid Waste Management", UrbanDevelopment & Local Government Unit World Bank, Washington, DC.
- Social Information and Policy Analysis, United Nations, New York: UN, 1997.
- Kumar, N. Sathish, et al. "IOT based smart garbage alert system using Arduino UNO." [7] Karadimas, Dimitris, et al. "An integrated node for SmartCity applications based on active RFID tags; Use case on waste-bins." Region 10 Conference (TENCON), 2016 IEEE. IEEE, 2016.
- Medvedev, Alexey, et al. "Waste management as an IoTenabled service in smart cities". Conference on Smart Spaces. Springer International Publishing, 2015.

## Wearbles: An Innovative Healthcare management technology India-Review Study

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### **Abstract**

*In today's world the technological advancement is alluring many users across the globe for various application may ne healthcare, defense, management and teaching. The efficiency of user application is now totally depended over the gadgets. This secondary data research paper highlights the insight regarding the healthcare management through health gadgets in Indian geography. It explicitly focuses the benefits of wearbles technology and its wide application in health care delivery.*

*Keywords: Healthcare, Health Gadgets, Health Care, etc.*

### **Introduction**

India is a largest democracy in the world with 1.3 billion populations. Diversified health care services are available and generally availed by the users. Health and education are two important factors in the development of any economy. India is facing the problem of poor health status due to lack of accessibility, affordability and quality. The health information and its access is one of the most important variable which affect health status in any community among other variables like genetics, life style, physical and social environment. Health care services enabled Information and Communication Technology (ICT) is best alternative to enhance healthcare coverage in India because of its diversified culture & geography. Technological interventions in health care services through e-health options, mobile health solutions and wearable technology have allowed the users to manage their own health and monitor it periodically. Growth of mobile technologies in India plays an important role in improving the health care access, clinical care and health awareness among the people. While Smartphone is the user choice in today's scenario, wearable device are entering the user health ecosystem. Wearable devices and sensors helps person to track and monitor their own behavior and body with timely remote medical assistance. In recent time due to proliferation of information technology into health care service delivery the analysis of technology acceptance of users against health and wearable technology is essential because tech advancement in health creates imbalance between the social and cultural diversity backed by language barriers and economic fluctuations. Evaluating consumer likelihood is vital as the user intent and behavioral change is very diverse and change person by person.

### **Review of Literature**

#### **Healthcare in India**

Health care is vast sector prevailing in our society and integrated with the economic system for providing various services such as curative, preventive, rehabilitative, and palliative care (Healthcare industry, website). This sector constitutes 10 % of gross domestic product (GDP) of most of the developed nations. Indian Health care sector constitute US\$ 100 billion market and with a compound Annual Growth Rate (CAGR) of 22.9% it is

expected to reach US\$ 280 billion by 2020. The intervention of Information technology in Indian healthcare services is also booming with a value of US\$ 1 billion and expected to grow 1.5 times by 2020. For information processing world is shifting over the mobile technologies and India leads the transition for being second largest telecommunication market registering a Compound Annual Growth Rate (CAGR) of 5.2% for mobile services market revenue between 2014 to 2017. Due to easy access to telecom market, strengthened availability of telecom services and de-regulations in FDI policies. Usage of Smart phone and mobile applications has marked a growth of 131%. (Indian Brand Equity Foundation, 2016). As reported by International Telecommunication Union 2014, the world population was 7.1 billion in 2013 and the total mobile phone subscriber were 6.8 billion (Ahmed, S, 2015), whereas in India the total Smartphone user by 2017 would be 167.9 million and expected to grow to 320 million by 2019 (Anthony, S & Jain, A, 2016).

### **Health Gadgets: Wearable technology in Healthcare services**

In today's scenario user are seeking for healthcare service which are more accurate, specific and comfortable in nature. Wearable technology and health gadget allow consumers to enjoy healthier life with manageable expenses. Advancement in wireless technology and economical data plans helps are inducing healthcare services with mobile usage, structured information flow and analysis. Health gadgets allow an individual to streamline a healthier lifestyle. The makers of wearable device and health sensors initially targeted the consumer who are extremely health conscious and seek for extensive health fitness. The acceptance of health based wearable device was steered by a preventive approach towards high serious health risk. Health gadgets users can be segmented into (i) Motivated Healthy: extremely health conscious and fitness oriented, (ii) Chronically Monitored : requiring continuous monitoring being chronically ill. First segment will willingly invest time to learn the usage of device and ready to pay for acquiring the desired functionality while the second segment are using the health gadgets only for the treatment purpose and their usage is dependent over the caregiver. There lies huge opportunity for the health gadgets manufacturer to work over the completely un-addressed section i.e. the information seekers and technology averse segment This group are more inclined to use health gadgets because (i) they are eager to pay higher share of their income over health care cost and have strong intent to pay for their healthcare expenses (ii) also there lies a big demographic shift regarding the health related problems in concern with obesity, diabetics and blood pressure problems (iii) lastly the strengthened technological advancement and network availability also allow the users to access the wearable technology for health sector. Health gadgets gains customer likelihood over 3 I's determinants – Instrumental, Interconnect, Intelligent. (Fraser, H et.al. 2011). Wearable technology constitutes jewellery, glasses and clothing — worn on, in and around the body — with sensory devices. Wearable devices and sensors help person to track and monitor their own behaviour and body with timely remote medical assistance. (Barnes, K et.al. 2014).

Researchers in University of Massachusetts have developed a sensor-based device named iHeal, for drug addicts and substance abusers. The sensors monitor a person skin temperature and nervous systems trends during drug

consumption and compare it with pre-reported stress levels. If any alarming pattern, risky physiological condition is noticed then medical intervention is made through audio/video and text messages to motivate them and encouraging a person to leave drug consumption. In US, Patients are using “Gluo Phones” that monitors and transmit their glucose level to the health care providers and reminds them for taking the glucose test. It saves the time of patient by enabling them to do their self-assessment and self-care of their glucose levels and helps them to restrict the doctor's visit for the critical incident only. (Darrel, W 2014). Wearable gadgets application carries a broad spectrum categorizing the consumer into (i) Consumer market (ii) Non-consumer. Consumer section includes general consumer, fitness & sports, fashion & apparel, Home automation, gaming & animation while non-consumer includes defence & security, Enterprise & industrial and Healthcare. Health gadgets cover fitness, sports and healthcare services. (Salah, H et.al. 2014). In a report by Ericson Consumer Lab, the total usage of wearable devices in Brazil, China, South Korea, and the UK has doubled from 2015 to 2016. Wearable technology adds mobility and real time for the users to access the health care services i.e. “anytime service and connectivity”. (Ericsson Consumer Insight Summary Report, 2016).

There lies a vast base of applications for wearable technology for medical and health care services. Through such gadget, patient's vital information such as heart rate, brain activity, sleeping patterns, sugar levels, blood pressure measure, stress index etc can be collected and be shared with doctors, physicians and healthcare service providers. For instance, a cardiac sensor based wearable device – Body guardian Remote Monitoring by preventive, tracks patient's biometric signals. One such wearable device approved by FDA monitors non-lethal arrhythmias in ambulatory patients and connects the health information in real time through wireless network to doctors. Through body mounted health gadgets doctors and physicians have extended capacity to access their patients outside their clinic also. Mobility is attached to their healthcare services due to such gadgets. With further extensions now healthcare professionals are experimenting the usage of health gadgets for providing better health care services such as Dr. Pierre Theodore from University of California San Francisco, is using Google glasses while performing surgeries. Through head mounted Google glasses Dr. Pierre is able to browse, record and run third party functions simultaneously at a time of operation. Also, he can preload the X-ray and CT –scan reports while operating. Health gadgets enabled Dr. Pierre to access the ample data parallelly while performing surgery and he not even need to move out of the operation theatre also. thus, the prime most benefit of wearable based health gadgets used for medical and health purposes is connecting with real time health data, hence the accuracy and reliability are two dimensions which must be high. To assure this approval from regulatory body is must. If compared such health based wearable gadget are more beneficial then simpler fitness-based gadgets. It is observed that insurers do not trust linking of health care services with digital or internet technology and summing up its application to a smart health gadget, due to this reason many times health care provider discourage usage of health gadgets. But on the other hand, to enhance their healthcare delivery services with usage of telemedicine and telediagnosis, ePrescriptions, and an electronic medical record is also become



neccaiste for them to use. Shifting from legacy line of treatment to digitalize and gadget-based treatment is must. Wearable health gadgets are further classified into near-body electronics, on-body electronics, in-body electronics by The International Electro Technical Committee (IEC) Standardization Management Board. Also, the Moving Pictures Expert Group (MPEG), a working group of ISO/IEC, sets new conceptual model of wearable health gadgets.

S.No	Type of health gadget	Health gadget	Application use
1	On - Body	Smart T-shirts	Provide complete fitness metrics and workout analysis
2	On - Body	Smart Shoes	Tracking time , distance , pace and calories
3	In - body	Pacemaker	Placed in chest or abdomen region to control rhythm of heartbeat
4	On - Body	Smart Watches	
5	On - Body	<b>Wrist bands</b>	
		Nike Fuel band	Track daily calorie count and steps taken
		Fitbit Force and Fitbit Flex	Track steps taken, distance covered, calorie count, floor climbed, sleeping efficiency
		Jawbone UP wrist band	calorie count, steps taken, distance and pace, active & inactive time and sleep quality and efficiency
		Aoir health	Nutrition management, exercise analysis, stress index and sleep tracker
		<b>Arm band</b>	
		PUSH by Design Solution Inc.	Complete fairness metrics, pace tracker and collaboration platform with coaches and trainer through mobile app.
6	On - Body	<b>Chest</b>	
		Posture Pod by Engage Biomechanics	Prevent occurrence of ulcers due to pressure, commonly termed as bed sores. It monitors patient's position and intimate the same to nurse or health service provider
		Playbox	Monitor sports performance and provide collaboration with trainers or coaches.
		Hexoskin	For monitoring heart rate, breathing, steps, calories,
		OM Signal	User can track heart rate, breathing, steps, calories burned, and the unique OM index (relaxation/lack of stress).

		Head	
		Shock Box	Sensor is placed in helmet and measures the degree of shock over helmet at time of accidents or sports
7	On - Body	Muse	Equipped with sensors to detect the brain activity and monitor it. The complete brain movement are decoded into audio and video signal which can be analyzed over Smartphone or tablet through application
8	On - Body	Knee	
		Lynxio	User can track their physiotherapy treatment plan and share it with their physiotherapist for review.

## References

- Wikipedia, 2019 Retrieved from website URL: <https://en.wikipedia.org/wiki/Gadget>
- Woyke, E. 2017, retrieved from website URL: <https://www.technologyreview.com/s/603212/the-best-gadgets-coming-in-2017/>
- Kendrick, J. 2013 . retrieved from website <https://www.zdnet.com/article/mobile-technology-the-amazing-impact-on-our-lives/>
- Shodhganga: "A Historical Prespective of Cellular Market", Chapter 3, retrieved from [http://shodhganga.inflibnet.ac.in/bitstream/10603/3760/11/11\\_chapter%203.pdf](http://shodhganga.inflibnet.ac.in/bitstream/10603/3760/11/11_chapter%203.pdf)
- Some news about Gadgets website: <http://somenewsaboutgadgets.blogspot.in/2010/06/classification-of-gadgets.html>
- (Iserhagen, 1999) . "Technology: A Major Catalyst for Increasing Learning"
- (Tanner, M & Harris, E. 2000). "Health Technology Transfer"
- (Jadad, A . 2003). "From electronic gadgets to better health: where is the knowledge? "
- (Lorenzi , N . 2004). Beyond the gadgets- Non-technological barriers to information systems need to be overcome too "
- (Herzlinger , R. 2006). "Why Innovation in Health Care Is So Hard "
- (Flanagan , J. 2008). "Technology : The Positive And Negative Effects On Student Achievement".
- (Kim , C. 2009) . "The effect of technological devices in a teen's bedroom on the amount and quality of sleep "
- (Lucas, R. 2013) . "Professionalism in the Information and Communication Technology Industry "
- (Wilson , J. 2013). "Wearables in the Workplace "
- (Salah, H. 2014) . "Wearable Tech: Leveraging Canadian Innovation to Improve Health"
- (Forrester, 2014) . The Enterprise Wearables Journey.
- (2015) . "Internet on Things- Privacy and security in a connected world"

- (2016). *Wearable Technology and Internet of Things – An Ericson Consumer Insight Summary Report*
- (Gupta, P. et.al, 2016). “A Comparative Study of the Emerging Trends in the Use of Electronic Gadgets in the Youth”
- (2016). *European Commission - Smart Wearables: Reflection and Orientation Paper*
- (Fox, J. 2016). *Bringing the Power of Platforms to Health Care*
- (Olivarez, M. 2017). “Liberal Arts in the Data Age ”
- Anatom, 2019. “Types of Gadgets”, Website 1:  
<https://gadgets-reviews.com/review/14-types-of-gadgets-classification.html>
- Chong, Z 2017 <https://www.cnet.com/news/indias-internet-of-things-market-booming-to-billions-by-2020/>
- Corneanu, M, 2018 website: <https://travelaway.me/portable-health-gadgets/>
- Voo, B. 2018 *Pocket-sized Healthcare Gadgets You Can Use On The Go*, website :  
<https://www.hongkiat.com/blog/portable-consumer-healthcare-gadgets/>
- Agazoo, 2015 <https://agazoo.com/news/the-importance-of-gadgets-in-our-lives/#>
- Toptech@Fun, 2012, retrieved from the website <https://www.businesstoday.in/gadget/top-ten/10-best-devices-for-entertainment/story/190501.html>
- Gadget Flow 2017, retrieved from website : <https://medium.com/the-gadget-flow/8-smart-gadgets-for-home-entertainment-591efe0cda9d>
- Donegan, TJ. 2017. *Is the Amazon Kindle the perfect gadget?* website :  
<http://laptops.reviewed.com/features/is-the-amazon-kindle-the-perfect-gadget>
- Jenkins, J. 2010. “Why the Kindle is the Greatest Gadget of the 21st Century” Website :  
<https://www.cnet.com/news/why-the-kindle-is-the-greatest-gadget-of-the-21st-century/>
- Toesland, F. 2017 website:  
<https://www.raconteur.net/technology/top-5-applications-for-the-industrial-internet-of-things>
- Eurotech, 2018. Website : <https://www.eurotech.com/en/industry+solutions/industrial+commercial/industrial+commercial+wearable+and+portable>

## **A Study to Examine the Impact of Apparel Website Attributes on Impulse Purchase in Gwalior region**

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### ***Abstract***

*Study focuses on Apparel website attributes and impulse purchasing equation. The traditional stores have already been studied a lot in different contexts. Now the need of the hour is to conduct researches on online marketing and to find out the different factors that induce the consumer to do online shopping. The increasing excitement among the consumers to do online shopping of the apparels mandates the need of the present research. The research was conducted in Gwalior city taking a sample of 200 respondents. The results indicate that as such in India there is no effect of website attributes on impulse buying which is contrary to the results obtained in researches conducted in western countries.*

*Keywords: Apparel Website Attributes, Impulsive Purchase, etc.*

### **Conceptual framework**

As per Rook (1987) “powerful and persistent urge to buy something immediately” is impulse buying. The concept of impulse buying in the traditional shopping stores is already observed and studied by many researchers, but the concept of online impulse purchases is still to be studied in the city like Gwalior (India). The basic is that the person who feels that the products available in the traditional stores do not match his needs as well as he does not feel himself as equal to the person who is living in any metro city like Mumbai where they can buy any product of any brand. This shopping curiosity has pushed the concept of online shopping in city like Gwalior.

### **Apparel Website/ Online Stores**

Apparel website can be defined as the website that offers various range of apparel available for purchase in variety of colors, sizes and at a displayed price. The range of products or apparels are displayed on the site with a facility to view them according to the required size or desirable color. The website also provides the close view facility through which the designs, colors, pattern, stitching along with the quality of fabric can be seen carefully before ordering. There are many sites like jabong, bibaonlinestore, firstcry, flipcart, fitise, etc which offer apparel of various brand under one click. There are few online stores that are into traditional selling also along with online stores. It's not only designed to sell apparel but along with these items like jewelry, handbags, cosmetics, toiletries, footwear's, baby products and the list is endless that is provided by such sites. The customer sitting even in a small town can purchase the product being sold by any country.

### **Literature Review**

“A sudden, often powerful and persistent urge to buy something Immediately” (Rook, 1987). LaRose (2001)

stated in his study that various features like recommendations, suggestions, price, notifications that are reflected on the website also supports the unplanned buying. Koski (2004) mentioned website shopping keeps the shopping of buyer very secret and thus it's not being disclosed to any. So, the buyer can shop whatever he wants. Secondly Along with the secrecy it provides easy access and anytime he can shop even at night or it's a holiday. Koski also mentioned the availability of variety on internet as the third feature. Fourth, direct marketing encourages consumers to impulsively buy. Lastly, is plastic money. As the online store or website shares few common features with traditional stores. Stern (1962) enlisted price subsidy, immense distribution, self-service, push advertising, store displays, necessity for an item, its durability, ease to carry, and ease of storage. Koufaris (2002) concluded that fun in shopping and perceived usefulness were leading encouragers.

### **Objective**

To develop and standardize the questionnaire to measure cues on apparel website and impulse purchase. Find out the impact of cues on impulse purchases, also evaluate the cues on apparel website and impulse purchases on the basis of gender, to evaluate the underlying factors of Apparel cues on apparel website and Impulse Purchases.

### **Research Methodology**

Causal study with survey method where Population for the study included all the customers (male and female respondents). Sampling size was of 200 respondents, using non-probability technique to select sample. Self-designed questionnaire on Likert type scale used. Reliability test was used for checking the reliability of the questionnaire. Regression was applied to find out the impact of Apparel Website features on Impulse Purchase. Factor analysis to know factors of Apparel Website and purchase intentions & ANOVA was applied to find out the gender and age effects in the study.

### **Hypothesis**

HO1: There is no significant effect of cues on apparel website on impulse purchases

### **Result and Discussion**

#### **Reliability**

Cronbach's Alpha for Apparel Website Attributes and Impulse purchase was found to be as per threshold value of .7. Factor Analysis: KMO Bartlett's Test reflected adequacy of the sample and the significance value was .000 for both Website Attributes and Impulse Purchase.

#### **Discussion of factors -Apparel Website Attributes**

**Policy and message** Emerged as first and leading factor, with eigen value (EV) of 1.76 and variance explained as 7.04. **Assortment and announcement** had second highest Eigen Value i.e. 1.750 and four statements are clubbed under this factor. **Variety and Delivery** has received the Eigen value of 1.656. **Payments and Brands:** received the Eigen value of 1.53. **Verification** with EV of 1.448 and **Privacy:** Parent (1983) has defined privacy as the absence of undocumented personal knowledge with EV of 1.419. **Customer care and shipment** with EV 1.418. **Offers and Suggestions with EV of 1.403. Publicity with EV of 1.336. In Impulse Purchase:**

Readiness had highest Eigen Value i.e. 2.068 and five statements are clubbed under this factor. Exhilaration with EV of 1.517 followed by Hasty with EV of 1.490

$$Y = a + bx + e \quad Y = 34.594 + .004$$

Appwebattri + error

Y= Impulse Purchase (dependent variable)

X= Apparel website Attributes (independent variable)

Adjusted R square was .005 indicates that Apparel website attributes contribute 5 % to Impulse Purchase The significance of beta is tested using t-test and value for t is 0.113 which is significant at 0.911 level of significance indicating insignificant relationship between Apparel website attribute and Impulse Purchase

The gender and age do not have any significant Effect on Apparel Website Attributes neither individually nor collectively as the value was found insignificant at 0.095 and 0.491 respectively and in case collective significance value was 1.617

### Conclusion

This study examined the impact of Apparel Website Attributes on Impulse Purchase in Gwalior region. The questionnaires were filled by service users of various users in Gwalior and by applying test like validity, reliability, factor analysis and regression. It has been concluded that there is no impact of Apparel website attributes on Impulse Purchase in Indian context. Various Studies for the same variables have been conducted in many countries but the results received in the Indian context is quite surprising. There may be various reason for these results. India is still lacking behind in computer literacy that's why there is no significant impact of website attributes are found on Impulse Purchase. But from the study it can be hoped that as computer literacy rate would go up the result may change.

### References

- Beatty S. E., & Ferrell M. E. (1998), *Impulse Buying: Modeling Its Precursors*. *Journal of Retailing*, 74(2), 169-191.
- Koski N. (2004), *Impulse buying on the internet: encouraging and discouraging factors*, *Frontiers of E Business Research*, 23-35
- Koufaris, M. (2002), *Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior*. *Information Systems Research*, 13(2), 205-223.
- LaRose R. (2001), *On the negative effects of E-commerce: A sociocognitive exploration of unregulated online buying*, *Journal of Computer-Mediated Communication*, 6(3).
- Parent W.A.(1983), *A new Definition of privacy for the law*, *Law and Philosophy*, 2, 305-338.
- Rook D.W. (1987), *The buying impulse*, *Journal of Consumer Research*, 14, 189-199.
- Stern H. (1962), *The Significance of Impulse Buying Today*. *Journal of Marketing*, 26(2), 59-62.

## Nanotechnology in the Field of Computers

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### **Abstract**

*We human beings are never satisfied with the daily things we use. We always want things to be simple, small and instant. To get our requirements done, we go to a certain level of inventions, we even cannot imagine. By doing such inventions, we humans came across "Nanotechnology". In present era, there is no field as such where Nanotechnology is not used. It has expanded its roots and branches in the world of technology. In the field of Computer Science, Nanotechnology is known as Nano Computing. It has grown its branches into every branch of Computer Science. In this review paper, we highlight the role of Nanotechnology in the present scenario.*

*Keywords: Nanotechnology, Microprocessor, Memory/Storage, etc.*

### **Introduction**

When first generation computers were invented, they were of the size of a room, but whereas now they are carried easily anywhere without any burden and hesitation, because they have become very essential. The modern technology we use today is mostly based on ancient technology. In this technology, we see bulk material refined to small material. This type is referred to as bulk or top down technology. Where a room of bulk is made into hand size. If we see with foresight in the process of minimizing the size of transistors in silicon microprocessor chips the top down technology is used to produce Nano scale structures which is very difficult and expensive. Here comes the bottom up technology which is also called as Molecular technology. This technology is the answer for the computer industry. There is a doubt to what extent this technology will help for constructing mass produced devices, but on the other hand nanotechnologists proved and are having success in developing the use of bottom up technology. We all know that manufacturing companies are trying their level best in decreasing the size of the semiconductor chip by a factor of 2 every one and half year (18 months), the lesser we reduce the size of chip the more cost increases. We see in the industry of computer memory and storage that there is a tremendous change in every 10 years. The cost of 2 GB hard drive which weighs 70 pounds which was first used in 1980, at that time varied from \$80,000 to \$140,000 which was available in the form of hard disk type. In 1990's the same 2 GB costed \$200 which was in the shape of floppy disk, later in 2010, same 2 GB costed \$5 and its shape and size came down along with its price. But whereas now the price is still cheaper and in the same size, we can save up to 16 GB. Here a question arises what made to decrease the size and cost of these memory storage units. The answer is nanotechnology which is playing a very prominent role in Computer Science.

### **Literature Review**

In computer, microprocessor is the CPU (Central Processing Unit) of the computer which controls the memory, input/ output devices and overall operations in the computer. The whole Central Processing Unit is built on

single IC (Integrated Circuit). The journey of Microprocessor semiconductor was started in 1957 and first Integrated Circuit in 1959. In 1971 INTEL introduced its first microprocessor INTEL 4004. It was a 4 bit microprocessor. As number of transistors increased the performance of the computer increased and today we have I7 and I9 microprocessors which are more efficient than earlier. We all know that, silicon chip is used in computer as a microprocessor. This chip is made from pure silicon without doping any impurities. The size of the chip hardly of one centimeter square and almost half millimeter thick. Beneath the surface of chip, there are thousands of electronic circuit components, mainly transistors. These components can perform control, logical and memory functions.

The main reason for using silicon in computer chips is it is easy and reduced cost to make complex circuits out of silicon than from any other matter. It is very easy to make high quality insulator by adding some oxygen to silicon to create silicon oxide.

We think silicon is performing very well, then what is the need for replacement with another material. Silicon has got its own demerits and industry is trying for another material. It is cheaper to build transistors from silicon than other materials, but we can use carbon Nano tubes. Carbon Nano tubes can be built or produced smaller in size and fast. One of the main advantages is that it consumes less energy.

A carbon Nano tube is a molecule in the form of a hollow cylinder with a diameter of around a nanometer which consists of pure carbon. Chip size produced by Intel "I" series processor is between 65nm- 45nm. 22nm chips were made with the help of nanotechnology which is a big success.

The present scenario of computer field is filled with many unbelievable inventions from last 40 years, especially in the Memory/ Storage unit manufacturing. There is tremendous change, like in 1980s 2 GB weighed 70 pounds (31.7515 Kgs) costed \$80,000-\$140,000(56, 68,960-99, 20,680 Indian rupees), its size is that of the hard disk. But at present the same 2 GB is almost saved in an inch. In that same inch we can save up to half a TB (1000 GB). HP (Hewett Packard) one of the leading producers of laptops and storage devices, is developing a memory device that uses nanowires coated with titanium oxide. One bunch of these nanowires is connected parallel to another group. When a perpendicular nanowire is laid over a group of parallel wires, at each intersection a device called a memristor is formed. Whereas now researches are working using nanotechnology to fit 1 TB (1000 GB) of memory on the head of a pin.

### **Benefits**

1. Nano scale transistors that are very fast and more powerful.
2. Nanotechnology has increased the efficiency of the computer processors.
3. It reduces the consumption of energy.
4. Nano films can be used as Organic Light Emitting Diodes (OLED) in displays of new TV's, Laptops, Computers, Cellphones, digital cameras and other devices, etc..... they give a brighter image, vivid view wide angles, better picture quality, consumes less power and give long life.



5. Magnetic Random Access Memory (MRAM) that can quickly and efficiently save the data which was not saved during a system shutdown or crash, allows to resume play features and gathers vehicle accident data.

### **Future Scope**

- This will improve the quality of life in our society.
- It will help for solving current problems faced in technology for a better tomorrow.
- Nanotechnology will fill all the vacancies of all sorts of technology.

### **Conclusion**

We all know, a coin has got two sides, in the same way technology too. We humans want this technology for our comfort and cozy lifestyle to live in luxury, but whereas on the other hand there are humans who use it for the selfish motives and cause harm to the fellow neighbor. So necessary actions to be taken against them. This paper is just an outline of the nanotechnology towards Computer Science. There will be no field as such that nanotechnology will not venture.

### **References**

- [https://www.ripublication.com/irph/ijeee\\_spl/ijeeev7n3\\_03.pdf](https://www.ripublication.com/irph/ijeee_spl/ijeeev7n3_03.pdf)
- [https://www.ripublication.com/irph/ijict\\_spl/ijictv4n15spl\\_15.pdf](https://www.ripublication.com/irph/ijict_spl/ijictv4n15spl_15.pdf)
- <https://www.ijsr.net/archive/v5i2/NOV161529.pdf>
- <https://www.slideshare.net/kirtisingh2011/nanotechnology-ppt>

## Necessity of Yoga in The Modern-Day Life

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### **Abstract**

*“Yoga” a spiritual science, finds its roots in the ancient scripts, meaning “to join.” It is a very inclusive way of spiritual self-discovery. In total, it has a holistic effect and keeps body, mind, conscious and soul into equilibrium. The physically healthy body needs a stress free, clear and focused mind. There upon you get the ability to associate yourself with your environment. Finally, you can hear and speak to your surrounding and inner self and maintain a healthy interaction. Past moving society has developed some ill habits along the side lines of the blind development. Inviting uncounted bugs like stress, anxiety, pains, heart and cardiovascular diseases. Here in this paper we will evaluate how yoga can be useful in treating the adverse call of modern age.*

*Keywords: Yoga, Modern Age, Technology, Anxiety, etc.*

### **Introduction**

Yoga is based on a viable idea that is feasible to accommodate in our everyday living. Scientific research has proved that regular yoga practices brings desirable physiological changes and thus helps in curing mild diseases and controlling day to day stress. But the full effect of yoga is far much.

Yoga is sole practice of controlling ones breathe. It asks you to focus on the inhales and exhales and coordinates your movement with it. This concentration to breath is soothing and it dissolves angst, nervousness, unease, tension and anxiety. It is also help full for people facing attention deficit disorder and hyperactivity, breathing practices can help in relaxing and keeping control on one self.

Paced life style, everyday advancing technology, fast and packed foods together composes the basics of a sedentary lifestyle. It simply states that consuming fatty foods, sitting long hours before computer, lack or least of physical activity with no exercise.

Overall it increases the risk of obesity, thus leading to diabetes, heart diseases, different respiratory diseases and cancers. Additionally, it leads to atopic diseases i.e. a group of hereditary diseases contributing to allergies and asthma. In the same situation, psychologically, a person is prone to elated stress and depression. If one is spending too much time on the internet, mobile or computer social isolation could be another problem.

Acharya Mahapragya has listed following Problems of Modern Lifestyle

1. Tension - Physical, Mental, Emotional
2. Health Problems - Physical, Mental And Emotional Diseases (Including Psychosomatic Disorders)
3. Ecological Pollution/Rupture In Ozone Layer
4. Disturbed Family Relations
5. Violence And Cruelty
6. Corruption / Dishonesty / Immorality

7. Drug-Addiction
8. Neglect Of Law & Order And Ethical, Moral And Social Discipline
9. Armaments/Nuclear Weapons (Militarism)
10. Exploitation

According to the National Center for Complementary and Integrative Health, a division of the National Institutes of Health, yoga is one of the top ten complementary and integrative health approaches used by adults in the United States. The 2007 U.S. National Health Interview Survey revealed that more and more, doctors are actually referring patients to yoga, along with other complementary practices. This is because there is a growing evidence-base demonstrating that yoga may be effective in reducing chronic low back pain, improving function, reducing heart rate and blood pressure, and relieving anxiety and depression (NCCIH, 2013).

Hospital systems such as UCLA Health and Mount Sinai Beth, Israel are amalgamating yoga into patient care as a way to tackle pain, anxiety, nausea, insomnia, constipation, and exhaustion. Pediatric centers such as St. Jude Children's Research Hospital in Nashville and Children's Hospital Colorado are pioneering the application of yoga for children and teen patients as well, with programs geared toward improving flexibility, reducing pain, and increasing positive coping and stress management in face of illness and stress. Holistic approach of health care includes Preventive, Promotive and Curative.

Due to modern life style man is suffering from various postural deformities like Kyphosis, lordosis, scoliosis, knocked knee etc, and diseases like Obesity, Hypertension, Diabetes, Migraine, Cervical, Backaches, Depression, Anxiety, Cancer, Insomnia, Constipation, Allergy, Asthma, Cardiac diseases and etc. Deformities can be congenital too but the acquired ones particularly the life style of an individual is more accountable than any other reason. Seating job, jobs involved computers and driving generally suffered from Kyphosis and as a result cervical spondylitis occurs.

Though breathing, postures, and relaxation techniques, health care providers can help their young patients develop essential physical, emotional, cognitive, and social skills that can help optimize their health.

Since yoga is nothing but simple meditation its outcome is par beyond the medical judgment scale. Accounting different diseases and thinking about its remedy but it gives tranquility and boost morale, confidence and brings positive changes in the attitude. Thus, it's boon for the STD patients, depression and anxiety sufferers, victims of torture or other trauma, and helps in any form where mental healing is required.

It is also helpful inside treating of the symptoms arising from varies diseases, including autoimmune diseases, STDs, cancers, cardiovascular or mental disorders, such as stiffness, malaise, fatigue, and weakness. It can help fight weariness and maintain your energy level all over the day. It is also beneficial in the degenerative diseases like asthma, blood pressure, arthritis, digestive disorders and other ailments of chrome and constitutional nature. Different Yogic postures can help in insomnia. A regular practice under suitable guidance can leads to improved and deeper sleep. Every age group has different challenges. Let's discuss them differently.

**Children:** Undoubtedly all children are addicted to TV, computer, mobile, video games, songs, and other digital gadgets. They may spend more or less time to each asset but they do spend. This ultimately results into a less time on exercise, and physical games. Processed foods and junk foods are added depending upon family's budget. Then school performance, regular tests and other activities seeking their attention, this all again adds to the stress level. The British Heart Foundation (BHF) and Oxford University calls out this as a Living inactive lifestyle and missing out on vital nutrients. Welsh Health Survey, reported 59% of adults are classed as overweight or obese alongside 34% of children. Then?

Insomnia, eating disorders, ADHD (Attention Deficit Hyper activity disorder), obesity, cardiovascular diseases, Blood pressure fluctuation and mood swings.

Children who have incorporate yoga in their regular lifestyle are way more composed, attentive, creative, better listeners, physically and mentally stable and way more inspired to be successful. They develop capacity to channel their skills which ultimately enhances their overall performance.

**Working group:** While working on the computer one's mind and attention is heavily involved leading to anxiety, eye pain, mental tension, back pain, and uneasiness. Hectic lifestyle and immediate relief lead to either painkillers or alcoholic drinks both have their own side effects. Everything at the end leads to mental disorders.

Other physical benefits of the yoga are:

1. Boost concentration, attention and keeps active the body alert system.
2. Cleanses the body by eliminating the toxics like hormones, fatty acids, extra fat and other chemicals.
3. Good for relaxation of the mind, while others are good for digestive, respiratory, circulatory, nerves and granular systems.
4. Helps in joint pains and back pain.
5. Helps in restoring the lost psychosomatic balance.
6. Helps to weight reduction.
7. Increases the overall immunity of the body.
8. It is effective in controlling both stress and functional disorder.
9. It promotes a balanced and integrated personality.
10. Promotes blood circulation and help to improve the oxygen supply all parts of the body.
11. Reduces respiration problems.

Practicing yogic postures, breathing skills, incorporating different body movement builds the entire body functioning. Since as discussed above body function well with right composting of chemical balance and nerve coordination. Thus, yoga is good for mind and body relaxation.

Yoga has succeeded as an alternative form of therapy, diseases such as like. According to medical scientists, yoga therapy is successful because of the balance created in the nervous and endocrine system which directly influences all the other systems and organs of the body.

Yogic postures help in liberating any kind of tension. Whether it is mental, psychological, physical burnout or mixed one. It works on the entire human system affecting more or less to each organ.

More stress is placed on the therapeutic parts of the yoga and treatment of various alignment through yogic method. It can be clubbed with the physical education in the university and schools to widen its reach in the society. CCRYN (Central Council for Research in Yoga & Naturopathy) and AYUSH under the Ministry of Health is working actively in the field.

### Conclusion

Yoga has a multidimensional aspect. Starting from Surya Kriya that is respecting nature through yoga to finding cure of incurable diseases and then to help in the repairment of the degenerative diseases. Without a doubt yoga is a boon for the 'modern' society which has become a victim of everyday stress. Advanced research is establishing the connecting link between the scientific aspects of yogic techniques.

It is needed that yoga be an integral part of our education and health care systems. If an individual practice yoga, they will be physically healthy, mentally calm and spiritually evolved and hence more productive and happier. The rush and burden on our hospitals will be greatly reduced. Hence, there is an imperative need to popularize yoga. It is consistent with our culture and complementary to science.

### References

- Benson H. *Yoga for drug abuse. N Engl J Med*, 281:1133, 1969.
- Bhattacharya, Sanjay. *Social Work Interventions and Management. New Delhi: Deep and Deep Publications, Print, 2008.*
- Datey KK et al. *Shavasan: a yogic exercise in the management of hypertension. Angiology*, 20:325-333, 1969.
- Jella SA, Shannahoff-Khalsa DS. *The effects of unilateral nostril breathing on cognitive performance. Int J Neurosci* 1993 Nov; 73(1-2): 61-8.
- Karalay GN. *Integrated Approach to Rural Development: Policies, Programmes and Strategies. New Delhi: Concept Publishing Company. Print, 2005.*
- Madanmohan et al. *Effect of yoga training on reaction time, respiratory endurance and muscle strength. Ind J Physiol Pharmacol*, 36:229-233, 1992
- Madanmohan et.al. *Cardiorespiratory changes during savitri pranayam and shavasan. The Yoga Review*, 3:25-34, 1983.
- *Modern Yoga Versus Traditional Yoga. Web. 08 March 2015.*
- *Natural Health & Healing \_ Mark Evans*
- Paramhans Swami Maheshwarananda. *Yoga in Daily Life - The System. Vienna: IberoVerlag/European University Press; 2000.*
- *Patanjali Yoga Sutra, Ramakrishna Math \_ Swami Prabhavananda*

- *Swami Sivananda 1999 A The Divine Life Society P.O. Shivanandanagar—249 192 Distt. TehriGarhwal, Uttar Pradesh, Himalayas, India.*
- *Telles S, Nagarathna R, Nagendra HR. Breathing through a particular nostril can alter metabolism and autonomic activities. Indian J Physiol Pharmacol (India) 1994 Apr; 38(2): 133-7.*
- *The Introduction to yoga \_ Shri Satyananda Yoga*
- *Udupa KN & Singh RH. The scientific basis of yoga. JAMA, 220-1365, 1972.*
- *Vishnudevananda, Swami. The Complete Illustrated Book of Yoga. New York: Three Rivers Press. Print, 1988.*
- *What is Yoga. Web. 08 March 2015.*
- *Why is Ancient Yoga More Relevant in Modern Stressful Life? ". Web. 08 March 2015.*
- *Wood C. Mood change and perceptions of vitality: a comparison of the effects of relaxation, visualisation and yoga. JR Soc Med 1993 May; 86(5): 254-8.*
- *Yoga Philosophy of Patanjali with Bhasvati, Uvty. Of Calcutta, 2000.*
- *Yogic Cure for Common Diseases \_ Dr.Sinha*
- <http://www.ibtimes.com/why-ancient-yoga-more-relevant-modern-stressful-life-288537>
- <http://www.sahajayogaportal.org/en/what-is-yoga.html>
- <http://www.swamij.com/traditional-yoga.htm>
- <http://yogaed.com/resource/yoga-health-care/>
- <https://www.jainworld.com/phil/sol/sol01.htm>
- [www.abcofyoga.com](http://www.abcofyoga.com)
- [www.holistic-healing.com](http://www.holistic-healing.com)
- [www.yogasite.com](http://www.yogasite.com)

## Societal Values in the Light of Modern Era

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### **Abstract**

*Societal values or social values are enrichment of societies and implementations of them in any aspect of modernization were discussed in terms of both global and national perspectives as well as the structural and functional aspects were elaborated in this study. It was suggested in a healthy way to teach every individual and elaborated the pattern of relationships between these concepts. Social values show the ideal way of thinking and acting in a society. Increasing gap between ways of thinking and behavior of an ideal society and actual world consider to be indicator and ignition for number of social problems. Therefore, it is important that the values of society and real world should be overlapped. Understanding and explaining extremely complex nature of values at national and global settings and rationale them in a healthy is the most important condition to build a peaceful society in the world.*

*Keywords: Modernization, Importance of Social Values, Challenges, etc.*

### **Introduction**

Development, like modernization, has become the orienting principle of modern times. Countries that are seen as modern are also seen as developed, which means that they are generally more respected by institutions such as the United Nations and even as possible trade partners for other countries. The extent to which a country has modernized or developed dictates its power and importance on the international level. Modernization of the health sector of developing nations recognizes that transitioning from 'traditional' to 'modern' is not merely the advancement in technology and the introduction of western practices; implementing modern healthcare requires the reorganization of political agenda and, in, turn, an increase in funding by feeders and resources towards public health. However, rather than replicating the stages of developed nations, whose roots of modernization are found with the context of Industrialization or colonialism, Underdeveloped nations should apply proximal interventions to target rural communities and focus on preventions strategies rather than curative solutions. That has been successfully exhibited by the 'Christian medical commission' and in china through 'barefoot doctors'. Therefore, understanding all the issues and the problems faced by the societies in terms of values including rapid changes, adapting environment is necessary to be involved and practice respected of changes and development in a positive manner.

### **Objectives**

- To study the importance and challenges of societal values in India.
- To study the problems faced by societal values in changing India, in terms of “Modernization”.

## **Research Methodology**

Research simply means search for facts, detail study or answer to the questions and solutions to the problems in every possible manner. Research should be a systematic, controlled and critical investigation of hypothetical pre questions. In the proposed study secondary sources have been used, secondary data have been collected through various sites, research papers and articles. In addition to this study, data have been collected from various journals also.

## **Modernization**

Use of the term 'Modernization' in its present connotation is of relatively recent origin, becoming an accepted part of the vocabulary of American, if not international, social science only in the decade of the 1960s. Despite its relatively rapid rise to currency, the popularity of the notion of modernization must be sought not in its clarity and precision as a vehicle of scholarly communication, but rather in its ability to evoke vague and generalized images which serve to summarize all the various transformations of social life attendant upon the rise of industrialization and the nation-state in the late eighteenth and nineteenth centuries.

## **Modernization and comparative study of societies**

Modernized societies on the basis of the extent to which tools and inanimate sources of power are utilized. For others, the concept identifies a peculiar and open-ended type of social change' as when the historian Benjamin Schwartz (1972: 76) draws upon Max Weber to define modernization in the terms of the expansion of man's rational control over his physical and social environment. The term 'modernization' that is of particular importance because it establishes a basis from which the following critique of Modernization theory can proceed. Conceptualizations of modernization incorporating some version of the tradition-modernity contrast are less easily dismissed.

## **Importance of Social Values**

Social values form an important part of the culture of the society. Values account for the stability of social order. They provide the general guidelines for social conduct. Values such as fundamental rights, patriotism, respect for human, dignity, rationality, sacrifice, individuality, equality, democracy etc. guide our behavior in many ways. Values are the criteria people use in assessing their daily lives; arrange their priorities and choosing between alternative course of action. According to H.M. Johnson "Values are general standards and may be regarded as higher order norms".

## **Challenges of Societal Values in Modern Era**

Rapid growth and introduction of westernization is the major reason of decline in practicing social values. The world's people are confronted with a new class of environmental problems, unprecedented in their spatial and temporal reach. These problems involved interconnected ecological and social systems operating on multi scales and include climate disruption, ozone depletion, persistent organic pollutants, population and introduction to artificial intelligence, increased in social and cultural disparities. Growth in industrialization,



globalization and decline in manual work makes more difference in the society.

India has become an independent country, more than a half century ago. Our population has trebled after independence. This explosion has affected our development adversely. In recent times, corruption in different walks of life has grown tremendously. This has seriously undermined our progress and social life. Every society continues to changes with time. The process of shredding the old and accepting the new dispensation creates problems of adjustment. Our country is also confronted with some major social problems.

However, there are many areas in which Indian society is experiencing a variety of problems. Some of these problems have their roots in our colonial past while others are related to demographic changes, socio-political conditions and cultural processes. For example, we all have heard about the term illiteracy, 35% people of our country are illiterate even after 62 years of our independence.

### **Poverty**

A large section of the Indian society is suffering from poverty. Poverty is a phenomenon which is objective as well as subjective. Objectively poverty implies a dehumanizing condition in which people are unable to look after the basic needs. Subjectively poverty stands for Perceived deprivation. Poor people lack the necessary resources and capacity to satisfy basic needs like food, shelter, health and education. They live under difficult conditions which are not conducive for development of their human potential. Poverty interferes with development in many ways. For instance, lack of or inadequate nutrition arrests mental development during early childhood. A large section of poor children does not go to school. Even if they go, they become drop outs and fail to complete education.

### **Corruption**

Corruption is an act by someone who is ready to do dishonest and illegal things in return of money or for something else they want, or behave in a way what is considered morally wrong. Corruption in our country is all pervasive and omnipresent. India is largest democracy of world. It is the second populous country of the world. India had cherished honesty, morality and also high values from time immemorial. With passage of time and fast socio-economic changes in the country, corruption has affected all walks of life. In our country corruption is existing in every sphere of life.

### **Causes of Corruption**

A number of causes are associated with the prevalence of corruption in our society. Some of them are to make illegal things legal on the basis of bribe or commission, to acquire more and more wealth and consumer goods, high aspirations from jobs, to enhance status in the society, to pay dowry, to meet expenditure on technical and higher education of children, to get required no. for constituting and running the government, to collect money for fighting election, etc.

### **Gender Discrimination**

Women and men are equally important for the growth and development of individual and social lives. The

women play the important role as mother and the same makes it unique. However, careful analysis of Indian society indicates that the situation is not good for Women folk. The sex ratio of male and female in the India population has been changing and becoming unfavorable towards women. In the Indian society women are considered major contributors to family and society. We have gods and goddesses both and one of the incarnations of lord Shiva is Ardhanareeshwar, which is made of half male and half female in its constitution.

### **Causes of Gender Discrimination Are**

Religion, family law, education, workplace discrimination, physical factors

### **Racism**

Racism is the belief that race is a primary determinant of human traits and capacities and that racial differences produce an inherent superiority of a particular race. Or, on the opposite side, racism can be described as the belief that a certain race or races portray undesirable characteristics. In the case of institutional racism, certain racial groups may be denied rights or benefits, or receive preferential treatment. Racial discrimination typically points out taxonomic differences between different groups of people, although anyone may be discriminated against on an ethnic or cultural basis, independently of their somatic differences.

### **Causes of Racism:**

- **Stereotypes:** One of the most common causes of racism is stereotypes. Through television, through radio, through the internet, through music, through books, and the like, the potential for stereo types to build are a definite possibility.
- **Unfamiliarity:** Another very common, and probably the most common cause of racism is unfamiliarity. People fear what they do not know or understand. If someone hasn't grown up around a particular race before, then there is more of a chance the person can be racist toward that particular group.
- **Selfishness:** Selfishness is another obvious cause of racism. Humans are sometimes very selfish creatures caring only about their own at the expense of others. If individuals aren't taught how to respect others, then the potential

### **Dowry**

Dowry System in Indian Marriages can be called the commercial aspect of the marriage. The practice of giving dowry was very common among all people of all nations. A girl gets all the domestic utensils that are necessary to set up a family. Dowry system in India was prevalent since the Vedic period. In Epic period gifts from parents, brothers and relatives and relatives were recognized as woman's property-stridhan. According to Kautilya "Means of subsistence or jewellery constitutes what is called the property of the woman. it is no guilt for a wife to make use of this property in maintaining her son her daughter-in-law or herself if her absent husband has made no provision for her maintenance".

### **Female Feticide**

The killing of women exists in various forms in societies the world over. However, Indian society displays some

unique and particularly brutal versions, such as dowry deaths and sati. Female feticide is an extreme manifestation of violence against women. Female fetuses are selectively aborted after pre-natal sex determination, thus avoiding the birth of girls. As a result of selective abortion, between 35 and 40 million girls and women are missing from the Indian population. In some parts of the country, the sex ratio of girls to boys has dropped to less than 800:1,000. The United Nations has expressed serious concern about the situation.

#### **Causes of Female Feticide:**

Dowry system where parents of the bride have to pay the groom's family to marry their daughter. Higher the dowry, better the chances of a girl getting married. Of course, an unmarried girl is a blot on a family's honor, which leads me to my next point.

Misplaced archaic cultural (nonsense) of girls being the 'honor' of the family. Sadly, this is true for a majority of cultures around the world, but some take it seriously enough to resort to murderous acts for the sake of 'honor' that is driven by super-sized inflatable male chauvinist egos.

Girls don't propagate family name and neither does the family property stay in the same family.

#### **Honor Killing**

An honor killing or honor killing (also called a customary killing) is the murder of a (female) family or clan member by one or more fellow (mostly male) family members, where the murderers (and potentially the wider community) believe the victim to have brought dishonor upon the family, clan, or community. This perceived dishonor is normally the result of:-

- Utilizing dress codes unacceptable to the family.
- Wanting out of an arranged marriage or choosing to marry by own choice.
- Engaging in certain sexual acts or.
- Engaging in relations with the same sex.

These killings result from the perception that defense of honor justifies killing a person whose behavior dishonors their clan or family.

#### **To Solve the Problem**

- Steps Taken development by Government to Reduce Poverty are Small farmers development Programme, Drought area development Programme, Minimum needs Programme, Assurance on employment.
- The Indian constitution should prohibit against such discrimination and has abolished Untouchability
- The citizen of India should strictly follow the rules as considered in the constitution and should not perform the nefarious acts like female feticide, bride burning, dowry, racism, gender discrimination etc
- Women and men should be equally treated for the growth and development of individual and social lives.
- Youth should make the organizations that having the agenda to eradicate these social problems in India

by spreading awareness and demonstrations.

- Government had put forward number of steps for woman empowerment like passing of women reservation bill in Rajya Sabha

### Conclusion

Summing up all this by, the most crucial element of society is values. Values are a culture's standard for discerning what is good and bad just in society. Values are deeply embedded and critical for transmitting and teaching a culture's beliefs. Beliefs are the tenets or convictions that people hold to be true, including all the substantial changes in the modern society with a rapid growth. The human nature of growth should also accept the values and beliefs from the time of formation of society and its culture.

### References

- *International encyclopedia of the social and Behavioral Sciences (second Edition), 2015*
- *DEAN C. TIPPS University of California, Berkeley*
- *Article from yourarticlelibrary.com*
- *Article Navigation; Bio Science, Volume 63, Issue 3, March 2013, Pages 164-175, <https://doi.org/10.1525/bio.2013.63.3>.*
- *<https://www.ukessays.com/essays/sociology/the-social-problems-of-modern-india-sociology-essay.php>*

## Corruption and Its Impact on Employment Sector in India

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### **Abstract**

*India is the seventh largest country and most populous democracy in the world. It is located in south Asia and was declared as republic of India after its British rule. India is a democratic country and ranks second for its population. India is a beautiful country and famous for its historical heritages and monuments. however, after many hard struggles and sacrifices of great Indian freedom fighters, India got freedom from British rule. But because of some people who are corrupt and earns black money they have made our country empty from the point of money India which was known as 'Golden Bird'. The people of India are suffering because they are not getting their share according to the work or the wages, which they need to earn for their livelihood they also have to earn their bread and butter most of the people have come in the category of below poverty line, small children are dying because of malnutrition, children are forced to work at the age in which they should be at school. this is the condition of my India. As a coin has two sides my India has its pros and cons. one of the cons which is most important one is corruption.*

*Keywords: Corruption, Unemployment, India, etc.*

### **Introduction**

Corruption has been spread like a disease all over the India as well as abroad. It has become one of the most speedily increasing social issues in the Indian society. It is generally initiated and promoted by the opportunistic leaders. They never think about the nation's benefits and do lots of damage to the nation through their corruption even for their small advantage. They sell their country properties in the wrong hands and spread wrong beliefs about India in the people's mind living in other countries. They are spoiling the old traditions and cultures of India for their personal benefits. Now-a-days people who are working in right direction using right principles considered as foolish in the modern society and the people who are working wrong and making wrong promises are good for the society. However, in turn it is true that corrupted people cheating the simple, ordinary and innocent people. They are ruling the mind of innocent people.

Corruption increases in India day by day because there is a strong connection between the officials, politicians and criminals who are making this country weak and so weak. India got independence in 1947 and it was slowly becoming strong and developing but in the mid-way the diseases of corruption started and stop India to grow ahead. In India there has been a trend of give and take means give some money in order to get your work done whether in the government offices or private sectors offices. And now the condition is getting worse and worse, as earlier, the money was paid for getting wrong works done or only work to be done, but currently money is paid for getting works done in right ways and at right time. Even after paying complete money according to the demand, there is no full chance of getting things done at time and in right way. Corruption is everywhere in every

department whether it hospitals, education, job, government offices, nothing is left of corruption. Everything has become a business and the source of earning money in wrong way. Educational institutions are also involved in the corruption and they give seat to those students only who have paid for, whether they are good students with good marks or not. Very weak students are given admission in the top colleges and universities only on the basis of money paid for wrong admission and the topper student with good marks and lack of money gets back in the life or take admission in any simple college. Now-a-days, private sectors companies are so good in comparison to the governmental jobs. Private companies are giving job on the basis of candidate's skills, ability, technical knowledge, good percentage of marks and all the educational records. However, it has become tough to get job in the government offices as they need lots of bribe to give any type of job (high level or low level) like teaching, clerk, babu, nurse, doctor, sweeper, etc. And the amount of bribe increases in the market as the level of job increase like IAS, PCC, police, etc ranks jobs.

### **Objectives**

- To study about the Corruption in India.
- To study the major factors responsible for Corruption
- To study the impact of corruption on employment sector in India.

### **Research Methodology**

Research simply means search for facts, answer to the questions and solutions to problem. Research becomes a systematic, controlled and critical investigation of hypothetical pre questions. In the proposed study secondary sources have been used, Secondary data have been collected from various books, research papers and articles. In addition to this study, data have been collected from various journals also.

### **Corruption in India**

Corruption in the Indian society has prevailed from time immemorial in one form or the other. The basic inception of corruption started with our opportunistic leaders who have already done greater damage to our nation. People who work on right principles are unrecognized and considered to be foolish in the modern society. Corruption in India is a result of the connection between bureaucrats, politicians and criminals. Earlier, bribes were paid for getting wrong things done, but now bribe is paid for getting right things done at right time. Further, corruption has become something respectable in India, because respectable people are involved in it. Social corruption like less weighing of products, adulteration in edible items, and bribery of various kind have incessantly prevailed in the society.

In today's scenario, if a person wants a government job he has to pay lakhs of rupees to the higher officials irrespective of satisfying all the eligibility criteria. In every office one has either to give money to the employee concerned or arrange for some sources to get work done. There is adulteration and duplicate weighing of products in food and civil supplies department by unscrupulous workers who cheat the consumers by playing with the health and lives of the people. In the assessment of property tax the officers charge money even if the

house is built properly according to the Government rules and regulations. Political corruption is worst in India. The major cause of concern is that corruption is weakening the political body and damaging the supreme importance of the law governing the society. Nowadays politics is only for criminals and criminals are meant to be in politics. Elections in many parts of the country have become associated with a host of criminal activities. Threatening voters to vote for a particular candidate or physically prevent voters from going in to the polling booth – especially weaker sections of the society like tribals, dalits and rural woman occurs frequently in several parts of the country. Recently, the Government increased the salary of the M.P.'s from Rs.16, 000 to Rs.50, 000, that is 300% increase to the existing salary. But many of them are unhappy with rise and want the Government to increase the salary to a much more extent. This clearly shows how the politicians are in constant thirst for monetary benefits and not caring about the welfare of the people. Tax evasion is one of the most popular forms of corruption. It is mostly practiced by Government officials and politicians who lead to the accumulation of black money which in turn spoils the moral of the people.

### **Major Factors Responsible For Corruption**

1. The most important factor is the nature of the human being. People in general, have a great thirst for luxuries and comforts and as a result of which they get themselves involved in all unscrupulous activities that result in monetary or material benefits.
2. Moral and spiritual values are not given utmost importance in educational system, which is highly responsible for the deterioration of the society.
3. The salary paid to employees is very less and as a result of which they are forced to earn money by illegal ways.
4. The punishments imposed on the criminals are inadequate.
  - The political leaders have spoiled the society completely. They lead a luxurious life and do not even care about the society.
  - People of India are not awakened and enlightened. They fear to raise their voice against anti-social elements prevailing in the society.

### **Impact of Corruption:**

While talking of corruption, should we be concerned only with big financial deals and scams, or types of corruption called political, bureaucratic, industrial, institutional, etc., or should we also be concerned with those corruption cases which remain invisible but pervade our daily life and corrode the very fiber of our moral fabric? Some people feel that we should filter corruption into various grades. While according to one view, 'amount' should be the criterion of corrupt act, according to the other, 'need' should be the focus. A few rupees spent to gain a major benefit are not worth bothering about. Yet another view is that 'price' paid for the required 'service' is in order. Corruption comes in only when the price is paid but for which no service has been done. But what about adulteration in food or spurious drugs sold to us and things like that? Generally, such cases in our daily life are not

regarded as 'corruption'.

Is cheating in an examination corruption? Is increasing marks in an answer-book by an examiner on getting 'recommendation' from a colleague or friend or kin (but not by accepting money) corruption? In their defense, examiners say that they only 'oblige' and how can 'obliging' be corruption? Many clerks go to their offices and sign attendance registers but are never found on their seats. They become 'available' only when they are offered money for the file they move. This is corruption. Some people say that while corruption is found even in most developed countries like the United States, Japan, England, France, Canada, and Germany, why should we unnecessarily get perturbed about it in India? These people forget that nature of corruption in the developed countries is different from the one we find in our own country.

Corruption in these countries exists only among the highest echelons of business giants, while in India we have to pay for railway reservation, for getting admission not only in a professional institution but also in a good primary school, for buying a cinema ticket, for purchasing a gas cylinder, for driving the scooter without a helmet, for getting the arrear-bill passed, for getting tax-refund, and so on. Thus, while in other countries, money is paid for getting illegal things, in India it is paid for getting legal and authorized things. All these affect the day to day living of the common man. As such, we have got to be concerned with corruption and various corrupt acts.

**We should not forget that corruption has affected our society in several ways:**

1. It has retarded economic development of the country.
2. It has created violence and lawlessness in the society since the corrupt man has the money power to influence the executors of law to serve him.
3. It has given rise to casteism, linguist and communalism.
4. It has diminished morality and destroyed individual character.
5. It has heightened inefficiency, nepotism, and lethargy and has created indiscipline in all fields of administration, making the life of a common man miserable.
6. It has reduced the credibility of officials in the eyes of the masses.
7. It has increased black money in the country.
8. It has led to adulteration of eatables, spurious drugs and shortage of many consumer items.
9. It has destabilized governments both at the centre and in the states. We have, therefore, to focus on both types of visible and hidden corruption cases which stir up our conscience.

**Impact of Corruption on Employment Sector in India**

Corrupt governments are in it for themselves and are solely focused on maintaining power they are not motivated to help their people. So, along those lines' poverty is a way to control thought and power. For example, if a company becomes too big in a corrupt country that government might suppress it so not to have someone able to challenge the current authority. They might divide people along lines like race and ethnicity. That way people fight with themselves instead of focusing on positive economic growth. For example, they might spread a lie,



person of this race is lazy and terrible worker. If enough people believe it a person of that race will not be employed. Corrupt governments are often very ideological and are not interested in reality or hearing conflicting points of view. If they believe in an economic model that doesn't fit reality it'll cause unemployment and could cause a financial crisis. An example of this might be an acceptance of price gouging, people making things more expensive for no reason, but is ignored because someone with connections is making an obscene amount of money. All this is often in tandem with sowing fear and a distrust for institutions. This distrust limits institutions from creating positive change in the country.

### Conclusion

Nowadays every child dream to do job in a foreign country why, not in India because of competition and unemployment even after handwork which they have invested if it is not beneficial. if child is taking education and everything in India and serving another country. Because of job opportunities people are running like anything to other countries. So, first we have to change to bring a change. everyone should get justice for what they do. corruption became a global problem. all countries are facing this issue. It's just liked a disease and so many victims are victims of this disease and it must be cure with strong action. corrupt people never think about country or society or society welfare it's only aim to increase their earnings. employment is a parameter of social status. the persons of high family prestige and having employed family members are well ahead of rest of their competitors for getting employment, especially is securing high positions. The perception of youth about family as it give sound foundation to personality of its members ensuring their success in every walk of life, especially in getting employment. family believed to be ever pushing its members for getting employment and in majority of cases uses its influence in society to secure employment of its members. However, preferences for specific jobs, high expectations from the educated youth and low economic and emotional support from families pose obstacle to employment of youth.

### References

- Ayinde, O. E. 2008. *Empirical Analysis of Agricultural Growth and Unemployment in Nigeria*. *African Journal of Agricultural Research*. 3(7):465-468.
- Dickinson, A. 1999. *The Role of the Family in Determining Youth Employment*. [http://www.ipr.northwestern.edu/jcpr/workingpapers/wpfiles/pablonia\\_WP\\_ori.pdf](http://www.ipr.northwestern.edu/jcpr/workingpapers/wpfiles/pablonia_WP_ori.pdf) (verified on April 7, 2012).
- Goldfarb, R. and Anthony, Y. 1983. *A Model of Teenage Labour Supply*. *Journal of Economics and Business*. 35(2):245-255.
- International Labour Organization. 2001. *Youth and Work: Global Trends*. Geneva, p.4 <http://www.yesweb.org/docs/rdbook.pdf> (Verified on April 7, 2012).
- Lovell, P., et al. 2010. *Families of the Recession: Unemployed Parents & Their Children*. [http://www.brookings.edu/media/Files/rc/papers\\_families\\_recession\\_isaacs\\_families\\_reces](http://www.brookings.edu/media/Files/rc/papers_families_recession_isaacs_families_reces)

*sion\_isaacs.pdf* (verified on April 7, 2012).

- Michael, R. T., et al. 1984. *Youth Employment: Does Life Begin at 16. Journal of Labour Economics.* 4(1):464-476.
- O'Regan, K. M. 1998. *Spatial Effects upon Employment Outcomes. The Case of New Jersey Teenagers.* <http://papers.ssrn.com> (verified on April 7, 2012).
- Rees, A., et al. 1982. *Family Effects in Youth Employment in the Youth Labour Market Problem: Its Nature, Causes, and Consequences.* 4th Ed., University of Chicago Press, Chicago. 453-464p.
- Yeatts, J. 1995. *The Role of the Family in Determining Youth Employment.* [http://www.ipr.northwestern.edu/jcpr/workingpapers/wpfiles/pabilonia\\_WP\\_ori.pdf](http://www.ipr.northwestern.edu/jcpr/workingpapers/wpfiles/pabilonia_WP_ori.pdf) (verified on April 7, 2012).
- [www.wikipedia.org](http://www.wikipedia.org)
- [www.corruptie.org](http://www.corruptie.org)
- [www.transparency.org](http://www.transparency.org)
- [www.quora.com](http://www.quora.com)

## A Study of Describing Decision Making Problem using Soft Set Theory

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### **Abstract**

*Soft set theory is new developing general mathematical tool for dealing with uncertainty in real world problems. Authors are allowing for 4G service provider industries and comparing their features, comfort of use and popularity. In this paper, given study applying the soft set theory in decision making problem to solve the service provider industries that is based on rough mathematics parameters. The Soft set theory approach optimizes the parameters and helps to choose best optimal solution using decision making.*

*Keyword: Soft set, Reduct soft set, Choice value, Weighted choice value, Decision making, Fuzzy set, Rough set, 4G service provider companies, Networking Platforms, Selection factors.*

### **Introduction**

Mathematical model has been used widely in real world problems related to social scientists (economics, management, psychology), engineering (electrical, mechanical, civil, biomedical, computer, industrial, mechatronics), mathematicians, computer software developers, medical science, environmental science, public policy analysts, business analysts and many other fields, we have to solve complicated problems of modeling uncertain data that are not always crisp. While some mathematical theories like probability theory, fuzzy set theory, rough set theory, vague set theory and the interval mathematics are useful techniques to solve or describe uncertainty. All these theories have characteristic difficulties as mentioned by D. Molodtsov in 1999 [4]. The reason for these difficulties is possibly the insufficiency of the parameterization tool of the theories. D. Molodtsov recommended the concept of soft theory as a mathematical tool for dealing with uncertainties which is free from the above difficulties. Soft set operation and its applications in optimization techniques has also possible in many fields containing smoothness of functions, game theory, operations research, Riemann integration, Perron integration, probability theory, measurement theory and soft decision making. Soft Graph theory is a widely used tool for solving combinatorial problems in different areas like geometry, algebra, number theory, topology, and optimization and computer science [4]. Its applications also work on medical science diagnosis. The basic concepts of soft set theory and compared soft sets to vague set, fuzzy set, rough set, soft groups, soft subgroups, normal soft subgroups, soft rings, soft rough fuzzy sets and soft fuzzy rough sets. The proposed study will present soft set as an optimization tool in solving real world problems. Soft set and fuzzy soft set theories have turn possible for applications in several directions [7]. To finding a best solution several authors have introduced applications on soft set Theory in Decision Making. After studying the mentioned researcher, it was felt that soft set theory can be also used as an optimization technique.

## Preliminaries

In this section, first define the definition and operations of soft sets introduced by D. Molodtsov (1999), and some useful definitions from rough mathematics [3, 4, 7, 15].

**Definition 1:** (D. Molodtsov (1999)) Let  $U$  be an initial universe set and  $E$  is the set of parameters or attributes with respect to  $U$ . Let  $P(U)$  denotes the power set of  $U$ ,  $A$  be a non – empty subset of  $E$ . i. e.  $A \subseteq E$ . A pair  $(F, A)$  is called a soft set over  $U$ , where  $F$  is a mapping given by  $F : A \rightarrow P(U)$ .

In other words, A soft set  $(F, A)$  over  $U$  is parameterized family of subsets  $U$  for  $e \in A$ ,  $F(e)$ , may be consider as the soft set of  $e$  – approximate or  $e$  – elements. Elements of the soft set  $(F, A)$  is defined as:

$$(F, A) = \{F(e) \in P(U) : e \in E, \quad F(e) = \emptyset \text{ if } e \notin A\}$$

**Definition 2:** Let  $(F, A)$  and  $(G, B)$  be two soft sets over a common universe  $U$ . We say that,

- a)  $(F, A)$  is a soft subset of  $(G, B)$  denoted by  $(F, A) \subseteq (G, B)$  if
  - i.  $A \subset B$ , and
  - ii.  $\forall e \in A, F(e)$  and  $G(e)$  are identical approximation.
- b) If  $(F, A)$  is soft equal set to  $(G, B)$  denoted by  $(F, A) = (G, B)$  if  $(F, A) \subseteq (G, B)$  and  $(G, B) \subseteq (F, A)$ .

**Definition 3:** The complement of a soft set  $(F, A)$  is denoted by  $(F, A)^c$  and defined as  $(F, A)^c = (F^c, \neg A)$ , where  $F^c : \neg A \rightarrow P(U)$  is a mapping given by  $F^c(x) = U - F(\neg x) \forall x \in A$ . Say,  $F^c$  to be the soft complement function of  $F$ .

**Definition 4:** A soft set  $(F, A)$  over universal set  $U$  is said to be a null soft set defined by  $\emptyset$  if  $F(e) = \emptyset, \forall e \in A$ .

**Definition 5:** A soft set  $(F, A)$  over universal set  $U$  is said to be an absolute soft set denoted by  $\tilde{A}$ , if  $F(e) = U, \forall e \in A$ . Clearly  $\tilde{A}^c = \emptyset$  and  $\emptyset^c = \tilde{A}$ .

**Definition 6:** Let  $U$  be a universe,  $E$  be a set of parameters and  $A \subseteq E$ .  $(F, A)$  is called relative whole soft set or  $A$  – universal with respect to  $A$  denoted by  $\widetilde{U}_A$  if  $F(e) = U, \forall e \in A$ .

**Definition 7:** Suppose  $(F, A)$  and  $(G, B)$  be two soft sets over a common universe  $U$  then the union of  $(F, A)$  and  $(G, B)$ , denoted  $(F, A) \widetilde{\cup} (G, B)$  by is a soft set  $(H, C)$ , where  $C = A \cup B$  and  $\forall e \in C$ .

$$H(e) = \begin{cases} F(e), & \text{if } e \in A - B \\ G(e), & \text{if } e \in B - A \\ F(e) \cup G(e), & \text{if } e \in A \cap B \end{cases}$$

We write  $(F, A) \widetilde{\cup} (G, B) = (H, C)$ .

**Definition 8:** Suppose  $(F, A)$  and  $(G, B)$  be two soft sets over a common universe  $U$  then the intersection of  $(F, A)$  and  $(G, B)$ , denoted  $(F, A) \widetilde{\cap} (G, B)$  by is a soft set  $(H, C)$ , where  $C = A \cap B$  and  $\forall e \in C, H(e) = F(e) \text{ or } G(e)$  (as both are same set).

We write  $(F, A) \widetilde{\cap} (G, B) = (H, C)$ .

**Definition 9:** Zadeh's fuzzy set: For every set  $A \subset X$ , define its indicator function  $\mu_A$ .

$$\mu_A(x) = \begin{cases} 1, & \text{if } x \in A, \\ 0, & \text{if } x \notin A. \end{cases}$$

A fuzzy set  $F$  is described by its membership function  $\mu_A$ . For every  $x \in X$ , this function associated a real number  $\mu_F(x)$  in the interval  $[0, 1]$ . The number  $\mu_F(x)$  is interpreted for the point as a degree of belonging  $x$  to the fuzzy set  $F$ .

On another way,

$$F(\alpha) = \{x \in U; \mu_A(x) \geq \alpha\}, \quad \alpha \in [0, 1]$$

The family  $F$ , we can find the functions  $\mu_A(x)$  by means of the following formula:

$$\mu_A(x) = \sup_{\alpha \in [0, 1], x \in F(\alpha)} (\alpha)$$

Thus, Zadeh's fuzzy set  $A$  may be consider as the soft set  $(F, [0, 1])$ .

**Definition 10:** Let  $(x, \tau)$  be a topological space, that is,  $X$  is a set and  $\tau$  is a topology, in other words,  $\tau$  is a family of subsets of  $X$ , called the open sets of  $X$ . Then, the family of open neighborhoods  $T(x)$  of point  $x$ , where  $T(x) = \{V \in \tau: x \in V\}$ , can be considered as the soft set  $(T(x), \tau)$ .

**Definition 11:** A knowledge representation system can be formulated as follows: knowledge representation system is a pair  $S = (U, A)$ , where

$U$  = a nonempty finite universe set.

$A$  = a nonempty finite set of original attributes.

Every original (developed) attribute  $a \in A$  is a total function  $a: U \rightarrow V_a$ , where  $V_a$  is the set of values of  $a$ , called the domain of  $a$ .

**Definition 12:** with every subset of attributes  $B \subseteq A$ , we associate a binary relation  $IND(B)$ , called an indiscernibility relation, defined by

$$IND(B) = \{(x, y) \in U^2 : \text{for every } a \in (B), a(x) = a(y)\}$$

Obviously,  $IND(B)$  is an equivalence relation.

#### **Application on Soft Set Theory in Decision Making Method [8, 9, 11]:**

Molodtsov presented some applications of the soft set theory in several areas like study of smoothness of functions, game theory, operations research, Riemann – Integration, Perron integration, Probability, theory of measurement, Interval mathematics etc. In this part presented an application on 4G service provider industry under soft set theory in decision making method with the help of crisp or rough mathematics approach.

#### **Define our problem as below:**

Suppose  $U = \{u_1, u_2, u_3, u_4\}$  be the set of different types of 4G service provider industry (universal set). Where  $\sum_{i=1}^4 u_i$  denotes for Vodafone, Jio, Idea, Airtel. which can be characterized for a set of all parameters  $E = \{e_1, e_2, e_3, e_4, e_5\}$ . For  $j = \{1, 2, 3, 4, 5\}$  the parameters  $e_j$  stand for Communication, Plans & Offers, Internet Speed, Entertainments Services, Public review.

Consider the soft set  $(F, E)$  which describes the attractiveness of the 4G Service Provider industries: Communication  $\{e_1\} = \{u_1, u_2, u_3, u_4\}$ , Plans & Offers  $\{e_2\} = \{u_3, u_4\}$ , Internet Speed  $\{e_3\} = \{u_2, u_3, u_4\}$ , Entertainment Services  $\{e_4\} = \{u_2, u_4\}$ , Public review  $\{e_5\} = \{u_1, u_4\}$ .

Suppose Mr. L is interested to buy 4G service from 4G service provider industry on the basis of his choice parameters “Communication, Plans & Offers, Internet Speed, Public review” which constitute the subset  $P = \{\text{Communication, Plans \& Offers, Internet Speed, Public review}\}$  of the set  $E$ . Mr. L to select that 4G service provider industry which qualifies with all parameters of the soft set  $P$ .



Assume that another customer Mr. M wants to buy 4G service on the basis of the sets of choice parameters  $Q \subset E$ , where  $Q = \{\text{Communication, Plans \& Offers, Entertainments Services, Public review}\}$ , and Mr. N wants to buy a 4G service on the basis of another set of parameters  $R \subset E$ .

The problem is to select the 4G Service which is most suitable with the choice parameters of Mr. L. The 4G Service provider industry is most suitable for Mr. L, but not necessary to most suitable for Mr. M and Mr. N because the selection of both is dependent upon choice parameters of each buyer.

To solve the problem, we define generalization of the soft set theory of Molodtsov [11, 15],

### 1. Tabular representation of a soft set:

The Soft set  $(F, P)$  above on the basis of the set  $P$  of choice parameters of Mr. L. Then the soft set  $(F, P)$  write as the following:

$$(F, P) = \{(e_1, \{u_1, u_2, u_3, u_4\}), (e_2, \{u_3, u_4\}), (e_3, \{u_2, u_3, u_4\}), (e_5, \{u_1, u_4\})\}$$

We can represent this soft set  $(F, P)$  in a tabular form as shown below. This presentation style is very useful for storing a soft set in a computer memory. If  $u_i \in F(u_i)$  then  $u_{ij} = 1$ , otherwise  $u_{ij} = 0$ , where  $u_{ij}$  are the entries in Table: 1.

Table: 1				
$U$	$e_1$	$e_2$	$e_3$	$e_5$
$u_1$	1	0	0	1
$u_2$	1	0	1	0
$u_3$	1	1	1	0
$u_4$	1	1	1	1

where  $u_i \in P$ ; for all  $i = 1, 2, 3, 4$ .

Thus, a soft set can now be viewed as an information representation system, where the set of characteristics is replaced by a set of parameters.

## 2. Reduct – Table of a soft set:

Consider the soft set  $(F, E)$ . Clearly, for any  $P \in E$ ,  $(F, P)$  is a soft subset of  $(F, E)$ . We will now present a reduct – soft set of the soft set  $(F, P)$  and Consider the tabular representation of the soft set. If  $Q$  is as reduct of  $P$ , then the soft set  $(F, Q)$  is called the reduct soft set of the soft set  $(F, P)$ . Naturally, a reduct – soft set  $(F, Q)$  of the soft set  $(F, P)$  is the necessary part, which suffices to define all basic approximate descriptions of the soft set  $(F, P)$ . The core soft set of  $(F, P)$  is the soft set  $(F, C)$ , where  $C$  is the CORE (P).

## 3. Choice value of an object (4G Service provider – industry) $u_i$ :

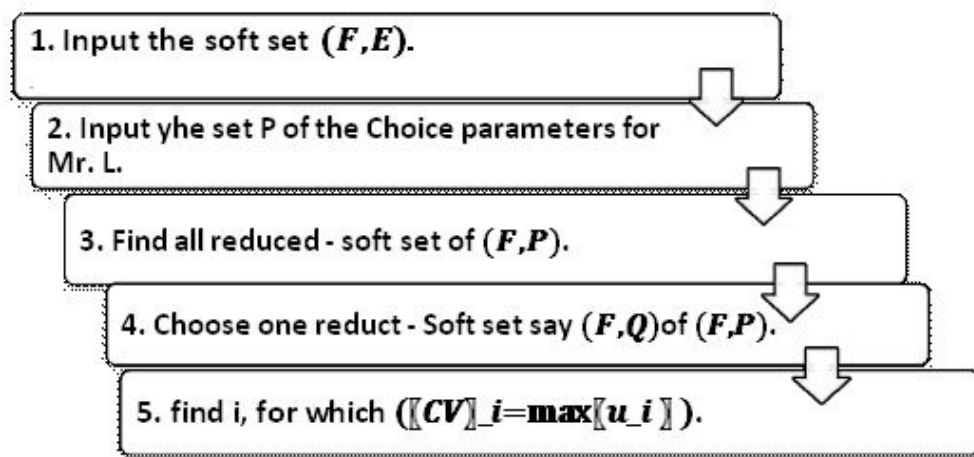
The choice value of an object  $u_i \in U$  is  $CV_i$ , given by:

$$CV_i = \sum_j u_{ij},$$

where  $u_{ij}$  are the entries in the table of the reduct – soft set.

## 4. Algorithm for selection of the 4G service provider industry:

The following algorithm which is represented by flow chart may be followed by Mr. L to buy 4G Service



provider industry which he wishes to buy.

Then  $CV_i$  is the best choice object. If  $i$  has more than one value, then any one of them could be chosen by Mr. L by using his option. Now, we use the above algorithm to solve our original problem. Clearly, from table (1) we can define  $Q = \{e_2, e_3, e_5\}$  is the reduct of  $P = \{e_1, e_2, e_3, e_5\}$ . Combining the choice values, the reduct – soft set can be showed in table (2) below:



Table: 2				
$U$	$e_2$	$e_3$	$e_5$	$CV_i = \sum_j u_{ij}$
$u_1$	0	0	1	1
$u_2$	0	1	0	1
$u_3$	1	1	0	2
$u_4$	1	1	1	3

The max  $CV_i = u_4$ .

**Decision:** Mr. L can buy 4G service from 4G service provider industry i.e.  $u_4$ . It may happen that for buying a 4G service from on

4G service provider industry, all the parameters belonging to  $P$  are not of equal importance to Mr. L. He likes to put weights on his choice parameters, that is corresponding to each element  $p_i \in P$ , there is a weight  $w_i \in [0, 1]$ .

### 5. Weighted table of a soft set:

“Theory of W – soft sets” is a new theory of mathematical analysis. W – soft sets means weighted soft set defined by Lin (1996). We define the weighted table of the reduct soft set  $(F, Q)$  will have entries  $d_{ij} = w_j \times u_{ij}$ , instead of 0 and 1 only, where  $u_{ij}$  are the entries in the table of the reduct – soft set  $(F, Q)$ .

### 6. Weighted Choice value of an object $u_i$ :

The weighted choice value of an object  $u_i \in U$  is  $u_i$ , given by  $u_i = \sum_j d_{ij}$ , where  $d_{ij} = w_j \times u_{ij}$ . Mr. L now could use the following revised algorithm for received at his final decision.

### 7. Revised Algorithm for selection of the 4G service provider industry:

1. Input the soft set  $(F, P)$
2. Input the set  $P$  of the choice parameters of Mr.  $L$  which is a subset of  $E$ .
3. Find all reduct – soft sets of  $(F, P)$ .
4. Choose one reduced – soft set like  $(F, Q)$  of  $(F, P)$ .
5. Find weighted table of the soft set  $(F, Q)$  according to the weights decided by Mr.  $L$ .
6. Find  $i$ , for which  $W_i = \max W_i$ . The  $u_i$  is the optimal choice object. If  $i$  has more than one value, then any

one of them could be chosen by Mr. L, by using his option.

Now solve the original problem using the revised algorithm.

Suppose that Mr. L sets the following weights for the parameters of  $Q$ : For,

“Communication”  $w_1=0.9$  “Plans & Offers”  $w_2=0.7$  “Internet Speed”  $w_3=0.9$  “Entertainment Services”  $w_4=0.5$  “Public review”  $w_5=0.8$ .

From table: 3 it is seen that Mr. L will select the 4G service provider industry  $u_4$  for buying 4G service according to his choice parameters in  $P$ .

Table: 3				
$U$	$e_2. w_2 = 0.7$	$e_3. w_3 = 0.9$	$e_5. w_5 = 0.8$	Weighted Choice Value $W_i = \sum_i w_i e_i$
$u_1$	0	0	1	0.8
$u_2$	0	1	0	0.9
$u_3$	1	1	0	1.6
$u_4$	1	1	1	2.4

For the above table: 3, Mr. L will select the 4G service provider industry  $u_4$  for buying to 4G service according to his choice parameters in  $P$ .

### Conclusion

The soft set theory presented by D. Molodtsov an emerging mathematical tool to deal with problems with uncertain, fuzzy, rough or vague data. Molodtsov have introduced several possible applications of soft set theory. In the present paper give another application of soft set theory in a decision-making problem by rough set theory on vague data.

### References

- Basu Sumita (2005), *Classical sets and Non – Classical Sets: An Overview*, *Resonance, General Article*, 38 - 48.
- Chandra N. Kailash, Rath B. S., Mohapatra S. C. (2016), *A soft set approach in investment decision*, *IJLTEMAS*, Vol. 5, No. 2, 58 – 60.
- Chen D., Tsang E. C. C., Yeung D. S., Wang X. (2005), *The parameterization reduction of soft set theory and its applications*, *Comp. Math. Appl.*, 49, 757 – 763.
- D. A. Molodtsov (1999), *Soft set theory – first results*, *Computers and mathematics with applications*, Vol. 37, 19-31.

- H. J. Zimmermann (1996), *Fuzzy Set Theory and its Applications*, Kluwer Academic, Boston, MA.
- Husain Shamshad, Km. Shivani (2018), *A Study of Properties of Soft Set and its Applications*, *International research Journal of Engineering and Technology (IRJET)*, Vol. 5, Issue 1, 363 – 372.
- K. Bhardwaj R., Tiwari S. K. (2015), *A study of solving decision making problem using softs set*, *IJLTEMAS*, Vol. IV, No. IX, 26 – 32.
- K.V. Babitha & J.J. Sunil (2010), *Soft Set Relations and Functions*, *Computers and Mathematics with Applications*, Vol. 60, No. 7, 1840–1849.
- L. A. Zadeh (1965), *Fuzzy Sets, Information and Control*, Vol. 8, 338-353.
- Molodtsov D. A. (2004), *The theory of soft sets (in Russian)*, URSS Publishers, Moscow.
- Nasef Arafa A. and EL – Sayed M. kamel (2017), *Molodtsov's Soft Set Theory and its Applications in Decision Making*, *International Journal of Engineering Science Invention*, Vol. 6, 86 – 90.
- Neog T. J., Sut D. K. (2011), *An Application of fuzzy soft sets in medical diagnosis using fuzzy soft complement*, *International Journal of Computer Applications*, Vol. 33, 30 – 33.
- Onyeozili, I.A. and Gwary T. M (2014), *A Study of the Fundamentals of Soft Set Theory*, *International Journal of Scientific & Technology Research*, Vol. 3, Issue 4, 132 – 143.
- P. K. Maji (2012), *A neutrosophic soft set approach to a decision making problem*, *Annals of Fuzzy Mathematics and Informatics*, Vol.3, No.2,313-319.
- P. K. Maji, A. R. Roy and R. Biswas (2002), *An Application of Soft Set in a Decision Making Problem*, *Computers and Math. With Application*, Vol. 44, 1077-1083.
- Roy A. R. and Maji P. K. (2007), *A fuzzy soft set theoretic approach to decision making problems*, *Journal Computer Appl. Math.*, 203, 412 – 418.
- W. Xu et al. (2010), *Vague Soft Sets and their Properties*, *Computers & Mathematics with Applications*, Vol. 59, No. 2, 787–794.
- Yang X., Yu D., Yang J. and Wu C. (2007), *Generalization of soft set theory: from crisp to fuzzy case*, In: Bing – Yuan Cao, eds., *Fuzzy Information and Engineering: Proceedings of ICFIE, A Advances in Soft Computing 40*, Springer, 345 – 355.
- Z. Pawlak (1982), *Rough sets*, *International Journal of Information and computer sciences*, Vol. 11, 341-356.
- Z. Pawlak (1991), *Rough sets, Theoretical aspects of reasoning about data*, Kluwer Academic, Boston, MA.
- Z. Pawlak (1994), *Hard set and soft sets*, ICS Research Report. Poland.

## A Comparative Study of GST And VAT Systems

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### **Abstract**

*Changes in the prevailing system of indirect taxation in India have been discussed for a long time. In the diversified Indian indirect tax system, some fault like double taxation, uncertainty of potential revenue receipts, implementation constraints, lack of uniformity and tax evasion were beginning to reflect, which needed to be redressed. In last 15 years Several major steps have been taken towards tax reform. Reduction in tax rates, Various laws of taxation have also been simplified during this period. First The implementation of the VAT system and then the transfer of the VAT system from July 1, 2017 to the GST regime has been an important step towards reform. The various taxes lavied on goods and services have now come under one roof of GST. GST has simplified the tax structure by following various tax systems and freeing them from double taxation. It has given stability to Inflation by paving the way for strong economic growth. GST as a simplified tax system has transformed India into a unified national market by bringing positive changes in the Indian economy, which will enable India to compete globally.*

*Keywords: VAT, GST, E-way Bill, Tax Evasion, etc.*

### **Introduction**

Money is required to run any political system. Taxation is considered to be the simplest and most effective solution among the options available to the government. The government is able to complete all development works and welfare schemes only through the revenue received through direct and indirect taxes. Due to federal financial system, the central and states have the rights to impose separate taxes in the Indian constitution. Many types of direct and indirect taxes have been levied by the central and state government Using these rights, comparatively indirect taxes are considered more productive and less disincentive and affect a much larger section of the economy. VAT and GST are the prime examples of indirect taxes.

Before the implementation of GST, many types of indirect taxes such as Central excise, surcharge, cess, service tax, VAT, entry tax, entertainment tax, central sales tax, luxury tax, advertisement tax, lottery and gambling tax were levied by the Central Government and State Governments. The Goods and Services Tax (GST) has transformed this complex system into a single tax system by incorporating all indirect taxes prevalent in the Center and the states. GST is Based on the principle of one nation, one market, and one tax. It is a destination-based value added tax levied on the production, distribution and consumption of goods and services.

### **Literature Review**

Monika Sehrawat and Upasana Dhanda (2015) focused in their research paper entitled “GST in India: A key tax reform” that a simple, user- friendly and transparent tax system is required in present India which can be fulfilled by implementation of GST. They also concluded that introduction of GST will lead to higher output, more

employment opportunities and flourish GDP by 1-1.5%. Hamdani Rizwana (2016) focused in his paper “GST and Indian Economy” that implementation of GST will increase the job opportunities and this led to stability in the country, which is the most important requirement for development of an economy. Lourdunathan F and Xavier P (2016) focused on the “challenges and prospects of implementing GST” and concluded that GST will bring One Nation and One Tax market that will provide relief to the producers and consumers from several taxes. Banamali Nath (2017) focused in their research paper entitled “Goods and services tax: A milestone in Indian economy” impact of GST on various sectors of Indian economy like manufacturing, textiles, small enterprises, IT and FMCG. Further concluded that GST will reduce manufacturing costs in the manufacturing sector, directly benefiting consumers and related industries. Through this research paper he suggested to organize workshops, training and seminars to educate taxpayers. Sudeep Banerjee and Priya Agarwal (2018) analyzed in the paper "Impact of goods and service tax after implementation" impact of GST on 5 sectors of Indian economy these are real estate, e-commerce, travel and tourism, ride hailing apps, and smartphones.

### **Hypothesis**

H0: The provision of GST is simple compared to VAT, which makes the tax system easy and transparent.

### **Objectives of The Study**

The objective of the research presented is to do a comparative study of the provisions of the VAT and GST system and to know how the provisions of GST will prove to be better than the prevailing VAT system.

### **Research Methodology**

This research design is descriptive in nature; the entire source of collection of data is secondary that have been used to fulfill the objectives of the study and to test the hypothesis. Information published in various authorized websites, books, government and non-government publications, annual reports, newspapers - magazines and research papers etc have been used in research work as required. The findings have been formulated using the normal average, percentage decrease / increase etc. for the analysis of the data.

### **Historical Background**

The concept of VAT was first developed by Dr. Wilhelm von Siemens of Germany in 1919 was first implemented by France. The VAT system implemented simultaneously in 22 states and 7 union territories of India since 2005 was an improvement over the existing general sales tax. The VAT system, which was prevalent in more than 160 countries, faced widespread opposition while implementing it in India. But later this system remained acceptable.

At the international level, Goods and Service Tax (GST) was first adopted by France in 1954. GST has been adopted by 164 countries in the world due to its ability to raise the most revenue in a fair way. The process of implementing GST in India was quite long. In the year 2004, the Kelkar Committee presented the idea of National GST. In 2008, the Union Finance Minister, Shri P. Chidambaram announced in the budget that GST will be implemented from 01 April 2010. On 19 December 2014, the NDA government introduced the Constitution

Amendment (122nd) Bill 2014 on GST in Parliament. The Bill was passed in the Lok Sabha on 06 May 2015 and in the Rajya Sabha on 03 August 2016. After the approval of both houses and the President of India, it came into force from 1 July 2017 across the country. India has adopted the dual GST model due to its unique federal nature under which the supply of goods and services is taxed by the Center as well as the states. The tax levied by the Center is called CGST and the tax levied by the states is called SGST. In the Union Territories, it is called UTGST.

### **Comparison of VAT and GST Provisions**

Under the VAT system, there was a difference in the tax rates on goods in different states. An item was tax-free in one state while the same item became taxable in another state. The abolition of the VAT system and the introduction of the much-awaited GST system is the biggest improvement in indirect tax related reforms so far. Subject experts believe that it will prove to be a milestone in the Indian economy. Comparative study of the provisions of both systems are as follows –

- 1. Registration:** In VAT system, it was mandatory to take registration for more than ten lakh rupees turnover, in GST it has been made mandatory to take registration if the turnover of goods supplier is more than forty lakhs rupee. This limit is Twenty lakh rupees For Northeast and hill states companies, even for service providers this limit is Twenty lakh rupees.
- 2. Tax imposition and payment:** Before the introduction of GST, many types of indirect taxes like Central Excise, Service Tax, VAT, Entry Tax, entertainment tax, Central Sales Tax, Luxury Tax etc were levied by the Central Government and various states. Following various types of tax laws was a difficult and complicated task. With the implementation of GST, only one indirect tax law has to be followed, which has brought simplicity in the tax system. Online payment of tax was not compulsory in the VAT system, whereas online payment of tax in excess of ten thousand rupees has been made mandatory in GST. Through online processing, the scope of generating black money in business transactions will be reduced, and the productive use of capital will be possible. Surely this tax will help in reducing evasion.
- 3. Tax Rates:** In the VAT system, there was a difference in the prevailing tax rates in different states. In M.P. Tax rates ranging from 1 percent to 46 percent were prevalent. It was also charged Entry tax. Due to uniform tax policy in GST, the tax rate on goods and services across India has become the same. In GST, tax rates are 0, 5, 12, 18 and 28 percent. With a few exceptions, the tax rates on almost all goods and services are lower than the preceding tax systems. In GST, only 28 items are being taxed at the rate of 28 percent. The tax rate on 491 items is 5 percent or less. The tax rate on 87 services has been kept at 0 percent. It is clear that GST has reduced the tax burden of consumers.
- 4. Composition Facility:** Under the VAT, composition facility was available to businessmen with turnover less than Rs 40 lakh. This limit has been kept at Rs 1.5 crores in GST and Rs 75 lakh for special states. Businessmen who supplying goods outside the state are not eligible for composition. A total of 1755846

taxpayers of the country and 63249 taxpayers of M.P. took the facility of composition.

5. **Checkpost:** In the pre-existing tax system, 1150 check posts located on the state borders used to increase corruption and illegal collection. The cost of doing business was increased due to more human intervention between the tax payer and the tax administration. With the complete eliminating the check post system in the GST, transportation time, cost and corruption have come down.
6. **E-way bill:** In the VAT system, Form-49 was applicable to inter-state movements of goods. To bring the entire supply chain on record in GST, the E-way bill system was implemented. Initially, this system was applicable to inter-state transport, which has been implemented in the state at present.
7. **Declarations:** The VAT system was quite complicated due to the declarations like C form on inter-state sale, F form on branch transfer, H form on export, I form on sale in SEZ. GST has liberated the formalities of all these statutory declarations.

Apart from the above provisions, it is also important that VAT was levied on the sale of goods. Which was collected by the vendor state while GST is levied on the supply of goods and services which are collected by the consumer state. Under the VAT system, most of the processes like Registration, payment of tax, Assessment, Refund, Appeals, etc. were offline, whereas GST is a completely online system wherein all the above functions are done through the normal GST portal. It is clear that the above provisions make the new tax system better than the previous system.

### **Impact of GST**

Two years of GST have been completed, this new system of indirect taxation has clearly seen the impact on the consumers and the revenue of government. GST has paved the way for strong economic growth, stabilized inflation, simplified the tax system and increased transparency leading to increase in revenue of the government. With the elimination of checkposts and the introduce of E-way bill system, goods transportation has become easier. Corruption has been reduced by electronic processing without human interference. With the establishment of GST Help Desk, problems of businessmen are being resolved quickly. The GST has provided a single tax to manufacture, traders and service providers by abolishing 17 types of taxes with the motto of One Nation One Legislation. Simplified the tax structure by following various tax systems and freeing them from double taxation. Prices of goods and services have come down from the bowl in tax rates.

The positive impact of GST has been that till July 2017, the total number of taxpayers registered in the country was 38.51 lakh, which has increased to 1.2 crore by October 2019. The increase in registered taxpayers shows the growing tax base. 35.20 crore returns have been filed by the taxpayers. 694 crore invoices have been uploaded on the portal and about 92 crore E-way bills have been downloaded. There has also been a positive impact on the revenue of the central government. (Table 1)

**Table no. 1**  
**Act-Wise Revenue Receipts in India**

(Amount in crores)

ACT	2017-18			2018-19				2019-20	
	Quarter			Quarter				Quarter	
	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
CGST	30393	42580	45903	50487	46498	49718	55741	57340	52275
SGST	45246	62339	64218	69416	64508	68355	76538	78606	71845
IGST	119856	133454	134046	149166	149896	151081	148596	152396	144637
CESS	15773	23057	23786	24015	23983	23919	25452	25750	23444
Total	211268	261430	267953	293084	284885	293073	306327	314092	292201
Growth	21891	50162	6523	25131	-8199	8188	13254	7765	-21891
Growth Rate		23.43	2.49	9.37	-2.97	2.87	4.52	2.53	-6.97

(Reference: [www.gstcouncil.gov.in](http://www.gstcouncil.gov.in))

The analysis of the above table shows that after the implementation of GST from 1 July 2017, there has been a steadily increase in the revenue of the Central Government. The average revenue received in the last nine quarters has increased by 4.4%. Maximum growth of 23.43% has been registered in the third quarter of the year 2017-18. While the second quarter of the year 2019-20 There has been a negative growth of 6.97% in the revenue. On comparing the revenue received in the same quarters, it is known that compared to the second quarter of 2017-18 it was 34.85 % , in the second quarter of 2018-19, 12.10% in third quarter and 14.32% in the forth quarter has increased. There has been a huge decrease in revenue for the second quarter of 2019-20. due to various reasons, the impact of recession at international level and the impact of crop production and business due to heavy rainfall in various states have also been important. In the initial phase of implementation of GST, the government's efforts to prevent tax evasion like Raids and vehicle chacking etc were relaxed. At the same time, tax rates are also being reduced continuously, despite the increase in revenue of its governance also gives positive signs for the future.

### Conclusion and Suggestions

It can be concluded from the above discussion that the GST system seems to be beneficial for the Indian economy as compared to the prevailing VAT system. Eliminating of various taxes and the reduction in tariff rates has reduced the price of goods and tax evasion. the elimination of check posts has reduced the time and corruption in goods transportation. While the new tax system is promoting the economic development of India by improving tax collection, it is proving helpful in eliminating all tax barriers between the center and the states. With the implimentation of GST, the tax base has expanded and the revenue of the government has increased. Certainly, the provision of GST is simple compared to the various tax systems prevailing in the past which make



the tax system easy and transparent. They fulfill the objectives of the study and prove the hypotheses to be true. However, there are many challenges before the GST. For businessmen, the problem of double control of the center and the state still exists. Tax consultants and businessmen are facing new problems due to frequent changes in the format and rules of the bye-laws. Confusing situation is being created due to frequent amendments. Negative effects such as the frustration of honest businessmen and the inability to reach consumers as a reduction in prices are also visible due to the failure to fully curb tax evasion in GST. New systems are completely online while the technical knowledge of most businessmen is extremely limited. This modern system based on computer knowledge is creating problems and challenges even for the elders, experienced government servants. The technical problems related to the portal and the inadequacy of power and network in small cities also make the big choice before GST.

There is a need to simplify complex and detailed provisions to limit various tax rates, to expand technical knowledge and facilities so that more and more businessmen themselves come forward and be a part of it honestly. Generally, in the initial years of change of system benefits are less and more problems are seen, but the basis of the research presented it can be said that in the long run, this new tax system will prove to be beneficial not only for consumers and businessmen but for the entire Indian economy.

## References

- [www.gstcouncil.gov.in](http://www.gstcouncil.gov.in)
- [www.gstindia.com](http://www.gstindia.com)
- [www.finmin.gov.in](http://www.finmin.gov.in)
- [www.mptax.mp.gov.in](http://www.mptax.mp.gov.in)
- *GST Manual, 2019, Motlani P.H., Sahgal Lakshita*
- *Economic Survey of India, 2017-18, Government of India*
- *Nath, Banamali. "Goods and services tax: A milestone in Indian economy", International Journal of Applied Research, 2017 Vol.3 (3)*
- *Khurana, Akansha and Sharma, Aastha on "GST- A positive reform for indirect taxation system" International journal of advance research, (2016) vol 4, issue3*
- *Mujalde, Sakham, and Vani, Avi, Goods and Service Tax (GST) and its outcome in India, Journal of Madhya Pradesh Economic Association, ISSN 2277-1123, Feb 2017*
- *Tewari, Dr Vinod Kumar "Goods and Service Tax", i © Swaranjali Publication, 2018*
- *Hamdani, Rizwana. GST and Indian Economy. International academic institute for Science and Technology. 2016; 3(9):*
- *Lourdunathan F, Xavier P. "A study on implementation of goods and services tax (GST) in India: prospects and challenges. International Journal of Applied Research. 2017; 3(1)*
- *Sehrawat, Monika, Dhanda, Upasana "GST in India: A key tax reform". International Journal of Research Granthaalayah. 2015; 3(12):*

## Internet of things: Future Simplified

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### **Abstract**

*The following research paper is all about internet of things. The most important determinant of the futuristic technology is to consolidate a number of technical as well as networking solutions. The technology recognizes and follows the connected and non-connected sensor; this machinery operator and network, the ever-advancing information procedures and formalities. To top it all, this system works in coordination with the smart devices that are installed at a work place or home with the help of administered networking. The research paper made in diverse field of knowledge, like telecom, information technology and electric media, are playing a vital role in the advancement of IOT. One must have no doubts that all oh this is a complex setup, which is created and integrated to have a dynamic lifestyle in the coming days. For those who wants to understand this complexity and to add on to its expansion and improvement, the following survey comes as sincere aid. Internet of things has been envisioned in many different manners while studying distinctive mechanization, and as is the case with any revolutionary research, this too, is not flawless.*

*Keywords: Internet of Things, Security, Sensors, etc.*

### **Introduction**

Simply put forth, internet of things is radical moves in terms of technology that is intended for communication without any material contact, and is quickly becoming a hit in current times. A number of electronic devices surrounds us almost all the times, and with the help of radio-frequency identification, all of these devices like our mobile phones, electrical appliances, window, doors, the complete home system actually can be centralized. This system works as a source of interaction between these devices, they are interconnected and their functions would be executed accordingly.

Internet of things is going to influence the day-to-day life of user in very significant way. Not just the domestic users, but the business users will also be able to utilize the technology to improve this everyday operation, thereby enhancing and improving the quality of life as well of the economy on the whole. In just few years, internet is going to have a tight hold on very simply situations. No wonder this technology is on boom right now, and people are not hesitating to start using it.

However, such advancement will not come without any risks. As the world becomes technology based, our information through the daily device's interconnectivity would be widespread, and would not be limited. There are still some concerns about acceptances of this technology. The terms working on this enhancement are working their best to create a smart, safe and secure networking environment, but lack of required resources and energy at all time is still an issue. This survey provides with the prevailing situation of IOT. To be precise, it:

- This rise and actually of IOT

- The advantages of this technology in making life simpler
- A study on the challenges faced by community working to improve this technology

### **Smart objects are the building blocks**

The motto of an Internet of Things which is actually built from smart objects raises various major research questions in terms of architecture of the system, its design and development, and human involvement.

Few questions can be what is the appropriate balance for distributing functionality between smart objects and supporting infrastructure? How do we present and model smart objects 'intelligence'? What are relevant programming models? And how humans can interact with smart physical objects?

Through empirical examination and by prototyping different generations of smart objects we identified three canonical smart – objects types which represent architectural principles and rudimentary design: -

- Activity-aware objects
- Policy-aware objects
- Process-aware objects

Our anatomy of smart objects and the Internet Of Things is designed for industrial industries requirement in petrochemical and road construction industries. In industries work objects are converted such as drum roller, containers and Wacker plates into smart objects by embedding sensor devices.

The resulting smart work objects can sense, log and interpret the environment and can interact and communicate with other work objects.

Through a collaboration with industries there are alternate designs made for smart objects. As stated earlier there are three design. Activity- Aware objects recognize the worlds in terms of event and activity which is directly related to the use and handling of the object like pick up, turn on, operate). Policy-aware objects understands how real-world objects and its activities comply with organization. While the third design Process-aware objects is beneficial for industrial work management and operations. It identifies the organizational processes.

### **Challenges of Internet Of Things**

Behind every accomplishment is a hidden chain of problems. Same is the case of IOT. According to Banafa.A.et.al. These are mainly three challenges observed.

**Technological challenges:** IOT component are enable using variant protocols and technologies. As a result, these components have complex configuration and poor design. Technological threats are the reflection of these 5 parameters.

- Security: IOT causes major security issues that has grabbed the attention of various public and private sector company. Adding news hubs to the system and web makes easier for the attackers to breach the system due to security hubs.
- Connectivity: The most important threats of the future of IOT would be to connect to various devices. The current is only applicable for the current situation as it is not expandable to procure future needs.

- **Compatibility:** As IOT is spreading it is integrating many Technologies. This will pose serious threats and will demand setting up of additional software and hardware in order to establish communication amongst the devices.
- **Standard:** Technology conventions incorporating network and communication protocols and data aggregation convention, are the collection for activities that examine, process and store information collected from various sensors.

**Business Challenges:** The main concern is a major inspiration for beginning, putting resources into, and managing any venture, without a full proof plan. This model should satisfy every one of the prerequisites for all kinds of e-commerce; vertical markets, horizontal markets and consumer markets. Usage of IOT technologies plays an integral role to create a source of additional income to lower the burden on the existing communication infrastructure.

**Societal Challenges:** This parameter deals with following issues:

- Customer requirements change regularly.
- Novel technologies have features and capabilities that are costly and require huge investments.
- Consumer confidence: each of above-mentioned issues could put dent in buyers want to buy particular items. IOT data is very delicate data which if leaked can give the control of the system in the attacker's hands. We have to be capable enough to know how IOT data is being used.

## Conclusion

Change is an inevitable part of life. For a better future there is a need to change every minute, every second. Problems becomes easier when we focus on implementing them, rather than solving them.

While using data wisely, dependency of IOT on mobile networks significance of data generated from different devices, importance of networks alongside data centers.

Beside that the major issues that need to be addressed are the need of a secured service infrastructure, evolution of interoperability standards, and security and privacy of data will play a major role in how the IOT will change in the coming decades.

Our generation is constantly trapped between resisting the change and being the change. Acceptance of these changes and IOT is necessary for all who resist changes are not ready to gear up with the technologies.

## References

- Atzori, L., Iera, A., & Morabito, G. (2010). *The internet of things: A survey. Computer networks*, 54(15), 2787-2805.
- Kortuem, G., Kawsar, F., Sundramoorthy, V., & Fitton, D. (2009). *Smart objects as building blocks for the internet of things. IEEE Internet Computing*, 14(1), 44-51.
- Weber, R. H. (2010). *Internet of Things–New security and privacy challenges. Computer law & security review*, 26(1), 23-30.

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