UGC
University Grants Commission
Journal No.: 63571

International Journal of
Advance and Innovative Research
(Conference Special)
(Part – 2)

2nd International Multidisciplinary Conference

on

"Use of Digital Technology in Business, Financial Services and Education Systems; Challenges & Opportunities"

Organized by
Seva Sadan College of Arts, Science & Commerce
(Affiliated to University of Mumbai)
Ulhasnagar

9th February, 2019 Saturday

Publication Partner
Indian Academicians and Researcher's Association

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ABOUT CONFERENCE

The digital technology holds enormous potential for enabling entrepreneur to drive growth and reduce operational costs. The advanced growth of digital technology is enabling the adoption of enterprise collaboration tools that helps entrepreneur organize intellectual capital and facilitate knowledge sharing. Although there are many overlapping impact of digital technology in business and finance but they differ significantly in many areas. This conference provides an interdisciplinary forum for the presentation of innovative view and research oriented approach. This conference aspires to bring the researchers, business professionals and academicians from relevant disciplines on common platform to discuss the "Use of Digital Technology in Business, Financial Services and Education Systems; Challenges & Opportunities"

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7.36

International Journal of Advance and Innovative Research

ISSN : 2394-7780

ज्ञान – विज्ञानं विमुक्तये
University Grants Commission

Journal - 63571

CONTENTS

Research Papers

A STUDY ON THE SUSTAINABILITY OF CORPORATE SOCIAL RESPONSIBILITY WITH SPECIAL REFERENCE TO SME

Aayush D. Desai

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ABSTRACT

Purpose: To study the role and growth in CSR activities amongst the Small and Medium Scale Enterprises.

Objectives:

1. To study the importance of Corporate Citizenship.

2. To identify the impact of Corporate Citizenship on the stakeholders and Brand Image of the Organization.

3. To study the Stainability of Corporate Citizenship with respect to Small and Medium Enterprises (SMEs).

Research Implications: Based on the conclusions drawn post the in-depth and overall study, few inferences can be made about the role of CSR in the development of India. It is the corporate citizenship, that makes sure that the stakeholders in an organization gain advantage, derive satisfaction and improves the organization's image.

Keywords: Corporate Social Responsibility, Corporate Citizen, Small and Medium Scale Enterprises.

INTRODUCTION

Corporate Social Responsibility or CSR can be termed as a business policy or a response to issues raised, by people in the society. It can be defined as the set of policies, activities, or behaviour undertaken by an organization that goes beyond the traditional economic and legal obligations that the firm has towards its internal and external stakeholders. Studies looking at CSR have concluded that what "goes beyond" the traditional responsibilities is influenced and therefore, ultimately demanded by the norms, values, and expectations of stakeholders of the organization and those are classified as being ethical or moral obligations discussed by. Ethical obligations must be voluntary in nature and if undertaken effectively benefit and improve the overall welfare of the community in which the firm operates mentioned by in order to achieve these benefits both the organization and its stakeholders have a responsibility to work together. It is assumed that an organization being proactive and meeting the needs of its stakeholders before it is required is deemed to be engaging in philanthropic or discretionary type behaviour suggested by. Therefore, it is important for an organization to develop an ethical organizational culture and define its role within the society and implement the necessary ethical, responsible, legal, and social standards to their firm focused by.

THE IMPORTANCE OF CORPORATE CITIZENSHIP
WHAT IS CORPORATE CITIZENSHIP?

"Corporate Citizenship is a recognition that a business, corporation or business-like organization, has social, cultural and environmental responsibilities to the community in which it seeks a license to operate, as well as economic and monetary ones to its shareholders or immediate stakeholders. Corporate citizenship involves a company coming back to terms with the necessity for, often, radical internal and external changes, so as to meet its responsibilities to its stakeholders (direct or indirect), so as to ascertain, and maintain, sustainable success for the organization, and, as a result of that success, to achieve long term sustainable success for the community." says a company subject analysis unit at the Deakin University, Australia.

Or

In simple words, the Business Dictionary defines Corporate Citizenship as "A company's role in, or responsibilities towards society."

WHY CORPORATE SOCIAL CITIZENSHIP IS IMPORTANT?

It is due to the Corporate Social Citizenship that the companies' avail:

ENHANCED MEDIA COVERAGE

Companies that concentrate on doing something better in their communities can attract the eye of native media. These positive stories will provide the companies with highly trustworthy cost-free publicity, because they will come from journalistic sources rather than from self-advertising copy. Furthermore, beneficiaries of the companies will sing in its praises on their social media networks.

BETTER CUSTOMER RETENTION

As per the trend observed, nearly ninety out of hundred customers would refrain from indulging in business with corporation if there does not exist CSR activities or plan. Customers these days tend to seek dual sets of benefits when they deal with the company, a demand for good service and products, and then they want to lend a helping hand, however small, in contributing to efforts to make the world a better place.

SOMETHING DIFFERENT

An opportunity to stand apart from your competitors is availed through corporate social responsibility. In this era of e-media, no one is entirely in charge of their own brand image. Participating in programs to benefit the community is crucial in shaping a brand image that is reliable, durable and honest.

COST CUTTING

Cost Cutting and social responsibility may take place in quite a number of ways. For example, the Environmental Defence Fund has honoured IKEA, Nike and Walmart for their cost-cutting, sustainable shipping practices. These three companies showed a way forward, helped in changing shipping practices so as to reduce their carbon footprint along with drastically lowering costs altogether.

BOOST IN EMPLOYEE'S MORALE

Employees work better and stick with a corporation longer once they believe what the corporation is doing. Focusing on company, social responsibility is often a good thanks to show your team what your company values. You foster the well-being of our employees after you explicate that each and every one of them is causative to the betterment of their community whereas conjointly earning a check.

TO IDENTIFY THE IMPACT OF CORPORATE CITIZENSHIP ON THE STAKEHOLDERS AND BRAND IMAGE OF THE ORGANIZATION

- Stakeholders in a company are:
- Shareholders
- Employees
- Creditors
- Customers
- Suppliers
- Unions
- Government
- Citizens

The impact of corporate citizenship on such stakeholders are as follows:

Shareholders: In a research conducted by Dr Flammer at Ivey Business School, he saw that the passing of proposal/s for a new CSR activity leads to an increase in shareholder value quickly. This clearly backs the assumption that CSR activities do contribute in improving the financial performance of an organization.

Employees: Betterment in the employee engagement programme is one of the biggest benefits of CSR for a business. Employees trusting that their bosses' morale, tend to be more agreeable and support their peers. Companies undertaking CSR also helps in boosting employee's performance. Above that, it is also important for workers to feel a greater sense of shared identity with companies indulging into CSR. This clearly indicates that the employee's loyalty and sacrifices that he shall do for the betterment of the company.

Creditors: A company that is growing is always in need of capital so as to make sure to meet the market demands and check if quality efficient products and services are produced. There are such times when the companies need to put in funds availed from various sources outside, in terms of bonds, debentures or from banks. It is the CSR which creates a positive impact over here, A lender is more likely to lend money to a company which is a corporate citizen than the one that just looks towards its own upliftment while exploiting the society around. A normal citizen too if asked would want to lend money to a company who plants trees regularly or feeds poor ones regularly instead of the ones who just engage in profits or crimes like child labour. It is their morale which plays an important role, after all the lenders are also living being with an emotion.

Customers: They expect companies to be socially responsible. It is their approach towards CSR that nearly half of what consumers feel about a given company. Similarly, an huge number of global consumers expect

companies to be responsible and take care about things apart from profits. Consumers tend to search for products that are ethical. Large number of them are even ready to shell out more for a Socially Conscious Company. Happy customers tend to even spread the word about the company, thus contributing towards PR.

Suppliers: Dialogue and cooperation to improve CSR usual performance will make stronger contributors of the own family with vendors and might make a contribution to increasing productiveness and lowering prices. Improving product high-quality, making it competitive and higher. Responsible supply chain manipulate can help to guard product first-rate and promote the improvement of extra sustainable products.

Unions and Government: External stakeholders commonly have no longer invested any private or corporate's finances to the organisation. These stakeholders do not vote on business enterprise choices. However, the outside stakeholder is worried with selections an enterprise makes and might meet with control or show records to the board of administrators to test mind, networking issues and different problems.

Citizens: Corporate involvement in local problems of the network, as a consequence, is growing higher in the surroundings. People who've been helped with the resource of employer, through their moves are happier and advantage from a better lifestyles style.

TO STUDY THE SUSTAINABILITY OF CORPORATE CITIZENSHIP WITH RESPECT TO SMALL AND MEDIUM ENTERPRISES (SMES)

As per the New Companies Act, i.e. Companies Act 2013, it is mandatory to have a profit of at least INR 5 Crores that are to be used for CSR. This also compels a large number of Small and Medium Enterprises (SMEs) to start spending a part of their profits on CSR. Along with this, it brings various other problems like an expectation to follow the environmental and social another set of challenges as the company is expected by its B2B customers to comply with environmental and social statues.

Small and Medium Enterprises make a contribution in large part to the country's financial boom with the aid of employing almost forty percent of the state's workforce and with the aid of contributing about forty five percent to the manufacturing output pool. That is because these companies no longer only serve independently however, they are also are ancillary to the ones large gadgets and hence generate employment and assist industrialize the agricultural and backward regions of India.

Small and Medium Enterprises make a contribution in large part to the financial growth by using employing nearly forty percent of the nation's staff and with the aid of contributing about forty five percent to the producing output pool. That is because these companies now not handiest serve independently however are also ancillary to those large gadgets and hence generate employment and help industrialize the rural and backward areas of India.

The sports performed by using those organizations are accomplished with the awareness of network wishes and expectancies. Hence, doing such commercial enterprise activities in proximity of locals will help them expand appropriate CSR programmes.

The standard of companies having a net profit of INR five crore and above set by the CSR clause in the Companies Act, 2013 makes the SMEs qualify for the same excluding the micro-enterprises.

The CSR sports of those firms are largely laid low with the personal hobbies of the promoters engaged in similar commercial enterprise activities. The quantum of revenue available to these enterprises is predicted to be small and so for the benefit of the community, the pooling of resources with the aid of all eligible agencies in a geographical location is the apt thing to do to create a huge CSR fund.

The collaborative CSR activities taken up by means of these SMEs create an effect on the community. They now not most effective assist in fulfil community needs and expectancies but also are useful to the organizations themselves as collaboration reduces operational costs for fund control. The collaboration of CSR activities is a necessity due to the fact the efforts taken via the SMEs are not optimally added to the network due to the subsequent motives:

The CSR activities largely depend upon the income of SMEs and any fluctuations in the earnings can adversely affect their contribution toward CSR.

There is lack of expert method because of loss of human resource in SMEs.

SMEs consciousness on quick-term activities rather than lengthy-time period programmes for neighbourhood groups to reduce operational expenses concerned.

Pooling of sources with different SMEs and growing joint CSR programmes controlled by a single entity is the modified technique of SMEs in the direction of CSR. With the introduction of new Indian Company's Act, 2013 for you to reduce operational costs. A survey performed by means of UNIDO in 2008 observed that thirty one percent to seventy nine percent of the SME clusters favoured charity over long time programmes for neighbourhood communities. These collaborations can be formed inside the units in a cluster as they have interaction with the same communities and feature hooked up associations that cater to the business wishes of such entities.

CONCLUSION

In latest years, there was a great deal in the academic hobby within the social function of organizations and moral aspects in their groups. Not handiest pupils of different fields which includes economic, political, or social sciences cope with such ethics. Many entrepreneurs, politicians, and communique companies have paid excellent attention to this subject matter as properly. However, neither company social obligation nor corporate citizenship locate attention in contemporary commercial enterprise historiography. Thus, we lack a clear understanding of the evolution over the years and what this problem has been supposed to unique agencies. Anglophone terminology dominates the practical and clinical—non-historical—technique and implies that the origins of devices and measures are to be discovered past the Atlantic. In Germany, the discussion about the Anglophone terms in particular is indeed still young, however the social dedication of numerous agencies isn't. The corporate social obligation isn't a brand-new phenomenon but a concept that has evolved through the years with exclusive accents.

REFERENCES

- **Samit Jain** (March 28, 2014), CSR: An equal responsibility of SMEs, Article retrieved from :http://indiacsr.in/csr-an-equal-responsibility-of-smes/

- (April 2014), CSR in SMEs, Blog retrieved from https://www.eoi.es/blogs/guidopreti/2014/04/23/csr-in-smes/

- **N. MUTHURAMAN** (January 22, 2012), Social Responsibility for SMEs, Blog retrieved from https://www.thehindubusinessline.com/news/education/Social-Responsibility-for-SMEs/article20387813.ece

- INITIATIVE DESIGN & MANAGEMENT FOR SMES, Article retrieved from: http://www.fiinovation.co.in/initiative-design-management-for-smes/

- Dr. Manish Sood, Corporate Social Responsibility and the Role

- of SME's in India, International Journal of Latest Trends in Engineering and Technology (IJLTET), 'Small Ain't Beautiful: A Survey of India's SMEs', pp. 206–279.

- Partha Sarathi, B., 'State Government's Proactiveness must for Growth of SMEs, DNA Money, Indore', Article retrieved from: www.dnaindia.com , 2007

DIGITAL AGE JOB OPPORTUNITIES WITH AFFILIATE MARKETING AND YOUTUBE

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ABSTRACT

With the advent of Digitization and its giant wings spreading across almost all of the areas that we can ever think of, we have come to witness major shifts in the pattern we have been performing tasks. Today, nothing seems to remain unreached by growing significance of Internet technology, including the fields of education, communication, finance, recruitment and so on. Hence, some digital age job opportunities can work best for the opportunity-seekers. These days there is a lot of buzz about "Affiliate Marketing" and "Becoming a YouTuber" and which can also be two of the most effective ways of starting an online career. This research paper aims to put light on materiality of such jobs and their key aspects as well as to establish the fact as to how well can these prove to be better work options in present and near future.

Keywords: Affiliate Marketing, buzz, digitization, opportunity-seekers, YouTuber.

1. INTRODUCTION

The world is often on a debate about whether Internet has proved to be a boon or a bane for the modern society, but the result has always ended up with mixed opinions. However, one benefit of internet we all can be sure of is that it has brought a lot of additional career opportunities for us. It is not just the merchants that have been making a lot of money by selling and promoting their goods or services online, but also the middlemen such as 'affiliates', 'review bloggers', etc that have derived best opportunity to earn just by devoting few hours over a personal computer, a smart phone with stable internet connection.

2. OBJECTIVES OF THE STUDY

1. To study and analyze digital age job opportunities with special emphasis on Affiliate Marketing and YouTube.

2. To explore the scope, process and other key aspects of Affiliate Marketing.

3. To highlight the promising features offered by one of the most popular online site i.e. YouTube.

4. To create awareness about how one can set up a progressive online career with the above mentioned opportunities and earn a great source of income easily.

5. To discuss about some achievers who have already made their mark in these fields.

3. RESEARCH METHODOLOGY

This research work is based on secondary data sources like journals, books, periodicals and online videos of people, sharing their experiences and on whom this study is based.

4. REVIEW OF LITERATURE

Customer behavior is constantly evolving, and it is important for successful economic development to keep up with the times (ispo.com 2018). Also, as Digitization has slowly and gradually created its own importance in business, there has to be considerable shift in the fashion we design our marketing mix, especially the promotional mix. In business world, the success depends upon the partnering organizations and their ability to support business process, even in digital world success of e-commerce depends upon partnering organizations like affiliates (S. prabhu and T. Satpathy 2015). Affiliate Marketing has got important through last few years and as IAB Australia's Affiliate Marketing Handbook, 2016, quotes 'Well managed and executed affiliate campaigns will help brands thrive efficient consumer acquisition'. Furthermore, another important opportunity to be tapped is making career over YouTube. It is yet another popular method that our young generation can consider for making a successful online career.

5. AFFILIATE MARKETING

5.1 Meaning and Importance

Affiliate Marketing comes as yet another marketing gimmick to induce additional buyers to make online purchases. With ever-growing competition even among the e-retailers, affiliates who act as middlemen help generate increased sales by increasing the traffic of visitors over the merchant sites in return of a fixed percentage of commission. Online retailing sites such as flipkart.com, myntra.com, amazon.com, snapdeal.com as well as matromonial sites such as shaadi.com, bharatmatromony.com etc have already initiated their affiliate

programs to join the growing scope of the trend. Service industry is also not left behind in this regard and tours and travels sites like Makemytrip.com, yatra.com have been offering attractive commission to encourage their affiliates to work harder towards the ultimate goal.

5.2 Key Participants in Affiliate Marketing

There are mainly three participants to Affiliate Marketing:
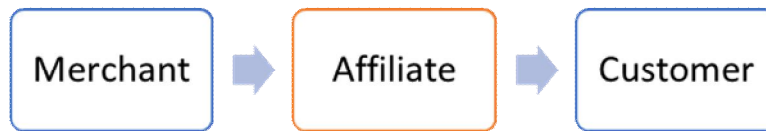
Figure-1: Participants in Affiliate Marketing

Merchant or Advertiser is the owner of the business online. He organizes the affiliate programmes for added benefits, willing to pay out consideration in return.

Affiliates work like agents for the merchants or advertisers, promoting the products or services of merchants with a number of ways like, writing blogs or reviews about the products or creating their own websites giving detailed information of the products and providing direct links to the merchants' sites alongside. However, they first need to register themselves as affiliates by following a certain procedure depending upon different affiliate programmes.

Customer is the last participant in this value chain and the end user of the products or services being offered. He is the ultimate goal in this whole game. Customers are induced to make purchases by attractive blogs, reviews, discount coupons and so on.

6. BECOMING A YOUTUBER

6.1 What is YouTube?

YouTube is an American video sharing website headquartered in California. Initiated by former pay pal employees, namely Chad Harley, Steve Chan and Javed Karim, in 2005, it has become a multi-billion dollar entity which now operates under Google. It allows anyone to upload, view, rate, share and subscribe to the videos and earn while doing so. If we consider the sources, as of 2017, it adds up to 400 hours of content uploaded each minute and one billion hours of content being watched on an everyday basis which makes it get ranked as world's second most popular site in the world.

6.3. How can one earn through YouTube?

Firstly, one can start his or her own channel on youtube by following some quick and simple steps. One of the steps in the process provides an option to monetize the channel with AdSense which enables the option to show contextual advertisements on one's videos and the channel owner earns money whenever any viewer clicks on the advertisement. The cost per click 'CPC' offered as payment by youtube varies from $0.5 to $2 per click. At times it can be even more. So, the only hard work one has to put in is creating some attractive content in the videos to encourage more and more visitors on the channel. The more the channel gets popular with increased number of subscribers and video shares, the scope to earn gets wider.

6.4 Popular YouTubers

There are a lot of the youtubers across the globe who have made millions of bucks within a very short period, while there are some who are on their way to achieving their share of success. Right from "How to thread a needle" to "How to play a piano", youtube has to offer millions of all sorts of tutorials, recipes, makeup tips, short humourous videos, home décor tips, art videos, travel blogs, lectures, reviews of various products and services and what not! It is almost impossible not being able to find atleast something about everything on the application. One can spend hours over youtube without even getting close to boredom.

Some of the youtube channels like Katy Perry, Ed sheeran, PewDiepie etc have crossed more than 30 million subscribers making it huge in this business. While to name few of the most popular channel owners from India are Bhuvan Bam (BB ki Vines), Nisha Madhulika, Tanmay Bhatt etc, all of them putting different type of content and able to earn even in lakhs of rupees per month alongwith popularity.

7. CONCLUSION

Technical advancements have gifted man with a great deal of convenience in almost every task he comes across in daily life. The digital job opportunities mentioned in this research work, alongwith their meaning,

importance, procedure and all other key aspects can bring readers food for thought and potentially convince them to give these growing money-making options their due consideration. Traditional methods of doing business and promotional activities involves a lot of investment and hence risk. However, one has nothing much to lose even if the online work doesn't go well. However, it is needless to mention that any task taken at hand requires the right amount of hard work, dedication, strategies and creativity. So, if one does the job the right way, there is no reason one may fail in achieving its own share of success. To conclude, we must definitely thank technology for providing us the potential of having an excellent career growth and income with just about investing some time and few clicks.

8. REFERENCES

Journals

1. Gibson, C. (2018). The most effective digital marketing strategies & Approaches: A review of literature. International Journal of scientific and Research Publications, 8(2), 12 -16.

2. Prabhu S, Satpathy T. (2015).Affiliate marketing's future in India. *Indian journal of science and technology,* 8(4), 278-282.

3.Venugopal, K, Das, S, Nagaraju, M. (2013). Business Made Easy By Affiliate Marketing. *Journal of Business Management & Social Sciences Research, 2(6)*, 50-54.

Online Articles

4. https://www.ispo.com/en/trends/digitalization-sports-business-ispo-digitize-offers-concrete-solutions

5. https://www.seventeen.com/life/tech-social-media/g22716788/most-youtube-subscribed-channels/

6. https://www.vlognation.com/setting-up-your-youtube-channel/

7. www.youtube.com

COMPARATIVE STUDY WITH REFERENCE TO ONLINE AND OFFLINE ADVERTISEMENT

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ABSTRACT
In today's world of cut throat competition among business firms, advertisement is used as a weapon to create brand awareness and desire among the target audience. The amount spent on advertisement by business firms is increasing day by day due to increasing competition. Since the business firms are spending their limited and hard earned financial resources on advertisement, they want maximum results for every rupee spent. The common dilemma which majority of business are facing in today's world of technology is that whether they should adopt online or traditional methods of advertising? However, no single form of advertisement can help the business firm to achieve desired results. Both online and offline advertisement offers numerous advantages and at the same time are subject to certain limitations. For the advertisement strategy to bring maximum success , there should be perfect blend of online and offline advertising so that shortcomings of one are overcome by other and their benefits are multiplied.

Keywords: Advertisement, online advertisement, offline advertisement, advantages ,limitations

INTRODUCTION
The term advertising is derived from the latin word 'advertere' which means 'to turn' the attention. Advertisement is an efficient and effective technique to promote goods, services and ideas. Advertisement provides factual information to the viewers with fascinating emotional appeal which facilitates converting target into customers. In today's competitive world advertisement helps the business to survive the competition successfully.

AIMS AND OBJECTIVES OF STUDY
- To understand the advantages and limitations of online advertising.
- To analyse the benefits and limitations of offline advertising.
- To compare both forms of advertisement and conclude that which one ensures greater success and brand awareness.

MEANING OF ADVERTISEMENT
 Advertising is a marketing communication that employs an openly sponsored, non personal message to promote or sell a product, service or idea.

DEFINITION
According to **Philip Kotler**

" Advertising is any paid form of non personal presentation and promotion of ideas , goods and services by an identified sponsor'

ONLINE ADVERTISEMENT
Meaning
Online advertising also known as internet advertising or web advertising is a form of advertising which uses the internet to deliver promotional marketing messages to consumers uses the internet to deliver promotional marketing messages to consumers

Forms of online advertisement

Some of the forms of online advertising are as follows :

- Display ads (banners and pop –ups)

- Video ads

- Search engine advertising

- Mobile and local advertising

- E-mail advertising

- Social network , blog, app and game advertising

Advantages of online advertisement

- **Wide coverage**
  The first and most important advantage of online advertising is that it can assist the local business to create brand awareness at international level also with the help of internet.

- **Cost effective**
  Online advertisement is pocket friendly for the advertiser. The advertise by incurring limited cost can reach maximum audience.

- **Real time information**
  In case of online advertisement , the information such as number of visitors on web page, most active time of the day, bounce rates etc is available at the fingertips of the advertiser. Thus advertiser can take instant decision without wasting any time.

- **Quick changes**
  The advertiser can comfortably and quickly make changes in the content of online advertising without incurring extra cost and effort.

- **Instant response to queries**
  Through the medium of internet , advertiser can quickly respond to doubts and queries of viewers regarding product , service or idea that is advertised.

LIMITATIONS OF ONLINE ADVERTISING

- **Easy to be ignored**
  The viewers can easily avoid ads on the internet by clicking on skip ad, closing pop up advertisements as soon as they come up on screens and by blocking days. Nowadays due to increase in online advertisement there is ad fatique among the viewers which results in majority of ads being ignored.

- **Not suitable for senior citizens and low income groups**
  Majority of senior citizens are not comfortable with using internet and low income groups don't have access to internet thereby are isolated from online advertisement. If such people are target audience of business then online advertisement is of no use.

- **Privacy issues**
  In this era of smart hackers where many attempts are made to hack the site with the intention of defaming the business and misleading the viewers, privacy and security issues have become major concern for online advertisers.

- **Trust issues among viewers**
  In today's era where internet is flooded with more fake ads then genuine ones; many times the authenticity of genuine ads is doubted by viewers.

- **Not suitable for remote areas**
  Due to lack of access to internet facilities in such areas , online advertisement cannot create brand awareness among such people.

OFFLINE ADVERTISEMENT

Meaning

Offline advertisement is the advertisement that makes use of traditional media such as newspapers, magazines, flyers, brochures, television, radio etc to deliver promotional marketing messages to viewers.

Methods of offline advertisement
Some of the popular methods of offline advertisement are as follows

- Newspaper advertisement
- Sponsorships
- Flyers and postcards
- Events and trade shows
- Radio advertisement
- Business cards
- Television advertisement

Advantages of offline advertising

- **Suitable even in remote areas:**
  Internet coverage in rural and remote areas is very limited so in such case offline advertising is the best and only option to create brand awareness.

- **Includes older generation and low income groups:**
  Often older generation and low income groups are left isolated by online advertising due to lack of access and comfort in using internet' which does not happen in the case of offline advertisement.

- **Face to Face interaction**
  In case of offline advertising , there can be a face to face interaction between prospect and salesman which can help the salesman to convince the prospect thereby converting him into actual customer.

- **Tangible and tactile:**
   Through offline advertising people are able to have a look at tangible aspects of business and products, it gives the business more credibility.

Limitations of offline advertising

- **Limited coverage:**
  The coverage in case of offline advertising is quite limited as compared to online advertising. Mostly offline methods help to create awareness at local and national level only.

- **Expensive**
  Offline advertising requires much more labour , time and money than online advertisement.

  Designing, printing and distributing physical advertisement is quite expensive than sending an email or advertising on google.

- **Difficult to incorporate changes**:
  It is quite time consuming and costly to make changes in the content of offline advertising. So advertiser must properly analyse the content before finalizing it as making changes will be a costly affair for advertiser.

- **Difficult to ascertain the number of viewers:**
  It is quite difficult to ascertain that how many people read about brand in newspapers or how many heard the ad on radio or how many views an ad had in the magazine etc .Due to which effectiveness of ad cannot be ascertained.

CONCLUSION AND RECOMMENDATION :

- From the above points it is clear that both online and offline advertisement offers numerous advantages and at the same time certain limitations are attached with them.

- It cannot be simply concluded that one form is better than other.

- For a advertisement campaign to bring maximum success and desired result it is beneficial to incorporate both offline and online methods in such a way that limitations of one are overcome by another and their benefits are multiplied together.

- Also type of product , service and target audience determines the effectiveness and success of any form of advertisement.

REFERENCES

- Online advertising , retrieved from https://en.wikipedia.org/wiki/Online_advertising

- Advertising , from Wikipedia, the free encyclopedia . Retrieved from https://en.wikipedia.org/wiki/Advertising

- Satyendra Tewari , (February 24th, 2017),Top 10 advantages of internet marketing . Retrieved from https://www.digitalvidya.com/blog/advantages-of-internet-marketing/

- Diana Smith , (October 29 2015). The advantages of online and offline marketing .Retrieved from https://workinmypajamas.com/the-advantages-of-online-and-offline-marketing/

- Advantages and disadvantages of online advertising. Retrieved from http://www.knowonlineadvertising.com/facts-about-online-advertising/advantages-and-disadvantages-of-online-advertising/

- Sam Ashe – Edmunds , The disadvantages of traditional advertising. Retrieved from https://smallbusiness.chron.com/disadvantages-traditional-advertising-21215.html

- S. Jaideep ; Advertising , its definition, characteristics and objectives . Retrieved from http://www.yourarticlelibrary.com/advertising/advertising-its-definitions-characteristics-and-objectives/48658

- Sarah wai ,(Aug 9 2018), Different forms of digital advertising .Retrieved from https://www.tributemedia.com/blog/different-forms-of-digital-advertising

- Top 15 advantages of internet marketing for your business .Retrieved from https://edkentmedia.com/top-15-advantages-internet-marketing-business/

- Linda Emma; (June 29,2018); The advantages and disadvantages of advertising on the internet. Retrieved from https://smallbusiness.chron.com/advantages-disadvantages-advertising-internet-4029.html

- James Elliot;(December 4, 2012) ; The benefits of offline marketing . Retrieved from https://kikolani.com/the-benefits-of-offline-marketing/

- Alison Jobson; (November 18,2012) ;offline marketing versus online marketing. Retrieved from https://www.straightmarketing.co.uk/2012/11/offline-marketing-online-marketing/

ROLE OF ICT IN TEACHING, LEARNING AND RESEARCH

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ABSTRACT

In the process of empowering the technology into the educational activities, the role of Information and Communication Technology (ICT) plays an important role. Development in technology can be the most effective way to upgrade the student's knowledge in a fast changing world of technological development. An extensive use of ICT in education sector has added value to teaching and learning, by enhancing the effectiveness of learning with new dimensions to learning. Students find learning in a technology enhanced environment more stimulating and engaging than in a traditional classroom environment after the inception of ICT in schools and colleges. ICT has a pivotal role to focus on the issues of quality content and quality of teachers in highlighting the challenges in education. Role of ICT has been acknowledged and appreciated globally. ICT plays a catalytic role in enhancing learning in classroom and beyond in comparison to traditional classroom teaching. Many schemes are already floated by government emphasizing on the importance of ICT in education, where companies like smart class have made a huge contribution. Emerging learning Technology (ELT) of blogging, Integrated Learning Modules, a pod cast, Wikis, Enhancement of Web Browsers, e-learning, M-learning, U-learning have started making rapid strides in teaching learning process. ICT has also helped researchers in a big way by enabling various automated systems to achieve better qualitative and quantitative results.

Keywords: ICT, Technology enhanced learning, Integrated Learning Modules, U-learning, M-learning, and Web Browsers.

INTRODUCTION

Teaching learning enterprise has become more productive and meaningful because of ICT enabled self-paced learning through various tools such as assignments, computer, internet etc. Over the last few years Internet - supported learning and innovations are keeping the students updated and enhancing teacher's ability. It is also developing a live contact between the student and teacher through e-mail and other social media. In addition to chalk session, e-learning, web based learning including internet, CD-ROM, TV audio video tape etc have become more commonly used tools in teaching learning. Enhancement of Browsers , e-learning, M-learning, U-learning have started making rapid strides in teaching learning process. The frequent use of ICT in teaching, learning process has overcome many limitations of teaching learning aids. It has also helped the field of research by providing help in the speedy Synthesis, Characterization and Analysis techniques to the scientific researchers and quick and useful measurement tools to the market and business oriented research. The researchers in the field of literature and humanities have also got benefited due to the IT enabled tool like camera, GPS, geographical tools and digital tools.

OBJECTIVES

The objective of the study is to analyze how Information and Communication technology (ICT) has influenced our present teaching and learning process in Schools and College and also at higher study level and research in the field of Arts, Science, Commerce, Engineering and Medicine. The study includes both positive and negative aspects of Digitalization.

RESEARCH METHODOLOGY

The study is explanatory in nature and sources of the data is secondary, books, Magazines, website and the opinion received from the stake holders of the education system have been considered.

ROLE OF ICT IN TEACHING-LEARNING

ICT has become very powerful media for interactive participation of teachers and learners and it reaches the unreachable too. Over the last few years Internet –supported learning and innovations allows us to learn anywhere and anytime, promotes active and independent learning, supports communications between students and teachers.

Fig-1: Stages of ICT development that educational systems through use and adoption of ICT

Many changes have taken place especially in the teaching –learning to assessment and evaluation at the present scenario of education. ICTs are extremely influencing every discipline including various aspects of education from teaching-learning to assessment and evaluation. ICT enhances scope of education by facilitating mobile learning, research and scholarly communication. Potential and impact of ICT for the education system is in manifold, with new functions and roles of education now days together with a judicious use of ICT can bring about more efficient and effective teaching learning process.

In technology enhanced learning (TEL) teacher's role will be definitely different and more challenging from what is presently the traditional classroom teaching.ICT will afford opportunity to the individual for self paced learning, catering learner's aptitude and ability. The present paper attempts to discuss the role of ICT to meet the challenges of knowledge and to explain the development of new methodology of teaching and learning aptitude and its role in research advancement in the changing context i.e. globalization. Power point, animation, graphics can be utilized to enhance the learning content.

E-LEARNING

Nowadays computer aided learning is not a replacement technology but a complementary tool in problem solving, explaining complex processes, and decision making skills.UGC has also taken initiative in the process of computerization of colleges and University libraries providing internet connectivity .Through UGC-INFONET it is providing facilities like access to Journals ,CAL and E-governance, publication in electronic journal which is available over the internet and can b assessed using different technologies like world Wide Web (WWW). From the year 1980 Gropher, ftp.telnet,and a few publishers namely Elsevier, Academic, Springer etc had offered access to their on-line journals free of cost. Over the internet and can be assessed using different technologies such as World Wide Web (WWW). From the year 1980 Gopher, ftp, telnet, e-mail or listserv a few publishers namely Elsevier, Academic, Springer etc had offered access to their on-line journals free of cost. Many publishers have made their books available on web. This has reduced the efforts of the learners to find and search the learning resources.

ROLE OF ICT IN RESEARCH

Research is a careful investigation especially through search for new facts in any branch of knowledge or it is a scientific and systematic search for pertinent information on a specific topic. ICT has helped researchers in a big way by enabling various automated systems to achieve better qualitative and quantitative results. Any basic research starts with literature survey. The Computer technology has made it simple to do search and review the literature and store them without and physical burden including physical visits the institutes, libraries and laboratories. Using Internet facilities and various sites like Research Scholar, Science Direct, Google Research, Shodhganga etc. the literature Survey has extremely easy. The data storage devices like memory cards, Pen drives, CD ROMs, hard disks can store unlimited amount of information without burden of books, papers and stationary. The addition of Information technology and internet facility enables the researchers to get the research papers globally. The various instruments in the scientific research are programmable and computer compatible. The synthesis parameters like time, temperature, pressure etc. are controlled automatically so that the researcher need not be physically control the parameters. The further characterization and analysis of the samples have become easy due to Computer based instruments. Even plotting of graphs and calculations has become extremely easy due to Software like Origin, Excel and Tracers etc. The sophisticated scientific instruments like XRD, SEM, TEM, EDAX, XRF, RAMAN, FTIR, UV-Vis etc. are all computer driven. The particle size detectors are supplemented by software like Image.
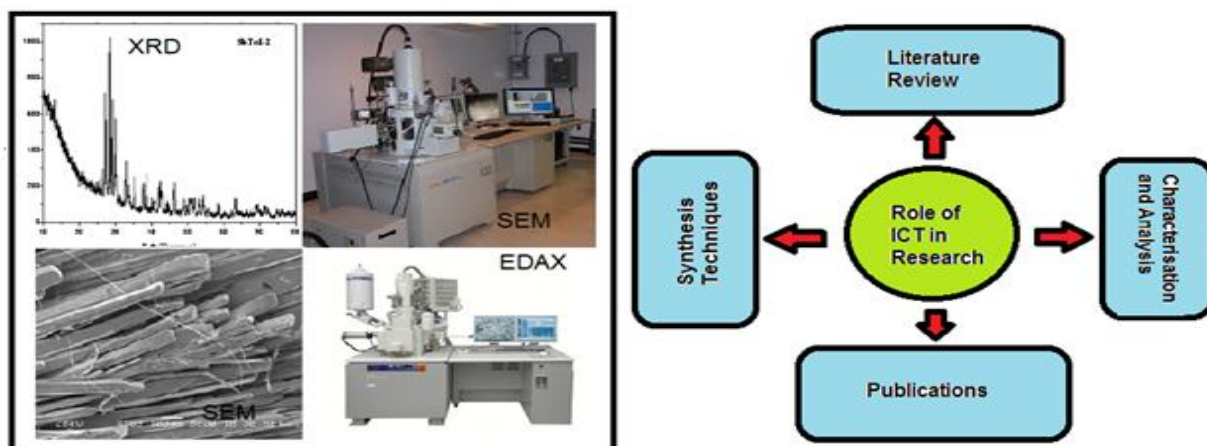
Fig-2: Role of ICT in Scientific Research

The researches in the field of Commerce, Arts, Engineering and Medicine are also getting enhanced quantitatively and qualitatively due to various ICT tools. The publications of research papers and article have got expedite due to ICT enabled facilities. This has further increased the number of publication in the recent years. Information and communication technologies had also led to 'E-research' with the use of advanced digital technologies. E-research plays a important role in enabling users to explore latest and innovative research opportunities and ensure that research processes are more effective, proficient and collaborative. It facilitates collaboration and the sharing knowledge between researchers across disciplines. E-research helps to provide dispersed computing resources to access large data collection /storage and high performance computing (HPC) analysis, modeling and visualization to the researchers.

LIMITATIONS OF ICT IN TEACHING-LEARNING AND RESEARCH

Although ICT happens to be very useful tool for teaching-learning and research, but there are some limitations too. The excessive use of these techniques has reduced the writing ability of the students. The emotional attachment between the students and teachers has vanished due to mechanized learning techniques. Sometimes, the excessive use of Computers causes health issues like loss of eye sight and orthopedic problems. We assume that all the information available on internet is useful; but sometimes, the information available on the websites is not authentic. Therefore, all the literature available on the websites is not reliable. The ICT tool being electronic medium, are dependent on electricity and some desired infrastructures. Therefore, over dependency on such tools sometimes leads to awkward conditions. The power point presentations are attractive mode of teaching but the traditional chalk and talk method is considered to be the best mode of delivery of lectures particularly in the subjects like Physics and Mathematics. Therefore excessive dependency on ICT is never advisable.

CONCLUSION

To compete in a fast changing world, the Pentium speed of technological development has bought about the short shelf life of information and to meet up these challenges we need to seek out new but relevant information, critical thinking. Lifelong learning is no longer a buzzword but rather a basic necessity for the survival in the education system and ongoing corporate development. Over the last few years Internet supported learning and innovations allows us to learn anywhere and anytime, promotes active and independent learning, supports communications between students and teachers. The primary motivations for e-learning in education system are also cost effectiveness and well trained work force which gives in comparison to traditional classroom. The modern ICT enabled instruments have turned to be a boon for researchers. It has enhanced the research in all the streams to a greater extent. Although ICT happens to be very useful tool for teaching-learning and research, but there are some limitations too. Therefore, excessive dependency on ICT is never advisable

REFERENCE

1. Building capacity of teachers / Facilitators in Technology- Pedagogy Integration for improved Teaching and Learning (UNESCO2003).

2. Journal of Education and Practice www.iiste.org ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) Vol 2, No 5, 2011.

3. Education system in digitalized Era, International Journal of Advance and Innovative research. Volume 6, Issue 1 (X), ISSN 2394-7780, 2019

4. University News, Vol 56, No 51, Dec. 17-23, 2018

5. Elet's Digital Learning, Vol 14, Issue 7, July-Aug 2018.

A STUDY OF ICT APPLICATIONS IN COLLEGE LIBRARIES

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ABSTRACT

The developments of ICT in the digital era have played a major role in shaping the libraries. In order to assess the role of ICT this survey has been conducted at selected college libraries in Mumbai. The study revealed that one way or the other almost all the college libraries are using the ICT applications and leveraging the benefits in usage.

Keywords: ICT, College Libraries, internet, eresources, Information Technology

INTRODUCTION

The internet of things and its technological innovation has dramatically increased the rate of conversion of knowledge, information and data into electronic format. The developments in the IT and later converged into ICT made tremendous changes in every walk of life and library is also not spared. In the network era and its implications are vital part of libraries to provide right information to the right users at right time in a single click away thus it validate the Five laws of Library Science and improve the total quality management. The network and its applications are boon for electronic resources in the libraries. These convergence of information and communication convergence helped a lot in the functions of information assimilation, organization, storage, processing like metadata, retrieval and dissemination.

The ICT and its fast development enhanced the resource accumulation and providing improved capsulated web 2.0 services to its users hence the base of the users' satisfaction is increased and justifying the values of the return on investment. The ICT and its applications in libraries are very much visible in day to day routine activities i.e. library automation which is ease the job of the library personnel and promote quick and timely access to required information resources over the globe. Today the services which are provided in the libraries are complimented by ICT tools. ICT and its applications in the libraries brought accountability with governance and these attributes are very much vital parameter in the NAAC accreditation process of the library part.

We know that the uses of ICT are increasing and the present users are much inclined towards electronic gadgets and it helps in easy information access. Users are aware of digital resources and its access pattern and they are demanding access of these e- resources. Every search is leading to the other site and users are not knowing when and where to stop of their queries. When the libraries are with the use of ICT certainly the facilities, services and resources are also network oriented and different tools and medias are helping to carry the end product to the end-users in a lesser time and draws maximum satisfaction of the users. The latest developments in the ICT tools and its applications libraries are transforming into more virtual.

OBJECTIVES

To find out the ICT applications in college libraries the following objectives are formed to study.

1. To know the ICT infrastructure facilities among selected colleges

2. To study the ICT based services in the selected colleges.

3. To know about the access pattern of digital collections.

4. To measure the level of users satisfaction about ICT enabled services.

5. To assess the impact of ICT.

It is assumed that there is no variation among colleges in respect of ICT and its uses in the library services.

METHODOLOGY

In this research the easiest and convenient survey method is applied and a well known tool i.e. questionnaire has been prepared by keeping the objectives of the study. The random sampling method is used for tool distribution of 49 selected colleges by online Google doc survey method. Out of 1225 distributed questionnaires 980 responses were received thus the response rate is 80 percentages.

LIMITATIONS OF THE STUDY

The study is restricted to the users of the NAAC accredited colleges of Mumbai University and the period of the study is 2017-2018.

DATA ANALYSIS AND INTERPRETATION

Table-1: Availability of ICT infrastructure

ICT infrastructure	Yes	No	Percentages
Availability of computers	804	176	82
Availability of internet	745	235	76
Accessibility of e-resources	784	196	80
Accessibility of online resources	686	294	70

From the above table - 1 it was inferred that 82% of the respondents have sufficient computing facility for their users and 80% of the respondents have e-resources access. Similarly 76% of the respondents have internet facility with 1MBPS bandwidth and 70% of the respondents have access of online resources. It was evident that all the colleges have optimum ICT infrastructure for their users.

Table-2: ICT enabled Library Services

Areas of ICT	Yes	No	Percentages
Housekeeping services	882	98	90
Reference services	823	157	84
Web 2.0 services	686	294	70
Statistical reports	882	98	90

From the table - 2 it was observed that 90% of the college libraries were using ICT in library for their house keeping activities such as acquisition, circulation and serial controls and preparation of statistical reports. Likewise 84% were used ICT for reference services and 70% of the libraries were used ICT for web 2.0 services. It is visible from the analysis that ICT applications are mostly applied in all spheres of the libraries.

Table-3: ICT and its uses in digital collection

Kinds of resources	Yes	No	Percentages
Online access	823	157	84
Offline access	980	0	100
Consortia access	764	216	78

The above table - 3 shows that all the libraries have been providing offline access of curricular information in CD/ DVDs. 84% of the respondents were using ICT for online access of digital resources and 78% of the respondents were for consortia based digital access for their clientele. It was observed that all the selected colleges ICT is used in digital collection and providing e-resources to their users.

Table-4: ICT enabled services and its satisfaction

Areas	Fully satisfied	Partially satisfied	Percentages
e-mail services	931	49	95
Internet services	911	69	93
Online/consortia access	774	206	79
Off line access	842	138	86
Web 2.0 services	686	294	70
OPAC	637	343	65

The above table - 4 indicates that 95% were used e-mail and 93% users were opted the used for internet services. Similarly 86% were used these ICT for offline access and 79% were used for online access of e-resources. 70% were used ICT in web 2.0 services and 65% were used for OPAC services. Similarly almost majority of the users were satisfied with these ICT based services.

Table-5: Impact of ICT in libraries

Areas of ICT	Satisfaction	Dissatisfaction	Percentages
Equipment and facilities	754	226	77
Information services	793	187	81
e-resources	852	128	87
Staff & Administration	823	157	84

The above table - 5 indicates about the impact of ICT applications in the libraries. The use of e-resources was top of the all other areas of the ICT applications and 87% of respondents were favouring this option followed by Staff Administration the role of ICT was scored 84% responses. 81% of the respondents were opted information services and its uses similarly 77% respondents were opted for equipment facilities. It was evident that the role of ICT had laid its strong footprint in the library resources and services and changing the face value.

FINDINGS

1. It was found that 82% of the respondents have sufficient computing for their users (table 1).

2. It was found that 92%, majority of the libraries were used ICT in charging and discharging activities (table 2).

3. It was found that all respondents have applied the uses of ICT in online and offline information access (table 3).

4. It was found that users were satisfied about the uses of ICT in library services (table 4).

5. It was found that the impact of ICT and its application was tremendous in the libraries (table 5).

As the above data interpretations it was noted that all the college libraries were applying the ICT tools in their automation activities to reap its advantages for augmented access of information among their clientele. It is suggested to all other colleges to implement ICT applications in possible extent for better library services to supplement the educational journey.

CONCLUSION

The impact of ICT have brought illustrious changes and significantly enhanced the quality, more efficient operations, and effective services to the users. From the study it was evident that all the selected colleges were in and largely satisfied with the applications of ICT and it brings leverage on the improved library activities and services. The role of ICT and its applications were revamping the libraries and enhancing its quality to the maximum possible extent. Thus the ICT is changing the work culture of libraries.

REFERENCES

- Dhamin, Anol.K (2013), "Basics of IT for Library and Information Scientists". New Delhi : Ess Ess Publication, p 74.

- Galyani-Moghaddam, G. and Moballeghi, M. (2008), "Total quality management in library and information sectors", *The Electronic Library*, 26 (6), pp. 912-22.

- Nyamboga, C.M. and Kemparaju, T.D. (2002), "Information technology in university libraries in Karnataka", *Information Development*, 18 (4), pp. 257-65.

- Pandey, G.P. and Chakraborty, J. (2002), "Role of information technology in higher education in the 21st century", *University News*, 40 (8), p. 11.

- Raza, M.M. and Nath, A. (2007), "Use of IT in university libraries of Punjab, Chandigarh and Himachal Pradesh: a comparative study", *The International Information & Library Review*, 39, pp. 211-27.

- Sinha, Manoj Kumar and Sathpathy K.C. (2014),"Resource Sharing and Libarry networks in India", *Herald of Library Science. 43(3-4)pp 243-250.*

- http://shodhganga.inflibnet.ac.in/

UNDERSTANDING ALGEBRA OF CONVERGENT SEQUENCES IN IR USING GEOGEBRA, A MATHEMATICAL SOFTWARE

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ABSTRACT

Sequence of real number is a fundamental concept in Real Analysis. It is introduced at undergraduate level. Student find it difficult to visualize and understand it. GeoGebra is Computer Algebra System which can be used to teach and explore the concept of sequence in real number, algebra of convergent sequence and its properties .The paper aims at developing Geogebra frames to help students visualize and explore the concepts of sequences in IR.

Keywords: algebra of convergent sequence, sum of convergent sequences, difference of convergent sequences, product of convergent sequences , scalar multiple of convergent sequences, GeoGebra

1. INTRODUCTION

Sequence in IR is a fundamental concept of Real Analysis. It is taught to the undergraduate students who find it abstract and difficult to visualize and understand.

GeoGebra is Free and Open Source Dynamic Mathematical Software. GeoGebra provides algebraic manipulation and visualization capabilities which can be changed dynamically. Hence it a good choice for visualising algebra of convergent Sequences in IR and its properties. Moreover, it is freely and easily downloadable.

The aim of this paper is to develop interactive GeoGebra frames that can be integrated in class room teaching and will help students visualize and understand abstract concepts of Sequences in $\mathbb{R}$ (the set of real numbers).

2. USING GEOGEBRA

2.1 Understanding Sequence in $\mathbb{R}$ and algebra of Convergent Sequences

Definition of Sequence in $\mathbb{R}$: A sequence of real numbers is a function $x: \mathbb{N} \to \mathbb{R}$.

A sequence $x: \mathbb{N} \to \mathbb{R}$ is denoted by $\{x(n)\}$ or (x_n)

The value of function x(n) is called the nth term of the sequence and denoted by x_n.

Definition of Convergence of a sequence: A sequence (x_n) is said to **converge** to a real number p if for every $\varepsilon > 0$, there exists $n_0 \in \mathbb{N}$ such that for all $n > n_0$, $|x_n - p| < \varepsilon$.

p is called the **limit of the sequence** or **point of convergences** of (x_n).

If a sequence converges to p, it is denoted by $x_n \to p$ as n→ ∞ or $\lim_{n \to \infty} x_n = p$.

Algebra of Convergent Sequences in IR:

2.1.1 *Let x_n and y_n be two convergent sequences then their sum i.e $x_n + y_n$ is also convergent i.e if $x_n \to p$ and $y_n \to q$ then $x_n + y_n \to p + q$*

Example 2.1.1

$$x_n = 2 + \frac{1}{n} \ \forall n \in \mathbb{N} \ \text{ and } \ y_n = 1 + \frac{1}{n} \ \forall n \in \mathbb{N}$$

Now $x_n \to 2$ and $y_n \to 1$ hence $x_n + y_n \to 2 + 1$
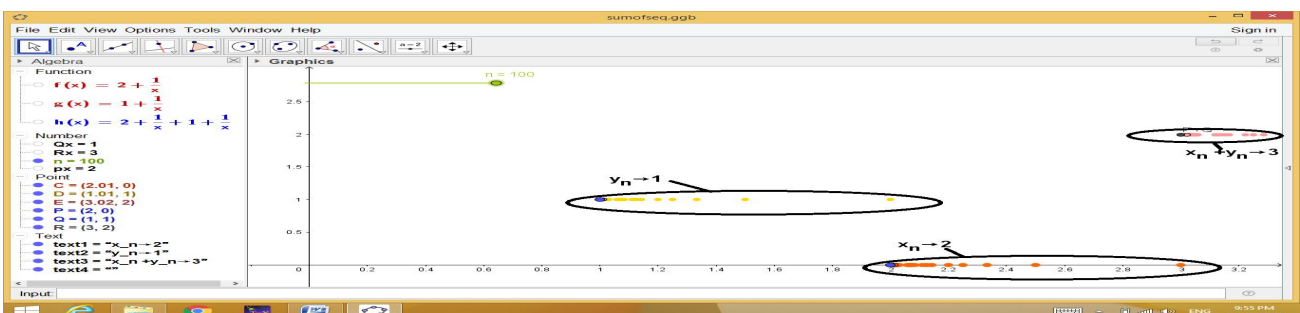
Figure-2.1.1

In the ***figure 2.1.1*** GeoGebra frame, sequences $x_n = 2 + \frac{1}{n}$ and $y_n = 1 + \frac{1}{n}$ are plotted where the slider n varies from 1 to 100. It can be easily seen that x_n converges to 2 and y_n converges to 1. It can be shown that Sequence $x_n + y_n$ converges to 3 (= 2 + 1).

2.1.2 *Let x_n and y_n be two convergent sequences then their difference i.e $x_n - y_n$ is also convergent i.e if $x_n \to p$ and $y_n \to q$ then $x_n - y_n \to p - q$*

Example 2.1.2

$x_n = 2 + \frac{1}{n} \ \forall n \in \mathbb{N}$ and $y_n = 1 + \frac{1}{n} \ \forall n \in \mathbb{N}$

Now $x_n \to 2$ and $y_n \to 1$ hence $x_n - y_n \to 2 - 1$

Figure-2.1.2

In the ***figure 2.1.2*** GeoGebra frame, sequences $x_n = 2 + \frac{1}{n}$ and $y_n = 1 + \frac{1}{n}$ are plotted as in example 2.1.1. It can be shown in interesting way that sequence $x_n - y_n$ converges to 1 (= 2-1).

2.1.3 *Let x_n be a convergent sequences then its scalar multiple αx_n is also convergent i.e if $x_n \to p$ then $\alpha x_n \to \alpha p$*

Example 2.1.3

$x_n = 2 + \frac{2}{n} \ \forall n \in \mathbb{N}$

Now $x_n \to 2$ hence $\alpha x_n \to \alpha . 2$
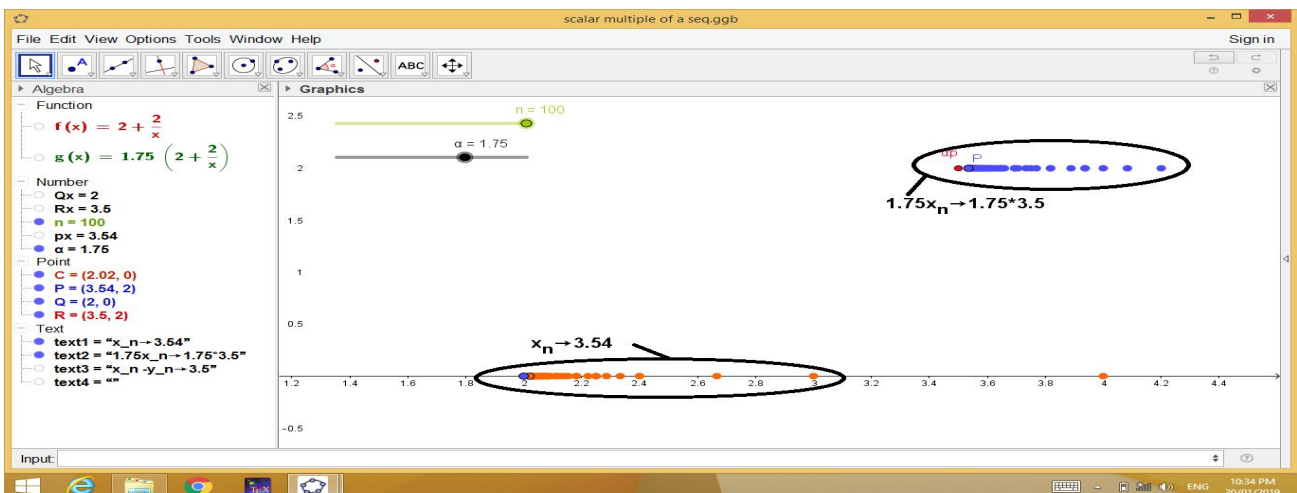
Figure-2.1.3

In the ***figure 2.1.3*** GeoGebra frame, sequences $x_n = 2 + \frac{2}{n}$ is plotted as in earlier example . There are two sliders namely n and α. By choosing a value for α and varying n we can show $\alpha x_n \to \alpha.\,2$

2.1.4 *Let* x_n *and* y_n *be two convergent sequences then their product i.e* $x_n.\,y_n$ *is also convergent i.e if* $x_n \to p$ *and* $y_n \to q$ *then* $x_n.\,y_n \to p.\,q$

Example 2.1.4
$$x_n = 2 + \frac{1}{n} \;\; \forall n \in \mathbb{N} \text{ and } y_n = 1 + \frac{1}{n} \;\; \forall n \in \mathbb{N}$$

Now $x_n \to 2$ and $y_n \to 1$ hence $x_n.\,y_n \to 2$

Figure 2.1.4

In the ***figure 2.1.4*** GeoGebra frame, sequences $x_n = 2 + \frac{1}{n}$ and $y_n = 1 + \frac{1}{n}$ are plotted as in example 2.1.1. It can be shown dynamically shown that sequence $x_n.\,y_n$ converges to 2.

2.1.5 *Let* x_n *be a convergent sequences then* $\frac{1}{x_n}$ *is also convergent i.e if* $x_n \to p$ *then* $\frac{1}{x_n} \to \frac{1}{p}$ *where* $x_n \neq 0 \;\; \forall n \in \mathbb{N}$

Example 2.1.5
$$x_n = 2 + \frac{1}{n} \;\; \forall n \in \mathbb{N} \quad \forall n \in \mathbb{N}$$

Now $x_n \to 2$ hence $\frac{1}{x_n} \to \frac{1}{p}$
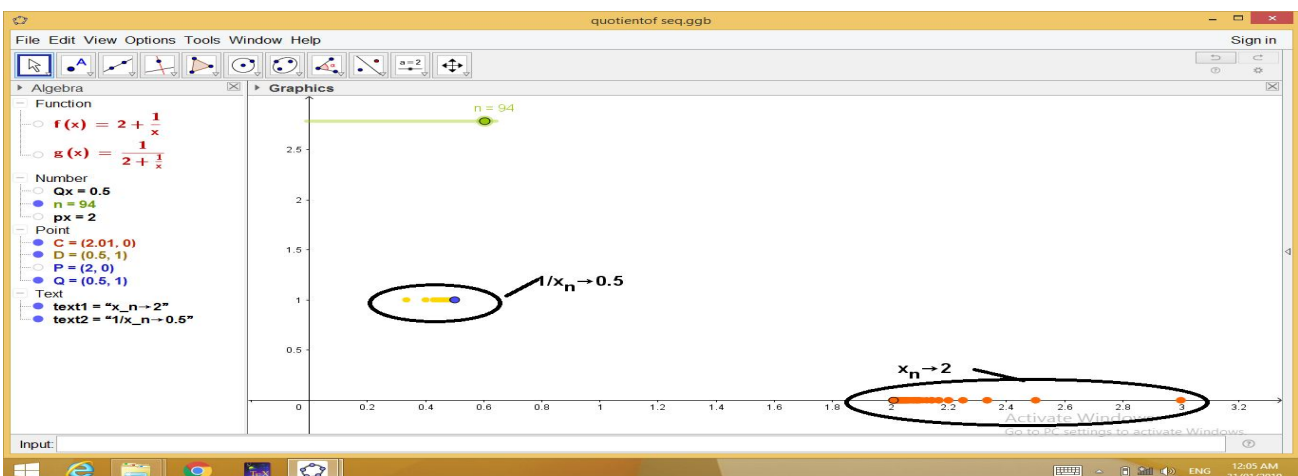
Figure 2.1.5

In the ***figure 2.1.5*** GeoGebra frame, sequences $x_n = 2 + \frac{1}{n}$ is plotted as in example 2.1.1. It can be shown dynamically shown that sequence $\frac{1}{x_n}$ converges to $\frac{1}{2}$.

3. CONCLUSION

The subject like Mathematics is generally taught using chalk and talk method. But this method at times proves inadequate to visualize the abstract concepts of Mathematics. In such situations technology can be integrated to give the better insight in the subject. Computer Algebra System like GeoGebra can act as supplementary in classroom to make Mathematics more tangible to the students.

In the paper are presented interactive GeoGebra frames which can used to introduce the algebra of convergent sequences. Though the convergence of a sequence is proved more vigorously in Mathematics but these GeoGebra frames will help students to get an intuitive idea about convergence of the sequence and hence help in better understanding which students generally find it difficult to visualize and understand.

4. REFERENCE

- R. D. Bhatt (2009),'Intermediate Mathematical Analysis',Alpha Science International Ltd

- Kumar, A., & Kumaresan, S. (2008). Use of mathematical software for teaching and learning Mathematics. In *Proceedings of ICME*.

- Steve Phelps ,'An Introduction to GeoGebra'.

  http://www.math.utah.edu/~emina/teaching/5270s13/Intro_to_Geogebra.pdf

A STUDY ON CARBON PRICING AND ITS IMPACT ON GLOBAL WARMING

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ABSTRACT

Carbon pricing is a broad term that encompasses two policy approaches: emissions trading system and carbon taxation. Emissions trading system sets a cap on the aggregate emission level and allows the market to determine the price, whereas carbon taxation sets the price and allows the market to determine the aggregate level of emissions. Carbon pricing is the main economic instrument to reduce greenhouse gases (GHG) emissions which are responsible for global climate change. There are several programs, which are relatively new, to address climate change based on carbon pricing, but there are rarely any programs to address price pollution. There are various forms of emissions trading and pollution fees (or taxes) systems that have been around for some time. The academic literature on carbon pricing is rich because hundreds of studies were carried out over the last four decades but their implementation in practice is limited. This reflections review these operating programs and identifies some of the chief lessons from this experience.

Keywords : Carbon pricing, Carbon Taxation, Emission level, Emissions trading system, Green House Gases

PURPOSE

To study the concept of carbon pricing and its impact on global warming.

RESEARCH IMPLICATION

A preliminary understanding of carbon pricing and how companies have a corporate social responsibility towards the society regarding carbon emissions and also, how companies use carbon pricing as a planning tool.

OBJECTIVES

The purposes/ objectives of my research paper are:

a) To study and analyze the concept of carbon pricing

b) To study the impact of carbon pricing

c) To suggest measures to create a low carbon economy to mitigate global warming

INTRODUCTION

India is the world's fourth-largest carbon emitter with its population of 1.3 billion people became the 62nd nation to join the Paris agreement. Paris agreement which was signed on 12th December 2015, requires the member countries to make the commitments binding to curb carbon dioxide (CO2) emissions to keep the global average temperatures from rising above 1.5°C as compared to the pre-industrial years.

At COP 21 in Paris, on 12th December 2015, parties to the UNFCCC [United Nations Framework Convention on Climate Change] reached a landmark agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future and a low carbon economy. One of the key aspects of the agreement is:

Decision 1/CP.21 which sets out a number of measures to enhance action prior to 2020. For 2018, a facilitative dialogue was imagined to take stock of collective progress towards the long-term emission reduction goal of Art- 4. The decision also welcomed the efforts of all the non-party stake-holders to address and respond to climate change, including those of civil society, the private sector, financial institutions, cities and other sub-national authorities. Parties recognized the need to strengthen knowledge, technologies, practices and efforts of local communities and natives, as well as the important role of providing incentives through tools such as domestic policies and carbon pricing.

As a part of the initial commitments to the agreement, India also planned to reduce its carbon emission intensity, i.e., emission per unit of GDP - by 33-35% from 2005 levels over 15 years. It aims at producing 40% of its installed electricity capacity from non-fossil fuels, by 2030. This would mean that India will have to significantly shift from coal-based power generation to renewable energy sources which means that it will have to produce 100 Giga Watt from solar, 60 Giga Watt from wind, 10 Giga Watt from biomass and 5 Giga Watt from small hydropower, by 2022.

SIGNIFICANCE & IMPORTANCE

Besides political controversy about climate change, a major report was released on Sept. 27, 2013 by the Inter-governmental Panel on Climate Change (IPCC) which stated that scientists are more certain than ever about the link between human activities and global warming. Around more than 197 international scientific organizations agree to the fact that global warming is real and has been caused by human action/ intervention. Already, global warming has a measurable effect on the planet.

Most of the amount of global warming caused is due to the waste released by big industries. Hence, carbon pricing is one of the best methods to send back to the companies what they have done to the society.

OBJECTIVES OF THE STUDY
TO STUDY AND ANALYZE THE CONCEPT OF CARBON PRICING

Carbon pricing is a tool or a method to reflect the social, environmental, and economic consequences of climate change on financial decisions (using carbon as a shorthand for greenhouse gas emissions). Carbon pricing attaches a value or a price to carbon emissions in order to create incentives and awareness for low carbon innovation [UNGC(United Nations Global Compact) et al. 2015].

An **internal carbon price** is a value that companies set in order to internalize the economic cost of greenhouse gas emissions that are released due to their business activities.

Putting a price on carbon can act as an effective policy to encourage innovation, create lasting economic growth, and help India promote a low carbon economy. Pricing carbon can provide an economically efficient means of reducing greenhouse gas emissions and minimizing the troublesome risks of climate change. A carbon price provides a relatively simple and direct way to ensure that more of the costs of climate change are brought into the economic calculus and financial decisions, behind investments and consumption, including resource and fuel-use. It sends a price signal that could influence widely dispersed economic decisions and help to guide the future economic growth towards lower carbon economy, and reduce the impacts of climate change over time. A price on carbon shifts the burden back to those who are responsible for the damage and who are capable of reducing it. Instead of dictating who, where and how should the emissions be reduced, a carbon price gives an economic signal to polluters to decide for themselves that whether they want to discontinue their polluting activities, reduce emissions; or rather continue polluting and pay for it. This way, the overall environmental goal is achieved in the most flexible and least-costly way to the society. A carbon price also stimulates clean technology and market innovation by fueling new and low-carbon drivers of economic growth. Pricing carbon was also seen as a strategy to respond to increasing questions from investors about how businesses are managing carbon risk.

Carbon pricing is of two types:

An **ETS(Emissions Trading System)** which is sometimes referred to as **a cap-and-trade system,** caps the total level of greenhouse gas emissions and lowers the cap over time. Companies are allowed a particular, limited and falling number of emission units. Industries with lower emissions are able to sell their extra allowances to industries with larger emissions. By creating supply and demand for emissions allowances, an ETS sets-up a market price for greenhouse gas emissions. The cap ensures that the required emission reductions take place to keep the emitters (in aggregate) within their pre-allocated carbon budget.

A **carbon tax** directly sets a price on carbon by defining a tax rate on greenhouse gas emissions or, more commonly, on the carbon content of fossil fuels. It is different from an ETS as the emission reduction outcome of a carbon tax is not pre-defined but the carbon price is.

TO SUGGEST MEASURES TO CREATE A LOW CARBON ECONOMY TO MITIGATE GLOBAL WARMING

Appropriate mobilization and provision of financial resources, a new technology framework and enhanced capacity-building should be put in place, wherein, developing countries and the most vulnerable countries should also support action, in line with their own national objectives. The Agreement provides for an enhanced transparency framework for action and support.

The low carbon transformation concerns three key areas:

firstly, **the energy sector**, including the transportation system, which all economies depend on;

secondly, **urban areas**, whose world population will double up to 6 billion by 2050; and, thirdly, **land-use systems** (agriculture and forestry, including deforestation), which are currently responsible for almost a quarter of global greenhouse gas emissions.

In these three areas, world's most national economies are still far away from setting a clear course towards low carbon development. The main challenge is to transform these three basic areas of global economy in a very fundamental way and within a very tight timeframe. These three sectors are relevant for any developing economy that is moving towards a low carbon path. But beyond this point of departure, low carbon strategies in developing countries must be **country specific**, depending on the structure of the economy, major sources of greenhouse gas emissions, private sector capacities, and governance capabilities of public actors.

Objectives should be

1. to significantly reduce and avoid greenhouse gas emissions;

2. to avoid high carbon path dependencies;

3. to exploit leapfrogging opportunities;

4. to foster inclusive growth and employment based on low carbon investments; and

5. to realize co-benefits, such as improving energy security, improving health by reducing emissions, and reducing energy poverty in rural and urban areas based on innovate renewable energy solutions.

Two and a half billion people still lack access to essential modern and low carbon energy services. The challenge lies in giving these people access to these energy services as soon as possible, while at the same time significantly reducing greenhouse gas emissions from the use of fossil energy carriers. This can only succeed if investments in low carbon energy carriers grow substantially in rural and urban areas, and if energy efficiency is drastically increased.

Most organizations are voluntarily and internally pricing carbon without any regulations ,which affects key decisions on the fuel purchase, electricity mix, etc. It might also be relevant to assess the impact of implicit policy actions that have been on the anvil as well. Initial understanding suggests that India taxes carbon in seven implicit ways, some of them include-
1. The National Clean Energy Cess on Coal

2. Excise duties on fossil fuels

3. Derived impacts from PAT

4. REC/RPO and other schemes

A comprehensive evaluation of the landscape and potential opportunities, barriers and next steps would provide some information in a standardized and consistent manner, thereby creating a cohesive response from the private sector to climate change in the most economical manner.

Companies should effectively engage and facilitate the use of internal carbon pricing within businesses and deliberations across some key broad principles. These include:

1) Having best possible insights on future carbon policies (market and price trends in case of emission trading schemes and taxation implications in other geographies).

2) Valuation techniques (specific approaches available to determine the price on carbon – using the right to emit approach, business cost of carbon, societal cost of carbon or the costs to abate the approach) including ways and means to have a standardized approach.

3) Means to implement carbon pricing or voluntarily driving the use of carbon pricing in the absence of any external or explicit regulation (how this helps allocate specific funds to low carbon project deployment or the impact on strategic decision making by the use of shadow pricing)

Top management buy-in: Assessing the current CEO/CFO thinking and how this fits into the strategic long term goals for the organization

Internalizing the cost of greenhouse gases emissions offers the potential to help companies navigate future policies, manage regulatory risks including stranded assets, prepare for new markets and services, and respond to customer and investor interests.

IMPLICATIONS
On financial statements (profit and loss/balance sheets) and the accounting approaches to reflect the price of carbon to appropriately engage investors and other stakeholders

On absorbing the costs – who is responsible to pay.

TO STUDY THE IMPACT OF CARBON PRICING

In South Asia, companies are actively pursuing carbon pricing measures along with advocating for policies through initiatives such as the Carbon Pricing Leadership Coalition (**CPLC**). In 2017, 139 companies in Asia priced carbon, including 40 from India. Companies in India are already experiencing a kind of carbon pricing, as the government implements the **Perform-Achieve-Trade (PAT) policy** for energy efficiency, renewable energy certificate scheme and a tax on coal production of about $6.20 per ton. Leading companies are already incorporating these costs into their business models and anticipating that the tax may rise, and that they may have to pay carbon prices in future. It is believed by the companies that incorporating carbon price helps to advance the integral progress towards corporate climate change goals. Many companies explained that putting in place an internal carbon price has helped to bring climate to the boardroom and away from the sustainability and climate departments. By including a price in financial investment decisions, companies are monetizing environmental risks and steering their investments toward the best options.

LIMITATIONS OF THE STUDY

One of the limitations of my study was that, Paris agreement was signed in 2015, hence, it has just been less than three years since then. And so, the results of implementing the plan of carbon pricing are yet not very clear.

CONCLUSION

At a time, when many countries have set targets to reduce emissions by 2030 as a part of their nationally determined contributions, the importance of the role played by corporations in driving sustainable business models that supplement global efforts was greater than ever before.

Internal carbon pricing is gaining momentum as an effective tool for companies to safeguard against future risk exposure due to emissions and support the shift to low-carbon economies.

WRI [World Resources Institute] India's desk research, survey of 30 companies, and in-depth collaboration with five Indian businesses suggests that companies want to use internal carbon pricing initially as a tool to identify and mitigate risks and subsequently as a driver of innovation and opportunity that can shift investments and position them for a low-carbon future. All five case studies presented here illustrate successful design or implementation of internal carbon pricing at various stages in the process. We believe these companies' experiences, in which WRI India has been closely engaged, provide a firm basis for the road map we have developed for other Indian businesses to follow. This working paper seeks to help organizations navigate carbon-price discovery and to implement while building an understanding of the boundaries, costs, savings, policies, and risk mitigation and innovation opportunities involved. WRI India invites Indian businesses in all sectors to test the preliminary seven-step approach outlined above and share their learning.

With strong commitments in areas of renewable energy and a growth trajectory that is expected to unfold exponentially, the role of the private sector cannot be understated. In the process, businesses are going beyond measurement and management of greenhouse gas emissions to undertake more ambitious goals. Business leaders are carefully evaluating and considering the use of specific tools like "Carbon Pricing" to accelerate progress and enhance ambition by strategically looping in key investors and financial personnel into the climate change dialogue.

India is now a leading destination for private-sector players who wish to ramp up investment in clean-technology sectors. Carbon pricing is a key part of attracting private investment. As governments of various countries are seeking to implement the Paris Agreement to tackle climate change, they are also enacting policies that penalize high-emitting activities. More than 65 jurisdictions around the world, today, are using carbon pricing as a tool to level the playing field between clean energy and fossil fuel. More action is expected from countries to make good on their Paris commitments .

Also, in response, internal carbon pricing has emerged as a popular tool that allows companies to reduce emissions and channel investments towards cleaner, more-efficient technologies. It also helps businesses to assess climate-related risks and opportunities, to mitigate against future climate regulations and to deliver corporate sustainability goals.

REFERENCES

- United Nations Framework Convention on Climate Change. *What is the Paris Agreement?* from https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement

- Zach Willey & Bill Chameides (2007). *Harnessing Farms and Forests in the Low- Carbon Economy, How to Create, Measure and Verify Greenhouse Gas Offsets.* Duke University Press.

- World Bank Group (2011). *Building a low carbon Economy- Transformational Challenges*. Retrieved June, 2011, from https://www.climateinvestmentfunds.org/sites/cif_enc/files/news/files/ Low_carbon _survey_ 11-9-11.pdf

- World Resources Institute (2016). *Carbon Pricing- Exploring the Business Case for India*. Retrieved March 14, 2016, from http://wri-india.org/events/carbon-pricing-exploring-business-case-india

- Tom Kerr. (2017). *How Indian companies use carbon pricing as a planning tool?* International Finance Corporation and World Bank Group.

- Kumar Sambhav Shrivastava. (2016, Oct 03). India ratifies Paris climate treaty. *Hindustan Times*.

- India GHG Program. *Carbon Pricing*. from http://indiaghgp.org/carbon-pricing

- Carbon Pricing Leadership Coalition. *What is Carbon Pricing?*, from https://www.carbonpricingleadership.org/what/

- Nathaniel O. Keohane & Sheila M. Olmstead. (Eds.). (2016). *Markets and the Environment: Second Edition, 2016*. Oisland Press.

- Cesar Gabriel Espinosa García. (March, 2018). Shadow Carbon Pricing and the Role of Development Banks. *NAFIN Fellowship Programme*, 1-34

- Alina Bradford and Stephanie Pappas. (2017). Effects of Global Warming. Retrieved from https://www.livescience.com/37057-global-warming-effects.html

A STUDY ON USE OF ICT RESOURCES BY SECONDARY SCHOOL TEACHERS

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ABSTRACT

In recent years it has been a topic of great interest as to how computers and the internet can best be used to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings. The use of ICT for enhancing the quality of education by making learning more relevant to life has been seen as an ideal by educational institutions. Hence, it is essential for teachers to make use of ICT resources such as Images, Audio, Animation, etc. for teaching and learning so that students are able to stand up to the changing world. But it is observed that the shift from traditional approach of teaching to ICT based teaching is slow. So the researcher was keen to know the extent of use of ICT resources by Secondary School Teachers. The researcher selected 100 secondary teachers teaching in English, Hindi and Marathi medium schools of Thane and Mumbai region as sample size for studying the use of ICT as per location, gender and medium. It was found that there is significant difference in the use of ICT by secondary school teachers as per location but there is no difference as per gender and medium.

Keywords: ICT, Use of ICT Resources, Secondary School Teachers

INTRODUCTION

The developments in the use of the ICT have influenced all walks of life. Education is no exception to this. In recent years there has been an important interest how computers and the internet can best be used to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings. The term ICT in Education stands for use of information communication technology and defined as a "diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information in education field." ICT allows higher quality lessons through collaboration with teachers in planning and preparing resources. New technologies encourage independent and active learning and students' responsibility for their own learning. The use of ICT for enhancing the quality of education by making learning more relevant to life has been seen as an ideal by educational institutions. Hence, it is essential for teachers to make use of ICT resources such as Mind maps, Images, Audio and Music, Educational Games, Presentation, Animation, etc. for teaching and learning so that our students are able to stand up to the changing world.

Teachers use a wide range of inspiring and exciting materials to teach the concepts outlined in the curriculum to ensure that students are actively involved in their learning. In time, students and parents witness a shift from textbook based to ICT based instruction, bringing educational practices in line with the best school systems around the world. Carefully selected digital technology resources are used to enable children to access global connections and resources while also encouraging new ways of thinking. The introduction of technology rich environments and multi-sensory resources can also be useful in reaching each student's strengths and engaging students to become life-long learners.

But it is observed that the shift from traditional approach of teaching to ICT based teaching is slow. So the researcher is keen to know the extent of use of ICT resources by Secondary School Teachers.

NEED AND SIGNIFICANCE OF THE STUDY

The integration of technology in the school curriculum is a complex and challenging process that needs to take into account numerous socio-technical factors such as teachers' computer skills, confidence, and attitude toward ICT, the use of ICT in teaching and learning, technology infrastructure in the school, school climate, etc. Schools can go only so far to encourage ICT use, and that actual take-up depends largely on teachers' personal feelings, skills, and attitudes towards ICT. This shows that teachers who have positive attitudes toward ICT and perceive it to be useful in promoting learning will surely integrate ICT in their classroom more easily than others.

It is observed that Secondary School Teachers are competent to the general changing scenarios in Education. However, as far as the field and use of ICT in teaching and learning is concerned use of ICT is not significant. Since, the present age is of ICT, it is essential for the Teachers to adapt to use various resources of ICT for providing quality education to the future generation. It is true that ICT cannot replace the teachers but a proper integration of ICT resources in the teaching process brings success. Therefore teachers must be capable to use ICT resources appropriately.

TITLE OF THE STUDY

A study on Use of ICT Resources by Secondary School Teachers.

Operational Definitions

Use of ICT Resources

It means use of digital technology tools and techniques such as internet, CD, LCD Projector, computer applications with the help of which the teachers are able to create, share, store, manage and use for providing learning experiences to the students in classroom situation.

Secondary School Teachers

The qualified personnel who teaches to the students studying at level which is intermediate between elementary school and college (Grade from 6 to 10). This stage usually offers general, technical, vocational, or college-preparatory courses.

OBJECTIVES OF THE STUDY

1. To study the use of ICT resources by Secondary School Teachers.

2. To study and compare use of ICT resources among Secondary School Teachers:

a) Gender-wise, b) Medium-wise and c) Location-wise.

Hypothesis of the Study

1. There is no significant difference between use of ICT resources among Secondary School Teachers:

a) Gender-wise, b) Medium-wise and c) Location-wise.

Delimitations of the Study

1. The Study is limited to Thane and Mumbai region and relevant data is collected from secondary school teachers only.

2. The Study is limited to English, Hindi and Marathi Medium only.

METHODOLOGY

Method - Survey Method was used to collect the relevant data for the present study.

Population - The population selected for present study was Secondary School Teachers.

Sample - The researcher selected 100 secondary teachers teaching in English, Hindi and Marathi medium schools of Thane and Mumbai region as sample size for the present study. Stratified random sampling technique was used for the study in order to know the use of ICT resources by Secondary school teachers.

Tool - The researcher prepared questionnaire based on use of ICT in order to study use of ICT by Secondary School Teachers. The questionnaire had 25 items covering four areas i.e. awareness of ICT, use of ICT resources and services in teaching, use of ICT resources and services for learning and obstacles faced. The answers to each item in the questionnaire were given in the form of two options 'Yes' and ' No'. The teachers had to select the answer by putting tick mark against one of the options. The score given for the response 'Yes' was '1' and for 'No' was'0'. The reliability of the questionnaire was 0.791 by using Cronback Alpha method.

Data Collection - The tool was administered personally and the data was collected.

DATA ANALYSIS AND INTERPRETATION

The data was tabulated and Frequency Percentage was used for analysis of data. The data was analysed in two ways; (I) On the basis of four areas of use of ICT resources and (II) Hypothesis testing

(I) Analysis on the basis of four areas of use of ICT resources in the form of Percentage: N=100

Area	Score	No. Of Teachers	%	Level
AWARENESS OF ICT	1-5	9	09%	Low
	6-10	53	53%	Moderate
	11-15	38	38%	High
USE OF ICT RESOURCES AND SERVICES IN TEACHING	0-2	20	20%	Low
	3-5	54	54%	Moderate
	6-8	26	26%	High
USE OF ICT RESOURCES	1-2	20	20%	Low

AND SERVICES FOR LEARNING	3-4	60	60%	Moderate
	5-6	20	20%	High
OBSTACLES IN USING ICT RESOURCES AND SERVICES	0	20	20%	Very Low
	1	25	25%	Low
	2	20	20%	Moderate
	3	35	35%	High
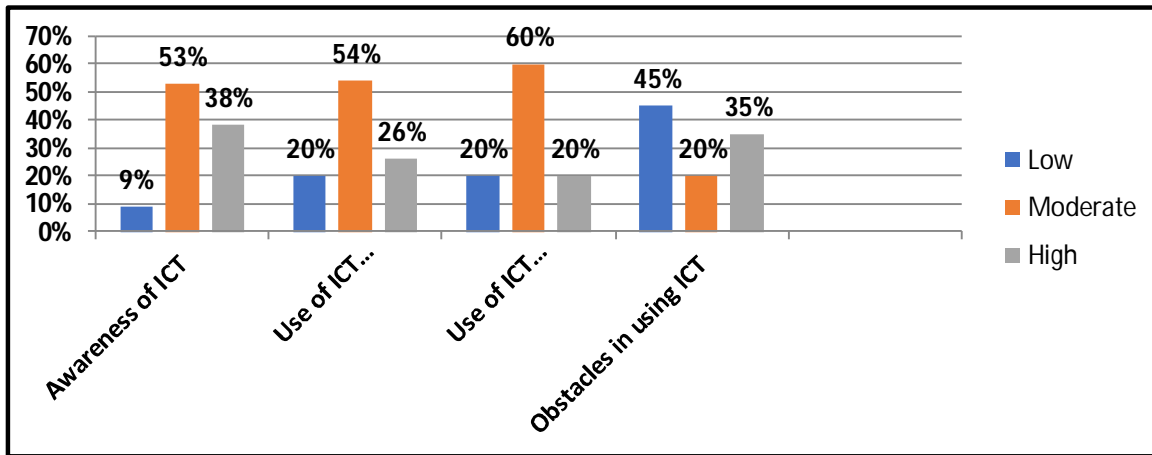
Chart showing analysis based on use of ICT by Secondary School Teachers

(II) Analysis based on Hypothesis testing:

There is no significant difference between use of ICT resources among Secondary School Teachers:

a) Gender-wise, b) Medium-wise and c) Location-wise.

N=100

Variable	Category	N	Mean	SD	Calculated t/F Value	Tabulated t/F Value	Remarks
Gender	Male	38	24.18	3.53	t= 1.211	2.617 at 0.01 level	Not Significant
	Female	62	22.90	5.90		1.980 at 0.05 level	
Medium	English	54	24.37	3.75	F = 2.180	4.83 at 0.01 level	Not Significant
	Marathi	28	22.21	6.91		3.09 at 0.05 level	
	Hindi	18	22.28	5.30			
Location	Urban	45	21.60	5.68	t = 3.298	2.617 at 0.01 level	Significant at 0.01 level
	Suburban	55	24.85	4.17		1.980 at 0.05 level	

MAJOR FINDINGS

Findings on the basis of four areas of use of ICT resources

% of Teachers	Norm
1-20	Very Few
21 -40	Few
41-60	Average
61-80	Many
81-100	Majority

Few Secondary School Teachers are highly aware about ICT resources and Average No. of teachers' awareness about ICT resources is at Moderate level.

Few Secondary School Teachers make use of ICT resources in Teaching at High level and Average No. of teachers use ICT resources in teaching at Moderate level.

Very Few Secondary School Teachers use ICT for Learning at High level and average No. of teachers make Moderate use of ICT resources for learning.

Few Secondary School Teachers highly agree that there are obstacles in using ICT resources and Very few teachers responded that they face obstacles in using ICT resources at Moderate level.

FINDINGS ON THE BASIS OF HYPOTHESIS TESTING

There is no significant difference in the use of ICT as per gender and medium of   instruction of Secondary School Teachers.

There is significant difference in the use of ICT by Secondary School Teachers as per location.

Therefore hypothesis that there is no significant difference between use of ICT resources among Secondary School Teachers is rejected for Location and accepted for Gender and Medium.

CONCLUSION

It can be concluded that Few secondary school teachers highly aware about the use of ICT resources for teaching and very few teachers use ICT resources for learning.

There is significant difference in the use of ICT by Secondary School Teachers as per location but there is no difference as per gender and medium.

SUGGESTIONS

School must provide essential infrastructure to facilitate the use of ICT resources for teaching and learning by the teachers in today's smart classrooms.

Teachers should acquire essential training in the use of ICT resources and services for effective teaching learning process.

Teachers must be made aware about various ICT resources and their use for teaching learning process.

REFERENCES

- Best, J.W., and Kahn, J.V. (2006) '*Research in Education*' (*9th ed.*). New Delhi, Dorling, Kindersley India.

- Garrett, M. E. *Statistics in Psychology and Education* Paragon International Publisher (2005)

- https://jyx.jyu.fi/bitstream/handle/123456789/51929/URN:NBN:fi:jyu-201611204685.pdf?sequence=1

- https://www.researchgate.net/publication/312197085

- http://www.academia.edu/4123172/A_Study_of_the_Use_of_ICT

TO STUDY THE EFFECTIVENESS OF CHARISMATIC LEADERSHIP ON EMPLOYEE MORALE AND JOB SATISFACTION

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ABSTRACT
A leader is considered to be the main person in the organisation. There are various types of leaders, the types are based on their behaviour and decision making skills. This research paper focuses on the Charismatic leadership style. A charismatic leader is a type of leader whose followers are attracted to his or her personality and charm. Such type of leaders usually impacts the organisation in a positive way. The research paper also specifies the impact of charismatic leadership on job satisfaction of an employee as well as the morale of an employee.

Keywords: Leader, Employee morale, Organisation, Inspiration, Charismatic leader, Personality, Job Satisfaction, Opinion.

OBJECTIVES OF THE STUDY
- To study the implications of Charismatic Leadership
- To analyze the impact of Charismatic Leadership on Employee morale and Job satisfaction
- To study the relationship between Charismatic Leadership and Leader Development Programme in the Organisation

RESEARCH METHODOLOGY
This research is about Charismatic leadership and find how this type of leadership increases employee morale and job satisfaction. The researcher has taken data from secondary sources due to insufficiency of funds, time and skill. The data taken from secondary sources such as Articles, related research papers and have been analysed. The study has used qualitative data for its analysis.

INTRODUCTION
In today's era, the field of leadership is evolving at a rapid pace and it is opening up new opportunities to various levels of management in an organisation. In order to understand the types and qualities of leadership, we first need to understand the concept of leadership. The Oxford Dictionary defines leadership as, "*The action of leading a group of people or an organization*". Leadership is usually associated with the qualities of ability to build up confidence and passion/ zeal among the people to create the urge or necessity to lead them. The leader is always considered to be an important part of the organisation. A leader helps to determine the goals of the organisation. John C Maxwell defines leadership as, "*A leader is one who knows the way, goes the way, and shows the way*". In order to be a successful leader one must possess the qualities of foresight, honesty, drive, initiative, self-confidence and personal integrity.

As the times have progressed, an organisation has seen a lot of changes. In order to cope up with these changes, the organisation needs different types of leaders. The leadership has been distinguished as Authentic Leadership, Autocratic Leadership, Laissez-Faire Leadership, Transformational Leadership, Transactional Leadership, Bureaucratic Leadership, Participative Leadership, Directive Leadership, Supportive Leadership, Achievement oriented Leadership and Charismatic Leadership. Under each type or style of leadership the qualities are different. The charismatic leader is far-sighted and works by infusing high amount of energy and eagerness in his team. He proves to be a role model for his team and drives others to show high level of performance. This type of leader believes more in him rather than his team and is committed to the organization. The presence of charismatic leader acts as a boost for the rest of the employees and therefore such type of leader should be committed to the organization for the long run. A charismatic leadership may pose a risk to the company if he/ she decides to quit the organisation in order to explore new opportunities and it might take lot of time and effort by the organisation to win the confidence of its employees. A Charismatic leader promises better opportunities. Charismatic leaders act as an agent of change and they express an idealized future for the organization. They prove to be successful when they project a vision that resonates with employees. Charismatic leaders inspire followers to focus on comprehensive organizational interests beyond their self-interests.

REVIEW OF LITERATURE
Rima Ghose Chowdhury (2014) in "A Study on the impact of leadership styles on employee motivation and commitment: An Empirical study of selected organisations in corporate sector" writes about the impact of

various types leadership on the motivation of the employees in the organisation and also their commitment towards the organisation.

Ruben Brinkman in "How charismatic leadership affects direct follower behaviour and perceived meeting effectiveness" describes the direct impact of the charismatic leader on the organisation. It also states how a charismatic leader tends to increase the efficiency in the organisation.

THE ADVANTAGES AND DISADVANTAGES OF CHARISMATIC LEADERSHIP

A charismatic leader is a type of leader whose followers are attracted to his or her personality and charm. People using this leadership style tend to excel at work and making others feel that they are truly important for the organisation and they needed for the leader to be successful and achieve the goals. These type leaders do this through actions such as direct eye contact, remembering personal and minute details about the people in their team, giving their complete focus to the other person for the time they are with them, reading their surroundings and being skilled at detecting the change in the mood of the person they speak to and adjusting his or her behaviours and speech to suit the situation at hand. Charismatic leaders have certain advantages as well as disadvantages of being in an organisation.

ADVANTAGES OF CHARISMATIC LEADERSHIP

1. **Selling the Vision**
   Charismatic leaders are often exceptional at selling the vision of the organisation. They tend to help people to see possibilities and potentials in order to buy to something much bigger than themselves. They are excellent at weaving stories that enable people to buy into a big dream.

2. **Inspiring**
   Charismatic leaders are generally optimistic and positive nature draws people to them. Their charisma tends to fuel or motivate the employees in the organisation. Often these leaders inspire people to be at their best and the type work environments created by them are very motivating to the employees as well as colleagues.

3. **Drive Results**
   A highly charismatic leader can have people willing to anything for him or her. This is because of they can achieve the desired results and often get things done in a way that other leadership styles may not.

4. **High Level of Approval**
   A Charismatic leader is highly approved by the employees. It is said that a leader with high level of approval from the people can easily execute plans with less objection. If one is a charismatic leader, that person becomes more powerful in comparison to other types of leaders because of the support he/she gets from the people he/she leads.

5. **Lead with Less Effort**
   As a Charismatic leader, one doesn't have to work hard alone in order to achieve a certain goal. In fact, the employees and people who believe in you will help you implement your plan without wasting time and energy. A Charismatic leader's words may be enough to make things happen according to your plan.

DISADVANTAGES OF CHARISMATIC LEADERSHIP

1. **Prone to Abuse**
   A charismatic leader usually receives praise and support from his/her people. Their popularity makes them feel more powerful, and in this situation they may get tempted to abuse such power. Leaders like Adolf Hitler, Benito Mussolini and many other dictators were charismatic leaders who are a good example to shoe the abuse of power.

2. **Monopoly of Opinion**
   Most people who support a charismatic leader may have similar opinions. They have a total disregard to people minority opinions which may be smarter or much better than popular opinions.

3. **People Become Dependent on Leaders**
   Under Charismatic leadership, people may act upon the leader's words. But this sometimes acts as a disadvantage as it only teaches them to depend on the leader. At times it proves to be toxic to an organisation as a charismatic leader might make the employees believe that he/she is the best leader of all. And when the leader steps down, the whole system of the organisation will be shaken.

4. **Group Think**

Charismatic leaders are so popular that it can cause Team Members to stifle their own beliefs and values which may contradict to those of the leader. The danger in this is that the organisation gets a 'group think' and people go along with the idea even when they can sense that the direction in which they are heading in is shaky or dangerous for the organisation.

5. **The ego overtakes**

The Leaders can sometimes get too caught up in their own ego and needs. This proves to have a devastating impact on the team.

THE IMPACT OF CHARISMATIC LEADERSHIP ON EMPLOYMENT MORALE AND JOB SATISFACTION

The employees form the basic structure of an organisation. They are the actual working force which helps to run the organisation smoothly. Larry Flippo defines morale as *"A mental condition or attitude of individual and groups which determines their willingness to co-operate"*. Morale is a group phenomenon and a matter of human behaviour. It basically describes the level of favourable or unfavourable attitudes. Morale is basically a matter of human behaviour. It is the expression of the attitudes which the members of an organization develop and alter towards the organization, its members, its goals and its leaders.

Job satisfaction is the feeling of satisfaction or a sense of accomplishment, which an employee gets from his/her job. The Cambridge Dictionary defines Job satisfaction as, *"the feeling of pleasure and achievement that you experience in your job when you know that your work is worth doing or the degree to which your work gives you this feeling"*. Due to job satisfaction, one can attain their job values or meet out their basic needs and helps to determine the extent of satisfaction a person derives from his/her job. Employee morale and Job satisfaction are interrelated.

Job satisfaction is when the employees are happy with their jobs. In order to do this, the managers offer various opportunities as well as facilities to the employees. Facilities like the nature of work, equitable reward system, promotion, quality supervision, supportive colleagues and good working conditions are some of the facilities provided to the employees. Various employers provide the employees with bonus, life as well as medical insurance, loans, stable remuneration and they also provide training programmes in order to keep the employees happy. Large organisations like Google, give various other facilities to the employees. The organisations in today's time are designing a stress-free workspace so that the employees are not overburdened.

A Charismatic leader is known to be favourable among his/her superiors and subordinates. Various leaders impact the organisation in various ways, which indirectly impact the employee morale and job satisfaction of the employees. This can be shown by taking various charismatic leaders throughout history as examples and show their impact on organisation i.e. A nation/ country, a business firm, etc. Nelson Mandela was a good charismatic leader. He put forth his opinion on racism, which later became popular among the people. He created a good impact on the people in the organisation i.e. the nation. As Mandela worked hard for the betterment of the workers in the organisation i.e. the common people, they were satisfied to great extents and it also boosted their morale. In today's world Steve Jobs is considered to be an excellent charismatic leader when concerned with business. Another great example is Elon Musk. Elon Musk as an entrepreneur faced various difficulties in his organisation. But as a leader of his organisation he set up a good example with the help of his charisma. He was always positive and never stopped trying even though he was facing various problems. He motivated his employees to always work hard by setting an example for them. As the employees knew that their leader did not give up easily it tremendously boosted their morale and in a way they were satisfied with their job. Sir Winston Churchill was an excellent charismatic leader. As stated in the advantages, he gained a lot of fame as he was able to inspire people. But the only down-side was that as he gained power, he became rude and harsh to his subordinates. Another classic example of a charismatic leader is Adolf Hitler. He inspired many Germans into believing that they were from a superior race i.e. Aryan race and also that he was "the one" to lead them. Adolf Hitler, as a charismatic leader did both, inspire people where as he created a monopoly in opinion. The style of charismatic leadership highly boosts the morale of the employees and which also leads to their job satisfaction. There are rare instances, in which such a leadership proves to be harmful. This is due to the leader achieving power, fame and ego issues. This is when the leader tends to abuse his employees and as a result it lowers an employee's morale and directly effects the job satisfaction the employee.

A Charismatic leader proves to be a good option for an organisation in order to boost employee morale and also job satisfaction.

THE RELATIONSHIP BETWEEN CHARISMATIC LEADERSHIP AND LEADER DEVELOPMENT PROGRAMME IN THE ORGANISATION

"Leadership development is defined as a program or activity that makes people become better leaders". Leadership development programme (LDP) expands the capacity an individual to perform in leadership roles within an organization. A company's strategy i.e. building alignment, winning mindshare and growing the capabilities of others are facilitated by the leadership roles. Leadership roles can be formal i.e. with the corresponding authority to make decisions and taking responsibilities, or they can be informal roles with little official authority. Leadership development focuses on developing the leadership abilities and attitudes of an individual. Different personal traits as well as characteristics can help or hinder an individual's leadership effectiveness. This may require formalized programs for developing leadership capabilities. A Classroom-style training and associated reading for leadership development may afflict from the possible differences between knowing what to do and doing what one knows. The management expert, Henry Mintzberg is one person to highlight this dilemma. It estimated that as little as 15% of learning from traditional classroom-style training results in sustained behavioural change within workplaces. A charismatic leader can help in the leadership development programme. A Charismatic leader can help to develop an individual's leadership ability with the subordinates. A Charismatic leader can help other subordinates to work on their leadership building. This can be done through the LDP and it gives a boost to the motivation of the employees. A charismatic leader can teach various leadership qualities to the subordinates which will in turn benefit the organisation. As the employees in an organisation tend to agree with the charismatic leader, it is a plus point for the organisation if such type of leader as the LDP can work much efficiently.

CONCLUSION

After analyzing various cases, components and research papers, the researcher would like to conclude that:

A Charismatic leader can be an important part of an organisation. This type of leader can help the organisation to achieve its goals and objectives. This leader can also inspire the subordinates which will directly impact the working of the organisation. But there are certain drawbacks of a charismatic leader that can create a bad impact in the organisation.

Lastly, while addressing the questions put forth for this research earlier, it can be conclusively said that the researcher has a clear idea about the leadership qualities of a charismatic leader and its effective impact of the leadership on the employee morale and job satisfaction.

BIBLIOGRAPHY

- Saeid Afshinpour (2014, March 4), Leadership Styles and Employee Satisfaction: A Correlation Study, ISSN: 2300-2697, Vol. 27, pp 156-169, doi:10.18052/www.scipress.com/ILSHS.27.156, 2014 scipress Ltd., Switzerland. Retrieved from https://www.scipress.com/ILSHS.27.156.pdf

- Rima Ghose Chowdhury, 2014 November A STUDY ON THE IMPACT OF LEADERSHIP STYLES ON EMPLOYEE MOTIVATION AND COMMITMENT: AN EMPIRICAL STUDY OF SELECTED ORGANISATIONS IN CORPORATE SECTOR (Unpublished Dissertation), Dr D. Y. Patil University, Navi Mumbai

- Ruben Brinkman University of Twente- How charismatic leadership affects direct follower behavior and perceived meeting effectiveness.

- http://www.yourdictionary.com/leadership-development

A STUDY ON THE ROLE OF NON-GOVERNMENTAL ORGANIZATIONS (NGO'S) IN CORPORATE SOCIAL RESPONSIBILITY (CSR) IN INDIA

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ABSTRACT
Purpose- The whole idea of this research paper is to study the role of Non-Governmental Organizations (NGOs) in Corporate Social Responsibility (CSR) intervention, to identify the right NGO for CSR intervention by taking evaluation and rating mechanism and to suggest measures to better facilitate the role of NGOs in CSR Programs.

Research Implication- The research states suggestions in order to ensure better facilitation of NGOs with respect to their role in CSR Programs which aims to widen the scope of NGOs by focusing on more active involvement of them into the organization and if the same is implemented in the future, more number of organizations would be willing to collaborate with NGOs.

Findings-Recently, there has been a modification in the Indian Companies Act which makes it compulsory for organizations to spend 2% on CSR activities. However, even after bringing up this provision, many corporations have still not thought of doing the same in this segment as a result of which Government aims to make the same as a punishable offence if the company does not make use of the CSR funds effectively.

Originality/Value-This research paper explains and provides an analysis on the concept of partnerships between corporations and NGOs and the methods with the help of which this relationship can be used for conducting Corporate Social Responsibility projects. It also aims at throwing some light on the importance of evaluation and rating of NGOs which results in sustainability

Keywords- Non-Governmental Organizations (NGO), Corporate Social Responsibility (CSR), Partnership, Sustainability.

1. INTRODUCTION
1.1 NGOs in India
Corporate Social Responsibility means 'a company or businesses ethical behaviour towards the society'. Traditionally, CSR was a voluntary initiative which the businesses could undertake as per their discretion as it was imposed with minimum legal requirements.

However, Section 135 of Companies Act, 2013 came up with a provision which came into effect from 1 April 2014 stating 'A company having a net worth of five hundred crore or more or a turnover of thousand crore or more or a net profit of five crore or more have to spend 2% of their net profits per fiscal on CSR activities'

1.2 NGOs in India
A non-governmental organization is a non-profit voluntary group of citizens that are free from any form of government intervention and perform a variety of service and humanitarian functions. Their field of operations are education to the disabled, health facilities to be provided to the poor, human rights by ensuring gender equality, ways to prevent child labour and many more. Taking into consideration the work done by NGOs in the previous years, what's evident is their contribution to the nation building. Companies, like Tata Group, Aditya Birla Group are big corporations that take self-initiative however, most of the other companies collaborate with an established NGO and they fund that NGO to take initiatives on the behalf of the company.

2. REVIEW OF LITERATURE
2.1 Non-Governmental Organization
David Winster Praveenraj. D and Vijayalakshmi.R made an empirical study on the role of Non-Governmental Organizations in association with the Corporates laying more emphasis on the real-time examples. Some of the collaborations that have been explained in brief in the research paper are of Nokia, IKEA and GlaxoSmithKline.

2.2 Corporate Social Responsibility
Sanjay K. Agarwal focuses on the history behind the evolution of CSR and how it's become a trend in the recent times. It also helps to solve the question of whether the corporations are willing to be a part of CSR activities.

3. SIGNIFICANCE AND IMPORTANCE
Companies or businesses cannot operate in isolation or in vacuum. As individuals live and experience the real world which is the society, even corporations are expected to do the same. Thus, a growth in the industrial

sector brings into picture a number of social problems like poverty, unemployment, homelessness, health and it is the obligation of the corporates to address each one of them. This way, the organizations get a chance to understand the social needs and involve in the same to bring out all the possible solutions. This brings into realization the role of an NGO. The NGO's that are present in the industries and closer to the community are considered to be facilitators and mediators in identifying people's social needs.

4. OBJECTIVES OF THE STUDY

- To study the existing role of NGOs in CSR interventions.

- To understand the importance of evaluation and rating NGOs and its impact on CSR programs.

- To suggest measures to better facilitate the role of NGOs for CSR programs.

5. ANALYSIS

5.1 The existing role of NGOs in CSR interventions

As already mentioned, Section 135 of the Companies Act, 2013 makes CSR a mandatory undertaking. As a result of which, no company can neglect CSR and thus every organization needs to come up with innovative techniques so as to make good use of their CSR funds.

There are a large number of companies that find it difficult to execute social responsibility projects and the reason behind it is not shortage of funds but lack of resources as they have already assigned their best talents to meet the organizational goals. As a result, their team lacks talented class of people and hence the organizations struggle in undertaking CSR Projects. At this stage, the role of NGOs come into picture in the following ways:

- NGOs helps to fill in the space of talented minds as they consist of experts who have years of experience in the social activities and its execution and hence the team, supervision and training which is required for implementation of CSR Projects can only be provided by the NGOs.

- Before undertaking a particular project, NGOs do a detailed analysis and find out the possible solutions which needs to be undertaken in order to implement the project. Every organization requires their CSR funds to be used effectively and thus, they take the help of NGOs because they are certain that their funds would not be misused and hence they conduct social activities through them.

- Lastly, NGOs in order to execute their projects work with the government agencies and hence, it would be possible for them to influence the government and its bodies which would in a way help the organizations improve their goodwill, reputation and increase business competitiveness.

Therefore, as have a great understanding of the needs of a community, companies/businesses collaborate with an established NGO and they fund that NGO that conduct social activities on their behalf. This is termed as Collective Impact. An example of such a collaboration is of Save The Children (non-profit organization) with three companies- Nokia, IKEA and GlaxoSmithKline. With Nokia, it provides mobile based training and education in fifty schools of Delhi covering two lakh people. With IKEA, it to protect the rights of children and with GlaxoSmithKline, Save the Children NGO aims to raise malnutrition awareness.

5.2 Importance of evaluation and rating NGOs and its impact on CSR programs

Companies carry out their CSR activities via third party who are the NGOs as its unable for some of corporations to carry out social responsibility projects all by themselves. But, by just providing the funds to a particular NGO to conduct social activities on the company's behalf is not sufficient because the success of CSR projects is highly dependent on identifying the right NGO. Thus, every corporation is required to carry out an evaluation and rating mechanism.

CRISIL, one of India's rating agency has come with an NGO specific evaluation process which has provided the importance of an effective evaluation and rating mechanism which is as follows:

- There are so many NGOs in India that it's difficult to keep a count of the same. Hence, in a pool of NGOs where it would be a challenge to pick the most genuine one, it is essential to evaluate and rate NGOs taking into consideration certain parameters for eg Number of Years in Business, Reputation etc which would help to choose the NGO suitable to the field an organization wishes to operate in.

- With the help of an effective evaluation and rating mechanism, we are able to receive an in-depth analysis of the strengths of an NGO and the areas which require improvement.

- Lastly, such a mechanism even helps to generate an in-depth financial analysis which would help to determine the ability of the NGO with respect to the raising and utilization of the funds.

Such a mechanism has a great impact on the CSR Programs because of the following reasons:

- By choosing a well evaluated and rated NGO, it ensures great success and sustainability of the CSR Programs.

- Once we receive an in-depth analysis of the strengths and weaknesses of the NGO, it would be easy to allocate activities to the NGO and the projects so assigned to them would be implemented in a desired manner.

- Lastly, once we are able to figure out the financial ability of a particular NGO and its raising and utilization, the corporations would be willing to fund that particular NGO because there would exist no threat with respect to the money being drawn off under the name of CSR.

5.3 Measures to better facilitate the role of NGOs for CSR programs

- In order to better facilitate their role for CSR programs, NGOs should establish themselves as credible institutions where they should follow financial transparency and make all their information very easily available and accessible on public domain. This Financial Transparency is one such thing which businesses take into consideration before collaborating with an NGO. This way more corporations would be willing to work together with an NGO and be able to tackle some of the most pressing societal challenges.

- In my opinion, NGOs should collaborate with a number of organizations and the funds that they receive should not be put for only a particular purpose, they should undertake more initiatives for that particular company by carrying out certain drives, marathons or fund-raising events as this will help an NGO increase its reach, expand itself and spread its wings to other cities through CSR initiatives.

6. LIMITATIONS OF THE STUDY

This paper only focuses on the role of the NGOs in Corporate NGO partnership. It explains the ways in which an NGO is able to perform a dual function of fighting the social issues together with the companies and at the same time helps them in improve their goodwill and reputation. However, this research paper fails to talk about the risks which are incurred by the NGO in case the partnership turns sour.

7. CONCLUSION

While many corporations would consider NGOs as enemies of their business interests, but NGOs actually help such corporations to exist ethically and give to the society something in return as even they are a part of it. And thus, as CSR has gained momentum over a number of years, corporations do not just act as entities which are separated from the society but they also establish relationship with NGOs and undertake various social projects as a part of their CSR initiatives.

Thus, the main focus of this research paper was to throw light on the importance of NGOs in CSR interventions by collaborating with companies/ businesses which benefits both, the NGO, as they receive financial support from the organizations and companies on the other hand are applauded for actively participating in the social issues which are performed by the NGOs on their behalf.

8. REFERENCES

- David Winster Praveenraj. D, Vijayalakshmi.R (2014). Role of NGOs in CSR. *International Research Journal of Business and Management (IRJBM)*, Vol.7 Iss 12.

- Sylvaine Poret (2014). Corporate-NGO partnerships in CSR activities: why and how? *Ecole Polytechnique Centre National De Ca Kecherdre Scientifique*, 10-21.

- Corinne Damlamian (2006). Corporate-NGO Partnerships for Sustainable Development. *College Undergraduate Research Electronic Journal (CUREJ),* 5-18.

- Anil Dhaneshwar (2014, November 27). Emerging Role of NGOs in CSR Intervention. *The CSR Times.*

- Admin 29 (2018, March 26). The Role of NGOs in Recent Times. *Jyoti Basu Memorial Foundation.*

- Lubna Kably (2014, August 11). Grading of NGOs likely to be game changer. *The Times of India.*

- S. 135, Indian Companies Act 2013

- https://www.savethechildren.in/role-of-ngo-in-corporate-social-responsibility-act

- https://timesofindia.indiatimes.com/india/Grading-of-NGOs-likely-to-be-a-game-changer/articleshow/40045061.cms

A STUDY OF CRYPTOCURRENCY SYSTEMS

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ABSTRACT
Cryptocurrencies have emerged as trending financial software systems. They depend upon a secure distributed ledger data structure; mining is an essential part of such systems. Mining adds records of past transactions to the distributed ledger called as Blockchain, that permits users to achieve secure, sturdy and concord for every transaction. Mining introduces wealth within the sort of new units of currency named as "bitcoins". Cryptocurrencies lack a central authority to mediate transactions as a result of they were designed as peer-to-peer systems. They rely on miners to validate and verify transactions. Cryptocurrencies need powerful and secure mining algorithms.

This paper study and compare the current mining techniques as utilized by major Cryptocurrencies. It evaluates the strengths, weaknesses, and threats to every mining strategy. Overall, a perspective on however Cryptocurrencies mine, wherever they need comparable performance and assurance, and wherever they need distinctive threats and strengths are outlined.

Keywords: Cryptocurrency, Mining, Blockchain, bitcoin

I. INTRODUCTION
A Cryptocurrency is a peer-to-peer digital exchange system in which cryptography is employed to come up with and distribute currency units [1]. This method includes distributed verification of transactions without a central authority. Transaction verification confirms amounts, and whether or not the payer owns the currency they're making an attempt to pay whereas guaranteeing that currency units aren't spent double. This verification method is called mining [2]. Cryptocurrencies use a range of mining technologies, in keeping with their specific needs. For instance, Cryptocurrencies specialize in limiting the number of transactions valid per unit time, whereas others concentrate on achieving quick, light-weight services [3]. Some mining algorithms are deliberately memory intensive; others are computationally expensive [4]. This paper study Cryptocurrency mining systems and analyze their potency.

II. HISTORY OF CRYPTOCURRENCIES
The first Cryptocurrency was the Bitcoin, published by Nakamoto in 2008-09 [7]. Following the success of Bitcoin, several others came into existence.

Chaum created an electronic money system called eCash in 1983 [10]. eCash was centralized via banks, comparatively e-wallets also involves the intervention of the government organisation or a third intermediary party. But in case of cryptocurrencies, the block chain keeps record of all the transactions without the intervention of a third party.

PayPal is an Online Money Transfer System established in 1998 which does not have its own currency [8]. PayPal provides users with an account, which can be interconnected with bank accounts and credit cards, and users can pay someone or receive payment through the PayPal accounts.

M-Pesa [8] was established by Vodafone initially in Africa, which is a mobile, online payment system in which the user can deposit money into an account stored in their cell phones and send PIN secured SMS texts to other users in order to send money. All these online monetary systems were based on fiat currencies [11], whereas a Cryptocurrency has its own currency.

III. WORKING PRINCIPLES OF CRYPTOCURRENCIES
Cryptocurrencies work functionally as follows [5]:

The user has a wallet with a generated address. This address acts as a public key [6].

The wallet also contains a generated private key, which is used to sign transactions, proving ownership for the miner [6].

The payer sends money to the payee's address, and signs it using the owner's private key.

The transaction is verified by mining algorithms [2].

IV. BLOCKCHAIN

Blockchains provide an opportunity to establish a strong system for digital identity. Cryptography is an important force behind the blockchain revolution. A Blockchain is a ledger system of Cryptocurrency transactions. Each transaction is stored in a block. Each block contains a variable number of verified transactions and logs of the data sets. Once a block gets verified, it cannot be changed and gets added to a chain of other permanent, previously verified blocks. The records held inside these blocks form a blockchain, and the blockchain's users maintain track of this record. The maximum size of a block is fixed in every Cryptocurrency system.

A Bitcoin Block consists of five fields namely: [13]
1. Magic number -is fixed

2. Block size

3. Block header-contains block version number, the previous block hash, the time stamp, the hash based on all the transactions in the block and the nonce.

4. Transaction count-is the number of transactions included in the block.

5. Transaction list

The first block is called as the "genesis block" which contains the first transactions of a given Cryptocurrency and the hash of the first block etc. From the genesis block to the current block, an austere chronological link is created through the inclusion of hashes. There is a separate path from the most recent block to that first block. This relationship makes it difficult for an attacker to fraud the information in a block, because all subsequent blocks would have to be redeveloped, which would be detected, since the final hash wouldn't match. [14]. A fork occurs when two blocks are created at the same time. The block created according to the timestamp in the block header is conventional in the chain, and subsequent blocks link to the accepted block. Figure 1 shows a simplified representation of a Bitcoin.
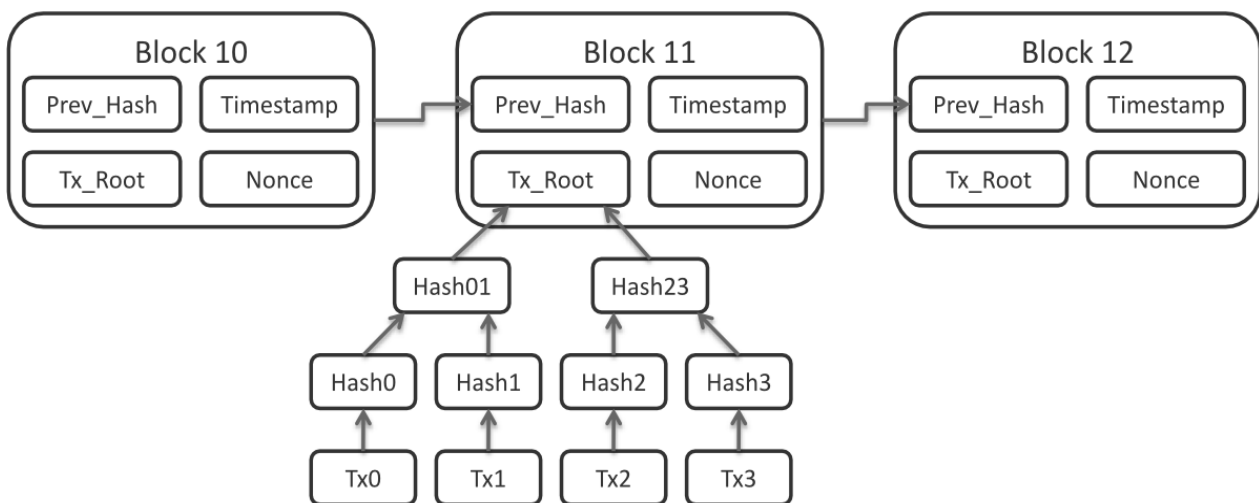
Figure-1: A Bitcoin Blockchain [19]

V. MINING

Every Cryptocurrency system incorporates a distributed public ledger called the Blockchain. A transaction is created when a payer sends some currency to a payee. Mining validates transactions and adds them to this public ledger. When a new transaction takes place, the miner checks if the currency or the particular bitcoin belongs to the payer, or if the payer is t rying to spend twice. It enables security against fraudulent activity since the ownership of the currency is available in the Blockchain. [16]

A deceitful user may create more than one nodes and try to validate an invalid transaction. Miners are required to solve a resource intensive task to prevent this fraud. Resource intensiveness makes it exclusive for a malicious user to create enough false identities to outnumber genuine users and to validate an invalid transaction.

The resource-intensive task can be any of the following:

• *Proof of Work [21]*, which is an easily verifiable result of a resource intensive task that authorizes that the task has been performed.

- **_Proof of Stake [22],_** that requires the miner to show how much currency the miner has a proprietary unit in the system.

- **_Proof of Retrievability,_** which requires the miner to show that the data he was given to store is integral and can be recovered at will.

Proof construction requires intensive use of memory and/or computational power involving a block of RAM's combined together. The proof requirement also confines the total number of transactions that can be validated.

Thus, it is derogatory to slow down the rate of the production to prevent untimely exhaustion. If the number of Bitcoins mined per day were not restricted, the Bitcoin reserve would be exhausted far earlier than predicted. After the limit is reached, the number of bits identifying a Bitcoin could be increased to create more units. The steps involved in mining include:

- Initially. a miner performs a resource-intensive task and produces a proof that the work has been done. This task prevents a malicious miner from forming false identities and manipulating.

- The proof produced is verified to cross verify that the task has been performed.

- The miner then verifies for the validity of the transactions, and if all the transactions in the block prove valid, the block is posted in the Blockchain. [2].

VI. CRYPTOCURRENCY MINING METHODS

There are many Cryptocurrency mining techniques in use. Table 1 lists the major Cryptocurrencies and their mining algorithms.

Bitcoin: Bitcoin mining uses Proof of Work [7]. The Proof of Work algorithm in use is called Hashcash. In Hashcash, the miner is required to find a nonce, which, when hashed along with the hash of the previous blocks, would produce a hash with a specified number of zeroes at its front. The number of zeroes determine the complexity metric. The mining process is complicated as the acceptance is based on the hash size of the block header and the target value [17]. A target is a 256-bit integer shared by all of the Bitcoin clients; the Lower the target, higher the complexity.

Successful mining of coins using **SHA-256** usually requires hash rates at a giga hashes per second (GH/s) range or higher. The current average time needed to mine a Bitcoin Block with SHA-256 is ten minutes [2]. The puzzle is based on a Floating Preimage Signature [17]. The miners must refer to a section of code stored locally on their computer to solve the puzzle [17]. If they successfully solve the problem, then the algorithm can deduce that they are storing that data (at least for a short time) [17]. Thus, all miners must be storing a piece of the archived data to participate by mining.
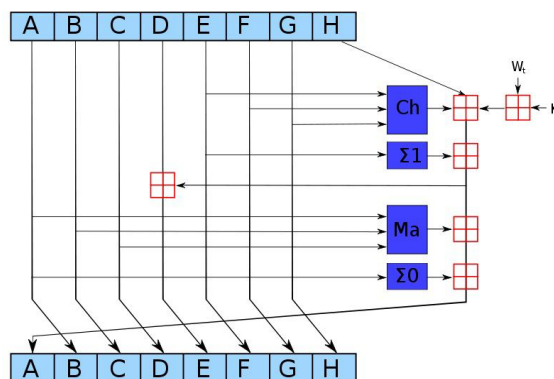
Figure-2: Round function of SHA 256 [20]

CRYPTOCURRENCIES	MINING METHOD	ALGORITHMS USED	NOTES
BITCOIN	Find the nonce such that when it is added to the hash key of preceding block, will produce a string.	SHA-256	Average time needed to mine a Bitcoin Block is ten minutes.
PERMACOIN	It provides a proof of retrievability (POR), the miner is asked to store useful information.	Floating Preimage signature	It is a multiuse hash based algorithm.

LITECOIN	This cryptocurrency also needs a proof of work, similar to bitcoin.	Scrypt	Mean block time in 2.5 minutes, where that of bitcoin in 20 minutes.
PEERCOIN	Needs proof of stake, along with Proof of work.	SHA-256d	The proof of stake system was designed to address vulnerabilities that could occur in mining set
PRIMECOIN	Proof of work	Cunningham chain	Uses Cunningham chain and Bi-twin chain for proof of work
BLACKCOIN	Minting	Scyrpt	It uses both scrypt and proof of Stake in a mining process
AURORACOIN	Proof of work	Scyrpt	Developed and used in Iceland as an alternative currency
ETHEREUM	Proof of work	EtHash	EtHash was developed by the Ethereum project.
DASH	Proof of work	X11	Previously known as Darkcoin, Dash instills more privacy to the transaction by Darksend.

Table-1: Cryptocurrencies and corresponding Mining Algorithms [15]

VII. CRYPTOCURRENCY PROBLEMS

Technical weaknesses and flaws are the cause of failure of several Cryptocurrencies. Existing Cryptocurrencies have faced various issues and safety problems so far which includes:

- A **Bitcoin** Exchange known as Mt. Gox was developed in 2010 in Tokyo to help users to exchange Bitcoins with regular currency. But Mt. Gox had a security breach which resulted into a momentary drop of the Bitcoin price to 1 cent. They mistakenly sent over 2,500 Bitcoins to invalid addresses in 2011, there by exposing faults in their protocol. Although Mt. Gox handled 70% of bitcoin transactions in 2013, they declared bankruptcy after 850,000 Bitcoins were stolen from their customers and the company itself [23] in a second hack.

- **Ethereum** has a Decentralized Autonomous Organization (DAO) in the Ethereum Blockchain that facilitates validation. Recently, the DAO was exposed to the Recursive Calling Vulnerability, wherein an attacker called a function to split a transaction recursively and collected ether, the Ethereum urrency.

- There had been several Cryptocurrencies which have failed [23]. Some of these weren't sustained or elaborate efforts, including **BBQCoin** and **Solidcoin** and few others failed to take precautions and succumbed either to the 51% and/or Sybil Attacks.

- **Qubic** was evovled as an inspiration from Bitcoin, but without the disadvantages of Bitcoin. They proposed a network-based Proof of Work instead of a CPU-based one. But, Qubic wasn't famous and was close down.

VIII. CHALLENGES

- The drawback of current mining schema is that hackers moved to Graphical Processing Unit where the computational power needed is less for hash functions that are iterated.

- The transactions and computing environments are great once the computation is almost memory less or requires a minimal amount of memory for processing, but they tedious tasks while operating on a large amount of memory, for string the transaction data into the blockchain and for retrieving.

- The defenders retorted by designing memory-hard functions, which requires a large amount of memory to be computed,and enforce computational penalties if less memory is used.

- The password hashing scheme scrypt is an example of such function. Memory-hard schemes also have many other applications. They might be used for key derivation from low-entropy sources. Memory-hard schemes are also used in cryptocurrency designs [19].

IX. CONCLUSION

Blockchain and cryptocurrencies as fundamental technologies have found a large spectrum of application scenarios in numerous kinds of industries. This paper surveyed most popular Cryptocurrencies and their mining methods. Major Cryptocurrencies use Proof of Work, Proof of Stake or a combination of each for mining.

Whereas Proof of Work is resource intensive, Proof of Stake cannot act independently. A combination of the both is found to be effective. For Proof of Work, Cryptocurrencies use various Hash algorithms. A majority of these are CPU-intensive and the others are memory intensive. Memory-intensive hash functions have been found to be faster mining algorithms, hence it will be compatible with regular computers. Memory intensive hash function is going to play a big part in the future of cryptocurrencies. Cryptocurrencies are experimenting with their mining protocols and algorithms to optimize their performance, and some are trying to identify alternatives to mining. The main aim of this paper is to stimulate more detailed investigation and innovative research in this new direction.

REFERENCES

1. Ryan Farell. An analysis of the cryptocurrency industry. *available at repository.upenn.edu*, 2015.

2. Anonymous. Mining. https://en.bitcoin.it/wiki/Mining,2014.

3. Jason Teutsch, Sanjay Jain, and PrateekSaxena. When cryptocurrencies mine their own business.

4. Nicolas Sklavos and OdysseasKoufopavlou. Implementation of the sha-2 hash family standard using fpgas. *The Journal of Supercomputing*,31(3):227–248, 2005.

5. ShaikShakeel Ahamad, Madhusoodhnan Nair, and BijuVarghese. A survey on crypto currencies. In 4th International Conference on Advances in Computer Science, AETACS, pages 42–48. Citeseer, 2013.

6. Anthony Loera. Method of making, securing, and using a cryptocurrency wallet, February 11 2014. US Patent App. 14/178,234.

7. Satoshi Nakamoto. "Bitcoin: A peer-to-peer electronic cash system". academia.edu , 2018.

8. C Lee. Litecoin, 2011.

9. David Schwartz, Noah Youngs, and Arthur Britto. The ripple protocol consensus algorithm. *Ripple Labs Inc White Article*, page 5, 2014.

10. D Cawrey. Auroracoin airdrop: Will iceland embrace a national digital currency. *CoinDesk, March*, 24, 2014.

11. N Gregory Mankiw. Principles of macroeconomics. Cengage Learning, 2014.

12. Allie Decker.The Ultimate Guide to Cryptocurrency. https://blog.hubspot.com/marketing/cryptocurrency

13. Anonymous. Block. https://en.bitcoin.it/wiki/Block,2014.

14. Anonymous. Blockchain. http://www.investopedia.com/terms/b/Blockchain.asp, 2014.

15. Anonymous. Market capitalization of cryptocurrencies. https://coinmarketcap.com/, 2014.

16. Ujan Mukhopadhyay, Anthony Skjellum, Oluwakemi Hambolu , Jon Oakley , Lu Yu and Richard Brooks, "A Brief Survey of Cryptocurrency Systems", Privacy, Security and Trust (PST), IEEE, ISBN:978-1-5090-4379-8

17. Brian Neil Levine, Clay Shields, and N Boris Margolin. A survey of solutions to the sybil attack. University of Massachusetts Amherst, Amherst, MA, 7, 2006

18. Melanie Swan. Blockchain: Blueprint for a new economy" O'Reilly Media, Inc.", 2015

19. https://bitcoin.stackexchange.com/questions/12427/can-someone-explain-how-the-bitcoin-blockchain-works

20. Phillip Rogaway and Thomas Shrimpton. Cryptographic hash-function basics: Definitions, implications, and separations for preimage resistance, second-preimage resistance, and collision resistance. In International Workshop on Fast Software Encryption, pages 371–388. Springer,2004.

21. Anonymous. Proof of work. https://en.bitcoin.it/wiki/Proof of work, 2014.

22. Sunny King and Scott Nadal. Ppcoin: Peer-to-peer crypto-currency with proof-of-stake. self-published paper, August, 19, 2012.

23. Anonymous. Failed cryptocurrencies. https://ltcflux.wordpress.com/2013/04/11/failed- cryptocurrencies-do-exist/, 2014.

STUDY ON IMPACT OF TECHNOLOGICAL INNOVATIONS IN BANKS AMONG CONSUMERS OF KALYAN CITY

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INTRODUCTION

The banks in India's are in many shapes and forms that can be categorized on the basis of ownership, functions and operations. The Indian banking system is regulated by the Reserve Bank of India (RBI) that comprises of scheduled and nonscheduled banks and these are classified in various sub-categories India banking sector experienced emerging changes due to impact of Information, Communication & technology , business intelligence & risk management strategies..Today banks tries to improve their overall system to bring innovations in order to grasp opportunities of market & to generate, retain & to increase customer relationship with the help of high speed & effective service. All the banks entered with different channels like ATM, Credit card, debit card, Mobile banking, internet banking, fund transfer RTGS, NEFT, ETS, ECS, Advisory services , payment utility bills , Insurance & mutual funds scheme, cheque book & value added services. In Digital Era & hyper connected environment banks requires to re- imagine their business continuously.

Bank is a financial institution which accepts deposits and lending funds to the customers.Nationalisation of bank process has witnessed achievements in banking sector through expansion of bank branches. Government of India declared nationalization to preven the concentration of wealth & economic power. Automation is the focus of intense interest in the global banking industry. Many banks are rushing to deploy the latest automation technologies in the hope of delivering the next wave of productivity, cost saving & improvements in customer experiences. The technology is rapidly maturing & domain expertise is developing among banks & vendors.

It is hard to believe but ATMs have been around for 50 years now. Since their modest beginnings as cash dispensing services, ATM have evolved with the times. The 1980s saw the " Birth of "Drive Up" . ATMs followed by "Talking" . ATMs with Voice instructions in the late 1990s & more recently ATMs with video capabilities have become more prevalent. Latest innovations so called "cardless" ATMs with larger & more tablet like screens. in integration with mobile technology . Digital payment industry in India has a huge opportunity that is waiting to be tapped Digital India was launched by the Prime Minister of India Narendra Modi on 1 July , 2015 with an objective of connecting high-speed Internet networks and improving digital literacy.

OBJECTIVES OF THE STUDY

1. To study the awareness and preference towards the selection of bank in Kalyan city.

2. To find out the benefits of technological innovations in banking sector.

3. To know the challenges & opportunities & recent innovations associated with banking sector.

4. To know the Impact of demographic factors on selection of banks in Kalyan city.

5. To study how innovations have contributed to the development of Indian banking.

STATEMENT OF THE PROBLEM

Within the last decade or so, our world has become rapidly more digitized. Two important factors that have contributed to this development are the use of mobile phones, and the use of the Internet. In today's world of financing and personal money management, convenience and time are extremely valuable commodities. Today consumers are very busy in their life. Life style is changing day by day due to excessive working hours & job stress & other economic & social & personal obligations they can't approach to bank with limited working hours. They don't have time to do banking transactions they want everything as per their convenience. Today, the country is all set to leap frog to a new, more convenient & secure way to electronically handle surplus of payments with the advancement of technology

Sample size: Among population of consumers of IDBI & HDFC bank sample size of 200 was determined both by qualitative and quantitative approach. This study was conducted in the urban area of kalyan city, The sample size of the study was 200 respondents.

Research design: This study is descriptive in nature. Descriptive research design (survey) has been used in carrying out the present study as the study and convenience sampling method of sampling was used aimed at finding out perception & impact of automation In banking system among people of Kalyan city.

Methodology & tools for data collection: Primary data and secondary data have been used. Primary data was collected through the structured questionnaire and the secondary data was collected from various Books, Journals, Articles, Newspapers, Magazines and Websites. The data collected were further analyzed by using statistical tools like percentages, Chi-square test.

Sampling technique: sample size was selected through non probability sampling by convenience sampling method. Sample comprised of business men, salaried people & students irrespective of age & occupation but most of the customers were men as compared to women. The point of view was recorded through primary data collection instrument & efficiency & reliability of public & private sector banks after automation was determined.

Data analysis tools: Collected data will be analysed using mean & chi square test method at 5 % level of significance at 1 degree of freedom.

Hypothesis
H0: There is no significant difference in reliability of public & private banks after computerization of operations.

H1: There is significant difference in reliability of public & private banks after computerization of operations.

REVIEW OF LITERATURE
➤ Mabrouk and Mamoghli (2010), in their study on Dynamics of Financial Innovation and Performance of Banking Firms: Context of an Emerging Banking Industry, analyzed the effect of the adoption of two types of financial innovations namely; product innovation (telephone banking and SMS banking and so on) and process innovation (Magnetic strip card (debit, ATM and credit card), Automatic cash dispenser; (Automatic teller machine; Electronic payment terminal and so on) on the performance of banks. Their analysis included two adoption behaviours, first mover in adoption of the financial innovation and imitator of the first movers. They found out that first mover initiative in product innovation improves profitability while process initiative has a positive effect on profitability and efficiency. Banks that imitate are less profitable and less efficient than first mover.

➤ Francesco campandla , at el, (2015) " the effects of technological innovation on banking sector". Here researchers analysed hypothesis through quantitative & qualititative data regarding the period 2008-11 & collected information from sample of 3190 banks located in 17 countries. The empirical research studied the impact on banking system due to technological changes.

➤ Dr. G. Anbalagan (2017), " New technological changes in Indian Banking sector ", studied the innovative practice adoption by all the banks & how it has impact on consumers as a hole & challenges faced by Indian banking sector.

➤ Dr. Jitendra k. Sharma (2017) , " A study on innovation in banking & its impact on customer satisfaction ", researcher studied the impact of innovations in Bhopal city . primary data was collected from 200 sample. The analysis tools like likert five point scale was used where factors causing customer satisfaction specially with reference to service quality were enlisted & Z- test at certain level of freedom is also applied to prove his study

➤ Dr. S.P. Rajagopalan [38] in his article briefly highlighted the e-Banking in the Indian Scenario and the evolution of e-banking as world wide. He has discussed about electronic products and services provided by private banks in India like ICICI and HDFC banks and about the e-banking products and services like Electronic Fund Transfer (EFT), Automatic Teller Machines (ATM), Mobile banking etc. The article has also covered the benefits of electronic product to banks etc.

KEY TECHNOLOGY INNOVATIONS
✓ Cloud services will organize banking activities

✓ Artificial Intelligence Will Keep Progressing

✓ More Block chain

✓ Mobile Banking and Digital Banking Will Be More Effortless

✓ Updated ATMs

✓ Security Will Become Sturdier

- ✓ Partnerships

- ✓ Automated Financial Services Employees

- ✓ Google Glass technology

- ✓ Robotics

- ✓ Augmented Reality (AR) apps

- ✓ Oculus Rift

- ✓ Crypto currencies

- ✓ Proliferation of Non-Banks

- ✓ Apple Store-Style Experience

- ✓ Wearable

BENEFITS / ADVANTAGES

- Serving a Segment of One

- Expansion of Open Banking

- Commitment to Phygital Delivery

- AI-Driven Predictive Banking

- Payments Everywhere

- Low cost banking services

- Remove Human Error

- Report regulatory & legal requirements to the regulators in a better way

- Storing historical data & storing customer details for extended periods is more easier

- Introduction old new products & services quickly and successfully.

- Remove traditional geographical barriers.

DIS- ADVANTAGES

Lack of public awareness.

Lack of public confidence

Implementation of online banking system successfully.

Lack of connectivity in remote areas.

GROWTH OF BANKING SECTOR

The digital payments system in India has evolved the most among 25 countries with India's Immediate Payment Service (IMPS) being the only system at level 5 in the Faster Payments Innovation Index (FPII). The Indian banking system consists of 27 public sector banks, 21 private sector banks, 49 foreign banks, 56 regional rural banks, 1,562 urban cooperative banks and 94,384 rural cooperative banks, in addition to cooperative credit institutions.In FY07-18, total lending increased at a CAGR of 10.94 per cent and total deposits increased at a CAGR of 11.66 per cent. India's retail credit market is the fourth largest in the emerging countries. It increased to US$ 281 billion on December 2017 from US$ 181 billion on December 2014.As of September 2018, the Government of India has made the Pradhan Mantri Jan Dhan Yojana (PMJDY) scheme an open ended scheme and has also added more incentives.The Government of India is planning to inject Rs 42,000 crore (US$ 5.99 billion) in the public sector banks by March 2019 and will infuse the next tranche of recapitalization by mid-December 2018. The Indian **banking sector's assets reached 1.8 trillion US dollars in 2014-15** from 1.3 trillion US dollars in 2010-11, with 70 per cent of it being accounted by the public sector. Total lending and deposits increased at a compound annual growth rate **(CAGR) of 20.7 per cent and 19.7 per cent, respectively, between 2007 and 2014** and are further poised for growth, backed by demand for housing and personal finance.Indian Banks have successfully adopted **the Basel II norms** of international banking supervision and as per the Reserve Bank of India (RBI) majority of the banks have already met **Basel III capital norms** prior to its deadline of 31 March 2019.

FACTORS PROMOTING GROWTH OF BANKING SECTOR

• **Emergence of Universal Banking System:** Services provided by banks have expanded rapidly in the last decade. In addition to the traditional "savings and loans", banks started providing a wide gamut of financial services like insurance, investment, asset management, etc which increased their in the economy.Through partnerships and acquisitions, banks are trying to integrate financial services, wallets, payments, shopping services etc., there by adding depth to their financial services.**Economic growth:** Over 9 percent GDP growth in the pre global financial crisis period (2009-10) and over 7 percent in the last two years largely facilitated the growth of this sector.**Globalization:** As India is moving towards closer integration with the world economy, India's merchandise trade, service exports and remittances are growing at a faster pace. For the government, the banking sector is at the core of governance. Initiatives like Jan Dhan Yojana and Direct Benefit Transfer are case in point. **Usage of technology:** Information and communication technologies including the mobile phones and internet connectivity are the prime reason for expanding the reach of banking sector to the youth and rural habitations.

ISSUES AND CHALLENGES

Non Performing Assets: NPAs have become a grave concern for the banking sector in couple of years and impacted credit delivery of banks to a great extent.As per a survey, net NPAs amount to only 2.36 percent of the total loans in the banking system. However, if restructured assets are taken into account, stressed assets account will be **10.9 percent of the total loans in the system.** As per the International Monetary Fund (IMF), around 37 percent of the total debt in India is at risk. India's largest lender **State Bank of India (SBI)** reported a massive 67 per cent fall in consolidated net profit at 1259.49 crore rupees in the third quarter of the 2015-16 financial year and classified loans worth 20692 crore rupees as having turned bad.As per an estimate, the cumulative gross **NPAs** of 24 listed public sector banks, including market leader SBI and its associates, stood at **393035 crore rupees as on 31 December 2015.**

STEPS TAKEN BY GOVERNMENT AND BANKING SECTOR

To effectively address the above issues the Government including the RBI and the Supreme Court and the Banks themselves have taken many initiatives. Some of them are –

• The Ministry of Finance in its Economic Survey 2015-16 suggested **four R's - Recognition, Recapitalization, Resolution, and Reform** to address the problem of NPAs.

• The Union Government unveiled plans **to infuse 70000 crore rupees** in the next few years, but PSU banks would need at least 1.8 lakh crore rupees by 2019-20.

• In October 2015, the Government announced **Mission Indradhanush** under which 7 key strategies were proposed to reform public sector banks (PSBs).

• In May 2015, **the RBI advised all PSBs to appoint internal Ombudsman** to further boost the quality of customer service and to ensure that there is undivided attention to resolution of customer complaints in banks.

• The Government announced its intention to introduce a comprehensive **Insolvency and Bankruptcy Bill** in the Parliament based on the recommendations of **the Dr T K Viswanathan-headed Bankruptcy Law Reforms Committee (BLRC).**

DATA ANALYSIS & INTERPRETATION

Table-1: Demographic profile of the respondents:

	Categories	Count	Percentage
Age	21-30 Years	51	25.5
	33-40 Years	73	36.5
	41 to 50 Years	39	19.5
	51 & above	37	18.5
Gender	Male	105	52.5
	Female	95	47.5
Education Level	Below graduates	48	24
	Graduate	85	42.5

	Post Graduate	67	33.5
Annual Income	Rs.100001to Rs.200000	37	18.5
	Rs.200001 to Rs.300000	69	34.5
	Rs.300001 to Rs.400000	51	25.5
	Above Rs.400001 6 10.0	43	21.5
Profession	Service	87	43.5
	Business	33	16.5
	Professional	52	26
	Any other	28	14

INTERPRETATIONS

- 25.5 % of the respondents are in the age group of 21 to 30

- 52.5% are Male, 47.5% are female , of the respondents post-graduates, 33.5 % .

- 43.5% of respondents been working in service area and

- 18.5% of the respondents earn annual income ranging from 100001 to 200000.

Table no-2: Respondents and their opinion about overall usage of Mobile & Digital Banking.

Particular	Usage %	%
Movie tickets	21	10.5
To pay bills	37	18.5
Railway reservations	25	12.5
Recharge mobile	42	21
Transfer money	60	30
Electronic products	15	7.5

INTERPRETATIONS

As per the above table, 21% majority of the respondents preferred to use Mobile wallet payment for Movie Tickets to 10.5% ,for transfer money followed by Recharging mobile or DTH payment and so on.

Table-3: Related to factors influencing to opt for Mobile & Digital Banking

Factors opt for m- wallet	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Instant Payments	0	0	0	75	125
Reputation of the Bank	0	0	0	20	180
Seamless process	0	0	12	54	134
Instant Refunds	0	0	33	72	95
Rewards and offers	0	0	18	82	100

Interpretations: From the above table it is clear that 62.5% of the respondents believe that instant payments is an important factor and 47.5% of the respondents look over the instant refund one of the factor provided.

Table-4: Factors Abstaining The Usage Of Mobile-Wallets

Factors abstaining the usage	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Prefer to use other cashless Payment option	0	3	30	80	87
concerned about the security of mobile & Digital payments	3	7	18	84	88
The cost of data access on wireless plan is too high	85	43	12	36	14
Possibility of information theft during wireless transmission at point-of-sale.	15	65	10	13	97

INTERPRETATIONS

From the above table No.4 it shows that more than 50% of the respondents are strongly agree That they are concerned about the security of Mobile payments and more than 44% prefer Strongly agree that they prefer to use other cashless payment option.

Table-5: overall preferences towards idbi & hdfc bank:

No. of respondents	IDBI	HDFC	TOTAL
Male	56	49	105
Female	64	31	95
Total	120	80	200

Chi-Square Test

Category	Observed frequency (O)	Expected Frequency (E)	(O-E)	(O-E)2/O
A	56	63	-7	0.78
B	49	42	7	1.17
C	64	57	7	0.86
D	31	38	-7	1.29
TOTAL	200	200		4.1

The above table reveals that there is no significant difference in reliability of public & private banks after computerization of operations.

Hence, the calculated value greater than table value (p>0.05) at 1 degree of freedom table value is 3.847. Hence the hypothesis stands. Alternative hypothesis is rejected and the null hypothesis is accepted.

FUTURE OF AUTOMATION IN THE BANKING INDUSTRY

❖ With advances in robotics /A.I & quantum computing make machines so smart & efficient that they can replace humans in many roles.

❖ The wave of automation we are witnessing today is a by-product of multiple technologies that have accelerated in the past few years to such a degree that we are reaching in terms of superior performance & cost economics.

❖ Banking which has been at the forefront of this new machine age will specially experience profound impact.

❖ Next stage in the evolution of the ATMs may be "Robo- Banks" that can pretty much do what tellers in branches do today.

❖ Automation will completely replace jobs but what codifiable tasks can be done by machines (like ATMs) & what complementary skills are better done by human alone.

FINDINGS

➢ By taking long term view & re- imagining the new Human – Machine interface in almost every job from back office to front office , banks can better prepare for a world where people & machines complements each other & extend the net benefits to both banks & society

➢ The users of mobile & digital technology are much satisfied on its usage

➢ Factors like brand loyalty, convenience of shopping etc plays an important role in adoption of technological innovations in banking sector.

➢ Security and safety of funds plays a challenging factor for the users.

CONCLUSION

Mobile wallet usage awareness as spread among the people in India due to government policy of demonetization and this as forcefully induced the usage of mobile wallet .The security issues are tighten and risk factors are reduced will automatically increase the adoption of mobile wallet .Apart from these issues the convenience and ease of use as gained an credit to mobile wallet and it can be concluded that they will be a tremendous growth in adoption of mobile wallet in the forthcoming years. Banks in India are considered to be the lifeline of the economy. They play a catalytic role in activating and sustaining economic growth. As per KPGM-CII report, India's banking sector is expanding rapidly and has the potential to become **the fifth largest banking industry in the world by 2020** and third largest by 2025.

BIBLIOGRAPHY

✓ Pahuja A & laur D (2007), " technology in banking : A study of E- Banking preference of service class" , Gyan Managemnet, Vol. 1 (2), pp-88-97.

✓ Sharma S.K. & Govindaluri S.M. (2014) , Internet banking adoption in India: Structural equation modeling approach , Journal of Indian Business Research , Vol. 4.6, Issue 2, pp.155-169.

✓ Srivastav A & dey D.K. (2016) , Brand analysis of global & local banks in India, a study of young consumers, Journal of Indian business research , vol 8, Issue -1, pp 4-18.

✓ Dr. A. Nelson, "Internet and Hi-tech banking Technologies: A Revaluation of Indian Banking Industry", Journal Readers Shelf, August 2007

BOOKS

1. Kapila R. & Kapila U.(2001) , Indian's banking & financial sector in the new millennium , new Delhi, Academic foundation.

2. Love look C. & Wirtz J. (2004) , service marketing : people, technological & strategy, pearson education , Delhi.

3. Vikas Taneja & Sakshi parashar (2011) "Encyclopaedia of E- world", new Delhi.

ICT IN HIGHER EDUCATION CHALLENGES AND OPPORTUNITIES

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ABSTRACT

Higher education and technology are both at inflection points which will lead to potentially massive changes in the coming years and decades. The industry of higher education is under increasing pressure to reduce costs and develop fully prepared graduates to enter the workforce. Knowledge has become the most important raw material in the 'knowledge economy' of the 21st century.

The time is very opportune for India to make its transition to the knowledge economy. Education is the fundamental enabler of the knowledge economy. Majority of conventional universities have come forward to teach use of ICT to their teachers and students and the universities will have ongoing requirements of the latest technology available. Teacher is at the heart of this transformation in learning to facilitate every student to enjoy learning and achieve his/her full potential. ICT holds the potential to transform the education system of a country to a great extent. The training of teachers for use of ever evolving technologies, upgrading their skills continuously and keeping them abreast of the latest developments and best practices is a herculean task.

Keywords: Higher education, Technology, knowledge economy, paradigm shift, teacher, learners role.

INTRODUCTION

Higher education is one of the most important inputs that influence the all round development of any nation especially in the field of economic, physical, social, cultural, ethnical and spiritual. Education enables people to 'build up their capabilities' thereby 'broadening their entitlements' and 'facilitating expansion of freedom' which in turn is the primary end and principal means of development. In the emerging deregulated economic environment, education has got added significance because production of knowledge has attained the status of the most decisive economic activity. Knowledge has become the most important raw material in the 'knowledge economy' of the 21st century.

Knowledge economy is an economy that generates, propagates as well as utilizes knowledge to augment the growth and development of all the developmental sectors of a country. The concept focuses on how any economy harnesses and uses new and existing knowledge to improve the productivity of agriculture, industry, and services and increase overall welfare. Education is the rudimentary facilitator of the knowledge economy. So, educational Institutions should continue to leverage their strength to provide skilled and efficient people, who can generate, share and use knowledge effectively.

Not all publicly funded universities or other educational institutions in India have been able to maintain high-quality standards or keep pace with development in knowledge and technology. Major steps are thus needed to ensure that India's Institutions meet high-quality national and international standards.

The advancement in the field of information technology has given birth to globalization which totally revolutionized the process of trade exchange and communication resulting into producing such a global scenario in which structure, functioning and role of universities have to be redefined. Institutions would have to change. Only those who change to innovate and again innovate tend to educate the youths on correct lines. Students now demand world class education. Institutions in India will have to be competitive by nothing less than world class so as to remain in service.

IN THE PRESENT GLOBALISED ERA, THE HIGHER EDUCATION SYSTEM SHOULD HARNESS THE ABUNDANT OPPORTUNITIES OF DIGITAL TECHNOLOGY TO ADDRESS VARIOUS EDUCATIONAL NEEDS.

Education For Sustainable Development

It should include following types of education

(1) **Vocational education**

Vocational education and training programme are vital in order to increase the work force in various fields and to improve skills to meet the demands of the manufacturing, industrial and service sectors as well as to create potential entrepreneurs. Whatever be the mode of providing vocational education and training, the main emphasis should be to provide quality education in terms of knowledge and employable skills. This will enable

a learner to get adequate knowledge and skills (Competencies) so that he/she could enter the world of or self-employment with adequate preparation and confidence.

The introduction of new technologies will necessarily create new types of jobs at different levels. Hence the skills requirements of occupations will change continually in response to technological changes. This will necessitate change in curriculum and training programme in order to make education relevant to new jobs Success of any vocational programme always needs proper mechanism for monitoring, evaluating and up-gradation of vocational courses in the light of emerging technology. A centrally sponsored monitoring body should be set up to oversee the implementation of the vocational education, training and vocationalization at the plus two stage and at the tertiary level.

Role of ICTs for Teaching and Learning in Vocational courses

Technology based learning is transforming the entire concept of education by promoting the development of lifelong learning culture which minimises the hindrances in learning created due to physical distance. The lifelong learning has the ability to empower a learner by providing multiple choices and channels to satisfy their educational needs. TBL may be defined as the array of hardware and software used in the teaching and learning systems that include computer based training systems, multimedia systems, electronic performance support systems, telecommunications systems, as well as the Internet with World Wide Web systems.

(2) Online education

With the fast expansion of computer technology, on-line education is already a reality. While information is increasingly gathered from the internet, a sensitive teacher must extend the student's knowledge through activity-learning or problem- based learning. Knowledge gained through field experience and project work extends beyond acquisition of data, towards an understanding of the wide society. Deeper insight into problems and conflicts is possibly gained through a processing of information gathered, linking its relevance to national issues and wider, global concerns. On line education need not take away from factuality students interaction, but promote standards and access in the process facilitating equivalence of university degrees in a global sense.

(3) Internationalisation of curricula

It is the curricula with an international orientation in content, aimed at preparing students for performing professionally, socially in an international and multicultural context, and designed for domestic students as well as foreign students.

The contributions of an internationalized curriculum to the university are many: enhanced quality, in terms of acquisition of professional skills, strengthening of foreign language learning, expansion of the range of courses, inter-cultural communication skills.

New approaches to student learning integration of faculty and students with overseas qualifications and experience, new knowledge or new perspectives and the full use of the human resources of the university enhanced marketing profile graduates empowered to work in the global context. The Manipal Academy of Higher Education, Manipal and the Birla Institute of Technology and Science, Pilani have already ventured out in this field.

(4) Collaboration

The collaboration has gained momentum due to development of Information Technology. IT has made real time interaction possible. The collaboration may be at Institution level or individual level. it may in any area/aspect of higher education, such as, research, teaching, evaluation curriculum development, instructional material development, etc. Through collaboration, the collaborating institutes or individuals have an access to all facilities available on both sides. This will help in bridging the gap, which exists due to lack of vision, availability of financial resources, etc. This will go a long way in improving the quality of higher education and expending the possibilities of doing creative work. The output will serve the human beings living on this globe.

Programs sponsored by inter governmental organizations and non-governmental organization, like, UNESCO, World Bank are Fulbright Educational Partnership Programme, European Internationalization Programmes.

(5) University-industry linkage

Best practices in this linkage includes internship, On-line Co-op education(Students can have many of the benefits of Co-op education without leaving campus, by working on industry-funded research projects).

Consortiums in and networking of higher education: More and more disciplinary and interdisciplinary consortia need to be created for sharing of resources.

(6) E-learning Competencies

Teachers are essential players, in promoting quality education and no education reform is likely to succeed without the active participation and ownership of teachers. Clearly defined and more imaginative strategies to identify, attract, train and retain good teachers must be put into place.

These strategies should address the new role of teachers in preparing students for an emerging knowledge-based and technology-driven economy. Teachers must be able to understand diversity in learning styles and create stimulating, participatory learning environments.

(7) Sharing of Digital Resources

The interactivity of information resources raises the value of the sharing in the course of interaction. As a result, all the participants will obtain the biggest benefits through the sharing. Through the information sharing, we can exploit and employ the rich information, thereby notably raise the value of information. So sharing of information can add a number of plus points along with narrowing down digital divide and stimulating digital empowerment. Sharing of digital resources can make the educational managers and administrators more effective and self-sufficient.

(8) Networking Educational Institutes with Shared Resources.

There is a need to develop a national network of educational institutes connecting all the educational institutes equipped with appropriate physical infrastructure to facilitate collaboration and sharing of educational resources and the best practices in teaching and learning.

(9) Centre for Excellence in Educational Technologies

Centre for excellence in educational technologies dedicated to research in new methods of teaching can train teachers to be more creative and innovative in their teaching. Teachers empowered by technology create an environment and conditions in which students enjoy leaning and learn to learn. We should stimulate greater innovation in instruction design and teaching methods to accelerate the development of the next generation of learning preparing students to face the challenges of knowledge age. The focus should be on design flexibility for teachers engaging activity for learners. We also need research to map out future directions. This research should reflect how teachers teach and learners learn. As we research and develop more innovative pedagogical methods, we should look for ways to deliver them more effectively through e-learning.Centre for excellence in educational technologies is required to train teachers in information and communication technologies to enable them to utilize e-learning technologies for developing content anchored in instruction design with good pedagogy in creative and innovative ways.

(10) Educational Portals with Accredited, Appropriate, Accessible Content

Educational portals like MIT 'Open Course Ware' with engaging and motivating content in the form of learning modules will be helpful lo teachers for use in their class rooms, educational institutes can share their own online programs with the involvement of students and collaboration with other educational institutes in similar projects.

EMERGING NEED FOR THE CHANGE DIMENSION OF TEACHING: LEARNER CENTRE APPROACH

(a) A new learning paradigm

Recent developments in information and communication technologies are significantly influencing contemporary learning systems. It is recognized that the focus of teaching-learning processes ought to be for maximising student's intelligence and all round development. Learner-centred approaches assume that only when students are active participants learning that take place will be deep, enduring and enjoyable. Moreover, this would then help in transfer of learned concepts and abilities to contexts beyond classroom

Technology has already started to influence to me extend on our traditional campuses. Majority of conventional universities have come forward to teach use of ICT lo their teachers and students and the universities will have ongoing requirements of the latest technology available.

The learner centre approach has given rise to two basic approaches of learning: Collaborative and active learning.

(b) Collaborative learning

The collaborative learning brings learners, teachers, specialist communities and experts together to share ideas and good practice, contributing lo new knowledge and learning Shared resources including online libraries and educational portals help teachers to be more innovative, e-learning offers a wide range of online environments from school, college, home or to learn from other individuals or groups of learners as

well as tutors, and develop the cognitive and social skills of communicating and collaborating. Collaborative learning provides scope for negotiation of meaning, sharing of multiple views and changing the internal representation of the external reality.

(C) Active Learning

Active learning is learning by doing. It is learning through experiencing situations and solving problems, instead of being told the answers by someone else. Active learning enables students to take responsibility for what and how they learn, achieving their personal goals as self-directed learners. Active learning helps in engaging with real world applications of the concepts and deepen understanding to acquire new layers of meaning. This kind of learning provides variety and relevance making learning interesting and engaging. Active learning is defined as "Instructor led, student centered, high involvement, practical learning strategies that can be used to help strengthen any learning environment.

Teacher's Role in the New Paradigm

Teachers as facilitator: Teacher is at the heart of this transformation in learning to facilitate every student to enjoy learning and achieve his/her full potential. The position of the teacher has been elevated and is expected to play a more important role as a facilitator in the development of students.

Content designer: Teachers can access the rich, shareable, learning objects available from a digital repository and customize them to merit the specific requirements of their students depending on the learner and the context by assembling and packaging them in innovative ways.

Teachers as support provider

Teachers should ensure that the networks and equipments are properly installed, operated, updated and maintained. In this job she should be assisted by technical support staff.

Need for Professional development of Teachers

There is need for professional development of teachers to compete in the recent competitive world.

Following are the ways to develop teachers professionally

(a) Skills and competencies

Not only the changes on top level will boost the system, but also, we have to and locate new skills and talents in our knowledge-value teacher. Present Academicians are to be trained for the new requirement, skills, competencies and teaching aids of teaching-learning process. The coming generation teachers need to be:-

(b) A lifelong learners

The rapid pace of technological development forced us to update our knowledge on a continuous basis. Sooner or later, half of what we know about certain tasks will be outdated, and we'll have to rush to catch up. Lifelong learning is the only insurance against being blindsided by the short shelf life of information.

The exponential growth of knowledge is a great reason to make lifelong learning an essential characteristic of today's teachers.

(c) Technological fluency

Teacher need to teach students how to use technology effectively to create documents, locate information, collaborate with remote groups, perform calculations, and make dynamic presentations.

(d) Need for Teachers Training

In order to meet the demand of technological skilled, communicative, lifelong learner teachers, we will be requiring a new way of teachers Training.

The rapidly increasing technological advancement and the exponential growth of knowledge will create the environment of continuous and selective learning. The training given long before the actual Job, will not remain feasible for the practical conditions. The methods taught two or three years back will become outdated and will not be useful for the applicability of real-life situations for another few years.

Regular and updated on-job-training will only be the method suitable in case of world of Mass knowledge and technological advancement. The competent teachers of tomorrow will become stagnant or push back by their colleagues, if they deprive themselves from updated knowledge that is rapidly increasing and improving.

Life skills linkage of knowledge, logical approach, system thinking, experimentation, abstraction and collaboration will get most importance in the future Teachers training, than subject knowledge and educational theories.

Need to focus on research

The task of universities is to continue putting research at the heart of their efforts and to ensure that new knowledge is generated so as to ensure long-term sustainability.

In reality, in Indian universities, the academic performance, in research has become partially marginalized. Research, gets back the backseat and mediocrity has become glorified. Research is a key ingredient in the institutional identity of universities and an indispensable prerequisite for a successful program for teaching and public service. Universities that are weak in research risk the intellectual erosion of their programs of study, lose their critical ability to assess claims to knowledge, and become dependent on the outside supply of knowledge.

TO ENHANCE THE QUALITY OF RESEARCH, INFORMATION TECHNOLOGY SHOULD BE USED BY EACH OF THE UNIVERSITIES IN THE FOLLOWING WAY

(a) Use of IT in research

Internet and Web Dialogues Internet and web dialogues provide the most efficient reach to research scholars in the field. Regional research institute would be the hubs that would provide the nodes and modellers. The research institutions should be facilitators in this regard, and should work for the development of unique means to create and sustain, dialogue forums, web-based surveys, etc.

National and regional conferences with cross regional participation culminating in global digital video conferencing linkups that would feature analysis of salient issues in security studies and research would be optimal responses.

Global Networks journal publishes high quality, peer-reviewed research on global networks, transnational affairs and practices, and their relation to wider theories of globalization. It provides a platform for shaping ideas in this emerging arena.

(b) International co-operation

International cooperation between researchers takes many forms. One of the most basic forms of cooperation is the exchanges that take place at scientific meetings. These meetings provide opportunities for scientists to meet and exchange information.

Another level of cooperation consists of research collaboration between researchers in two or more countries.

(c) International collaboration

Academic collaboration is an intense form of interaction that promotes effective communication and sharing of competence and other kinds of research resources among individuals, institutions and nations. Research usually work for solving day to day socio-economic issues facing society or a nation, therefore in this context, generally, their research is more local and national in nature than international. Therefore a major part of Social Science literature is more relevant and focused towards local and national problems, which may be of little interest to other countries Thus the Social Sciences, have greater national and local orientation. However in the present era of globalization and economic reforms, the focus of social scientists in conducting research is also shifting to international issues. During the last three decades or so international collaborations in social sciences have increased many fold. This has resulted into number of collaborations between national social science organization worldwide, consequently the number of internationally co-authored, social science research papers and reports have also increased.

EFFORTS IN INTERNATIONAL COLLABORATION

SIETAR - the Society for Intercultural Education, Training and Research is the world's largest interdisciplinary *network*

The Society for Intercultural Education, Training and Research is the world's largest interdisciplinary network for professionals and students working in the field of intercultural relations.

The primary purpose of SIETAR is to encourage the development and application of values, knowledge and skills that promote and reinforce beneficial and long-lasting intercultural relations at the individual, group, organization, and community levels.

THE FUTURE OF ICT IN HIGHER EDUCATION

Higher education and technology are both at inflection points which will lead to potentially massive changes in the coming years and decades. The industry of higher education is under increasing pressure to reduce costs and develop fully prepared graduates to enter the workforce. State and Central governments are scrutinizing higher education critically. Venture capitalists and corporations are looking for new and profitable opportunities. Colleges and universities are facing new competition and accountabilities.

Assisting in the growth of ICT learning in the country, several brands are ensuring to create options for educational institutions. Recognising the importance of digital literacy in rural India, in 2013 Samsung India launched a Smart Class initiative in collaboration with Navodaya Vidyalaya Samiti. The initiative is available across 500 Jawahar Navodaya Vidyalaya Schools, benefitting over 2.5 lakh students. The brand has imparted training to over 8,000 teachers on interacting technology. Various initiatives have been taken by the Government of India for boosting the use of ICT in Education education sector. All e-resources are made available through e-pathshala. Rashtriya Avishkar Abhiyan aims at nurturing the spirit of enquiry and creativity in young learners. To achieve complete digitisation and smart education, the Ministry of Human Development has initiated several new initiatives.

THE FUTURE OF ICT IN HIGHER EDUCATION WILL BE SHAPED BY THE DEGREE TO WHICH HIGHER EDUCATION INSTITUTIONS CAN GRAB THE IMMENSE TECHNOLOGICAL OPPORTUNITIES LISTED OUT BELOW

- Adopt new sourcing options and management practices to simplify management of commodity IT infrastructure, platforms, applications, and services and to increase their agility and ability to innovate.

- Embrace mobile technologies and deliver applications and experiences as engaging and effective as consumer providers'.

- Apply analytics to improve student success and institutional productivity and efficiency.

- Enhance and expand research computing and digital scholarship technologies and services to remain competitive in a global marketplace.

- Use technology to improve pedagogy and develop entirely new forms of teaching and learning that can educate diverse students cost effectively, at massive scale and distance, and innovatively use technology to enter new marketplaces and support new business models.

- Determine how to leverage the Internet of Things as effectively as other industries will protect data security and individuals' privacy without impeding academic openness and collaboration

- Prepare and engage faculty to espouse and adopt, rather than resist and impede, the present and coming changes

CHALLENGES THIS PROJECT SHOULD ADDRESS

- Accelerating higher education's ability to innovate with and adopt technology rapidly and effectively

- Helping higher education use technology to reduce costs

- Developing analytics capabilities and models at scale to improve institutional and individual decision-making and success

- Using technology to transform pedagogy and learning and to make it more affordable and accessible

- Defining and describing technology's role in enabling new models of collaboration and competition in an international age

- Predicting the biggest and most likely opportunities and risks that technology can contribute to and identifying the technologies most likely to be of use.

CONCLUSION

Technology has brought in major changes in the way education is imparted. Teaching and learning process has evolved from being a one-sided activity to an active process involving exchange of ideas. Indulgence of various creative tools and techniques has made the process a collaborative initiative. Students in today's classrooms are encouraged to participate actively in the learning process and become active producers of ideas and thoughts. "The students are equipped with the correct knowledge, skill and attitude to take full advantage of all the new opportunities that will be available for them in future. Though ICT holds the potential to transform the education system of a country to a great extent, its implementation in terms of developing countries remains a challenge to an extent. Even though the training of teachers for the use of ever evolving technologies, upgrading their skills continuously and keeping them abreast of the latest developments and best practices is a herculean task, still the challenges can be met by making the colleges well equipped with latest hardware and software facilities.

REFERENCES

- Garg,S. and Gupta, S Interface between Education and Emerging New Technologies: Retrospect and Prospect. University news, Vol. 46, no. 38, September, 2008.

- Kishore. S. Globalisation, Skill development and Distance Learning. University news, Vol. 41, no. 15, April, 2003.

- Kumari Sarita, Increasing Role of Technology in Education, Isha Books, New Delhi, 2004.

- Mary,S and Seetharam, S. Global Challenges and National Response. University news, Vol. 43, no. 33, August, 2006.

- Pal.S. Digital Divide in brief. IOSR Journal of Computer Engineering (IOSR-JCE) ,Volume 19, Issue 4, Ver. V. Jul.-Aug. 2017.

- Panda.I, Chatar.D, Mharana.B.

- Sharma R.S. and Chandra S.S., Advanced Educational Technology, Atlantic Publishers and Distributers, New Delhi, 2004.

- www.iosrjournals.org/iosr-jbm/papers/Conf.ADMIFMS1808...1/13.%2086-91.pdf

- https://www.researchgate.net/.../271834985_ICT_in_Higher_Education_in_India_Issu...

- https://digitallearning.eletsonline.com/2017/11/ict-defining-the-role-of-future-education-in-india/

- http://archive.iite.unesco.org/files/news/639201/Ms_Susan_GRAJEK.pdf

A STUDY ON CUSTOMER ENRICHMENT BY BANK-FINTECH COLLABORATION

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ABSTRACT
Digitalization has enriched customer experience by providing quick and effective services. Today customer delight and digital trust are two factors which will drive the financial services. According to PwC's Consumer Intelligence Series Report (Bot.Me), it is found that 42% consumers, 72% business executives and 53% of millennial using digital assistants and comfortable. Traditional Banks and Fin-tech Institutions have realized after economic and technological disruption that there is win–win situation if strengths of both institutions are collaborated, share best practices, and innovate. Relaxation of entry barriers has encouraged new players to innovate and gain ground in the banking services.

Disruptive technologies have created new experiences for businesses and consumers. Banks have upgraded their technology services by collaborating with fin-tech firms to offer innovative chatbot services using Artificial Intelligence. Collaboration provides access to global information & transmission, high level decision making, reduction of cost in acquiring resources and organizational management opening vast opportunities creating win-win opportunities for Banks and Fin-tech. The study will evaluate effectiveness of digitalization and satisfaction level of customers using chatbots services enriching customer's experience leading to efficient services and effective businesses through innovation and collaboration.

Keywords: & Artificial Intelligence, Chatbots, Customer Enrichment, Digitization &Disruption

INTRODUCTION
Customer experience improves significantly by simplifying customer access, providing them right products through successful market campaigns. CRM and E-Commerce technologies go hand in hand in enriching customer experience. Customer engagements with artificial intelligence devices like Alexa, and chatbots have already gained significant positive response.

Digitalization has enriched customer experience by providing quick and effective services. Today customer delight and digital trust are two factors which will drive the financial services. According to PwC's Consumer Intelligence Series Report (Bot.Me), It is found that 42% consumers, 72% business executives and 53% of millennial using digital assistants and comfortable. According to Nasi Jazayeri, executive vice president of Community Cloud at Sales force, based in San Francisco, as companies are becoming more mobile, social and connected, it is critical that anyone can instantly access the information they need and attach to an opportunity, a marketing campaign creating a frictionless experience for users. New form of customer engagement chatbots are perceived as customer delight, they meet needs of the modern customer emotionally through AI. Virtual Personal Assistants have become key channels for customer problem-solving and customer engagement.

STATEMENT OF THE PROBLEM
Banking sector has been going through a major transformation using FinTech technology to make easy and fast delivery of financial services by use of smartphones and internet. Today's customers are more demanding and tech savvy. Each customer is expecting a unique experience from banking. Digitalization and financial inclusion has helped in transformation of banking services technologically. Banks have made lot of investment in customer engagement services to improve quality and provide higher level of satisfaction. The study will evaluate effectiveness of digitalization and satisfaction level of customers using chatbots services enriching customer's experience leading to efficient services and effective businesses through innovation and collaboration.

OBJECTIVES OF THE STUDY
1. To understand impact of contribution of fintech services on banking sector.

2. To evaluate effectiveness of digitalization and satisfaction level of customers.

HYPOTHESIS OF THE STUDY
H_1: There is significant impact of using digital interface on customer satisfaction level.

H_0: There is no significant impact of using digital interface on customer satisfaction level.

RESEARCH METHODOLOGY

The study was based on Secondary and Primary data. The Secondary data has been collected from various articles and research reports on digitalization, artificial intelligence and customer enrichment. The Primary data has been collected from the bank customers (Mumbai Metropolitan region by using structured questionnaire (Mumbai Metropolitan region) using various digital interface for banking transactions.

Sample size: 183 respondents

Sample design

The researcher collected data from bank customers using various digital interface for conducting banking transactions (Mumbai Metropolitan region). After collecting 225 questionnaires filled by various respondents, 183 questionnaires were used for further analysis.

TOOLS USED FOR THE STUDY

Simple statistical tools percentages and mean are used for data interpretation and analysis.

REVIEW OF LITERATURE

Dr. Penumarthi Veera Venkat Satyanarayana (2012) had explained banker and customer relationship in his study and focused on the importance of customer relationship in the banking sector. He also discussed very crucial points of service sectors that is People., Process, Physical evidence to impress upon the customer and build relationship through these three P's.

Brett king (May 2014) had given various breaking banks parameters like the Innovators, Rogues, and Strategists Rebooting banking. He also discussed the collection of interviews of fintech entrepreneurs, experts and disruptor from all over the world .He also described various topics such as Bitcoin, peer-to-peer lending, social media and the new emerging banking business strategies for survival in front of fintech start-ups.

Anton Kreitstshten (2017) discussed the three kinds of digital transformation. This model describes digital awareness and core banking services, collaboration between banks and FinTech's (customer centric service and digital banking), and currently emerging competencies such as digital branding, agile management and employee learning. The study explained an industrial back-end IT architecture, growing numbers of consolidation and regulatory environment, increasing importance of demanding customer and value proposition are the key competitive advantages of digital transformation.

S.M. Jha (2013) introduced bank marketing, class banking to mass banking and from mass banking to core banking. He discussed the usage of ICT has virtually changed the customer base by multiple delivery channels like ATM, internet banking, phone banking, mobile banking, e-banking etc. He also found that the new generation of private banks & foreign banks have played a decisive role in the development of e-banking in the Indian perspective.

Capgemini (2017) studied on top ten trends in banking sector due to digitalisation and advent of technology. They suggested banking sector for collaboration with fintech firm and start to use open API to provide customer various services. They also analysed that banks should invest in cyber security. They further suggested for adoption for public cloud services to deliver enhanced customers services, distributed ledger technology, cognitive banking, investment in robotic process automation and utilization of biometric Authentication tools.

DATA ANALYSIS AND INTERPRETATION

The data collected from primary sources is presented, analysed and interpreted with reference to the hypothesis of the study. It has findings based on simple statistical tools and hypothesis testing.

DEMOGRAPHIC DISTRIBUTION OF RESPONDENTS
GENDER-WISE DISTRIBUTION OF RESPONDENTS

The distribution of respondents according to gender is 98 Males and 85 Females. Majority of the respondents were Males (53.5%)

Table-1: Gender-wise distribution of Respondents

Gender	Frequency	Valid Percent
Male	98	53.5
Female	85	46.5
Total	183	100.0
Sources: Compiled from Primary Data		

AGE AND GENDER WISE DISTRIBUTION OF RESPONDENTS

The respondents belonged to various age groups. Majority of respondents belonged to age group 26 to 40. It was also found number of female respondents (68%) is more than male respondents.

Table-2: Age and Gender wise distribution of respondents

Age Groups	Gender		Percentage	
	Male	**Female**	**Male**	**Female**
Less than 25	21	12	21	14
26 to 40	52	58	54	68
41 to 60	15	10	15	12
More than 60	10	05	10	6
Total	98	85	100	100
Source: Compiled from Primary data				

EDUCATION OF THE RESPONDENTS

Respondents are classified in three groups according to their educational qualifications. It has been seen male respondents are greater than female in post graduate and graduate level. Majority of respondents are graduate in this study.

Table-3: Education-wise and Gender-wise distribution of Respondents

Education	Gender		
	Male	**Female**	**Total**
Under graduate	19	15	92
Post graduate	29	25	145
Graduate	50	45	216
Total	98	85	183
Sources: Compiled from Primary Data			

PROFESSION OF RESPONDENTS

It has been found that majority of respondents are from salaried group. Respondents from others and self-employed group are less than salaried group who are using banking services.

Table-4: Profession-wise and Gender-wise distribution of Respondents

Profession	Gender		
	Male	**Female**	**Total**
Self employed	47	50	97
Others	31	75	106
Salaried	55	58	113
Total	98	85	183
Sources: Compiled from Primary Data			

Following data analysis and interpretations are presented in relation to significant impact of using digital interface on customer satisfaction level.

GENDER-WISE DISTRIBUTION OF RESPONDENTS WITH BANKING SERVICES UTILIZATION

Majority of respondents are using banking services for saving and investment purpose. Majority of respondents are from category- aware about some of the services It was also found Paytm was preferred channel for day-today transactions at personal levels.

Table-5: Gender-wise distribution of Respondents

Services Used For	Gender		
	Male	**Female**	**Total**
Day to day business transactions	24	25	49
Income and Expenses	25	20	45
Savings and Investment	49	45	94
Total	98	85	183
Sources: Compiled from Primary Data			

PREFERENCE OF RESPONDENTS FOR USING BANKING SERVICES

70 % of total respondents preferred Web Based Services offered by Banking Company whereas 15 % of total respondents preferred Application run by FinTech (Non-Bank service provider) and Collaborative Services offered by Banking and FinTech Company.

Table-6: Preference of Respondents for using banking services

Options/Preferences	Frequency	Percentage
Web Based Services offered by Banking Company	128	70
FinTech (Non-Bank service provider)	27	15
Collaborative Services offered by Banking and FinTech Company	28	15
Total	183	100
Sources: Compiled from Primary Data		

FINTECH APPLICATION OR BANKING SERVICES USED BY THE RESPONDENTS

Majority of the respondents use digital interface for Ticket Booking and Bill Payment service.

Table-7: Application or Banking Services by the Respondents

Services Used	Gender		
	Male	Female	Total
Merchant payment	5	4	9
Other Ancillary Payment/Financial Services	3	2	5
Transferring Money to other party	22	09	31
Ticket Bookings	25	33	58
Bill Payment	25	32	57
Total	98	85	183
Source: Compiled from Primary Data			

SATISFACTION OF RESPONDENTS ON INNOVATIVE SERVICES PROVIDED BY BANK USING DIGITAL INTERFACE

66 % of respondents are satisfied with Information about new / change in services are easily accessible and quick service (66%= sum of highly agree + satisfied). Similarly, level of satisfaction of respondents is 60% on Information related to Banking transactions, quick services, low cost whereas 29 % of respondents have neutral satisfaction for support to solve mistake of customers ,practical demos arrange for using new application and digital trust. It was found that utmost care to be taken while performing transactions on digital interface.

Table-8: Satisfaction of Respondents on innovative using digital Interface. (HUS: Highly Unsatisfied, US: Unsatisfied, N: Neutral, S: Satisfied, HS: Highly Satisfied)

Level of Satisfaction Factors	HUS	US	N	S	HS	Total	% S
Quality of Services	10	23	35	58	57	183	58.31
Digital Trust	11	52	40	30	50	183	30.27
Low cost	12	21	44	55	51	183	55.27
Proper functioning of web pages and applications	8	25	45	60	45	183	60.24
Accurate and updated information provided	8	20	47	50	58	183	60.26
Availability of Information related to Banking transactions	8	12	45	61	57	183	61.31
Quick Service	9	17	46	66	45	183	66.24
Security measures and precautions against network failure/frauds	10	40	57	42	34	183	42.18
Demonstration for using all features	12	31	43	29	68	183	29.37
Effectiveness of complaint redress cell	10	22	32	54	65	183	54.35
Customer Support	8	16	45	46	68	183	46.37
Customer Education	8	15	58	47	55	183	47.3

HYPOTHESIS TESTING

The mean score of satisfied banking customers using digital interface is 58.25%, hence null hypothesis is rejected. The score suggests that customers using digital interface are moderately satisfied.

CONCLUSIONS

Rapid adoption of technology by consumers is changing their needs and interaction with banks. The challenging business strategies in the financial services forced bank to find alternate delivery channel to attract customers & improve customer's perception towards services. Digital era customers want fast qualitative technology based innovative services for easy and low-cost transaction by banks. Digitalization and Fintech are playing significant role in banking services by bringing banks to the customer with almost all services relating to banks and third parties.100% services will be utilized when digital trust is ensured by the fintech companies.

REFERENCES

1. Dr. T. Satya Narayana Chary & R. Ramesh (2012) Customer Relationship Management in Banking Sector-A Comparative Study, KKIMRC International Journal of Research in Human Resources Management, Vol-1, No-2 Dec-Feb 2011-2012 - ISSN: 2277 -1190

2. Brett king, A Survival Manual for Banks: The Bank Innovation Book Review of Brett King's 'Bank 3.0, Kindle Edition April 2013

3. Brett king, Breaking Banks: The Innovators, Rogues, and Strategists Rebooting Banking, Kindle Edition May 2014

4. Anton Kreitstshten, Digital Transformation and its effect on Competency framework, a case study of digital banking,2017

5. S.M. Jha, Services Marketing, Himalaya Publishing House, 2013

WEB RESOURCES

1. World Fintech Report Capgemini, https://www.capgemini.com/wp-content/uploads/2018/02/world-fintech-report-wftr-2018.pdf

2. https://www.theseus.fi/bitstream/handle/10024/122409/Kreitstshtein_Anton.pdf?sequence=1

3. https://www.digitalistmag.com/cio-knowledge/2017/03/27/banking-it-leaders-drive-digital-transformation-with-internal-partners-fintech-collaboration-04978129

4. https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/WGFR68AA1890D7334D8F8F72CC2399A27F4A.PDF

5. https://techcircle.vccircle.com/2018/11/23/how-indian-banks-are-using-emerging-tech-to-do-more-than-just-acquire-customers/

6. Decade edition of CII Banking TECH Summit 2016 I Fintech: Redefining banking for customers

7. www.hindubusinessline.com

8. www.digitalindiainsight.com

9. Source: PwC's Bot.Me: A revolutionary partnership report 2017

10. www.googlescholar

DEMONETIZATION –STRATEGIC MOVE BY INDIAN GOVERNMENT & ITS IMPACT ON ECONOMY

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ABSTRACT
India, the 4th largest economy in world and fastest growing country has gone through various corruption and scandals in last 10 years from 2004 -2014. This has led to negative impact specially inviting foreign investment and India's brand image in world. In order to put the break on the corruption and drive the economy towards to Cashless transaction, the demonetization was major and strategic move taken by ruling Indian government which has been termed as greatest financial reform that aimed to curb the corruption, black money and circulation of fake currency notes funding to criminal and terrorist activities. The proposed paper aims to insight of this strategic move taken by Indian government, understanding how its benefited country and also negative impact on Indian economy. The researcher also analyzed citizen's opinion on demonetization by using different statistical tools through primary as well as secondary method of data collection.

Keywords: Demonetization, Inflation, Positive impact, Indian economy, corruption, survey.

BACKGROUND AND KEY FACTS OF DEMONETIZATION
The Indian government had demonetized bank notes on two prior occasions once in 1946 and once in 1978. The objective was to stop tax evasion and to accumulate the black money held outside formal economic system. As a first step before demonetization announcement made in November 2016 the government had–

- Urged people to create the bank account under the Jan Dhan Yojna. The purpose of this scheme is to take out money which is accumulated public's personal custody and bring it within ambit of formal economic system.

- Government has also initiated tax declaration schemes and given timelines to declare the income by 30th Oct. This was the opportunity given by Indian government to bring black money into formal economic system by paying 30% tax.

In spite of above two initiatives taken by Indian government there were people who hoarded money and finally as drastic step to recover such funds government announced demonetization of 500 and 1000 currency notes.

ANALYSIS OF IMPACT OF DEMONETIZATION ON INDIAN ECONOMY
The demonetization was sudden move taken by Indian government and country faced severe cash shortages due to uninformed move taken. This move was appreciated by some of the economist while there has been also criticism invited due to cost of printing currency and inefficiency in managing this move.

MERITS OF DEMONETIZATION
- Demonetization has been termed as great strategic move to curb the black money, corruption and malpractices.

- It has formalized the cash transaction due to increased electronic transaction such as NEFT, IMPS, Debit and Credit cards.

- It helped government to track the black money and unaccounted cash will be coming into formal economic system.

- Demonetization has actually played vital role in curbing circulation of fake currency of 500 and 1000 which has been used to fund terrorist activities. This has curbed the terrorist activities in India.

- Government given option of depositing the unaccounted cash to Pradhan Mantri Jan Dhan Yojna with 50% tax deduction. The money deposited had blocking period of 4 years which was utilized for social welfare and development projects of country.

- Demonetization has helped to control inflation to a great extent. Demonetization has actually curbed black money and funds which was hoarded in personal custody of people. This had left with limited funds in hands of majority of people impacting their purchasing power.

- Real estate prices have come down drastically as it was one of the sectors which had large circulation of black money. Due to direct impact on purchasing power of people the real estate sector got impacted leading to cut in prices.

- Awareness among people for banking transactions. Though India is one of the largest economies but more than 60% of population did not have bank accounts. Demonetization has actually helped connect people with banking sector and enter into Cashless transactions method. This is one of the great achievements of country in last 70 years of independence. Approx. 20 Crore new bank accounts got opened. This was highly appreciated by economist community groups and world class financial experts.

GRAPHICAL SNAPSHOT OF NUMBERS REFLECTING WHICH CAUSED POSITIVE IMPACT ON ECONOMY – INFLATION RATE
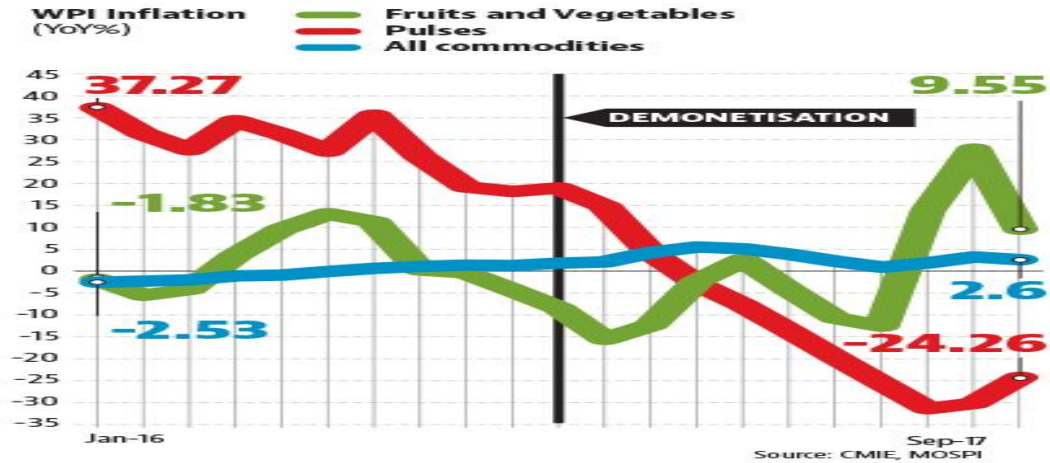
INCREASE IN CASHLESS TRANSACTIONS
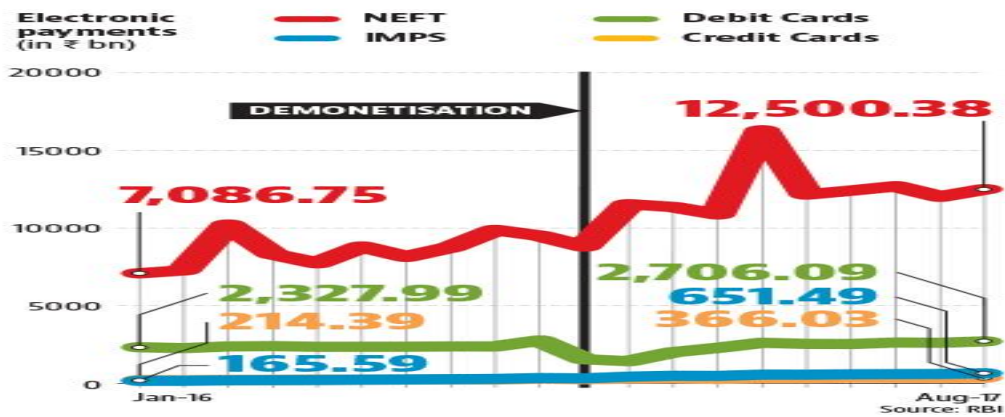
INCREASE IN MOBILE WALLET TRANSACTION
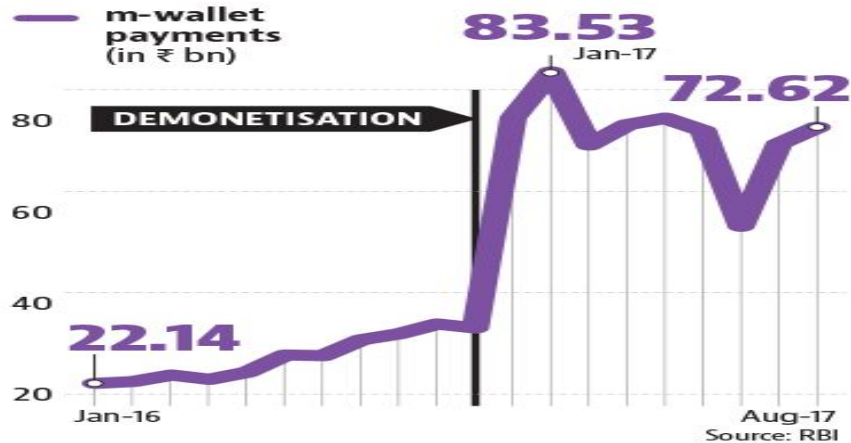
DEMERITS OF DEMONETIZATION

- Impact on Agricultural sector – India's agriculture sector which runs mainly on cash transactions to buy seeds, fertilizers, pesticides, incurring day to day expenses for agriculture activities was badly impacted. Due to demonetization this has left farmers incomplete crop related activities.

- Inefficiency of government in managing demonetization initiative: The inefficiency of government to supply new printed currencies, arrangements to collect the exchange the currencies were highly criticized. Due to inadequate arrangements the farming sector and daily wage earners were impacted heavily.

- High cost of printing 2000 currency notes: The cost of printing 2000 currency notes was very high which resulted huge expenditure by government.

- Economic growth slows down – The Indian economy growth reduced from 9.1% in 2016 to 5.7% in 2017 which was criticized by many of the economist.

Below is the graphical representation of data shared by Bloomberg.
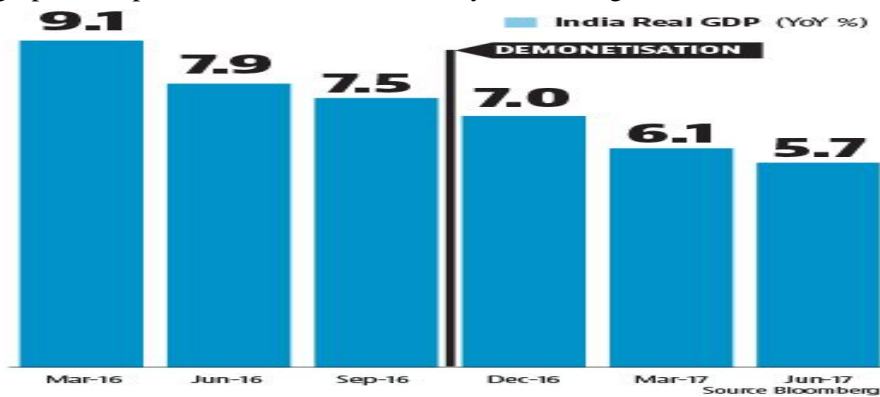
			Survey Result of Demonetization:			
Question No.	Survey Questions	Public Responds (in percentage)				
		Yes	NO	Can't say		
1	Did demonetization help to drive the economy from cash to cashless?	70%	25%	5%		
2	Did demonetization played role in controlling corruption?	65%	32%	3%		
3	Did demonetization increase the tax base in the economy?	82%	16%	2%		
4	Did demonetization helps to create awareness about banking sector among population?	90%	9%	1%		
5	Did demonetization play crucial role in controlling inflation?	60%	38%	2%		

According to the survey reports, it is observed that most of the respondents agreed that demonetization

helps to drive the economy from cash to cashless. It played a vital role in controlling the corruption in the country. Demonetization created the awareness about the banking sector and also it promotes the role of banking sector in the society. 60% of the respondents agreed that demonetization controls the inflation rate. But it is also found in the study that demonetization increases the tax base in the economy and it affects the middle class people and businessmen

Graph-1

Graph 2

Demonetization controls corruption

- Yes 65
- No 32
- Can't say 3

Graph 3

Demonetization increases the tax base

- Yes 82
- No 16
- Can't say 2

Graph 4

Demonetization creates awareness about Banking Sector

- Yes 90
- No 9
- Can't say 1

Graph 5

Demonetization controls inflation

- Yes 60
- No 38
- Can't say 2
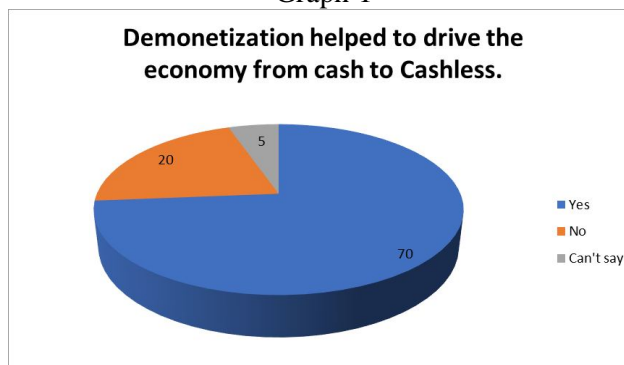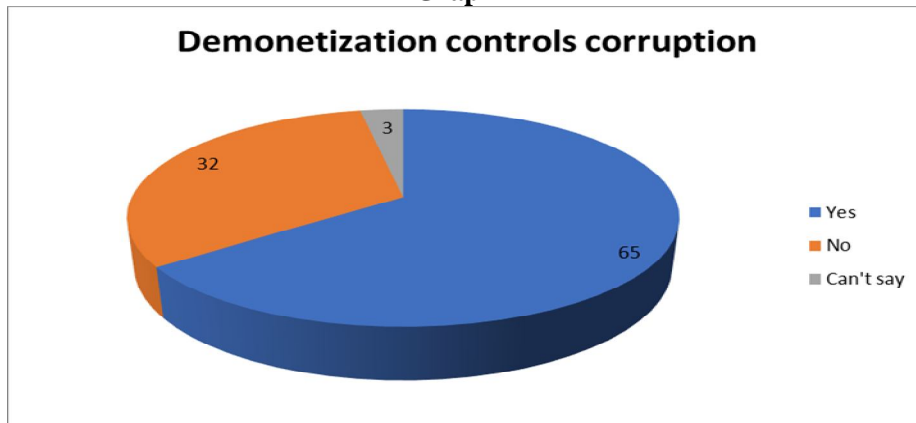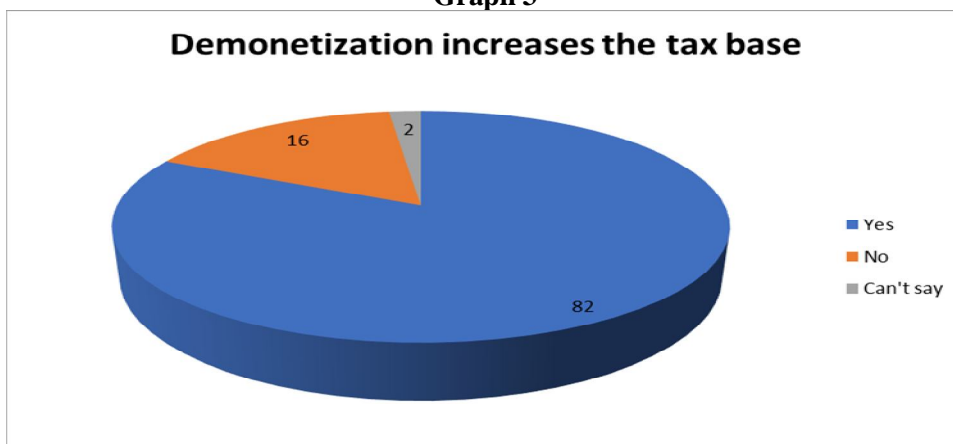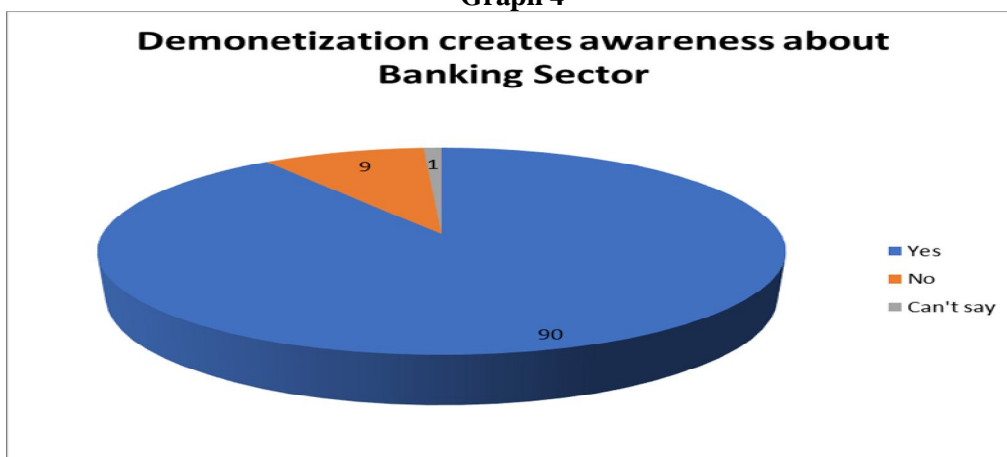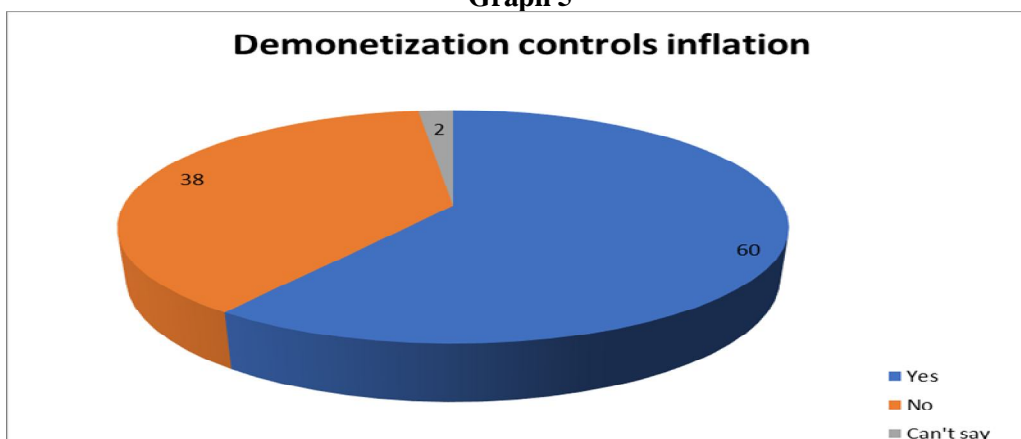
CONCLUSION

Demonetization is big strategic move taken by Indian Government and it was highly appreciated by majority of people across all fields. This has actually helped to control inflation, corruption and created awareness for cashless transactions. We all talk about digitization and technology but in spite of that majority of transaction were happening on cash basis. Demonetization acted as driving factor for setting up trend from Cash to Cashless transaction. There has been radical improvement among all classes in a tendency to go Cashless.

Survey Results- Based on the survey conducted 73% of population were in favor of demonetization and appreciated the move taken by Indian government which has set up trend to go cashless for Indian economy.

REFERENCES

1. CMIE, 2. (2017, July 11). centre for monitoring Indian economy pvt. Ltd. Retrieved November 2 8,2017, from https://www.cmie.com/kommon/bin/sr.php?kall=warticle&dt=2017-07-11%2011:07:31&msec=463

2. Dec., M. a. (2017, D

3. CMIE, 2. (2017, July 11). Centre for monitoring Indian economy pvt. Ltd. Retrieved November 28, 2017, from https://www.cmie.com/kommon/bin/sr.php?kall=warticle&dt=2017-07-11%2011:07:31&msec=463

4. Shailey Gupta, m. j. (2017). Impact of Demonetization on E-business: A step towards cashless India. International conference on Paradigm shift in World economies: opportunities and Challenges-2017 (pp. 42-46). Delhi: Enriched Publications Pvt. Ltd.

5. Vandana Munjal, A. Y. (2017). Movement towards cashless economy: Pre and Post Demonetization. International conference on Paradigm Shift in World Economies: Opportunities and Challenges (pp. 13-28). Delhi: Enriched Publications Pvt. Ltd.

6. Tamal bandopadyay. From Lehman to Demonetization, Published in 2017

7. Meera Sanyal. The big reverse: How demonetization knocked India out, Published in 2

8. Ajit Kumar Roy: Facts and figures of demonetization in India – Views, Reactions and Impact Published in 2017

9. Niranjan Sahoo & Sarika R Lohana : Demonetization, Digital India & governance published in 2017

10. C. Rammanohar Reddy: Demonetization and black money: published in 2017

COMPARATIVE FINANCIAL STUDY OF TELECOMMUNICATION COMPANIES

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ABSTRACT
Telecommunication is vital tool for every business concerns. It helps companies to provide quality services to the customers as well as employees by ensuring flexible working hours and location advantage even to the remote areasof the country. Telecommunication has also provided cost benefit approach linked with various transactions like in education, hospitals, retailing, government etc.

The telecommunication Companies in India and in foreign countries are on the ever rising growth trend and continous growth in this sector over the last decade. The telecommunication industry in India is one of the tools for connection for different industries in the world and has also developed the second largest communication network.

Keywords: Telecommunication companies, services, connections, accounting.

INTRODUCTION
Telecommunication has become basic need for every individual in the society, by allowing efficient communication as like in business sector, government sector, and in various families of the society. Quality of communication has always led to growth and improvement in living of people in the country.

Telecommunication helps general public in understanding different communities at the different location of the world. It also helps to improve reach ability of communication across the world and in every corner of the world. With the help of mobile communication, wifi-connection, broad band connection etc.

Telecommunication has also contributed for increase of earnings for various corporate or business organisations by allowing international and local business opportunities.

OBJECTIVES OF STUDY
1. To study basis of financial statement preparation
2. To study the revenue earning streams of telecom company
3.   To study investment performance with reference to their returns
4. To study service maintenance of the telecom companies

SCOPE OF STUDY
1. India has currently achieved 1.17 billion subscribers with telecommunications market
2. The government has planned for easy market access for telecom customers at affordable price
3. The telecom industry has achieved foreign direct investment (FDI) worth US$31.75 billion as per data released by department of industrial policy and promotion (DIPP)
4. The FDI cap has increased from 74 percent to 100 percent
5. Telecommunication department had launched 'Tarang Sanchar' – a web portal sharing information on mobile towers and emission compliances.
6. In present scenario India is currently the 2nd largest telecommunication market and has the 3rd highest number of internet users in the world

LIMITATIONS OF THE STUDY
There are many telecommunications companies and two of them we have selected for study like bharti airtel, vodafone, reliance,etc.

TOOLS OF STUDY
In this research study tools used are ratio analysis of telecommunications companies

BASIS OF FINANCIAL STATEMENT PREPARATION
1. **Accounting convention-**
    The telecom companies adopt the practice of preparing financial statements at historical cost basis, i.e based on previous year's annual statements and presented in consolidate manner.

2. **Property, plant and equipment-**
   The telecom companies treat their assets like property, land and buildings at cost less accumulated depreciation and also some of the assets are present at their impairment as per policies of the firm.

3. **Land and buildings -**
   In telecom companies balance sheet land and buildings are shown as per the their impairment done and if any under construction land has to be presented it has to be shown at cost, almost every land and building has to be at less depreciation if any or at impairment value as per norms.

4. **Depreciation -**
   Depreciation is shown in profit and loss as per deduction on assets charged, depending on useful life of assets annually.

5. **Intangible assets**
   Intangible assets with an indefinite useful life
   Goodwill is initially recognized at cost and subsequently stated at cost less accumulated impairment losses, if any. Goodwill is not amortized, but is tested for revaluation on an annual basis.

   Intangible assets with finite useful lives

   Intangible assets with finite useful lives are stated at cost, less accumulated amortization and accumulated valued losses, if any. Amortization is recognized in profit or loss on a straight-line basis over the estimated useful life

   The Group's intangible assets with finite useful lives are as follows:

- Licences;

- Trademarks, patents and other;

- Customer bases; and

- Computer software.

6. **Taxation Policy-**
   Telecom companies tax payment policies depends on the net taxable profits earned and charged 18% of GST on mobile communication, internet connection, wifi-connections etc.

7. **Revenue recognition-**
   Telecom industry considers the revenue on account of services provided as per terms and conditions of the contract, whereas revenue from the connections are as per usage limit and for particular time period. Such industry also has data services revenue by providing valuable information services to the customers as and when required.

8. **Expenses**
   Expenses are recognized as they are incurred. Prepaid expenses are deferred and recognized in periods to which they relate.

ANALYSIS OF DATA-

Ratio Analysis	Bharti Airtel %	Vodafone %	Change %
Liquidity Ratio			
Current Ratio	0.36	0.40	0.04
Quick Ratio	0.50	0.44	0.06
Profitability Ratio			
Gross Profit	38.69	-9.59	29.1
Net profit	2.60	-17.17	14.57
Return on Assets	0.6	-	Nil
Turnover Ratio			
Debtors Turnover Ratio	15.55	25.69	10.14
Assets Turnover Ratio	0.31	0.35	0.04
Debt Equity Ratio	126.78	2.09	124.69
Valuation Ratio			
Earning to sales	319.03	-10.97	308.06
Price to sales	1.53	-	Nil

Source – Investing .com / Money Control 2019

INTERPRETATION OF ABOVE TABLE

1. Above table highlight the ratio analysis of income statement and balance sheet statement of bharti airtel and Vodafone telecom companies as on 31.3.2018

2. The liquidity ratio shows difference of 0.04% as of current assets and 0.06% of liquid assets i.e. Vodafone Company has positive growth change in terms of liquidity status

3. The profitability ratio shows relation of profit in terms of sales in the above table Vodafone has negative impact on the gross profit and net profit earnings i.e 29.1% &14.57% as comparaed to bharti airtel in terms of profitability

4. The Turnover ratio shows the time lag between recovery of debtors and assets impairment as such bharti airtel show slightly slow recovery trend of debtors and assets as compared to Vodafone turnover ratio analysis

5. The Debt Equity ratio of both the companies shows large differences as such bharti airtel is highly geared with debt capital in comparision with Vodafone is comparatively very low geared with equity capital showing differences of 124.69%

6. The Valuation ratio of bharti airtel shows positive changes as such price of shares is valued approximately 300 rs more than Vodafone revealing very good valuation of shares

CONCLUSIONS

1. Now a day's 4G telecom companies had been connecting 400 LTE across the different location specially focus is on remote areas with the help of satellite network.

2. Government also had introduced various programmes in support to telecom companies like Digital India to cope up with utilization in healthcare, government sector and many more areas are covered.

3. Vodafone company had launched VOLTE (HD voice calling services over 4G LTE) with collaboration with BSNL Company and ultimately ensuring quality of services.

4. Government of India has supported 100 smart cities projects with the help of different telecom companies.

5. Department of information technology has achieved set up of over 1 million internet subscribers as per report of national e-governance plan.

BIBLIOGRAPHY

1. Telecom Regulatory Authority of India, 2006, "Study Paper on Financial analysis of Telecom Industry of China and India", Press Release No59/2006

2. Dr. A Manorselvi (2015) "An Empirical Investigation on Work Life Balance among Telecom Employees: Emerging HRM Interventions with reference to Nokia Siemens Networks & Ericson Telecommunications" International Journal of Science & Research, Vol-4 pagenos.234-243.

3. In John D.H. Downing, Denis McQuail, Philip Schlesinger and Helen Wartella (eds), The Sage Handbook of Media Studies, London: Sage Publications, pp. 144–63.

4. Government of India. (2017). Broadband Policy. New Delhi: Ministry of Communications and Information Technology, Department of Telecommunications.

5. Chattopadhyay, U. (2013), "Making India a Telecom Manufacturing Hub: Emerging Issues and Challenges", World Academy of Science, Engineering and Technology 75. Chaudhary, I. S., S. Malik and 6. Q. Abbas (2009). "Socio- Economic Impact of Cellular Phones Growth in Pakistan: an Empirical Analysis", Pakistan Journal of Social Sciences, Vol. 29, No. 1, June, pp. 23-37.

7. Chhaya, L. K. (2012). "Legislative and Regulatory Issues and Prospects in Indian Telecom Sector", IUP Journal of Telecommunication

IMPACT OF DIGITAL LEARNING ON CHILDREN

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ABSTRACT
Digital Technology has played a major role in the field of education. E-Learning is the concept included in the Digital Technology. E-Learning is a process of learning services and technology to provide quality of education. To meet the demands of our global economy, there must be a concept of e-learning in child education. In this paper, an overview of interaction through e-learning for children, combining traditional learning with e-learning for developing skills and services to children in Rahanal for modern education.

Keywords: Digital Technology, E-Learning, RDBMS, EDMS, E-learning tutor.

INTRODUCTION
Digital Technology is the use of computer and Technology assisted strategies to support learning within Schools. Technology for students, where learners use programs or applications designed for problem solving or open-ended learning [11], technology for teachers, such as interactive whiteboard or learning platforms. Digital Technology has changed the learning process of childhood up to the real world. E-learning is the concept included in the Digital Technology [1].

TRADITIONAL LEARNING
Traditional learning is a learning under classroom, viewed as a teacher center and static.

The teacher conducts the lessons according to the study program. The components of traditional learning include blackboard, books, teacher and students [2].

DRAWBACKS OF TRADITIONAL LEARNING
- In traditional classroom, students are made to sit passively while the teacher delivers a lecture.
- The students focus on taking notes rather than understanding and absorbing new concept.
- Teacher delivers a fixed number of concepts within a limited time.

To minimize drawbacks of Traditional Learning, introducing a E-Learning concept.

E-LEARNING
E-Learning is Internet-enabled learning, to provide a comprehensive understanding.

E-Learning is defined as a new education concept by using the Internet technology. It is defined as interactive learning in which students learn through the usage of computers as an educational medium [2]. E-Learning includes numerous types of media that deliver text, audio, images, animation and video tape, satellite TV, CD-ROM and Computer based learning [6]. E-learning covers learning almost anytime, anywhere on a computer, usually a connected to a network. Relational Database Management System(RDBMS) and Electronic Document Management System (EDMS) manage explicit knowledge. They are accessed using various technology. RDBMS have been used by IT applications to manage operational data. RDBMS consists of text and primitive data types such as characters, strings and numbers. Images and Videos are handled by Multimedia database which is immerged with RDBMS. EDMS is considered as the solution for organizations that needs a way to manage the information efficiently [10]. Its function includes document creation, storage and retrieval, management, version control, workflow and multiple-delivery formats. EDMS allows managing the documentation of an entire process. RDBMS and EDMS is achieved through E-learning.

TYPES OF E-LEARNING
Synchronous E-learning: It means that all students and teachers are logged on at the same time and communicate directly and virtually with each other.

Example: Chat rooms, White board sessions.

Asynchronous E-learning: The communication between participant does not occur simultaneously where "the learning   content is served from a web server and delivered on demand to the learner's workstation" [2].

Example: Web-based training (WBT) is an internet browser-based learning which is also available on local intranet (E-Learning Tutor, Word Processors) [1].

THE AIM OF INTERACTIVE E-LEARNING IN DIGITAL TECHNOLOGY AND ITS TUTORS FOR CHILDREN ARE GIVEN BELOW.

- To increase the ability of logic and thinking power.

- To provide vocabulary, Word Power and Grammatical skills. using E-learning.

- Easily accessible various resources at the same time.

- Learners are able to take courses independent of their physical locations. Example: Handicapped students can sit at home and study e-learning tools for education /courses.

- Using online tests to judge students thinking power and what they learn from tutors.

FACING PROBLEMS FOR STARTING E-LEARNING IN SCHOOL.

- Good infrastructure required for e-learning.

- Systems, modems and electricity required for e-learning.

- Computer skilled teachers are required to teach the e-learning tools and tutors to students.

- Low Bandwidth, slow internet connection can affect the learning process.

DRAWBACKS OF E-LEARNING

- Writing skills are not improved using e-learning.

- Electronics emit blue light, which has negative effects on our eyes.

SURVEY RESULT

Rahanal village is located in Bhiwandi. Bhiwandi is a city in the district of Thane and located 20 km to the North-East of Mumbai. The village, Rahanal, is known for its textile industry which has the largest number of power looms in the country. Survey was carried out to find the number of children using computer. Four Schools were identified from various areas in Rahanal and from each school,35 students are randomly selected**.**

	School1	School2	School3	School4
Using Computer	65%	40%	50%	30%
Game Purpose	40%	25%	35%	20%
Study Purpose	25%	15%	15%	10%
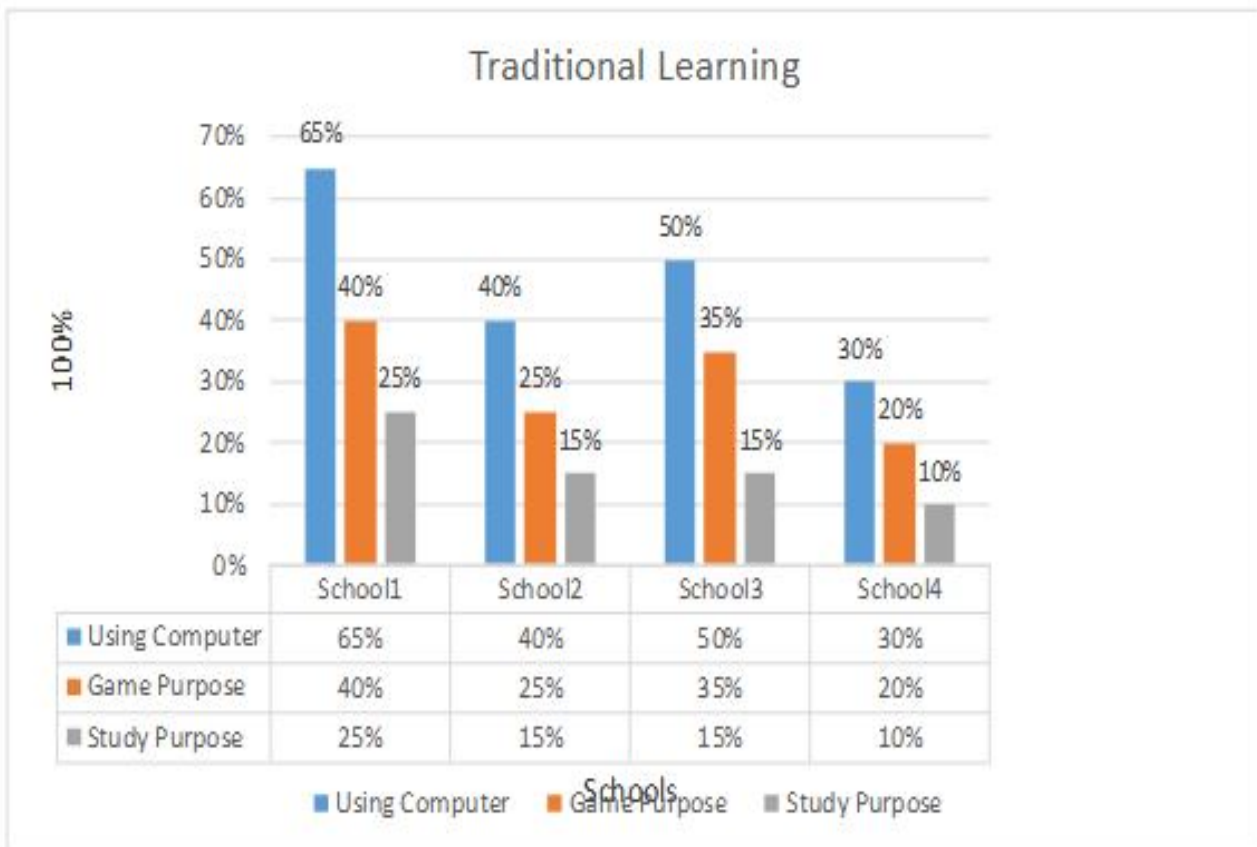
Figure-1: Use of Computer for Traditional Learning

In Figure 1, most of the children use computers to play games. Only average 13% of them use computer for study purpose. In Figure 2, introducing e –learning with traditional learning, average of approximately 24% of the children use computer for study purpose.
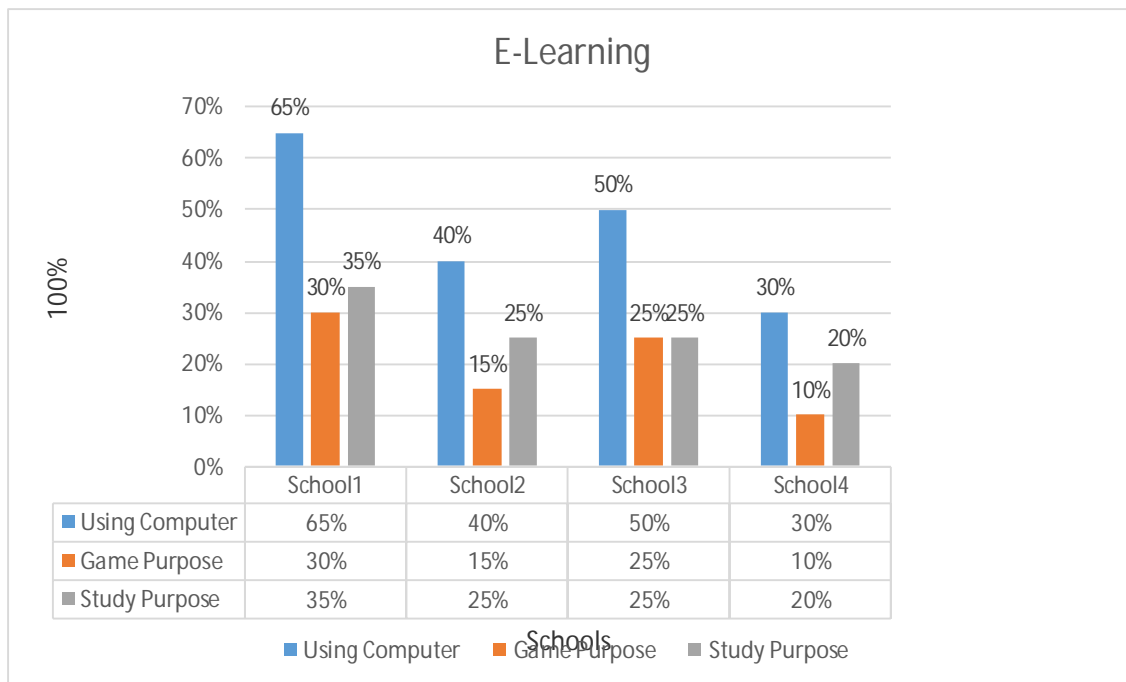
Figure-2: Use of Computer for E-Learning

CONCLUSION

Digital Technology is a great thing in education if it used properly. The implementation of an interactive E-learning in Digital Technology for children will enhance education system in Rahanal. E-learning tutors to improve skills, thinking ability, grasping power and providing quality of education to students. It promotes higher education to students. E-learning is also used for administrative work for schools.

REFERENCES

[1]   S.K.Nayak and Dr.Kalyankar N.V,"E-learning Technology for ChildDevelopment".International Journal on Computer Science and Engineering vol.02.no.02.pp.208-212,2010.

[2]   Dr. Wanwipa Titthasiri,"A Comparison of E-Learning and Traditional Learning: Experimental Approach". International Journal of Information Technology & Computer Science (IJITCS) .vol.no.12.pp. 2091-1610.

[3]   M. S. Sunhaloo, J. Narsoo, and A. Gopaul," An Interactive E-Learning Tool for Kids in Mauritius". Issues in Informing Science and Information Technology.vol.6.

[4]   Niraj Kumar Roy," ICT–Enabled Rural Education in India". International Journal of Information and Education Technology, vol. 2, no. 5, October 2012.

[5]   Ms. Shivangi Shah, Mr. Balam Dafouti," A Study of Open and Distance Education (ODE) for Rural India". International Journal of Advanced Research inComputer Science and Software Engineering". vol 3, pp. 2277 128X

[6]   en.wikipedia.org/wiki/E-learning.

[7]   White Paper – Pre Primary & Secondary Education – Mauritius. (nd.) Ministry of Education and Scientific Research, Mauritius (http://www.ilo.org/public/english/employ ment/skills /hrdr/init/mau_1.htm).

[8]   Dr.JamilA.Itmazi,"elearning",(elearning.ppu.edu/file.php/1/eLearning/elearning.pdf").

[9]   www.e-learningforkids.org.

[10] G.N.Wikramanayake "Impact of Digital Technology on Education" University of Colombo School of Computing.

[11] https://educationendowmentfoundation.org.uk/.

A STUDY ON INNOVATIVE PRACTICES IN DIGITAL HUMAN RESOURCE MANAGEMENT

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ABSTRACT

The aim of this paper is to examine the role of technology and innovational practices in digital era. As in recent era, the world is full of competition there is immense requirement of innovative human resource practice. To face the competition and to stay stable in industry , there is need to develop and continue innovative human resources practice. It is further urge, the policy implementation is a journey very challenging. If we study the past records research also put positive attitude towards bringing innovative HR practices for retaining employees and their performance in organization. To get better result from workforce at organization, an efficient and well planned strategy is required at the workplace. Therefore, with change in time, many new inventions are brought up in the field of human resource and slowly traditional HRM practices are replaced by new & technical HRM practices. Hence, an effective management of human resource has an important role to play in the performance and success of organization . Further , resource articles , conceptual studies , review papers and other relevant content on the topic were accessed and reviewed through web-sources and data-base such as Google Scholar to achieve the objective of the study . Further several implications were discussed for the purpose of promoting sustainable development of digital era.

Keywords: Innovative Practices, HRM , New Technology, HR Effectiveness , Digital HRM.

INTRODUCTION

Digital transformation is a big change for many organizations which requires a significant amount of talent development. Today, HR professional has to respond to increased competition for globally digitalized transformation and rapid advances in HR technology. New kind of technical knowledge would be required by HR practioner for more flexibility & bringing development in organization. It is very important for new HR managers to adopt and improvise new HR policies with synchronizing of technology.

HRM AND DIGITAL HRM

Comparison Chart

BASIS FOR COMPARISON	HRM	DIGITAL HRM
Meaning	Human resource management (HRM) implies the governance of manpower of the organization in a thorough and structured manner.	SHRM is a managerial function which implies framing of HR strategies in such a way to direct employees efforts towards the goals of organization.
Nature	Reactive	Proactive
Responsibility lies with	Staff specialist	Line manager
Approach	Fragmented	Integrated
Scope	Concerned with employee relations	Concerned with internal and external relations
Time horizon	Short term	Long term
Basic factor	Capital and products	People and knowledge
Change	Follows change	Initiates change
Accountability	Cost center	Investment center
Control	Stringent control over employees	It exhibits leniency.

So, with the above explanation, it might be clear that HRM differs from Digital HRM in a number of ways. In a human resource management, the division of labour, specialization can be found in the job design, whereas in digital human resource management flexibility, cross-training and teams can be found in the job design.

OBJECTIVE OF THE STUDY

(i) Improving the strategic orientation of HRM.

(ii) Cost reduction/efficiency gains.

(iii) To globalize the organization with associated HR policies

(iv) For elimination of HR middlemen

(v) speeds up transaction processes, reduces information errors and improves the tracking and control of HR actions

(vi) To provide support for future planning and also for policy formulations

(vii) To enable faster response to employee related services and faster HR related decisions

(viii) Decentralization of HR tasks

INNOVATIVE PRACTICES IN DIGITAL HUMAN RESOURCES PRACTICES:

EMPLOYEES AS A CUSTOMER

For the organization to be successful it is very important customer should be satisfied with product or service . They are the asset of companies. Same employees should be treated as they are the assets for the company and need to be satisfied with working conditions of organization . Employee should be appreciated and validated from time to time for their performance and experience which will foster employee morale and will start loving their workplace.

HACKATHONS

Originally started by computer programmers who needed to tackle big problems, Hackathons are multi-day collaborative sessions during which a team of employees gets together and tries to tackle a problem, learn something new, or create something useful. You want a staff that works together. You want a creative team that thinks outside the box. You want a team dedicated to improving your company from the inside out. But who has the time or know-how to foster any of that?

Hackathons provide dedicated time to facilitate these things, and more! Hosting a special event dedicated to creativity and problem-solving won't cost you much more than catering, but the event may become an integral part of your company culture.

MANDATORY PTO

Having unlimited PTO can actually *decrease* the amount of time employees take off. In contrast, the mandatory PTO approach helps companies maintain a more rested workforce with a lower risk of burnout. Simplifying started an initiative that required employees to take one week off for every seven weeks worked. After some trial and error, it increased that latter number to eight weeks of work, and dove in head first.The company went pretty hardcore with the policy, docking pay for the vacation week if an employee responded to any work-related messages. The results were almost purely positive, leading to happier employees who came up with better ideas and worked better together. Employee satisfaction and happiness rates go up, employees are more creative, and productivity increases. Employees feel more rested, less guilty about taking time away, and end up doing better work.

BLIND HIRING

Where there are humans involved, there's bias. It's what distinguishes us (among other things) from software and computers. The best way to avoid bias? Creating a so-called blind hiring process. There's recruitment software built to be completely bias-free. Screening and preselecting candidates based on their actions and answers, using algorithms to calculate a candidate's likelihood to succeed in the role they apply for. Not only does blind hiring minimize bias, it also increases diversity.

FEEDBACK TOOL SKYROCKET

Feedback has been a big theme in HR for a while now. Today's employees like to know how they're doing, regularly and if possible in real-time.

LEARNING AND DEVELOPMENT FOR GLOBAL TEAMS

Extensive training is a Human Resource best practice that can increase an organization's profit. Investing heavily in training time and budget for employees is even more relevant today as the rate at which technology is

developing is growing exponentially. One of the learning & development trends for 2018 is the creation of L&D programs for a remote workforce.

INTELLIGENT SELF-SERVICE TOOL

21st-century employees expect a workplace experience similar to their experience outside their professional environment. This is what (partially) sparked the arrival of self-service tools. Instead of having to turn to the – often busy – HR department for simple requests such as a holiday or sick leave, employees can make the necessary adjustments in the system themselves. And that's just one example.

COMPENSATION ADMINISTRATION

A common example of utilizing IT in compensation is the use of compensation administration software. Compensation administration software integrates compensation management, job evaluation, pay structure, salary surveys, salary planning, electronic market pricing, incentive compensation, single or tiered performance measures, team and individual recognition, and job description and job evaluation modules.

BENEFITS OF INNOVATIVE HR PRACTICE

(i)   Mapping skills

(ii)   Overcoming complexity

(iii)   Changing expectation for recruitment

(iv)   Training and development

(v)   Employee Motivation

(vi)   Retention of employees

(vii)   Helps to face the competition

METHODOLOGY

The study is based on secondary data was collected from various published sources like magazines, Wikipedia, newspaper, journals and research articles related to Innovative HR practises.

CONCLUSION

From the above literature review, it has been concluded that in today"s scenario there is need for transformation not only in terms of policies or structure but also the way it operates. Human resource management department has fundamental role for personnel recruiting, orientation and performance appraisal, and compensation management and so on. Broadly speaking, today every firm need to include innovative HR practices which is extremely important especially in the process of attracting and rewarding employees which are two of the largest challenges they face. With the use of social media, virtual media has also become increasingly acceptable to organizations if it means that they can retain talent.

The digitalization has also enabled to organize tasks differently, as the information is no longer attached to the physical paper or location. So it has facilitated, organized the work and most importantly concentration which improves efficiency.

REFERENCES

1. Wikipedia contributors. (2019, January 28). Innovation management. In *Wikipedia, The Free Encyclopedia*. Retrieved 11:46, February 8, 2019, from https://en.wikipedia.org/w/index.php?title=Innovation_management&oldid=880561875

2. Wikipedia contributors. (2018, May 24). Electronic human resources. In *Wikipedia, The Free Encyclopedia*. Retrieved 11:48, February 8, 2019,
   from https://en.wikipedia.org/w/index.php?title=Electronic_human_resources&oldid=842729203

3. Wikipedia contributors. (2018, October 29). Electronic performance support systems. In *Wikipedia, The Free Encyclopedia*. Retrieved 11:49, February 8, 2019, from https://en.wikipedia.org/w/index.php?title=Electronic_performance_support_systems&oldid=866296273

4. Tripathi, Roma & Singh, Dr Pooja. (2017). A Study on Innovative Practices in Digital Human Resource Management.
   https://www.researchgate.net/publication/317011133_A_Study_on_Innovative_Practices_in_Digital_Human_Resource_Management

5. https://keydifferences.com/difference-between-hrm-and-shrm.html

A STUDY ON THE FINANCIAL FEASIBILITY OF CRM PRACTICES

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ABSTRACT
Purpose: A study on the financial feasibility of CRM practices.

Research Implications: This paper presents an introductory understanding of whether CRM is financially feasible for implementation by companies. Future research which is done should focus on developing alternative methods and elaborating the findings.

Findings: It has been found that there is no "one size fits all" solution provided by CRM as the costs associated with implementing CRM vary according to organisation structure and the needs of the organisation. CRM can improve the profitability of a company over a longer time horizon.

Originality/Value: The paper presents a study on the potential for an increase in profitability by implementing CRM systems in organisations that have strong customer relationships, which shall serve as the basis of profitability of CRM.

Keywords: Customer relationship management (CRM), financial feasibility, profit, return on investment (ROI), Customer relationship management software (CRM software).

INTRODUCTION
Customer relationship management is an umbrella terminology that is used to describe acts such as reaching and interacting with the customers through on-field service, call centres, marketing teams, sales teams and technical support teams. CRM is a strategy that increases revenue, reduces costs and hence increases profitability. The added benefits are that CRM seems to increase customer satisfaction, retention and loyalty.

It is also understood as an information technology system that helps in planning, scheduling and controlling activities before and after the sale of a good or service is completed. The objective of employing a CRM strategy is for the growth of the company, increasing overall profitability, getting a deeper understanding of consumer behaviour and reducing customer acquisition costs.

Strategic CRM primarily aims to gain and maintain profitable customers, whereas operational CRM is predominantly based on automating processes such as marketing, selling and customer service. Also, strategic CRM focuses on using customer data for strategic gains over competitors. Despite all the benefits of CRM, implementation is difficult as well as financially burdening. CRM also has a very high failure rate of 65%. It is therefore paramount that companies take this into account while implementing Customer Relation Management projects.

OBJECTIVES OF THE STUDY
1. To study the factors which affect the financial feasibility of CRM.

2. To highlight the importance of financial feasibility to enhance the effectiveness of CRM.

3. To identify the factors which negatively influence the financial feasibility of CRM practices and to provide measures to bridge the lacunae.

REVIEW OF LITERATURE
1. Krasnikov, A., Jayachandran, S., & Kumar, V. (2009). "The Impact of Customer Relationship ManagementImplementation on Cost and Profit Efficiencies: Evidence from the U.S. Commercial Banking Industry."

This research paper focuses on metrics such as cost and profit efficiency which go beyond the traditional metrics such as return on investment (ROI). It illustrates that due to implementation of CRM though the cost efficiency may rise due to customization features that are made available to customers, the companies can charge a higher amount for such customised products increasing profit efficiency.

2. Ang, L., & Buttle, F. (2006). "CRM software applications and business performance."

This research paper focuses on the adoption of CRM software applications by companies and the effective use of such software with respect customer loyalty and customer retention. It finds a direct relationship between

efficient use of CRM software and profitability. One direct benefit is that it significantly reduces costs of advertising campaigns

SIGNIFICANCE/ IMPLICATIONS

When analyzing the cost and revenue of a company, the total of the marketing budget should be calculated, and an analysis of the effectiveness of the expenditure should be undertaken. Which would show the efficacy of the expenditure in delivering value by achieving targets. This result should be compared with the revenues and costs when CRM is implemented. It will show the area in which CRM is the most effective. If in the analysis it is observed that due to a few distribution channels being increased, based on the CRM, a change will be noticed in the wholesale cost and revenue profile. An entire category of cost may cease to exist due to efficient centralisation of sales and removing excessive sales forces. Changes in the distribution channels can create even greater opportunities for marketing and sales, thereby increasing revenue. CRM may provide many opportunities for increasing profitability, but these opportunities need to be exploited by means of establishing the organisational goals and setting up operations to achieve the established goals.

With regards to the level of expenditure, as a thumb rule spending should be at a level where the company is profitable. Every company should study its status quo, determine its risk appetite in terms of failure in implementing CRM and the potential gains accrued from CRM. The excess of profits made is the primary measure of the effectiveness of CRM. In order to get a wider perspective revenue protection should be included in this calculation. There exists a direct connection between CRM and customer retention, and consistent improvement is required in the goods or services provided by the company, so a long-term strategy that allows for improvement in phases is essential.

CRM is an investment like any other, a company should not under or over invest. Any investment made should be with respect to the expected amount of return of investment. For doing a financial assessment, all such costs must be quantified with regard to CRM policies. Then compare the costs with the estimated benefits. The calculation will be complex and based on a set of fixed assumptions with respect to the micro and macro factors that any company will have to endure in a given period of time. The main types of costs in setting up CRM are in systems, training of staff, policy development, establishing new units, shutting down old units and process re-engineering.

A large number of companies employ CRM software for customer retention and customer development. It is less commonly used for the purposes of customer acquisition, though CRM can play a vital role in the reduction of costs in marketing campaigns. Companies employing CRM software are usually satisfied with the product they are using based on the return on investment they receive from the software application. Also, the use of CRM software in a company can have a direct impact on business profitability.

Large scale organisations seem to be less satisfied with the return on investment received by such software. Also, companies in the service sector adopt CRM software much more when compared to companies in other sectors. The correct use of CRM software has the potential to yield better performance for companies.
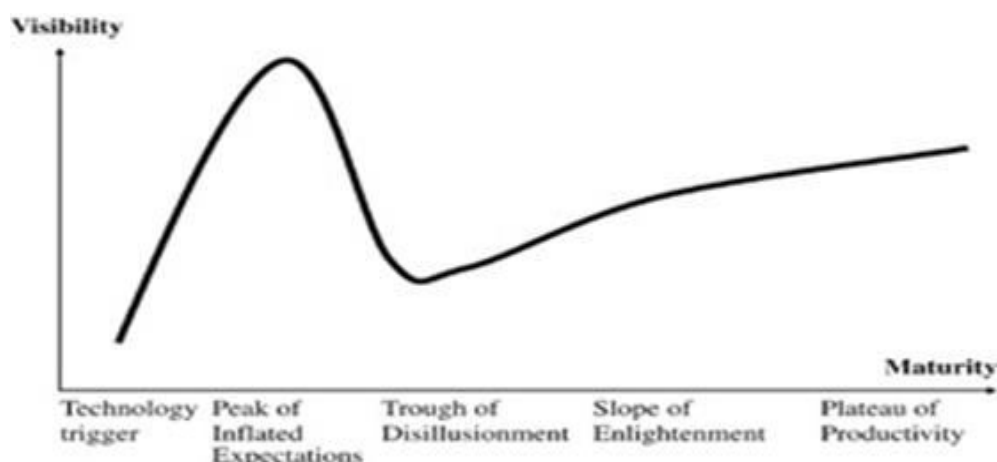
Fig-1. The Technology Hype Cycle

The market for CRM software is rebounding in recent times, there is over-enthusiasm and disappointment in the early and later stages. The effectiveness of the CRM software is based on consumer activity from which consumer data is identified and deployed effectively. Such organisations tend to achieve better customer loyalty and customer retention.
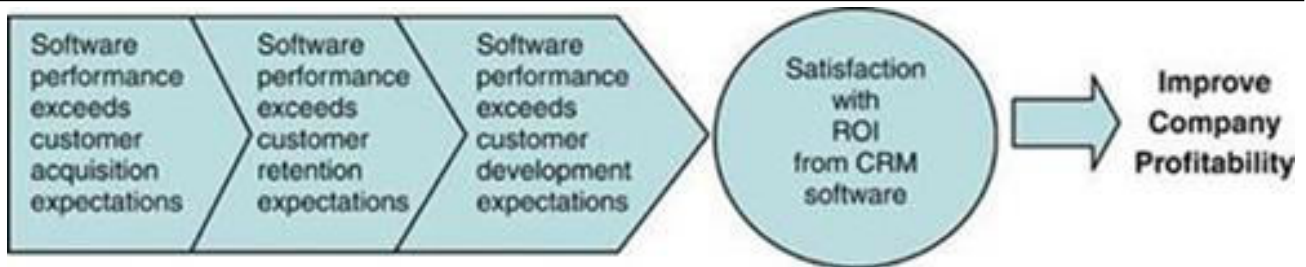
Fig-2: CRM software performance ROI model

Many of the companies investing in CRM strategies fail to get the expected return on investment from implementing CRM solutions. The failure of CRM can be placed on traditional marketing practices which turn out to be inefficient.

The effect of incomplete CRM investments can severely affect the profitability prospects of its implementation. Another major reason that companies fail to get a return on investment on CRM is that companies buy CRM resources such as call centres, software, online websites but do not change their business operations. The focus of such companies is weighted on purchasing such resources, but they fail to utilise the resources in order to exploit market opportunities and as a result are not able to increase profitability.

The human resources department focuses on the skill development of individual employees rather than trying to find out how the organisation develops new marketing capabilities. The relationship between the marketing base of the company and CRM investment has found that if the necessary marketing capabilities are not present or developed to the required level, then either insignificant to no return will be generated from investments made inCRM. For certain companies, a large level of investment in CRM may also mean that it may have to sacrifice itscash flow, which in effect would have negative consequences for the concerned company. The level of CRM investment can be low and cause an increase in profitability as well.

With the evolution of CRM systems, the marketing teams should also supplement on-ground and practical experience with respect to the exact needs that have to be fulfilled by means of CRM, and the level of investment in CRM that is required. The pace of incremental investment in CRM and the rate of capability development should be based on the pace of organisational learning rather than the financial budget for implementing CRM facilities, this in turn ensures that the organisation itself is able to adapt to changing consumer behaviour which is now possible due to CRM.

The benefits of CRM will accrue slowly and can be difficult to isolate in the short run, but it will become increasingly clear in the long run. Thus, it has to be kept in mind that a realistic target should be kept as the goal i.e., the return on investment which is expected by the company. Generally, it is seen that CRM investments are made with respect to general business operations for gaining benefits in the short run, such companies often do not intend to learn from the purchasing cycles of customers. It is in these instances that the full benefit of CRM is not taken. The top-level management must allocate sufficient funding and monitor the marketing team's performance in implementing CRM. Over a longer period of time, the company becomes very clear with the strategy and approach with regards to CRM since such a strategy has been given customer validation. Larger investments should be made once the risk starts to decrease progressively.

The pre-existing marketing capabilities can be developed, and opportunities can be exploited without the usage of CRM strategies. There needs to be clear and target-based marketing to gain the benefits of CRM. Constant updating of consumer data and the response needs to be considered, the marketing methods and targets need constant revision. Managing CRM investments profitably is essential, a major reason causing CRM investments to fail is that most companies want to scale the CRM strategy very quickly, beyond the required level that is the profitable level. Large resources with a sizeable budget to implement CRM tends to negate its profitability. There also needs to exist a functional relationship marketing aspect for the CRM investment to be profitable. Success in CRM comes relatively slowly as the strategy has to be made and refined after gaining every aspect of consumer insight. Marketing capabilities provide a base for the implementation of CRM investments.

The role of employees in the successful implementation of CRM is crucial, as all employees are marketing representatives of the organisation. Thus, the human element is considered more important in the success of CRM than just the IT-related components. It is the case that if a company can retain employees, then more often than not the company will manage to retain its customers as well.

SOME OF THE OTHER METRICS USED TO DETERMINE POSSIBLE PROFITABILITY

a. Cost efficiency is a measure of the output produced with a given amount of resources, keeping in mind the extent of wasted resources. It is a ratio of actual costs expended to minimise costs in the production of the output. Implementing CRM in this aspect could be cost-intensive in comparison to companies that create a standard output of products. When customising products according to customer needs, the benefits of large-scale production are lost. Also, the employees need to be well trained in order to fulfil the production of customised products.

b. Profit efficiency is basically when a comparison is made to the maximum profits that can be made under ideal circumstances. It is the ratio of how much profit could be made with respect to the actual profit realised. Since companies employing CRM produce a specialised and customised product, such companies can charge a premium due to strong customer relations. Even if such companies have higher costs, due to the ability to charge more to their customers, they can make higher profits.

LIMITATIONS OF THE STUDY

The study is not explanatory as it is based only on secondary data which includes data from journals, books and websites. It is not based on practical (primary) research because of time and money constraints.

CONCLUSION

There is no one size fits all solution for all the companies. Every company even in the same industry may have different marketing strategies and a different category of clientele. The relationship management between the company, its employees and customers is essential especially with respect to feedback. Thus, CRM is a continuous process by which the companies get a better knowledge of their customers and can provide better services based on this newly gained knowledge.

REFERENCES

1. Krasnikov, A., Jayachandran, S., & Kumar, V. (2009). The Impact of Customer Relationship Management Implementation on Cost and Profit Efficiencies: Evidence from the U.S. Commercial Banking Industry. *Journal of Marketing,73*(6), 61-76. doi:10.1509/jmkg.73.6.61

2. Rahimi, R. (2017). Customer relationship management (people, process and technology) and organisational culture in hotels. *International Journal of Contemporary Hospitality Management,29*(5), 1380-1402. doi:10.1108/ijchm-10-2015-0617

3. Buttle, F., & Maklan, S. (2015). Introduction to customer relationship management. In *Customer relationship management: Concepts and technologies* (2nd ed., pp. 3-24). London: Routledge.

4. Maklan, Stan & Knox, Simon & Peppard, Joe. (2019). *The missing link of CRM profitability: building marketing capabilities*.

5. Ang, L., & Buttle, F. (2006). CRM software applications and business performance.*Journal of Database Marketing & Customer Strategy Management,14*(1), 4-16. doi:10.1057/palgrave.dbm.

6. Stone, M., Woodcock, N., & Machtynger, L. (2002). *Customer relationship marketing: Get to know your customers and win their loyalty* (pp. 63-70). London: Kogan Page in association with Marketing magazine.

7. Dhar, U. (2008). *New age marketing: Emerging realities* (1st ed., pp. 27-36) (V. V. Nath, S. K. Nair, & P. K.Yadav, Eds.). New Delhi: Excel Books.

8. Linoff, G. S., & Berry, M. J. (2011). Data Mining Applications in Marketing and Customer Relationship Management. In *Data mining techniques: For marketing, sales, and customer relationship management* (3rded., pp. 37-38). Indianapolis: Wiley.

A STUDY ON THE GLASS CEILINGS WITH RESPECT TO WOMEN IN THE ORGANIZATION AND ITS IMPACT ON THEIR JOB SATISFACTION

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ABSTRACT

Purpose: -The purpose of this research paper is to highlight the phenomenon/ practice of glass ceiling and its impact upon the female working force of 21st century.

Research Implications: - This research paper clearly highlights the barriers the millennial women are facing in the organization which is hampering their job satisfaction.

Findings: - This research paper consists of the barriers the women of the 21st century are still facing in an organization. The research also shows how men are still dominating in major workplace areas and are still considered superior than women. It has been seen that the presence of women in senior managerial positions is very low in spite of having good work experience, plethora of knowledge, quality and efficiency at workplace. A barrier like glass ceiling is still the root cause of why some women in the organization are discouraged to work hard to achieve that desired post in their respective field.

Originality/ Value: - This research paper shows the different types of barriers women could face in the organization.

Keywords: Glass ceiling, barriers, organization, women, workplace, managerial position.

INTRODUCTION

The "glass ceiling" is a metaphor for examining gender disparities between men and women in the workplace. About 20 years ago the Wall Street Journal had coined the term 'glass ceiling" to describe the barriers that prevent the women from reaching the top of the managerial hierarchy. A federal study conducted in 1995 found out that 95% of the males held the top management positions (The Economist, 2005). Despite the efforts to increase diversity, women still face the glass ceiling when it comes to top management jobs whether in private or public sector. As per the research report published by Accenture, women think that gender barrier is playing a vital role in pulling in their achievements at the workplace. Apart from that, society plays a major role where it still thinks that a woman's place is at home and taking care of the children (Jacob,1999; Moore,1995).

Most of the women believe that their main chore is to be a housewife and take care of the children and are restricted to think beyond that. In fact, the society is compelling the women to not think beyond that. Nowadays, women have started participating and progressing towards managerial posts but the career path does not welcome women with a red carpet. Women do face barriers which are incorporeal in nature which stops them from achieving the corporate goals. Another metaphor besides "glass ceiling" is "labyrinth" which means that women should accept several obstacles for her career to progress positively (Eagly and Carly,2007). The percentage of women in senior level position in India is around 3% to 6% which is still very low.

Glass ceiling barrier affects the women continuously with issues of gender stereotyping or gender differentiation. In the higher level of management organizations there are other barriers affecting the women. They are: -
1) **Psychological Barrier: -** Some women from their childhood days are bound to abide by the so-called social rules which are deeply enrooted in their mind and they tend to follow those rules in their matured age. They follow these rules as thumb rules and this type of mindset demotivates them gradually and makes them lose confidence in oneself. There are some women who tend to ignore such rules but to ignore these rules is not easy as it seems as it works against the society or the societal rules. It has been found in psychological studies that women imposing qualities like being emotional, soft/ warm hearted, being social are not suitable for managerial roles. Whereas, in this 21st century, organizations demand qualities of being aggressive, competitive, risk taking and being able to sustain. The whole game of gender discrimination has a great impact on the organization.

2) **Society-related Barrier: -** Indian society still fails to break the shackles of "Women belong at home" concept. Especially the married women face a lot of consequences while progressing in her career. Once a woman is married, the whole responsibility of taking care of her husband, in laws, children becomes a priority. Sometimes the pressure is uncontrollable and the women is forced to resign from her workplace. Another fact of women getting educational rights has got the least or no priority at all in the society. Now,

slowly the mentality of the society has changed and have realized that no country can progress while having half human resources. In spite of this change, women still have to play a dual role of taking care of her family and house as a wife and of the organization as an employee. Many organizations give facilities such as flexible work timings, tele communicating, etc for women to give them relaxation. But women cannot completely concentrate on their work as they carry domestic responsibilities and children at workplace with them and prefer flexible work time (Anker,1997).

So, women are compelled to take a career break to look after their children and these are the barriers in acquiring managerial positions in their organizations (Schwartz,1989). Another barrier is that the women have to relocate with the relocation of their husbands due to job switch thus making the women sacrifice her respective job to honour this kind of social norm (Beard et.al,2010).

3) **Organizational Barrier: -** Having the stereotype notion, male employees usually cannot accept a woman for their upward mobility in the organization and try to create barriers in any form. Some women are not even included in the group discussions and are also excluded from informal organizational network. There are males who heckle intentionally and restrain women from taking strategic decisions thus creating a barrier for promotion. Due to such pressure it becomes difficult for women to perform well in the organization thus making it easy to restrain them from the promotion/organization. This has a great impact on the personal lives of women.

REVIEW OF LITERATURE

Women face a lot of barriers in their career which has a great impact on their personal lives. Several studies established the assumption of glass ceiling and pointed out that women experienced numeral barriers at some stage in their pathway. There are some hidden barriers for women in top level management which slowly hampers their growth in the organization.

1) **Internal Structural Barrier: -** These barriers include corporate climates. This means that women holding important designations have to be cautious by their performance as they are supposed to represent womankind. Sometimes women leaders require help from their mentors, but is not that successful as male leaders due to gender issues/discrimination (Nieva and Gutek, 1981).

2) **Government Barrier:** - This type of a barrier takes in lack of keep an eye on the law enforcement on behalf of the government failing in data gathering and dispute and inadequate reporting on the extant of a glass ceiling. Women are projected to be cheerful, reliant and of nurturing characteristics. Women who perform in a positive, self-governing mode are seen as performing outside of societal norms.

OBJECTIVE OF STUDY

1) To study the implications of glass ceiling with respect to women in the organization.

2) To analyse attrition levels only to increase glass ceilings.

RESEARCH METHODOLOGY

The secondary data would be collected from sources like books, journals, research projects, websites, newspaper articles, internet, etc.

SIGNIFICANCE AND IMPORTANCE

Although women have created immense steps within the company world and have contend key roles in organizations success, the company world continues to be male dominant.

This needs to do for the most part within the undeniable fact that most of the men in the firms hold the higher-level positions.

At times when one thinks of a woman running a firm in a corporate world is very less when compared to a man running a firm. An important study was done by Rosa Beth Kanter in her book, Men and Women of the Corporation.

In it she documents structure difference and argues that the barriers women face in ascendant male occupations are often attributed to their numerical minority in organizations.

Although they'll have similar qualifications the structure however promotes gender differentiation through the mechanism of tokenism (Williams,7).

What she merely means by this is often that "tokens" stand out.

The women square measure the tokens within the organization and receive loads of attention.

They are then thus subject to stereotyping, role defence, and varied different kinds of social process.

The glass ceiling is not a typical style of discrimination in a corporation however it's additional on the lines of gender difference and gender stereotype.

Gender difference and gender stereotype are often seen in some ways like pay, advances, hiring practices, coaching and development, and promotional opportunities that indicate signs of glass ceiling in the workplace.

In the literature on gender discrimination, the thought of "sticky floors" enhances the thought of a glass ceiling.

Sticky floors mean that the women in the corporate world, compared to men, are less likely to start climbing the job ladder. Similar to the sticky floor, the frozen middle describes the development of women's progress up the company ladder decelerating, if not halting, within the ranks of middle management.

LIMITATIONS OF THE STUDY
The study is not exploratory as it is based only on secondary data from books, journals, internet sources etc.

FINDINGS AND SUGGESTIONS
Firstly it's been determined that the rise of women within the operating field has given a chance to everybody to boost question regarding their skills as

compared to men within the same field. Secondly, the term "glass ceiling: the invisible barriers that retains women from moving up within the hierarchy" that was not common few years past has become a term that is being noticed and talked about now.

Though the number of women in the organization sector is increasing considerably, the development of glass ceiling remains prevailing in India as well as in other countries.

The existence of glass ceiling impedes the progress of women, may be a prime example of discrimination against women at work.

CONCLUSION
Till now, women are considered as if they come from different planets. Organizations treat women wherever they need interests on women but cannot rely on their potency. So, women still face barriers on career advancement, gender stereotyping and other threats from within or out of the organization. Every organization ought to specialize in "human resource" instead of "man resource" or "woman resource" one by one. Balancing the work and life is the key to success. The society should encourage women in every step of their lives keeping a thing in mind that where women are the creators of new life then they can easily maintain lifelines of the organization. Alternatively, Entrepreneurship may be the option for women who are ambitious especially who want to prove themselves. On the other hand, society, government and private organizations should take collective efforts to curb gender diversity and gender stereotyping.

The main aim of the study was to reflect whether there exists Glass ceiling in the 21st century or not. Glass ceiling does exist. The reasons may be many, intentional and unintentional. Intentionally they are created to struggle more, compete harder even when they have same qualifications. Though the government is taking initiative for the upliftment of the women, but like majority of cases in India, here too implementation of those policies requires close observance.

REFERENCES
1. Kalpana Pai, Sameer Vaidya (2009) "Glass Ceiling: role of women in the corporate world", Competitiveness Review: An International Business Journal, Vol. 19 Issue: 2

2. John M. McDowell (2007) "Cracks in the Glass Ceiling", Economic Journal Review, Vol. 89 Issue: 2

3. Ms. Sakshi Gupta (July 2018) "Glass Ceiling in 21st Century", International Journal of Management Studies, Vol. 5 Issue- 3(5)

4. Nieva and Gutek (1981) "The role of gender", Public Administrative Review, Vol. 66 Issue: 2

5. Rosabeth Moss Kanter (1994) "Through the Glass Ceiling", Human Resource Planning, Vol. 18 Issue: 2

6. Sarmistha Nandy, Arnab Bhaskar and Sovonjit Ghosh (2014) "Corporate Glass Ceiling: An Impact on Indian Women Employees", International Journal of Management and International Business Studies, Vol. 4 Issue: 2

AN IN-DEPTH ANALYSIS OF FACTORS AFFECTING PERSONAL FINANCIAL PLANNING OF GENERATION- X AND MILLENNIALS

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ABSTRACT

Strengthening of any economy depends upon the financial well-being of the residents of the country. Past researches show that financial well-being of an individual depends upon their attitude towards personal financial planning and the Financial Literacy of an individual. Individuals that are financially literate manage and accumulate their wealth through different types of financial products in the market.

Financial Planning, in the 21st Century, can be defined as per your life cycle stages or the generation you belong. Every financial planner or advisor now presenting their target population in terms of generation they belong because now the patterns of life cycle stages are not adopted by young generation. For example now education continue till age 25 and people plan marriages in their thirties and kid in mid-thirties which is in appropriate to life cycle stages. In today's age, Young generation is more ambitious, more exploratory and has access to the whole world and enormous amount of information, resulting in successful life. Each generation faces a different set of challenges and responsibilities. Therefore, I believe that Financial Planning can differ as per Generation rather than life cycle stages. As every generation share common attitude, behavior and thought process.

The financial planning of Millennial has raised great concerns as people should grow in par as the country expands economically. India is home to 40 crore millennials, the highest millennial population in the world, says a wealth report published by Julius Baer, one of the largest wealth management firms in the world.

Financial planning has been a famous aspect of various academicians. Financial planning is affected by various factors. Therefore, the research objective is to investigate the relationship of independent factors of generations and financial planning in India. Financial planning is affected by various factors.

1. INTRODUCTION

Planning of money is essential for each and every one, be it a school-going kid or a retired citizen. Things like buying a house, having children, paying for their educations and weddings, and having enough money for a comfortable retirement is very essential. But unexpected expenses like a broken-down car or hospital bill can strain anyone's finances. A financial plan can put people in control so one stay on track regardless of what life throws at them – through saving and investing in the types of financial vehicles that are specially designed for achieving one's financial objectives.

Without proper financial planning, individuals may fail in coping with the rising cost of living, medical costs as well as enjoying their desired quality of life. Financial planning (FP) is the process of meeting your life's goals, through prudent management of finances. Financial planning is a process, not a product. It is the process of meeting one's financial life goals through the proper management of personal finances, it include buying a house, saving for your child's higher education or planning for retirement. (Kapoor, 2008). *Proper Personal Financial Planning leads to Financial Satisfaction and Well– being.* According to Hallman and Rosenbloom, Personal Financial Planning is —The development and implementation of total coordinated plans for the achievement of one's overall financial objectives. Financial planning is important, regardless of age, and your life and wealth objectives are the core element of these plans.

This study will examine the financial planning behavior of generation X (age: - 38-53 years) and millennials (Age: 18 -25 years) in the city of Mumbai. The study also looks into the basic financial planning patterns amongst the different generations regarding how they save, where they invest , and how do they look at risk, returns and various modes of investments and whom they approach for help.

1.2. Need of Financial Planning

- **Longer life span and lack of social security**- People live longer now as compared to the earlier generations. Few generations ago, someone would start earning by the time one reached the age of 20 years, work till the age of 58 years and live till around 65 years. In such a case, one earns for 38 years and lives off the retirement savings for the next 7 years. In recent times, one starts working at 25 years of age. Retire at age of 60 years and life span of 80 years. So an individual works and earns for 35 years to support post

retirement life of 20 years. Government of India has withdrawn Pension Plans for government employees and introduced New Pension Scheme (NPS), which is defined contribution plan.

- **Proliferation of numerous products-** New financial products like Mutual Funds, Derivatives, Commodities, Portfolio Management Schemes, Non-Convertible Debentures and Unit Linked Insurance Plans have been introduced for the investors. It is difficult for investors to select financial product to tailor their needs.

- **Increasing income and savings levels**-it is evident in India, where millennials' gross income is significantly higher on average than that of the older generation: 57 percent of all working millennia's are the chief wage earners in their families

Source: Morgan Stanley. April 2017.
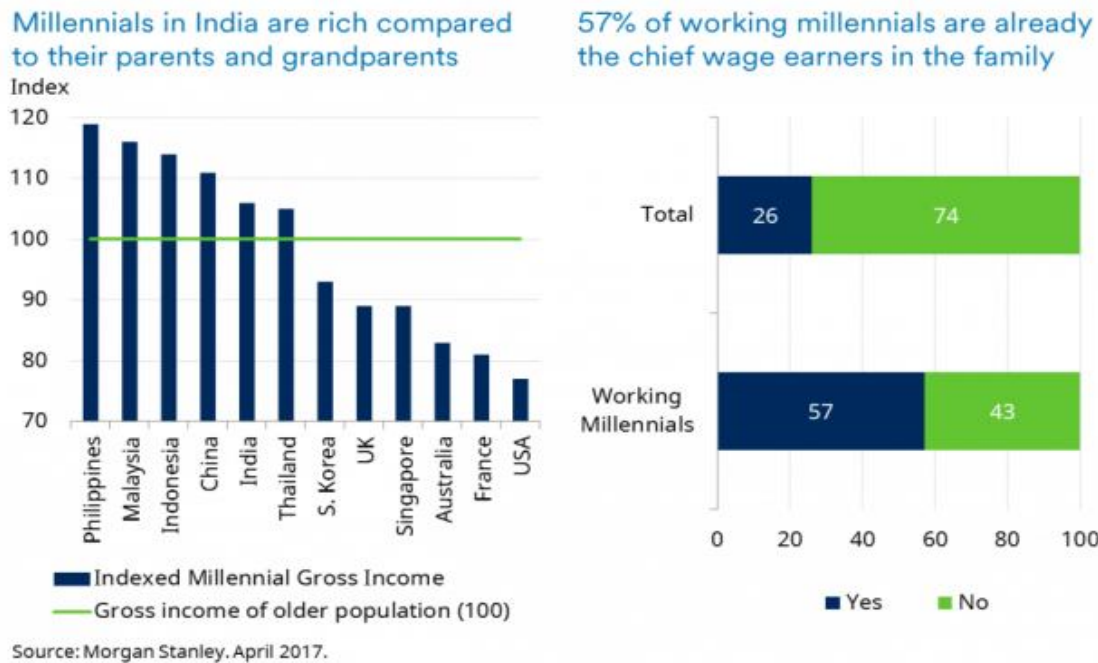
- **Increasing level of borrowings-** In today 's financial markets, there is an easy access to loans resulting in increased levels of borrowings by people. If not managed carefully, this may lead to a serious mismatch in earnings and repayment leading to problems in cash flow.

- Indians are wise savers but poor investors (Visa 2012). Indians save money into traditional risk-free products like Bank FD, Saving Bank Account, Insurance. This may not be sufficient to overcome the impact of increase in inflation. Therefore, a well-balanced Financial Plan is required to protect the investors from the impact of inflation.

- Providing for your family's financial security is an important part of the financial planning process. Having the proper insurance coverage and policies in place can provide peace of mind for you and your loved ones.

- A proper financial plan considers your personal circumstances, objectives and risk tolerance. It acts as a guide in helping choose the right types of investments to fit your needs, personality, and goals.

1.3 Financial Planning As Per Generations

During 1990, several authors of the marketing background questioned on the relevance of chronological age as a segmentation criterion. After reviewing a complete set of empirical studies on the topic, FitzgeraId-Bone (1991) concludes that age is irrelevant to the segmentation of mature markets. In the same vein, Fennell (1982) questions the misconception according to which those in the same age group would buy the same version of a product. Straughan and Roberts (1999) shared the same view, and consider the criterion of age as less useful than it seems. Considering these limitations, there is a need to approach segmentation based on age with a new lens and to include new perspectives while creating business strategies. This call for a change of perspective .One way of going beyond age—based segmentation which was in past often criticized as one- dimensional, is to place it in a broader theoretical field: GwrationalGJhon Theory who Anchored in sociology, this theory considers that individuals who experience the same historical,social,cultural,political, and economic events during their coming of-age years — share common core values and behaviors over the course of their lives (Mannheim. 1952).

And so Mr. Turner (1998) stated first definition on **generation** is "all of the people born and living at about the same time, regarded in a group". It can also be described as, "The average period, generally considered to be about thirty years, during which children are born and grow up, become adults, and begin to have children of their own". Every generation influences the economy, but Millennials, also known as Generation Y, have grown up in a time of rapid economic change, which gave them higher career expectations than previous generations. Generalizations are modern day map and compass, allowing every business to navigate a sea of complexity. There are a variety of ways to segment generations but often duration of about twenty two years is used (Timmermann & EdD, 2007). For the purpose of this study, we use the following breakdown for generations by birth year:

- Greatest Generation, sometimes also referred to as the Silent Generation includes those born before 1946, who will now be 74 years or older,

- Baby Boomers includes those born between 1946 and 1964, who will now be between 53 and 74 years old

- Generation X includes those born between 1965 and 1984, who will now be between 34 and 54 years old, and

- Millennials includes those born between 1985 and 2004, born between , who will now be less than 35 years old.

Existing studies has sporadic information on the individual generational cohorts and is sparse on the differences and comparisons among generations. This is particularly relevant to financial planning and planners who are striving to identify and serve their customers in this time of varied perceptions, needs, and interests. In fact, this proposal has taught there is a generational bias that brings some identifiable personality patterns to each generation. There are five generations that advisors may work with today, with each carrying its set of tendencies. Understanding the traits for each generation can help them to serve better. By using generational theory, advisors can use each generation's perceptions and beliefs to strengthen relationships, which ultimately will help move their practices forward.

1.4 Financial Planning and Generation X and Millennials

Generation X, called the "middle child" of generations, includes children born between 1965 and 1980. The Generation X mentality reflects a shift from a manufacturing economy to a service economy.

Money habits of generation X:
- Their major income is spent on buying luxury products and services.

- To pay off their debts including mortgages, credit cards, auto loans, student loans and personal loans.

- Their major investment source is real estate.

Millennial generation is the generation of children born between 1982 and 2004. The Millennial Generation is also known as Generation Y, because it comes after Generation X — those people between the early 1960s and the 1980s. As of 2016, there were 411mn millennials in India, according to UN's Population database, accounting for 30.6% of the country's total population, well ahead of any other age group.

Millennials are stereotyped to buy now, pay later, and typically not saving enough to make a difference in either minimizing debt or paying down a future high-cost occasion. There are 395 million millennials in India. This segment is vital to the Indian economy as they are a key economic driver for the future. This shift to a more technologically mobile, self-empowered generation will drastically change the primary buyer persona of financial services firms around the world, thus forcing massive changes to their marketing strategies and business models. "Millennials are also much more likely to use newer forms of payment—including pre-paid debit cards and mobile payments." millennials don't create personal budget and spend most of their money on entertainment and luxuries. Buying homes and retirement plans are not their priority. Millennials seek life balance and they aspire to get the financial freedom at the earlier age. This coupled with their present focused mind; pose a challenge for the financial advisors.

Money habits of Indian millennials

1. Research conducted by ICICI revealed, favorite pastime of the millennial generation is travel. And 87% of affluent Indian millennial holiday overseas at least once every year.

2. They also spend big amount on extras like restaurant orders and cell phone bills

<div align="center">Generational Difference Chart</div>

	Generation X	Millennial
Birth years	1965-1980	1981-2000
Current Age	38-53	18 – 37
Dealing with Money	Pay cash Save more Cautious	Use credit Save less Earn to spend
Asset accumulation	They prefer buying assets	They prefer either sharing or renting assets
Hurdles	Hurdling for retirement expenses	Hurdling to meet current daily expenses due to loans

Why Millennials need financial planning?

- Over Debt

- Lack of financial security due to uncertainties in economy

- Availability of numerous financial investments products

- Major retirement goals

Why generation x need financial planning

- Under insurance- "x" May have larger debts and more assets but have little or no insurance to protect wealth in case of accident or emergency

- Risk management is essential because of Business instability which is due to technology advancement and lack of future plan for changeover or unexpected events.

1.6 Financial Planning in India

As per RBI report of Household finance committee, the average Indian household holds 84% of its wealth in real estate and other physical goods, 11% in gold and the residual 5% in financial assets. Retirement accounts play a very limited role in household balance sheets, even at the top of the wealth distribution. Indian households continue to accumulate debt as they approach retirement age, and most debt is unsecured (56%), reflecting an unusually high reliance on non-institutional sources such moneylenders. The participation rate of Indian households in financial assets is well below the one observed in developed countries. This pattern has been recognised and there has been a sustained drive to spread financial awareness in the country.

Unfortunately, majority of savings in Indian households lie in Fixed Deposits and PPF accounts which are low interest earning and sometimes don't even cover inflation. Hence real returns are negative. Households will only move to financial assets in a big way if products are easily available and they trust the overall financial architecture with their savings. And this modification can be infused by awareness of financial planning among Millennials and generation X which constitute more than 65% of total population in India.

Source: CLSA, RBI
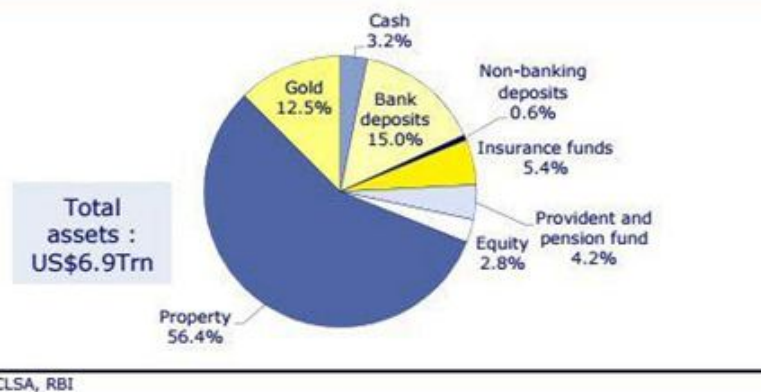
People still haven't understood the benefits of creating a financial plan under professional advice, because financial planning and investments are made with adequate research. Hence for expert advice Certified Financial Planners are available in India accredited by Financial Planning Standards Board of India. Appropriate personal Financial Planning helps in reducing the financial uncertainties which can be a hindrance to growth of the country. This also helps in ensuring stability and prosperity in concern.

THE PURPOSE OF THIS STUDY is to investigate the financial planning behaviour of Millennials and Generation X in Mumbai. It will also help us to understand the attitude of both generations towards different financial investments. Also if the generation is educated than do they implement their knowledge while making financial plans? In the end the study will also provide the suitable financial plans for each generation after consulting expert financial planners in Mumbai.

2. RATIONALE

Strengthening of any economy depends upon the financial well-being of the residents of the country. Past researches show that financial well-being of an individual depends upon their attitude towards personal financial planning and the Financial Literacy of an individual. Balanced Personal Financial Plan also plays vital role for Financial Well Being of an individual and country. Individuals that are financially literate, manage and accumulate their wealth through different types of financial products in the market. Hence, individuals will be able to increase their standards of living and achieve their financial goals.

Financial Planning, in the 21st Century, can be defined as per your life cycle stages or the generation you belong. Every financial planner or advisor now presenting their target population in terms of generation they belong because now the patterns of life cycle stages are not adopted by young generation. For example now education continue till age 25 and people plan marriages in their thirties and kid in mid-thirties which is in appropriate to life cycle stages. In today's age, Young generation is more ambitious, more exploratory and has access to the whole world and enormous amount of information, resulting in successful life. Each generation faces a different set of challenges and responsibilities. Therefore, I believe that Financial Planning can differ as per Generation rather than life cycle stages As every generation share common attitude, behaviour and thought process. Many of the financial planners has considered this study and presented articles on the same.

A NewYork based certified financial planner, Mr. Douglas A. Boneparth who is also now head of CNBC Digital Financial Advisor Council, 2018. And CFP Board Ambassador for New York, too agree that segmenting population based on generations will widen the target and is easy to advise based on their generational behaviour and attitude. He was so convinced that he ended up writing a book named ***The Millennial Money Fix*** where he explains about the financial habits of Millennials and also advice them how to plan their finances wisely.

At the same time, It is not relevant to use generational theory to compare generations to identify which is "better" than another; rather, this theory highlights the fact that each has its own unique set of influences and generalities and hence qualities and attributes. In this research the two different generations will be presented who are having different perspective towards personal financial planning.

The financial planning of Millennial has raised great concerns as people should grow in par as the country expands economically. India is home to 40 crore Millennials, the highest millennial population in the world, says a wealth report published by Julius Baer, one of the largest wealth management firms in the world. Both generation X and Millennials account more than 69% of total Indian population.

Many researchers have been done in area of Financial Literacy and some of the aspects of investment decision making in India, but there is no comprehensive study so far that deals in the overall personal financial planning aspects of the generation they belong and its impact on individual decision making process and/or which has attempted to measure the awareness of overall personal financial plan, attitude of the respondents for the same and factors influencing personal financial planning of an Individual. The present study attempts to fill this gap in the current research.

This study will help individual to better understand process and components of Personal Financial Planning. Apart from them it will help financial institutions, Financial Planners and Investment Advisors to understand the attitude of their customers and help them in a better manner. The study has created base for the future detailed study to be done in the area of Personal Financial Planning. The intention of research is to study the most relevant factors that influence individual financial decisions of generation X and millennials. The purpose of this paper is to report on a survey about the personal financial planning attitudes of generation X and millennials in Mumbai. It will be inclusive of about their level of knowledge regarding financial investment options, whether they had prepared components of a financial plan, where they might seek assistance in such a process and the criteria for selecting a financial planner. Personal finance is a research area that gains momentum, particularly after the serious financial crisis of the past years, and a focus on the Generations can be of substantial interest. Because every generation is diverse in attitude and thinking process. So to deal with the larger part of Indian population the study has chosen generation-X and Millennials.

3. HYPOTHESIS

H01: There is no significant association between Age and financial literacy of the respondents.

H02: There is no significant association between Income and financial planning of the respondents.

H03: There is no significant association between financial literacy and financial planning of the respondents.

H04: Awareness of different Investment avenues does not differ significantly with respect to gender of the respondents.

H05: There is no significant association between Gender and financial planning of the respondents.

4. AIMS AND OBJECTIVES

1. To study and to analyze the awareness of Personal Financial Planning among generation X and millennials of Mumbai

2. To identify the factors influencing personal financial planning behavior of both generations.

3. To study how generation X and millennials manage their finances, investments and risk.

4. To discover whom millennials approach for financial advice.

5. To describe the benefits of financial planning for millennials.

6. To examine the need of Financial Planner by millennials

7. What are the challenges faced by financial planners when they deal with Millennials.

8. To study and to analyze the attitude regarding Personal Financial Planning among millennials.

5. RESEARCH METHODOLOGY

5.1 Scope of the Study

Study is designed to find awareness and attitude of generation X and millennials for Personal Financial Planning. Study also tries to identify factors influencing Personal Financial Planning for both groups. To conduct the study, a sample of 2000 respondents has been chosen from two major suburbs of Mumbai i.e western Mumbai and central Mumbai

5.2 Research Design

Malhotra and Dash (2009) states that there are major two ways in which research design is identified, Exploratory Research and Descriptive Research. Exploratory research is useful when researcher doesn't have enough idea about how to proceed with the research problem. Descriptive Research is done when the characteristics of groups or individuals are known before research. This type of research method is not simply amassing and tabulating facts but includes proper analyses, interpretation, comparisons, identification of trends and relationships. (Dr. Y.P. Aggarwal, 2008)For purpose of fulfilling the objectives defined earlier Descriptive Research Design is considered most suitable. Hence it will be adopted for conducting study.

5.3 Sample Design

A sample design is the roadmap or framework which serves as the basis for selecting sample for survey. It will include Sampling Unit, Sampling Technique and Sample Size.

5.3.1 Sampling unit

Main objective of the research is to assess level of awareness related to PFP of generation X and Millennials. Sampling Unit of the research will be persons aging from 18 years to 53 years.

5.3.2 Sampling Technique

Sampling technique can be broadly classified as Non Probability and Probability Sampling. Non Probability technique of selecting sample has been used for the study. The sampling method used will be Random Sampling. For collecting the interviews, Structured Interviews will be conducted.

5.3.3 The Sample size

Sample size determination in empirical research is very important. Sample size should be carefully selected so inference for entire population can be done from it. The sample unit for research will be 2000 respondents aging from 18 yrs to 53 years from Mumbai suburbs.

5.3.4 Sample Profile

Generation X of Western Suburb of Mumbai	**250 From Age Group 36-45**
	250 From Age Group 46-53
Millennials Generation of Western Suburb of Mumbai	250 From Age Group 18-25
	250 From Age Group 26-35
Generation X of Central Suburb of Mumbai	250 From Age Group 36-45
	250 From Age Group 46-53
Millennials Generation of Central Suburb Of Mumbai	250 From Age Group 18-25
	250 From Age Group 26-35

5.4 Data Sources

5.4.1 Secondary Data

Secondary Data are the data already collected and published. For the study, secondary data were collected from various Books, journals, thesis, periodicals, magazines, newspapers and Websites.

5.4.2 Primary Data

Primary data are the data originated by researcher to meet certain objectives. For the study primary data has been collected through structured questionnaire. Questionnaires were filled by respondents through one to one approach.

The survey from financial planners, investment advisors and financial companies will also be conducted and will be used for analysis and interpretation.

5.5 Selection of statistical test and tools

The selection of the tools for a particular study depends upon the various consideration such as the objectives of the study, the amount of time at the disposal of the investigator and availability of suitable tests. Appropriate statistical tools like T- test, chi- square & ANOVA were used to analyze the data. Like To find association between different demographic factors and financial planning Chi –square test will be used. And To find association between Awareness level of generation X and millennials towards various investment avenues and different demographic variables, Mann Whitney U Test and Kruskal Wallis Test will be used.

6. EXPECTED OUTCOME

This Study will help financial planners and Investment Advisors, to better understand attitude of investors regarding Personal Financial Planning and Factors which may influence the decision for PFP.

The study will help SEBI, RBI and Other Government Agencies, Banks & Other financial Institutions who conducts financial awareness seminars in country regarding the attitude of both generations towards investments for planning their campaigns.

The fact that Millennials will be the largest client group is a challenge faced by all finance companies inclusive of insurance, financial advisors, investment advisors, etc so it is essential that these companies find ways to connect with Millennials and generation X, to sell their policies and products. This research will do that part of helping companies in targeting both generation individuals and designing advertising and promoting products in the manner required by them.

This research will be assisting generations on making their financial plans. It will equip them with knowledge about money, and influencing their attitudes toward making rational financial decisions and reducing their financial risk and uncertainties. And it is said that Balanced Personal Financial Plan also plays vital role for Financial Well Being of an individual and country at a large.

7. CHAPTER SCHEME

The sequence of contents will be as follows:-

Chapter No.	Contents
1.	Introduction
2.	Literature review
3.	Research methodology
4.	Analysis and interpretations
5.	Findings and recommendations
6.	Conclusions and Scope for further Study
7.	References
8.	Annexure

8. REFERENCES

1. Agarwal, S., Amromin, G., Ben-David, I., Chomsisengphet, S., & Evanoff, D. D. (2015). Financial literacy and financial planning: Evidence from India. *Journal of Housing Economics*, *27*, 4-21.

2. Prof. Avni,T.P.,Nov 2017, "A Study of Awareness, Attitude and Factors influencing Personal Financial Planning for Residents of Gujarat"- GUJARAT.

3. Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial services review*, *7*(2), 107-128.

4. Prof.CHEN ELAIN,nov 2014, Financial Planning and Financial Litearcy of Malaysians in Klang Valley-Malaysia

5. Hung.c."nov 2006, "personal financial planning: strategies for successful practice management. University of peretoria.

6. Mane, S., & Bhandari, R. (2014). A Study of Investor's Awareness and Selection of Different Financial Investment Avenues for the Investor in Pune City. *International Research Journal of Business and Management*, *4*, 45-51.

E-LEARNING IN MATHEMATICS EDUCATION

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ABSTRACT

Mathematics is almost there in every course, every field. Almost every entrance exams has questions on mathematics and logic. Also mathematics has huge applications in day to day life. But this subject have high failure rate, subject of mathematics has always been a challenge to majority of students. All students need to learn mathematics but all students do not get success in mathematics. Every student can do mathematics well if they are trained properly with the effective methods.

This study concerns the role of e-learning in Mathematics Education shedding the light on its advantages, making mathematics fun using e-learning, focuses on merging e-learning mode with traditional pedagogy practices. This paper shows that the use of interactive features of e-learning increases the motivation of the students for learning mathematics, and it integrates pedagogy principles in order to make teaching – learning more effective.

Keywords: e-learning, mathematics education

INTRODUCTION
E-learning is the use of Internet technologies to enhance knowledge and performance, it captures a broad range of electronic media like Internet, Intranets, Extranets, satellite broadcast, audio/video tape, interactive TV etc.

Innovations in e-learning technologies point toward a revolution in education, allowing learning to be individualized enhancing learners' interactions.

A well-designed e-learning experience can motivate students to become more engaged with the content. Interactivity helps to maintain the learner's interest and provides a means for individual practice and reinforcement's-learning has transformed the educational sector by enabling students to share information and data in a relatively easy way.

OBJECTIVE OF THE STUDY
The objective of the present study is To find out the role of e-learning in mathematics education.

METHODOLOGY
This present study is based on secondary sources like books, Articles, Journals, Thesis, University News, Expert opinion and websites etc.

E-LEARNING AND MATHEMATICS EDUCATION
Mathematics, the fundamental tool for all sciences and technology is then the basic primary element which needs a very serious support during the teaching-learning process. By focusing on the basics of mathematics, teachers can provide a stronger Foundation in math skills for the future the weakness in mathematics is associated with misconception. These misconceptions are often the result of incompatibility between the concepts the children gained from real life and correct mathematical concepts.

It is worth mentioning that the classroom environment does not allow a teacher to detect and correct students' misconception. This is due to many factors such as the number of students in the class, which make the teacher unable to supervise everyone, the time constrain of the lesson which prevents the teacher from detecting student's misconceptions and from providing specific teaching material to correct a student's misconceptions.

E-Learning tools in Mathematics Education
1) Wikipedia A wiki is a website that allows visitors to add, remove, edit and change content, without the need for registration. It also allows for linking among any number of pages.

2) Purely online: No face-to-face meetings like NPTEL: National Program on Technology Enhanced Learning project by MHRD Government of India. which is an initiative by seven Indian Institutes of Technology and IISC for creating course contents in engineering and science has given many video courses, where leading Indian mathematicians have given their lectures any student from any corner of India can learn from these video courses.

3) Blended learning: distance learning or a combination of online and face-to-face.

4) Synchronous: instructor led online courses.

5) Asynchronous: self-placed learning methods placed on the internet, network or storage devices

6) Instructor-led group: distance learning where students may be from different geographical locations and learn from a single teacher.

7) Self-study: learning by visiting blogs, tutorials or informative websites.

8) Self-study with subject matter expert: learning by regularly visiting some experts blogs or up-to-date sites.

9) Web based: learning purely by looking up on the Internet with the use of search engines or social media groups such as Face book.

10) Computer based: learning by accessing study materials from different storage devices like CD ROM or USB in the computer.

11) Video & Flipped Classrooms: learning by accessing multimedia files through YouTube or any other video/audio sharing websites. where lecture is being uploaded online and watched by students and homework Is done inside the classroom together with the teacher.As students can pause the video in between and they can even repeat the video.

12) Softwares: Computer algebra systems, Geogebra, Sagemath, Deltamelt, Mathbuntu, Scilab, Octave, Gnuplot, Pari, Maxima,Gap Spss, R etc.

Software's can be used as powerful assistants to perform the symbol manipulations and computations in algebra as well as calculus.

13) Mobile- Learning: Portability, availabilility, access to the internet and its wide acceptance amongst youth has made mobile learning as a new tool of learning mathematics. Students can see graphs of functions on smartphone apps and understand the geometry.It gives alternative to computers or laptops and campus lectures many good institutes around the world has video lectures on their websites which students can learn and study from great mathematicians around the globe. Also mobile devices are cheaper than laptops or computers.

14) Social media:. In colleges teachers and students form whatsapp groups and they discuss homeworks and other mathematical problems in the group. It also helps in information exchange related to mathematics and nowadays it is a easiest way of communication. Also on Face book people pose mathematical problems and peoples can discuss and share their ideas.

15) Virtual Classroom: A virtual classroom provides the opportunity for students to receive direct instruction from a qualified teacher in an interactive environment. Students can ask their doubts ask questions to the instructor. Web conferencing is possible which allows to interact with teacher and a student. Also these lectures can be recorded and uploaded on server which allows playback of any lecture which is extremely useful for students.

ADVANTAGES OF USING E-LEARNING TOOLS IN MATHEMATICS EDUCATION

1. E-Learning is very convenient for the students; Students can also download and save the learning materials for future purposes from the system.

2. It increases student's curiosity and imagination through various software's.

3. Students concentrate on understanding rather than memorizing the steps.

4. E-learning is usually a cost-efficient way of learning for most students.

5. Students become active, engaged and empowered participants starts conversation   from which learning emerges.

6. Students can study beyond the syllabus.

7. The study materials in e-learning systems can be updated more frequently than in the classroom-based education systems.

8. Students can develop valuable research skills at a young age.

9. E-learning is a flexible way of learning for many students. Most of the study materials are stored for the students to access whenever they want. Students can also choose between an instructor-led and a self-learning system.

10. Helps slow learners to improve and perform well in the subject.

11. E-learning systems help in creating a worldwide learning society as anyone can access the study materials regardless of the geographical location.

12. Helps to improve students attitudes towards Mathematics which motivate students for higher studies in the subject.

13. It helps teacher to plan his/her lesson in a more advanced and effective ways.

14. It will help teachers to develop innovative, challenging and exploratory teaching modules.

15. The number of students in virtual classes or e-learning systems can be very few or really high without causing any significant difference in the total cost.

16. Helps to develop student centric education.

17. The video and audio materials used in e-learning make the whole learning process more fun. This will help students to remember the things they learn for a long period of time.

18. Prepares students for the future.

19. Promotes independent learning amongst the students.

20. E-learning enhances the efficacy of knowledge and qualifications via ease of access to a huge amount of information.

CHALLENGES AND DIFFICULTIES IN USING E-LEARNING TOOLS IN MATHEMATICS EDUCATION
Even though there are many benefits of using digital technology in mathematics education there are some challenges and difficulties. Through my experience and discussions with teachers and students from other colleges I am listing some of the challenges and difficulties.

1. Lack of internet or slow connectivity.

2. No limited access to computer soft ware's.

3. Lack of adequate technical support.

4. Teachers are not trained about the usage of digital technology.

5. Decline of students' paper-and-pen skills.

6. Most of the Digital Technology tools are too costly and hence not affordable to College students and teachers.

7. Classrooms are not equipped with relevant hardware's which is required to Integrate teaching using Digital Technology.

8. May distract student's attention while using digital technology.

9. Implementing and then maintaining technology is costly particularly as systems can quickly become out of date.

10. Safety for students and teachers is a key challenge with prevention of cyber- bullying, the hacking of personal information, access to illegal or banned materials.

HOW TO OVERCOME THESE CHALLENGES
1. Along with routine teaching methods use of digital tools is to be encourages in mathematics education.

2. Good internet speed and connections should be provided in schools and colleges.

3. Digital technology tools should be provided to teachers to make bright future of students.

3. Teacher and student should also take care of cyber safety while using digital tools.

4. Teachers should be trained about how to use digital technology.

5. Required budget should be provided to colleges to avail digital technology facility, and each year budget should be increased.

CONCLUSION
In all traditional pedagogical approaches e-learning can help improve the formulation of effective and efficient pedagogy to support and enhance teaching and learning of mathematics. Many students find difficulty in understanding mathematical concepts as they haven't understood previous concept, e-learning can help this issue due to which students can understand the concepts better and it makes the subject interesting. This efficiency is likely to translate into improved motivation and performance.E- learning helps the teacher to update the new knowledge, skills to use the new digital tools and resources E- learning can reduce complex computations and allow students to concentrate on conceptual learning. Students enjoy studying mathematics using new technology, it makes math as fun which brings interest in the subject. It avails a facility of learning mathematics anytime anywhere using handheld devices and internet resources.We should understand opportunities offered by E-learning and help students in achieving their goals. As students often point out to us it is very exciting, enjoyable and productive to use such tools in class. E-learning can be used in learning and curriculum and can not substitute good teaching. Traditional teaching methods must be supported with modern tools for helping slow learners in mathematics. It does not imply a reduction in the standard of education or of necessary subjects, but it is vital that the curriculum is carefully considered and that passive teaching is replaced in favor of new methods which promote active participation of students. Students dream of having good jobs to achieve this dream they must clear entrance exams which includes mathematical questions, but students always have fear regarding mathematics in their mind but e-learning helps them to understand mathematics in a more organized way, which clears their fundamental concepts and these students can clear those entrance exams and achieve their goals.

REFERENCES
- S. Kakoty, and S.K Sarma. "Expert System Applications in E-learning Environment: Analysis on Current Trends and Future Prospects" International Journal of Internet Computing (IJIC), Vol. 1, 90-93, 2011.

- M. Sepp al a, O. Caprotti, and S. Descamps, Using web technologies to teach mathematics, Departaments de Matem~A tica Aplicada. Journal papers, 2005

- OCDE (2012). Informe PISA 2012 .[online] Avaible: http://www.oecd.org/pisa.

- M.L. García & A.A. Benítez "Competencias matemáticas desarrolladas enambientes virtuales de Aprendizaje: el caso de MOODLE". *Form. Univ.*vol. 4, n° 3, pp. 2011.

- Drijvers, P. (2013). Digital technology in mathematics education: why it works (or doesn't).*PNA, 8*(1), 1-20.

- Beetham, H. and Sharpe, R. eds (2007) *Rethinking Pedagogy for a Digital Age: Designing and Delivering E-Learning*. London: Routledge

ELECTRONIC PAYMENT SYSTEM: STUDY ON THE SHIFT FROM PAPER PAYMENTS TO E-PAYMENT

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ABSTRACT
Payment & Settlement system in any Commercial transaction means transfer of economic value from one person to another. Over the years, this system has been revised and updated to its better version, by innovation and objectivity. Since early Ninety's, various measures have been taken by RBI to shift towards digital modes of payments and involve lesser movement of paper money, this would increase transparency and also convenience on part of the customer. This paper evaluates and explains each of payment systems and study the transition from usage of paper based payment (in number and volume) to electronic payment system, during last three years, thereby studying the pattern in which payment and settlement systems are moving from traditional to modern instruments.

Keywords: E-Payment, Cheque, Bank Draft, ECS, NEFT, IMPS, UPI, AEPS, ATM, PoS

INTRODUCTION
Payment and Settlement system is the heart of any Commercial Activity. In India, payment and settlement is covered by the Payment and Settlement Systems Act, 2007 (PSS Act), legislated on December 2007 and is regulated by Reserve Bank of India and the Board for Regulation & Supervision of Payment & Settlement Systems.[5] Over the years, this system has been revised and updated to its better version, by innovation and objectivity, keeping in mind the dominant features of large geographic spread of the country and the vast network of branches of the Indian banking system that require the logistics of collection and delivery of paper instruments.

OBJECTIVE
➢ To study the trend in payment and settlement system in last three years

➢ To study the acceptance of newly introduced PPI by people of India

➢ To know whether Indian economy is ready to operate as cash less economy

SCOPE AND LIMITATIONS OF STUDY
➢ The study pertains to the data related to payment system used in the economy during the period under study

➢ The study is based on the data reported through official channels only

➢ It doesn't cover payments and settlement made through cash while calculating total payments

RESEARCH METHODOLOGY
In order to study the impact of digitalization secondary data from different research papers, reports & government data has been studied and analyzed.

PAYMENT AND SETTLEMENT SYSTEM IN INDIA
Indian Payment system can be classified into three categories; Paper Based payment System, Electronic Payment System and Other Payment modes.

Paper based: Paper based payments involve usage of Cheques, Bank Drafts and Other modes of payments, which as per statistics given by RBI account for about 60% of non-cash transactions.[4]

Cheque: Cheque is one of the oldest and still prevailing methods of payment. It was introduced in India by The Bank of Hindustan, the first joint stock bank established in 1770.[10]It involves three parties to it, namely;

Drawer: Drawer is a person who draws a cheque, having account with cheque issuing bank. It is in the form of an order directing the bank to pay an amount as mentioned in the cheque.

Drawee- Drawee is a person to whom the cheque has been drawn, he may be the creditor of drawer or anyone who owes amount to drawer.

Payee- Payee is the person entitled to receive payment of the cheque.

It took around 2-5 days to clear the cheque traditionally as it had to transfer physically from one bank to another.

Bank Draft: It can be called as a prepaid cheque, as it's issued only after receiving the amount in cash over the bank counter or by way of deduction from account. It guarantees payment of the amount mentioned without any fear of it getting bounced back. It can be issued by any person, A/c maintenance with issuing bank is not mandatory. It involves charges which are quite high as compared to digital facilities available for the same purpose.

Cheque Truncation system: With the view to reduce the time taken for clearing the cheque, RBI introduced CTS system of cheque clearing, where cheques are cleared by transferring scanned images and important data like A/c no. Bank name, bank branch, etc. using MICR on the physical cheque. This ensured reduced clearance time as the physical movement of cheque is truncated. It was introduced on pilot basis in 2008; however guideline for CTS came up in 2010. Hence, it's called "CTS 2010". *It's a unique mixture of paper based payment with digital settlement.*

Electronic Payment System: EPS means paying for transactions in goods or services, with electronic means, not with cash or cheque. It includes payments done through NEFT, IMPS, POS, etc. Various electronic modes of payments available are;

Electronic Clearing Service (ECS) Credit: In 1990s, The Reserve Bank introduced the ECS (Credit) scheme, to handle bulk and repetitive payment requirements, which includes salary, interest, dividend payments, etc. on behalf of corporate and other institutions. ECS (Credit) facilitates credit in the multiple accounts on the specified value date and is presently available at all major cities in the country.

Electronic Clearing Service (ECS) Debit: Opposite of ECS (Credit), this scheme was introduced to facilitate automatic debits from customers' A/c for payment of utility services at regular interval. Here, the customer/subscriber has to mandate the bank to make payments for repetitive utility services, subscribed by them, and give the funds to companies. This reduces paper money usage to a considerable extent, it's also convenient on part of the customer as it avoids standing in queue for utility bill payments. This service is available in major cities in India.

Electronic Funds Transfer (EFT): When the funds are transferred from one A/c to another without any paper instrument being transferred or any direct intervention from bank or financial institution, but electronically by way of a telephone, computer or MICR device, it's called EFT. EFT includes but is not limited to, ATM, PoS Terminal, Direct debit, online banking, instant payment, etc.

National Electronic Funds Transfer (NEFT) System: National Electronic Funds Transfer, started in November 2005, maintained by RBI, is a method of transferring funds from one A/c to the other on one to one basis. It is a method in which transactions of transfer are settled electronically, saving time of clearance as in case of paper instruments. The settlement takes place in half hourly batches. From 8.00 AM to 7.00 PM, there are 23 batches.

When the customer fills NEFT form at the originating bank, the bank sends the details to its pooling centre, which in turn sends to NEFT Clearing Centre, operated by RBI. Here, transfer transactions are sorted, destination bank wise, and entries are passed for receiving amount from originating bank and Paying to destination bank. Destination bank receives amount from clearing centre, bank wise remittance details from NEFT service centre, and credits the amount to the beneficiary's A/c as per the details.

Real Time Gross Settlement (RTGS) System: When the amount involved in transfer is more than 2 Lakh and transaction is required to be instantaneous, RTGS can be used. RTGS is a funds transfer system, introduced in 2004, where transfer of money takes place on real time basis. Real time is also known as within no time. It settles the transaction faster than NEFT as there is no waiting period involved and transactions are done on "Gross settlement" basis, which means they are not clubbed with any other transfer. Once processed, payments are final and irrevocable

Immediate Payment Service (IMPS): IMPS is an instant payment inter-bank electronic funds transfer system in India, developed by NPCI in November 2010. The service is available 24/7 throughout the year, providing round the clock availability as against RTGS and NEFT. Currently, there are 53 commercial banks, 101 Rural/District/Urban and cooperative banks, and 24 Prepaid Payment Instruments signed up for the IMPS service.[8]

UPI (Unified Payment Interface): UPI is a system that empowers the customer, to link all his bank accounts into a single mobile phone based application, and operate from any bank account using this unified payment interface. Developed by NPCI, its Pilot was launched in April 2016, by Dr. Raghuram G Rajan, Governor, RBI

at Mumbai. Participating Banks' Applications were made available on Google Play store from 25th August, 2016. The interface is authorized by the Reserve Bank of India and works by transferring funds instantaneously between two bank accounts by using mobile communication channel.

Point of Sale (PoS) Terminal: A point of sale terminal is a checkout counter at any department store or mall or any shop. A PoS device is used on PoS terminal, it's a device connected with various other devices like scanner, computer system having stock data and bar code reader. A handheld device is used to process card payments at checkout counter. Here, a customer can swipe debit, credit card or smart card, enter the pin and complete the transaction. A PoS terminal reads the information from a customer's credit, debit card or prepaid card, checks the available balance from issuing bank, and if found sufficient, transfers the amount from customer's A/c to Seller's bank A/c, and prints the transaction receipt. With increasing rely on malls and Departmental stores; no. of transactions done through this device is tremendous. Since November 8, 2016, i.e. since demonetization, 10 Lakh PoS terminals have been added.[7]

ATM: ATM[2] stands for Automated Teller machine. It was a technical boom in Indian banking industry because it reduced the branch work to nearly half the transactions and also it saves a lot of customers' time. Here, a self operated branch type set up is used where customer can withdraw money, check his balance, transfer funds and also see mini statement of his a/c electronically, by inserting his debit or credit card (many banks charge fees for taking out funds from CC). Many ATMs also have cheque drop box installed, reducing further, the need for customers to visit bank.Currently, there are 61,000 ATM as per RBi statistics.[6]

Aadhaar Enabled Payment System (AEPS)[3,1] : Aadhaar is a 12 digit unique id issued by Govt. of India to all its citizens. Various schemes of Govt. are introduced with a view to increase its functionality. Aadhaar Enabled Payment system is an android based mobile application, which is designed to facilitate payment without using cards. Merchants desiring to accept payment through this app are required to download application in his phone and also have fingerprint scanner in place as the password for transaction is customer's finger geometry.

Unstructured Supplementary Service Data (USSD):USSD also referred to as "Quick codes" or "Feature Codes" is a communication protocol used by GSM cellular phones to interact with telecommunication service providers.[9] This channel can now be used for interbank account to account fund transfer, balance enquiry, mini statement besides host of other services. Banking customers can avail this service by dialing *99#, a "Common number across all Telecom Service Providers (TSPs)", they will get an interactive menu for various options.

Prepaid Payment Instruments: These instruments can be considered as a store of value in digital form in the form of mobile wallet, smart card, Magnetic ink recognition cards, online wallet, etc. Customer can pay through bank transfer, credit card or cash payments. The stored value can be redeemed to pay for goods and services or transfer funds. There are three types of prepaid instruments; Closed, Semi closed, and opens system payment instruments. They need authorization by RBI.

Study of Shift in Payment System during 2015-2018

RBI, being the Central Bank of the country and facilitator of payment and settlement system has been taking many initiatives to make this system cost effective, reliable and convenient. With advancement in technology, RBI has introduced various measures since 1990s to reduce cost and time taken for settlement.

However, the boost to digital payment network has been witnessed greatly since *November 2016*, after our Prime Minister announced Demonetization policy and high value currency notes i.e. 500 and 1000 rupees notes were demonetized, due to which, there was an immediate and sharp jump in the digital payments in November–December 2016 owing to shortage of cash, and even after the situation has been normalized, the digital payments since then has not seen a downward trend. Below given is Table representing data from 2015 -2018 in terms of value and volume of transactions done using various modes of payments.

Table 1.0 : Payment System Indicators – Annual Turnover					
	Year	Paper Clearing	Retail Electronic Clearing	Card Payments	Prepaid Payment Instruments
Volume (in millions)	2015-16	1096.40	3141.50	2707.30	748.00
	2016-17	1206.70	4222.90	5450.10	1963.70
	2017-18	1170.60	6382.40	8207.60	3459.00
Value (in billions)	2015-16	81861.00	91408.00	4483.00	488.00
	2016-17	80958.00	132324.00	7421.00	838.00
	2017-18	81893.00	193112.00	10607.00	1416.00

1. *Paper Clearing includes CTS and non MICR Clearing*
2. *Retail electronic clearing includes ECS Dr., ECS Cr. NEFT, IMPS, UPI and NACH*
3. *Card Payments include transactions done using Debit card and credit card*

Data Source: RBI

Chat 1.0

The study of chart 1.0 clearly indicates that there has been a shift in mode of payment and settlement preferred by people. Since 2015-16, there has been a decline in paper clearing, which includes Cheques and bank drafts. In 2015-16, Total payments settled with the help of paper clearance was 1096.40million, with the slight increase in 2016-17i.e 1206.70 million, again with set back from its previous year in 2017-18; 1170.60 million.

On the other hand, Prepaid Payment Instruments (PPI) has shown a sharp increase in volume of transactions since 2015. It has increased from 748 million in 2015-16, rising to 1963.70 million in 2016-17 and recording magnificent growth in 2017-18 i.e. 3459 million

Card payments have also shown a remarkable growth from 2707.30 million in 2015-16 to 8207.60 million in 2017-18, a growth of 300% in two years.

Retail Electronic Clearing which includes, ECS Dr., ECS Cr. NEFT, IMPS, UPI and NACH have shown a consistent growth rate over three year. From 3141.50 million in 2015-16 to 6382.40 million in 2017-18
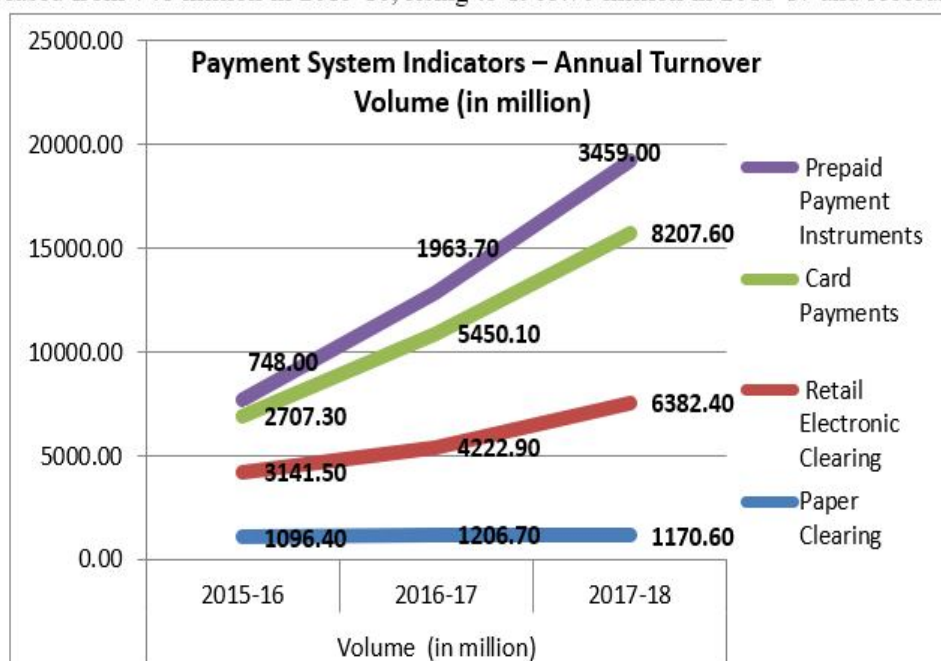
Chart 2.0

The chart 2.0 shows Payment Systems used in India economy in three years period and studies the value of transaction in terms of percentage of total payments

Significant implication can be withdrawn by looking at the percentages of Paper clearing and Retail Electronic clearing. While the Paper clearing transaction have declined from 45.93% in 2015-16 to 28.53% in 2017-18, Retail Electronic Clearing i.e. ECS, NEFT, RTGS, IMPS, UPI and NACH has increased drastically from 51.28% in 2015-16 to 67.28% in 2017-18.

Percentage of PPI share in total payments may seem to be negligible i.e. 0.27% in 2015-16, 0.38% in 2016-17 and 0.49% in 2017-18, but considering its introductory phase, this performance is remarkable.

Card payments continue to grow at a steady rate i.e. 2.52% in 2015-16, 3.35% in 2016-17 and 3.70% in 2017-18.

In terms of value of transaction, for all three years under study, Retail Sector has outperformed every other channel of payment.
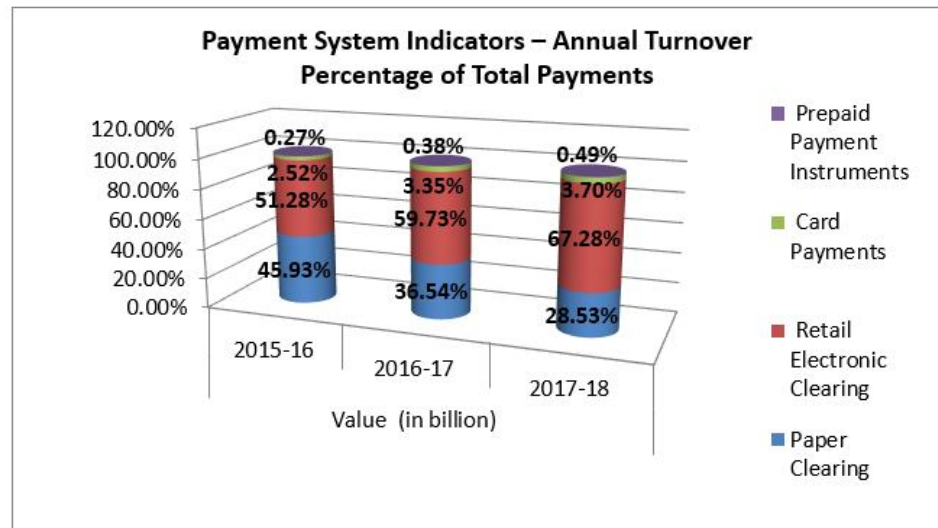
FINDINGS

➢ India is moving towards digitalization in full swing, with introduction of various digital payment systems.

➢ The share of paper based clearing is declining on an average by 8.5% per year.

➢ People have started trusting prepaid payment instruments for various day to day expenses and utility needs. However their contribution in terms of value is not significant.

➢ In terms of volume of transactions, Card payments and PPIs are being widely used whereas in terms of value, their average combined share in total payments is only 3.57%

➢ Card payment in terms of value have shown an average growth rate of 8%

➢ Paper based clearing is showing a steady decline on an average by 8.5%

CONCLUSION

RBI, after considering the development in Technology has updated the channels of settling the transactions from time to time. It's an appreciable job on part of statutory bodies like National Payments Corporation of India, card facilitators, Core Banking Solutions member banks and RBI, to innovate and maintain digitalized payment infrastructure. Considering the statistics, it can be concluded that Indian economy has accepted the newer modes of payment, very easily and enthusiastically. This has mainly happened because of involvement of Government and RBI. In addition to their contribution, Legislative Provisions, in place for digital transactions have also established trust in the minds of people of India

Considering the declining share of paper based transactions, it can be said that, people are ready to switch from paper based settlement to electronic mode of settlement, mainly because of Convenience and simplicity.

REFERENCES

• Arpita Pandey, IMPACT AND IMPORTANCE OF DIGITAL PAYMENT IN INDIA: International Journal of Creative Research Thoughts (IJCRT), JB Institute of Technology, Dehradun & IJCRT, April 6-7, 2018 ISSN: 2320-2882

• Aladwani, A., "Online Banking: A Field Study of Drivers, Development Challenges, and Expectations," International Journal of Information Management, vol. 21, pp. 213-225, 2001.

- Chatterjee, Sonjoy, Payment systems in India: Current challenges and opportunities: Journal of Payments Strategy & Systems, Volume 2 / Number 1 / October, 2007: Henry Stewart Publications

- Sumanjeet, Singh, Emergence of Payment Systems in the Age of Electronic Commerce: The State of Art (July 24, 2009). Global Journal of International Business Research, Vol. 2, No. 2, 2009. Available at SSRN: https://ssrn.com/abstract=1536620

- Dezan Shira & Associates (2018, November 30). Growth of Digital Payment Systems in India. Retrieved from https://www.india-briefing.com/news/growth-of-digital-payment-systems-in-india-14797.html/

- Govt. of india: Digital Payment Methods. Retrieved January 18, 2019, from http://cashlessindia.gov.in/aeps.html

- Julia Kagan: Automated Teller Machine - ATM: (Aug 3,2018) available at :https://www.investopedia.com/terms/a/atm.asp

- NCPI: AePS Product Overview. (2018, April 24). Retrieved from https://www.npci.org.in/product-overview/aeps-product-overview

- *Rbi.org.in. (2019).* Reserve Bank of India - Function Wise Monetary. *[Online] Available at: https://rbi.org.in/scripts/FS_Overview.aspx?fn=9#div6 [Accessed 17 Jan. 2019]*

- Rbi.org.in.*"Overview of Payment Systems in India". Reserve Bank of India.Retrieved24 January 2015.*

- RBI: Payment and Settlement Systems: Electronic Payment: Retrieved from https://rbi.org.in/scripts/FS_Overview.aspx?fn=9#div6

- Shetty, Mayur. "No of Swipe Machines up 10 Lakh since November 8 - Times of India ►." *The Times of India*, Business, 11 Apr. 2017, timesofindia.indiatimes.com/india/no-of-swipe-machines-up-10-lakh-since-november-8/articleshow/58118049.cms.

- Wikipedia contributors. (2018, December 31). Immediate Payment Service. In Wikipedia, The Free Encyclopedia. Retrieved 07:17, January 18, 2019, from https://en.wikipedia.org/w/index.php?title=Immediate_Payment_Service&oldid=876135599

- Wikipedia contributors. (2018, December 8). Unstructured Supplementary Service Data. In *Wikipedia, The Free Encyclopedia*. Retrieved 11:20, January 30, 2019, from https://en.wikipedia.org/w/index.php?title=Unstructured_Supplementary_Service_Data&oldid=872748153

- Wikipedia contributors. (2019, January 18). Cheque. In *Wikipedia, The Free Encyclopedia*. Retrieved

- 46, January 18, 2019, from https://en.wikipedia.org/w/index.php?title=Cheque&oldid=879901531

A STUDY ON THE ROAD MAP FOR CRM WITH SPECIAL REFERENCE TO ONLINE BRANDS

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ABSTRACT

This paper is a study on the road for CRM with a special focus on online brands. Initially, I have analyzed and explained the actual concepts of CRM, roadmap and online brands. In my research findings, I have compared the before and after internet impact on the marketing scenario. I have also mentioned briefly, the history of CRM and the formation of online brands. I have further analyzed the future road for CRM in the online markets sector and what trends will prevail in the coming years that will affect the formation and implementation of the CRM strategies. In my research findings, I have analyzed the loopholes in the current CRM strategies of the online brands and have also provided measures to remove the same. This paper then ends with a few of my recommendations and a conclusion regarding the same.

Keywords: Convenience, customer data, customer relationship management (CRM), future roadmap, lacunae, internet.

INTRODUCTION

Customer Relationship Management is nothing but a strategy that helps create and maintain customer relationships and also helps in forming a link with potential customers. This strategy helps in increasing the profitability of the respective company. The main purpose of CRM is that it enables the company to maintain a profitable relationship with customers through customer loyalty and retention and also to attract new potential customers.

CRM is not a new concept introduced in the business world. It has been practiced for centuries when a seller customized the product or service as per the needs and wants of the particular customer in order to satisfy him completely. However, as the business grew with the increased number of customers requiring mass production of goods and services and some also expanded geographically, this led to a decrease in the interaction of the businesses with their customers. There was an era in the previous centuries where the market was a majorly seller-driven market who did not take customer's wants into consideration. After the industrial era, the need for maintaining customer relationships re-emerged due to reasons like technology advancement, increase in competition in the market, growing importance of the service sector, management programs adoption and also customers' easy access to various platforms through the internet.

The Evolution of Relationship Orientation
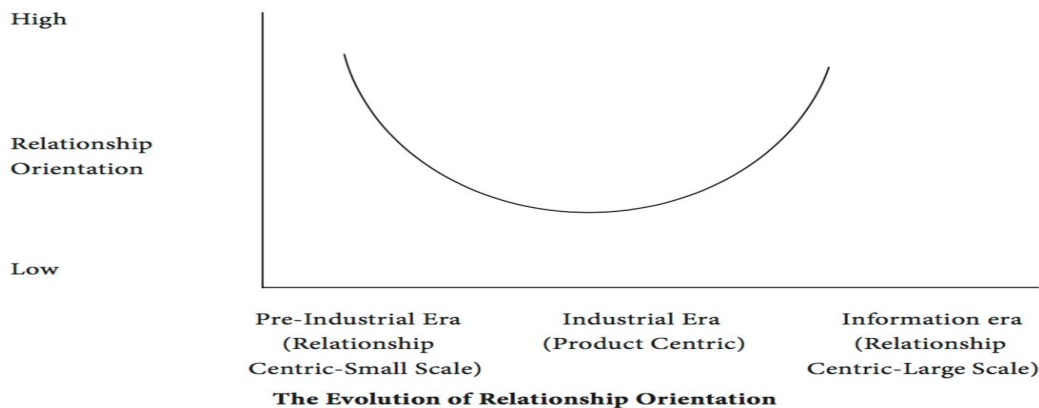
The internet has significantly helped the sellers to come closer and reach the customers. Firms with the help of technology have successfully reached out to the customers and provided them the required goods and services as per their preferences. This has been proved as an immensely successful strategy incorporated by the online brands which shall be discussed further in the research.

What is CRM Roadmap?

The **CRM Roadmap** makes it feasible for the company to achieve their respective goals. CRM Roadmap helps the organization in strategizing and identifying the customer needs and how to surpass their needs. It also helps in achieving the organization's goals which may or may not include profits. This can be done through by keeping a check on consumer behaviors, their tastes, and preferences, by aiming at a certain number of sales, by providing Customer Service which is nothing but after-sale service that helps to increase customer loyalty.

The concept of Online Brands

The concept of online brands has been very much publicized in the current marketing scenario where customers place their orders through a website or mobile application and the order gets delivered at the specified place within a particular period of time. The main advantages provided by such online brands are convenience, time-saving, feasible to use anywhere and also the main aspect is the price. Customers believe in value for money which has been clearly fulfilled by such online brand platforms that have actually helped them to rise to such a high level in the market.

Storing customer information through CRM is the major process on the basis of which the online brands have successfully expanded their e-commerce platform. It helps them in storing both, current and prospect customer data. One more benefit of CRM is that it is easily accessible to the employees anytime and anywhere since most of the CRM platforms are cloud-based and just need a Wi-Fi connection to access it. It provides the following benefits to the online platforms:

- Helps in understanding the customers in a better way

- Helps in attracting new and potential customers

- Helps in achieving customer retention

- Helps in reducing customer management costs

- And helps in integrating with an e-commerce platform.

From a business partnership perspective, working relationships are heightened because e-commerce companies with CRM platforms are able to more effectively provide quality customer service.

OBJECTIVES OF THE RESEARCH

1. To study the future road for CRM with respect to online brands.
2. To identify the lacunae in the existing CRM practices followed by online brands.
3. To suggest measures to enhance the effectiveness of CRM and online brands.

RESEARCH METHODOLOGY

Only secondary data will be used to collect the required information for the present study. The secondary data would be collected from sources like books, journals and research projects, web, newspaper articles, internet, etc.

REVIEW OF LITERATURE

Vijayakumar, K., & Balasiddamuni, P. (2012) in their theses, 'STRATEGIC MODELS FOR CUSTOMER RELATIONSHIP MANAGEMENT' have briefly mentioned this new concept. They believe that the best CRM system is the one, the company actually uses. In their thesis, they have analyzed the history of CRM regarding how it started and how this concept further expanded in the business world. They have also mentioned how businesses misunderstand CRM as a technology solution. They have further analyzed operational, analytical and collaborative types of CRM in their thesis. They mentioned the benefits of each and however, not much has been explained about it all. They believe that the commercial penetration of internet into the homes has led to the evolution of CRM. They have also analyzed the future trends in CRM and the future road of business especially the online brands that will shape the CRM strategies. However, not much has been mentioned about the impact of the future trends on the online businesses. They have mainly focused on different statistical models of CRM.

SIGNIFICANCE/ IMPLICATIONS OF THE RESEARCH
THE FUTURE ROAD FOR CRM
Role of Mobile Phones

In the 21st century, with easy access to technology, the CRM implementation is now highly depended on how your brand is portrayed on online platforms. Nowadays consumers do not have the time to continuously leave their work and buy the products they need. Technology has made it possible and easier for the customers to order the goods and services they need and get them delivered at their doorstep just through their fingertips. All they need to do is specify the time and places where the product is to be delivered. Online brands run on this strategy only. Mobile phones play a major role to make this technology available to the customers. Mobile phones are now the major source through which the online sellers can engage with their customers even though they have not actually met them in real life. Applications such as web designing, content development, online blogging, messaging, online advertising, etc. are now significant for an online brand to implement its CRM policy.

Strengthening e-commerce and CRM
The following years for an online seller will be about keeping up on the trends and also grabbing every opportunity they get in order to maximize their profits. The brands need a constant and a regular focus on the customer's changing likes and dislikes through various methods like online surveys, accessing and analyzing their search history, their personal information (not any sensitive data) available online, etc. and create an opportunity and serve them as per their needs and requirements. The online brands could use behavior analytics to understand e-commerce and CRM.

Keeping up with Social Media
With the increase in the use of social media by a large part of the population, it is most beneficial for the online brands to propagate and advertise their respective brands on social media. It provides a great platform for them to create brand awareness. The best way to achieve this is through content marketing.

Omnipresence on each and every Platform available on the Internet
Propagate your brand on each and every platform available online in order to reach as many customers possible. People have different internet usage. Some may prefer Facebook, some Twitter, Youtube, Quora, blogs, online newsletter through emails, and the list is endless.

For an online brand to be successful at marketing you need to have strong content on all channels. You need to realize that you can not find all your customers on one single platform which is why an online seller need to create a multi-channel strategy in order to have a create widespread propaganda regarding its respective brand.

Word-of-Mouth Advertising
This strategy has been successfully implemented by online platforms like Swiggy, Zomato, Amazon, Lyft and many more to gain the exposure they require. In this digital age, this strategy has been proven to be faster and more effective than anything else. In its early days, Lyft actively targeted the tech-savvy community in San Francisco since they knew that they would share their experiences both offline and online. They aimed at providing exceptional service and thus made it easier for their customers to propagate their company.

MAJOR DRAWBACKS
One of the biggest mistakes that are committed by the online brands is that they tend to post self-promotional material only. The brands should prioritize and learn how to balance the self-promotional with the actual useful information for the customers. They should respond to those whoever interacts with their web profiles in order to boost their rapport and confidence amongst their customers.

The hostility level displayed by various websites has proven to be very inconvenient for the customers. All customers want a simple and comfortable usage of the website and not get tortured by thousands of amateur websites popping before them. This problem is a result of all the online brands striving to achieve mediocrity and not excellence. This has nothing but devastated the online experience for the customers.

The other flaw in the CRM implementation by the online brands is that the user's work being thrown away online. For example, while using an online clothing shopping site, suppose a person has added all his favorite clothes into the shopping cart by going through the entire collection available on the website for hours. If he takes some more time to order, then there is a good possibility that his cart will automatically get emptied due to the inefficient working of the website and the customer will get frustrated.

Nowadays, many online sites have been attacked by the outside hackers that have to lead to the leakage of personal and sensitive data of the customers like their bank details being given out and many more. This has created distrust among the customers to make an online transaction due to such kind of breach of data and thus forms another loophole in the CRM policy of the particular brand.

LIMITATIONS OF THE STUDY
This study is not explanatory as it is based on only secondary data of books, researches, articles, etc. It is not based on a practical research because of time and money constraints.

CONCLUSIONS/ RECOMMENDATIONS
Security must be a prime concern
The companies now must secure the e-commerce transactions and prioritize the security of the customer data and prevent any leakage of the same.

Neatly organized user interface
The online selling platforms should be organized and easy to use by the customers. It should not involve any complications. The descriptions about the products must be detailed and accurate so as to create no

misconceptions in a customer's mind. Also, the websites should try to block as many pop-ups as they can in order to improve the user's experience.

Determine the roadmap

To be successful, one must have a proper plan to implement their strategies and achieve their respective goals. For online brands to draw a roadmap and timeline they need to align their business goals, processes, and technology.

Most e-commerce projects may be divided into seven phases:

1. Technology awareness- This will help to get everyone working for the business to think and move towards the same direction to achieve their organizational goals.

2. Needs assessment/ Business case preparation- A business case should consider all the major and minor aspects that directly or indirectly impact the company.

3. Functional requirement specifications- These specifications are formulated to ensure support of the existing applications and any new or enhanced applications identified in the plan.

4. Go to market strategy- A GTM strategy helps the business to reduce their chances of failure dramatically.

5. Development- The brand should develop its business with the help of the specifications formulated before.

6. Implementation and Training- After the development stage, one must implement the program and train its employees for the same.

7. Market Roll-out- Once the application has been tested effectively, the brand can go ahead and release its program to the outside world.

Hence, I would like to conclude my research by stating that a good brand always starts with its consumers. They understand who their consumer is and how would they use their online channel to shop at their site. The online brands need continuous research, feedback, and usability testing to continue to monitor and evolve the customer experience online. Customers mainly want convenience and ease of ordering. This must be fulfilled by the brands through proper implantation of CRM and other marketing strategies.

REFERENCES

➢ Babu, H., Kadavil, R., Manjula, N., & Thampi, S. (n.d.). *Customer Relationship Management* [Scholarly project]. In *Pondiuni.edu.in*. Retrieved January 15, 2019, from http://www.pondiuni.edu.in/sites/default/files/CRM-260214.pdf

➢ Boulding, W., Staelin, R., Ehret, M., & Johnston, W. J. (2005). A Customer Relationship Management Roadmap: What is Known, Potential Pitfalls, and Where to Go. *Journal of Marketing,69*(4), 155-166. doi:10.1509/jmkg.2005.69.4.155

➢ Chaffey, D., Edmundson-Bird, D., & Hemphill, T. (2019). *Digital business and e-commerce management: Strategy, implementation and practice*(Fifth ed.). Harlow, England: Pearson.

➢ Cunningham, M. (2002). *Smart things to know about e-business*(1st ed.). Oxford: Capstone.

➢ Jan, M. T., Omar, A., Zain, O. M., & Abdullah, K. (2011). A ROADMAP FOR CRM SUCCESS: IN LIGHT OF THE TECHNOLOGY CSFS. *JM INTERNATIONAL JOURNAL ON MARKETING MANAGEMENT,1*(3), 181-192.

➢ Kaur, M. (2018). Customer Relationship Management in Online Grocery Stores. *Journal of Business & Financial Affairs,07*(02). doi:10.4172/2167-0234.1000339

➢ Lawton, G. (n.d.). The future of e-commerce and CRM: What to watch. Retrieved January 18, 2019, from https://searchcrm.techtarget.com/feature/The-future-of-e-commerce-and-CRM-What-to-watch

➢ Tamošiūnienė, R., & Jasilionienė, R. (2007). Customer Relationship Management As Business Strategy Appliance: Theoretical And Practical Dimensions. *Journal of Business Economics and Management,8*(1), 69-78. doi:10.3846/16111699.2007.9636154

➢ Vijayakumar, K., & Balasiddamuni, P. (n.d.). *Statistical Models for Customer Relationship Management* (Unpublished master's thesis). Sri Venkateswara University, Tirupati. Retrieved January 21, 2019, from http://shodhganga.inflibnet.ac.in/bitstream/10603/143767/6/06_thesis.pdf

THE STUDY OF ELECTRONIC FUND TRANSFER SYSTEMS

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ABSTRACT
An electronic funds transfer system (EFTS) is a transfer system in which money can be transferred to business or individual accounts without requiring paper money. Electronic funds transfer systems are used for payroll payments, online transfers, mortgage payments or bills payments. Due to its benefits, electronic funds transfer systems are promoted all financial institutions. This research paper of study of electronic fund transfer system is described several electronic fund transfer services. Compare several types of electronic currency, list consumer protections under the Electronic Funds Transfer Act.

INTRODUCTION
Electronic banking, also known as electronic fund transfer (EFT), uses computer and electronic technology are replacing other paper transactions. EFTs is initiated through devices like mobile phones, computer, debit and credit cards or password and login id that let you, or those you authorize, access your account. All financial institutions including banking system use, unified payment interface (UPI) credit and debit cards and Personal Identification Numbers (PINs), Login id and password for this purpose. Some use other types of debit cards that require your thumb impression, signature or a scan. For example, some use radio frequency identification (RFID) or other forms of "contactless" technology that scan your information without direct contact with you, The federal Electronic Fund Transfer Act (EFT Act) covers electronic consumer transactions.

An electronic funds transfer system (EFTS) is a transfer system in which money can be transferred to business or individual accounts without requiring paper money to change hands. Electronic funds transfer systems are used for payroll payments, debit or credit transfers, mortgage payments or other payments. Due to its benefits, electronic funds transfer systems are promoted by all financial institutions.

RESEARCH METHODOLOGY
The entire study based on secondary data collected from various online study webs site, the financial institution web site, governments' webs site.

SEVERAL ELECTRONIC FUND TRANSFER SERVICES
ATM's
Automated Teller Machines (ATMs) also called 24-hour tellers are electronic terminals which give consumers the opportunity to bank at almost any time. To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number. Some ATMs charge a usage fee for this service, with a higher fee for consumers who do not have an account at their institution. If a fee is charged, it must be revealed on the terminal screen or on a sign next to the screen.

Direct Deposit and Withdrawal Services
Direct Deposit and Withdrawal Services allow consumers to authorize specific deposits, such as paychecks or social security checks, to their accounts on a regular basis. It is also possible to authorize the bank, for a fee, to withdraw funds from your account to pay your recurring bills, such as mortgage payment, installment loan payments, insurance premiums and utility bills.

Pay by Phone
Pay by Phone Systems let consumers phone their financial institutions with instructions to pay certain bills or to transfer funds between accounts.

Point-of-Sale Transfer
Point-of-Sale Transfer Terminals allow consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference the money for the purchase is transferred immediately from your account to the store's account. You no longer have the benefit of the credit card "float", that is the time between the purchase transactions and when you pay the credit card bill. With immediate transfer of funds at the point-of-sale, it is easy to overdraw your checking account and incur additional charges unless you keep careful watch on spending.

Personal Computer Banking Services

Personal Computer Banking Services offer consumers the convenience of conducting many banking transactions electronically using a personal computer. Consumers can view their account balances, request transfers between accounts and pay bills electronically from home.

TYPES ELECTRONIC CURRENCY

Debit cards

Check Cards, the new name for debit cards, can be used instead of cash, personal checks or credit cards. As stated, when you use a check card you transfer funds immediately from your account to the store's account. A growing number of consumers use check cards because they eliminate the hassle and risks of writing checks or carrying large amounts of cash. Important facts you need to know are:

➢ You have less bargaining power with a check card than with a credit card. With a credit card you have the right to refuse to pay for the purchase if you are not satisfied. With a debit card you have already paid for the product, so you have less bargaining power with the merchant.

➢ A thief with your check card and PIN number can take all the money in your account. The thief can even make point-of-sale purchases without your PIN.

➢ Your liability is limited to Rs.3000 if you report the check card loss within two days, any longer and your liability can go to Rs.30000. After 60 days, you can be responsible for the entire amount.

Note: MasterCard and Visa have voluntarily capped the loss liability of check card holders at $50. "As welcome as these voluntary protections are, they are too important to be left to the kindness of bank marketing departments," writes Consumer Reports. The consumer advocacy magazine advocates federal law changes to make consumer liability caps mandatory.

➢ In an era of increasing bank fees, consumers can expect to pay for the service of using a check card.

➢ It is the consumer's responsibility to keep check card receipts and deduct the dollar amounts of the purchase from your bank balance immediately, in order to avoid overdraft changes.

Smart Cards

Smart Cards, sometimes called stored-value cards, have a specific amount of credit embedded electronically in the card. For example, a $100 smart card that you have purchased in advance can be used to cover expenses such as pay phone charges, bridge or expressway tolls, parking fees or Internet purchases. These cards make the transaction fast, easy and convenient.

Smart card technology is in a period of rapid change. Ultimately consumers should be able to customize their smart cards to suit their financial needs with access from their personal computer or cellular phone. Some important consumer issues are:

➢ Smart cards are the equivalent of cash so must be guarded.

➢ Procedures for recovering the value of a malfunctioning smart card are unclear.

➢ The computer chip within the card will contain both financial and personal information. Privacy and security issues could be a problem.

➢ Smart cards may not be covered by the Electronic Funds Transfer Act in case of loss or misuse of the card.

Digital Cash

Digital Cash is designed to allow the consumer to pay cash rather than use a credit and debit card to purchase products online. One type of digital cash allows consumers to transfer money from a financial institution or a credit card into an "electronic purse". The cash is held in a bank account that is linked to your computer. Another type of digital cash converts money into digital coins that can be placed on your computer's hard drive.

Digital cheques

Digital cheques allow consumers to use their personal computers to pay recurring bills. Consumers can use computer software provided by a bank, online banking, mobiles application or they can use personal finance software packages such as paytm and subscribe to an electronic bill-paying service. The technology of paying bills electronically by home computers is advancing rapidly, but relatively few businesses currently can accept payments made directly by computers. Digital checking is expensive. Fees generally run from rs.300 to rs.600 a month for 20 transactions. Privacy and security issues are major consumer concerns. Encryption technology may lessen privacy concerns in the future and the transactions are simpler.

CONSUMER PROTECTION -- ELECTRONIC FUNDS TRANSFER ACT

The 1978 Electronic Funds Transfer Act is the governing statute while the Federal Reserve Board's Regulation "E" provides guidelines on electronic funds transfer card liability. The regulations require that:

➢ A valid EFT card can be sent only to a consumer who requests it.

➢ Unsolicited cards can be issued only if the card cannot be used until validated.

➢ The financial institution must inform you of your rights and responsibilities under the law in a written Disclosure Statement, including the procedure to correct errors in your periodic statements.

➢ The user is entitled to a written receipt when making deposits or withdrawals from an ATM or using a point-of-sale terminal to make a purchase. The receipt must show the amount, date and type of transfer.

➢ Periodic statements must confirm the amount of all transfers, the dates and types of transfers, type of accounts to or from which funds were transferred, and the address and phone number to be used for inquiries regarding the statement.

Problems and Errors

You have 60 days from the date a problem or error appears on your written terminal receipt or on your periodic statement to notify your financial institution. If you fail to notify the financial institution of the error within 60 days, you may have little recourse. Under federal law, the financial institution has no obligation to conduct an investigation if you have missed the 60-day deadline.

Lost cards

If you report an ATM or EFT card missing before it is used without permission of card holder, the card issuing company cannot hold you responsible for any unauthorized withdrawals. If unauthorized use occurs before you report it, the amount you can be held responsible for depends upon how quickly you report the loss.

If report , the loss of debit and credit cards within two business days after realize the card is missing but report of loss within 60 days after checking financial statement ,could lose as much as Rs. 30000 because of an unauthorized withdrawal.

If you do not report an unauthorized withdrawal within 60 days after your statement is mailed, you risk losing all the money in your account plus the unused portion of your maximum line of credit established for overdrafts.

CONCLUSION

Financial self-sufficiency is the strategic objective for EFTS. Electronic funds transfer system enable society easiest, quick and safest transaction for payments. It's saved lot of time and paper work. Upgrading technology and advanced software with the help of internet mobile phones are replaced to computer, paper work. Due to its benefits, electronic funds transfer systems are promoted by all financial institutions.

ABBREVIATION

EFT's - An electronic funds transfer system

PAN - Personal Identification Numbers

ATM - Automated Teller Machines

REFERENCE

• https://searchwindowsserver.techtarget.com/definition/Electronic-Funds-Transfer-EFT

• https://www.consumer.ftc.gov/articles/0218-electronic-banking#electronic

• https://www.techopedia.com/definition/11452/electronic-funds-transfer-system-efts

• https://www.ncbi.nlm.nih.gov/pmc/articles/PMC521521/

• https://study.com/academy/lesson/what-is-an-electronic-funds-transfer-definition-process-benefits.html

A STUDY ON DIGITAL MARKETING IN AUTOMOBILE INDUSTRY

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ABSTRACT

This research paper provides understanding of how digital marketing takes place in an automobile industry. The purpose for writing this research paper is to increase the understanding of how automobile companies promote their cars over the internet. I have used secondary data for conducting this research. The research includes different mediums to promote automobiles such as social media platforms and websites. Research also includes how an automobile company earns revenue only by promoting the car over the internet. The research acknowledges how customers find it convenient when digital marketing is used rather than a traditional method. The research is in compliance with how an automobile company can successfully use the digital marketing tools to bring profits. The research shows how an automobile business can face competition as it is very important in a highly competitive world. The research covers the challenges and opportunities that comes across automobile sector. Thus, the research highlights how important it is for an automobile company to make use of digital marketing, it's different mediums and how it enriches the company's brand name by facing challenges and finding opportunities.

Keywords: digital marketing, automobile industry, digital marketing tools, challenges and opportunities, automobile revenue, benefits of digital marketing in automobile.

INTRODUCTION

Digital marketing is a way to promote product or service online over the internet. Automobile industries make use of such opportunities and increase their reach. They earn revenue through placing advertisements on platform like YouTube and also make available information about their cars on website. This reduces the work of the customers as the information is readily available and the doubts of the customers are solved easily. There are various ways in which an automobile industry promotes it's cars online. Customers can directly interact with the company and clear their doubts chat with one of the employee of the company. Digital marketing plays a very important role in automobile industry as customers nowadays spend more time on the internet rather than viewing advertisements in magazines or newspapers. There are also many benefits that highlights the importance not digital marketing in automobile industry.

AIMS AND OBJECTIVES

- To study the concept of digital marketing.

- To understand how digital marketing helps automobile industry.

- To recognize the need of digital marketing in automobile industry.

RESEARCH METHODOLOGY

This research is accomplished with the help of secondary data available on the internet. Secondary data refers to the data collected by someone else and presented to the researcher in the form of articles, write ups, blogs etc. The main motive of researching with the help of secondary data is to get a subtle understanding about the research topic.

REVIEW OF LITERATURE

McKinsey (2012) conducted a study of about 24 approach points of customers while purchasing a car, on over 9000 customers and it was found that digital advertising experience was placed at second position just behind the live experience. It was also found in the study that digital advertising channels dominate the purchasing "journey". The purchasing journey of cars involves a number of different phases from awareness to consideration, to short listing, to service, and ultimately, to purchase. While running through their journey awareness to purchase, customers increasingly rely on digital advertising channels.

Microsoft Advertising (2013) conducted a study to know how purchasers were getting profited from portable car publicising technique and found that mobile shoppers were captivated with auto related exercises and were utilising versatility of Internet to purchase vehicles. 22 percent of all Internet clients looked for or obtained an auto in the previous six months.

FACTS AND FINDINGS

Digital Marketing tools

Social video sharing has gained a lot of importance in the recent years. Live streaming is preferred more than pre recorded videos. YouTube is the most influential tool when it comes to digital marketing. Automotive shoppers usually use YouTube over newspapers and magazines. Automobile industries use VIN Specific Campaign to attract shoppers. Vehicle Identification Number helps the company by surrounding the customers by a particular car model which customers viewed before. With VIN specific Facebook and display remarketing, automobile companies follow the customers by displaying advertisements around customers Facebook wall and make them remind of the car they checked out earlier. Social media marketing helps the company to create their reach. All they do is they create a Facebook page of their company and posts information about all the current cars as well as upcoming cars. This directly helps the customers to know the brand more easily and customers get the information they want at their fingertips. Customers can directly message on the page and ask for more information about the products they are interested in. Another important aspect is the mobile marketing. Whatever and wherever an automobile advertisement is placed the industry needs to make sure that it can be viewed properly on mobile phones. People don't surf their laptop or computer as much as they surf their cell phones.

Challenges and opportunities: -

When all the information is directly given to the customers it creates confusion and makes them ask many questions. Even if most of the positive points of a car are displayed the companies end up answering negative questions. Sometimes customers may not understand an advertisement properly and spread a bad image of the company. Even people may not be aware of digitization and may also fear to give their personal details. Inspite of the challenges there are many opportunities on the part of company as well as customers. Opportunities on the part of customers is that they can make use of the offers given by the company. A notification can work best for the customers to know the best deal according to their budget. On the part of the companies, they can make campaigns and promote their car at a very low cost. Companies can even create a hype by aggressive advertising.

Digital Marketing and Automobile's revenue:

Digital marketing not only helps a company in promotion but also gives a large amount of revenue. It can be done in a simple way called YouTube advertisement. The company places an advertisement on YouTube's main display advertisement area. So when the audience opens YouTube they will se that advertisement on the top of the YouTube app or website the entire day. This makes the company pay a certain amount to display the advertisement and promote their car and in turn gives company huge amount of views on the video advertisement. So firstly, it makes their car create a buzz among the viewers and secondly, it generates decent amount of revenue which depends on the views to some extent. Also an average advertisement reaches 5-7million views on the particular day on which the advertisement was displayed.

Benefits to Automobile sector:

Digital marketing enhances online reputation management. Around 80 percent of the customers but automobile on the basis of recommendations and online reviews. This makes people more aware about the brand. On social media consumers are in constant touch with the brand which increases brand royalty and customers feel inclined towards the brand. When proper search engine optimization is done, it surely helps the automobile brand to top the search results and make their brand the first thing to click in customers mind when it comes to cars. Digital marketing provides proper statistics of the outcome of the campaigns. Users can also share, comment and discuss about the automobile.

Digital marketing helps to identify the current automobile trends, customers need, performance tracking and helps the brand to improve everyday. It helps to select a particular target audience which is not possible in traditional advertising. For example a company can target the middle class if it's maruti and rich class if it's Audi and make their advertisement reach only to that segment of customers. Social media marketing can boost the sales of the cars where Facebook plays a very crucial role because around 65 percent of the buyers respond to Facebook advertisement.

AR and VR:

Car buyers are happy to purchase cars online so companies have started using Augmented reality and visual reality to demonstrate their model's features to potential customers. AR is the computer generated image of the real world giving a composite view. VR enables dealers to showcase models to the customers wherever they are and allow them to make configurations. Audi and Volvo can be the best examples. Audi has bought huge display walls and tablets that is a huge improvisation in it's showrooms. Volvo has teamed up with Google

Cardboard that makes the customers see the preview of the latest models wherever they are. Audi's smallest showroom in UK gained huge amount not success as customers booked cars without physical test drive. That's how VR worked for Audi. Hyundai came up with a pop-up in Bluewater shopping centre called rokar Hyundai. This being a digital store, customers can book a car or a test drive, can get exchange value for their old cars, choose a payment option and organise a service at the touch of a button. By 2020 most of them cars will be booked online making it very convenient for the customers as well as the company.

CONCLUSION

Digital marketing thus makes a huge difference in the automobile industry making it convenient for the industry in each and every aspect let it be promotion, booking a car or a test drive or any other thing at a low cost. Customers can enrich their knowledge and make decisions on the basis of information and features available on the internet which keeps the buyers interested. Automobile industry also faces some challenges but the opportunities are always more than challenges. Digital marketing has helped company to save cost and the future of automobile will be full on digitization from selecting a model to buying a model.

BIBLIOGRAPHY

- Hallam (2017) .Digital marketing in automotive industry.Retrieved from https://www.hallaminternet.com/digital-marketing-automotive/amp/

- Paul Ress. (December 18,2017) Top 2018 Digital Marketing Automotive Trends you need to know. Retrieved from https://www.digitaldealer.com/top-2018-automotive-digital-marketing-trends-need-know/

- The Digital Gazette. (February 12,2018), Digital marketing trends in automotive industry. Retrieved from https://www.digitalrepublik.com/digital-marketing-newsletter/2018/02/20/benefits-of-digital-marketing-strategies-for-automotive-industry/

AN OVERVIEW OF 5G MOBILE TECHNOLOGY

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ABSTRACT
From generation 1 G to 2G and 3G to 5G we have various changes in telecommunications. We have number of advancements with improved performance the changes can be seen in the way we interact and learn. Here wireless medium is used for communication which is also known as GFDM it means generalised frequency division multiplexing. We also have several short things coming in the technology like setup was more costly. But it has advantages like it is wireless and working on high speed technologies.

Keywords: Zero Distance, Speed Performance, OFDM, GFDM

INTRODUCTION
Fifth-generation wireless (5G) is the latest cellular technology, engineered to greatly increase the speed and responsiveness of wireless networks. With 5G, data transmitted over wireless broadband connections could travel at rates as high as 20 GBPS by some estimates -- exceeding wireless network speeds -- as well as offer latency of 1 m or lower for uses that require real-time feedback. 5G technology surely increase in the amount of data transmitted over wireless systems due to increased bandwidth and efficient antenna technology.

In the year 1982 1G was introduced and exactly after 10 years 2G was introduced in the year 1992. After 9 years 3G was introduced in the year 2001. Later 4G was introduced in the year 2012. Now 5G will be available from 2020. It is available in some countries still not completely available in all countries. All the Features are not yet defined. It is wireless Technology with many features. Since data users are increasing every year with new Technology to meet the needs of customers we need a very good technology like 5 G.

5 th generation mobile has to give better performance when compared with 4 G. The coverage and connectivity should be good in new system and this new technology has to give good business. It has to focus on connectivity, speed issues. The drawbacks of 4G like lack of coverage, dropped calls and low performance at cell edges has to be addressed in 5G. For achieving all this new methods of technology and Wireless World Wide Web technology (WWWW) is used. High frequency bands are used in 5 G. Signal is lost with trees , plants and rainfall, This model is trying to provide very good frequencies of data like 100 GHz to provide good signal.

RESEARCH METHODOLOGY
This research focuses on study of upcoming technology 5G wireless communications. This new technology is IP based where we need to study the architecture of 5G,Features of 5G,standards followed by 5G,research projects for developing 5G,services provided by 5G,Requirements of 5G and wave form requirements of 5G.Here we compared the history of all generation mobiles.

OBJECTIVES
The objectives of this project is to study, investigate an overview of 5G technologies,its architecure and provide solutions for some challenges that were faced in 4G cellular networks. The focus of this research project is the architecture and efficiency of 5G.

FEATURES OF 5G TECHNOLOGY
5G technology offer high resolution bi-directional large bandwidth shaping in mobile phone.

1. The advanced billing interfaces, subscriber supervision tools for fast action, The high quality services make it more attractive.

2. The high quality services are based on fast error recovery.

3. 5G technology is providing large broadcasting of data in Gigabit which supporting almost 65,000 connections.

4. 5G technology offer transporter class gateway with unparalleled consistency.

5. 5 The bidirectional traffic statistics by 5G technology makes it more accurate.

6. Through remote management offered by 5G technology a user can get better and fast solution.

7. The remote diagnostics is one of the best fe ature of 5G technology.

8. The 5G technology also support virtual private network.

9. The uploading and downloading speed of 5G technology touching the peak.

A fresh revolution of 5G technology is about to begin because 5G technology going to give tough competition to normal computers and laptops.The marketplace value of all mobile generation will be effected. There are many advances from 1G, 2G, 3G, and 4G to 5G in the telecommunications world.

The new upcoming 5G technology is available in the market in reasonable prices, high peak future and much more reliability.

5G MOBILE NETWORK ARCHITECTURE
Architecture of 5G Mobile Network is highly advanced. Network elements and various terminals are improved to allow a demanding new situation. Service providers can implement the advance technology. It is all-IP based model for wireless and mobile networks interoperability. Interoperability means "the ability of computer systems or software to exchange and make use of information. "Interoperability between devices made by different manufacturers." It is based upon cognitive radio technology which includes various features such as devices to identify their GPRS , weather, temperature, e.t.c. Cognitive radio technology which is used in 5G architecture acts as a transceiver (beam) that can catch radio signals. It promptly identifies the changes in its environment provide uninterrupted quality service.

Architecture of 5G
As shown in the following image, the system model of 5G is entirely **IP** based model designed for the wireless and mobile networks.
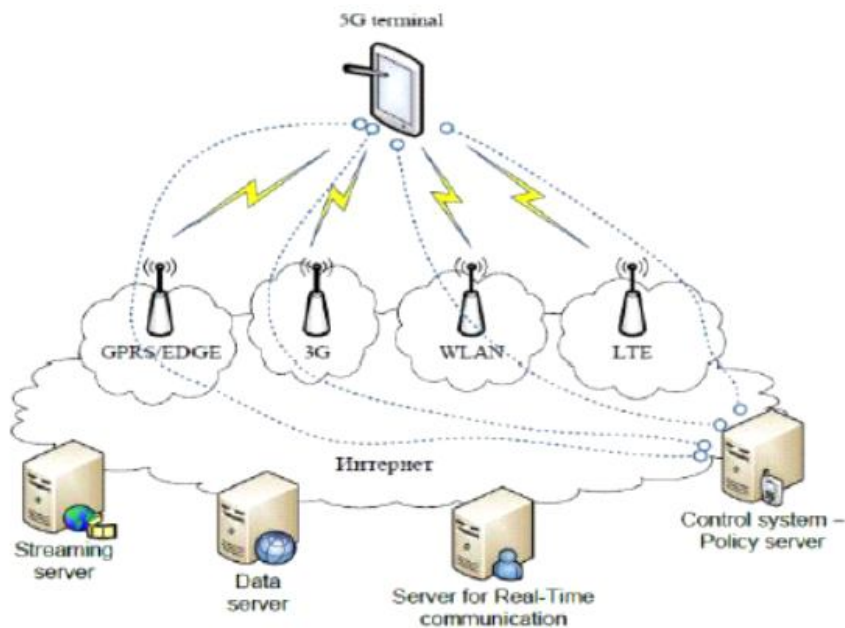
The 5G system consist of a main user terminal and number of independent and autonomous radio access technologies. The IP technology is designed in such a way to provide control data for routing of IP packets related to connections i.e. sessions between client applications and servers somewhere on the Internet.

5G waveform background
Orthogonal frequency division multiplexing has been an excellent waveform used in 4G. It provides superior spectrum efficiency. It operates better with high data rate stream covering wide bandwidths. In 5G also OFDM is used. Here single data stream is split across many data channels.This technology is used by 4G,WiFi,5G,Wireless networking e.t.c

5G waveform requirements

The potential applications for 5G containing high speed video downloads, gaming, car-to-car / car-to-infrastructure communications, general cellular communications,M2M communication. Some of the key requirements of waveform

Include
1. Capable of handling high data rate wide bandwidth signals.

2. Capable to provide low latency transmissions for long and short data bursts, i.e. very short Transmission Tine Intervals.

3. It give fast switching between uplink and downlink for 5G systems that are likely to be used.

5G Research projects
1. Blue Space
Blue Space is a three year European Research project for developing wireless 5G global infrastructur . It is trying to increase the speed of 5G Network by a factor of 100 times compared with 4G and decrease the power consumption by 90%.It is under the program 5G-PPP launched by European commission 2017.

Key challenges to the project 5G infrastructure are

1. Provides 1000 times higher wireless area capacity.

2. Saving energy up to 90% per service. It is using a technology called Photonics the concept from Radio Transmission.

3. Its aim is to connect to trillion devices and serve billion people.

4. Several Applications has to be provided at Lower cost.

2. Metis Project
This is a European 5G Research Project .It is based on two channel model. It is two channel model like Geometric based Stochastic Model (GSC M) or Map based Model. It is designed to work in urban areas

GSCM it is 3rd generation Partnership project for evaluating systems. GSCM gives statistical characteristics to each path based on measured data .It applies to frequencies 70 GHz and below.

Map based Model calculates Propagation characteristics and ray tracing. Ray tracing is computer graphics rendering technique for generating an image by the path of light tracing pixels in an image plane and replicating the effects of its unexpected meeting with virtual objects. This model applies upto 100 GHz.

3. MiWEBA Project
MiWEBA Project has proposed a model called Quasi Deterministic model. It is the hybrid model of GSCM and Map based Models. Its scenarios are Open areas, Hotels, Lobbies e.t.c. Its frequencies are of the range 70 GHz.

5 G concepts:
- **Pervasive Networks**

  Where one user can be connected to several wireless access technologies is called pervasive networks.

- **Group Cooperative Relay:**

  Currently data rates are lower in the low signal levels and higher data interference. This is a technology where high data rates available over wide area of the cell.

- **Cognitive Radio Technology:**

  5 th generation 5G cellular systems use best radio access network, modulation scheme and good configuration schemes to modulate itself to give good results.

- **Wireless mess networking and dynamic adhoc networking:**

  It is said that "A mesh network (or simply mesh net) is a local network topology in which the infrastructure nodes (i.e. bridges, switches and other infrastructure devices) connect directly, dynamically and non-hierarchically to as many other nodes as possible and cooperate with one another to efficiently route data from/to clients." and Dynamic adhoc networks as "Wireless mobile ad hoc networks are self-configuring, dynamic networks in which nodes are free to move". Both these networks will be used in 5G .

NEED OF 5 G
1. It provides high capacity, high speed and low cost data.

2. It support multimedia, voice, videos, broadband services, apps, bidirectional traffic e.t.c

3. It supports 65000 connections at the same time.

4. IT offers remote management facility with fast solutions.

5. In 5G there is global access

6. Because of its high error tolerance it provides high Quality Services.

7. Uploading and downloading speed is very high.

SUGGESTED 5G WIRELESS PERFORMANCE

Latency	< 30 sec
Peak Data	10 GBPS
Cell edge data rate	100MBPS
Network Capacity	10000 times more than current capacity
Throughput	1 GBPS
Traffic volume density	20 GBPS
Availability	99%
Downlink	10-50GBPS
Uplink	10-50GBPS

5G TECHNOLOGY REQUIREMENTS
There are several aspects required with 5G wireless technology.

1. Hyper connected view
Trying to give good coverage to 1 G, 2G, 3G, 4G and other wireless networks. It is trying to provide machine to machine services with internet. Also it provides low throughput devices with Long battery life time of 10 years or more.

2. Next generation radio access Technology
It mostly concentrate on radio specifications iteratively.5G has to meet majority of user demands.

CONCLUSION
No, doubt 5G is working on super high speed and radio propagation Technique.It helps us to build smart cities which helps in building all mobile requirements and services to its extreme levels. It is trying to provide Bidirectional accurate traffic. It can provide high speed wireless network considering number of users. 5G offers network management features, among them network slicing is a feature which permit mobile operators to create collective virtual networks within a solitary physical 5G network. This ablity will permit network connections to support specific users or business cases and could be well sold on an as-a-service basis.

REFERENCES
1. A. Kumar and M. Gupta, "A review on activities of fifth generation mobile communication system," Alexandria Engineering Journal, pp. 1-11, Feburary-2017, DOI 10.1016/j.aej.2017.01.043.

2. A. Yenilmez, T. Gucluoglu and P. Remlein, "Performance of GFDM- Maximal Ratio Transmission over Nakagami-m Fading Channels," in Proceedings of the International Symposium on Wireless Communication.Systems(ISWCS), pp. 523-527, Poland, September-2016.

3. T. Janevski, "Traffic Analysis and Design of Wireless IP Networks", Artech House Inc., Boston, USA, 2003.

4. ITU-T, Y.2001, "General overview of NGN", December 2004.

5. "Functional Architecture for 5G Mobile Networks" by Aleksandar Tudzarov and Toni Janevski published in International Journal of Advanced Science and Technology Vol. 32, July, 2011.

A STUDY ON THE IMPORTANCE OF CUSTOMER LIFE CYCLE MAPPING

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ABSTRACT

Since its inception 40 years ago, marketing mix has dominated the marketing business thought. New approaches are making way, and new streams of marketing have emerged. One of the most important out of these is Relationship Marketing; which is the study of the consumersand their association with the organization over a long term, and this in turnis called Customer Life Cycle. Customer Life Cycle is one of the most importance part of Customer Resource Management. Ithas become indispensible for business organisation to make use of Customer Life Cycle mapping. To become a more customer centric business, CLC mapping is of utmost importance. The primary motive of Customer Life Cycle mapping is to identify the needs of the consumers correctly and allocate enterprise resources effectively and reasonably; and to study the stages that customers go through in their association with the organisation. This research paper studies the importance of CLC mapping, analyzes the relationship between CLC mapping and retention of customers, and also suggests measures to improvise CLC mapping.

Keywords: Customer Life Cycle (CLC), Mapping, Relationship, Organisation, Business, Satisfaction

INTRODUCTION

Customer life cycle refers to the series of stages that indentifies the type of relationship between the customer and the organisation over a time period. There is no real consensus for defining the various stages of the Customer Life Cycle. Most methods begin with the attempt of attracting customers and then the further stages are meant for culmination of the loyalty of the customers. One view of the five stages of the Customer Life Cycle is as follows:

Acquisition: This is the first stage in which the customer has been persuaded by the organisation's overtures and the organisation has been able to acquire the customer. In the acquisition phase, it is important to not disappoint the customer as he/she is purchasing the product for the first time.

Conversion: Conversion is the stage in which the customer has engaged with the company, but has no loyalty and needs to be "converted". This phase is the tipping point which determines whether the organisation has acquired a loyal customer or the customer or whether the customer has moved on to another company.

Penetration: This stage is where the profits occur. In this stage it is important for the organisation to have the ability to culminate a relationship with the customers, so that the customers build a firm loyalty towards the organisation.

Retention: In this stage, the benefits of the loyalty are reaped. The loyal customer tends to buy from the organisation again and again. It is important to keep these customers as their value to the organisation increases exponentially.

Reactivation: This stage includes the group of customers who the organisation has offended, neglected or simply lost out to competition. Even though they have already associated with the organisation and have a negative view about the company, they can still be reactivated and efforts to convert them can be taken. However, such reactivation takes a lot of effort as they such customers are distinctively different than a prospect who has never been associated with the organisation.

Companies analyze each stage of the customer lifecycle to maximize conversions, revenue, and overall satisfaction for their products. As a result, the customer lifecycle and metrics for each stage play key roles in both customer relationship management (CRM) and customer experience management (CEM) strategies.

REVIEW OF LITERATURE

Megdha Gore J (2013) studied the evolution and importance of Customer Life Cycle Management for achievement of customer satisfaction. She found that Customer Life Cycle was coined 40 years ago and has become an integral part of Customer Relationship Management.

Kariuki Caroline Wanjiku (2016) studied the potential of Customer Life cycle mapping in acquiring new customers for the Barclays Bank of Kenya. The results indicated that Customer Life Cycle mapping is important for acquiring new customers. The results also indicated that Customer Life Cycle is a good strategy that can enable companies to have long lasting relationship with customers and improve goodwill.

OBJECTIVES OF RESERACH PAPER

To study the importance of Customer Life Cycle mapping

To analyse the relationship between Customer Life Cycle mapping and retaining customers

To know about improvisation of Customer life Cycle mapping.

RESEARCH METHODOLOGY

This study is about the evolution of controlling as a management function and its effect on organisational efficiency. This paper makes use of data from secondary sources. The paper makes use of secondary data due to insufficiency of time, funds and skill. The data is taken from secondary sources such journals, articles, previous research papers on the topic, etc. The study has used qualitative data for its analysis.

IMPORTANCE OF CUSTOMER LIFE CYCLE MAPPING

For many organisations, customer life cycle mapping against set standards is a great method for determining the relationship between the organisation and the customer. It can also be an excellent way to study where the organisation stands in relation to other similar companies, and how the customers rate the company in comparison to the organisation.

CLC mapping also improves customer service and enhances customer experience. Ultimately, this is seen in the organisations improved sales and profit margins.

CLC mapping helps taking a comprehensive perspective and helps revealing patterns in customers' use of services and goods and also helps to find their hotspots. This in-turn helps in improving the customers' overall experience as the organisation can customise the product to fit the customer hotspot.

CLC mapping helps in steering marketers to the right direction. The data contained in each phase of the customers' journey is used in the overall marketing mix and also helps in providing insight into which of the customers offer greatest lifetime value to the company.

Customer life cycle mapping helps to design services and products that have a significant impact on the customers. It not only helps satisfy customers, but also helps achieve organisational alignment with these life cycles. The organisational goals can be aligned with the CLC to help beat the competition and reign supreme over the market and competition.

RELATION BETWEEN CUSTOMER LIFE CYCLE MAPPING AND RETAINING CUSTOMERS

According to data collected by Gartner, about 80% of a company's future profits come from 20% of its existing customers. Customer retention is mission critical for successful growth. Marketing strategies that improve loyalty through customer life cycle engagement increase the odds that people will make repeat purchases. This makes it critical for organisations to adapt various customer centric strategies to win trust and retain such customers thereby maximizing profits. Customer Life Cycle mapping and processes are made to take advantage of customer affinity towards brands, and make them advocates of the organisation. In today's digital world, organisations capture data about customers to study their patterns and behaviour. This data can be used in CLC mapping to place each customer in the 5 stages. This can help in retaining customers as each customer in each stage can be studied individually and a customised plan for customers can be made. This plan can help in retention of existing customers, converting the unsure ones into hardcore loyal customers of the organisation. In order to cultivate loyal customers, the organisation needs to provide a sense of reward to the retained customers. Using CLC mapping to pinpoint and find loyal customers can benefit the organisation, leading to long haul reliability, heightened cost-efficiency and more profitable relationships. Not all customers are worth retaining and not all are worth the time spent to develop them into loyal customers. Therefore, CLC mapping is of paramount importance to identify which customers are worth retaining so that the organisation's time spent and expenditure incurred can be curtailed.

IMPROVISATION OF CUSTOMER LIFE CYCLE MAPPING

There is no substantial and specific way to map the life cycle of the customers. Customer life cycle mapping depends on organisation to organisation. The type of product sold by the organisation also influences the CLC mapping. To improvise CLC mapping, the following criteria need to be kept in mind:

Product Experience: Once the customer has purchased the product and experienced it, it is important for the organisation to map the CLC on the basis of the product. If the proudct is a durable good, then the CLC mapping period tends to be longer than for a perishable product.

Marketing strategies: Marketing strategies influence CLC mapping in a big way. The marketing strategies are mainly meant for the loyal customers. It is the loyal customers who bring in most of the revenue for the organisation; therefore, CLC mapping of the loyal customers is most important.

Exit Strategies: Exit strategies also determine CLC mapping. Mapping the customer experience simply involves examining each of the stages and asking how the customer can be satisfied at each stage. Exit strategies need to kept in mind while determining CLC.

Purchase strategies: CLC mapping also depends on the purchase strategies of the customers. If the customers do not like spending money on the product, then the CLC will be more conservative. It has to be assumed the marketing strategies used by the organisation have reached the customer and the customer is engaged.

SIGNIFICANCE

The significance of this study is that this study measures and analyses the importance of Customer Life Cycle mapping, the relationship between Customer Life Cycle mapping and retaining customers, and also suggests methods in which CLC mapping can be improvised. The marketing personnel and the managers of the organisation can make use of the paper to study the importance of CLC mapping and take steps to integrate CLC mapping in their marketing strategies. The paper will encourage, leverage consumer research through CLC mapping, enabling organisations to achieve their goals. As customers make the transition from one stage of life cycle to another importance given to different variables in each stage is different. The comparison of the results of factor analysis for different stages reveals the changing roles of customers and also reveals the importance for the organisation to have a sound marketing strategy for each stage of the CLC. Policy makers of the organisation can also benefit from the subject matter of this research paper. The study of the importance of CLC mapping is a wide area of study that researchers can tap into. So, this study would benefit researchers in looking beyond the scope of the present study and impacting to the knowledge already acquired.

LIMITATIONS

This study is not exploratory as it is based only on secondary data from journals, newspaper articles, websites, etc. Constraints on time, funding and skill also are limitations that cannot be overlooked.

CONCLUSION

In this modern age, marketing professionals are being rudely awakened by the disappearance of mass marketing. Marketers find that the traditional marketing methods are no longer so effective as they used to be The search is on for new and more appropriate methods. Niche marketing and relationship marketing are two of the most talked-about methods. The first step in trying to integrate CRM or Customer Relationship Marketing is to develop the hidden tool called customer lifecycle management; synergizing knowledge with relations.Following the customers' lifecycle has become more and more handy tool of CRM. If a company can predict where the customers are in the Lifecycle, it can maximize ones Return on Investment (ROI) and raise the profit..Customer lifecycle maps help a business keep track of the overall customer experience. Sales and marketing often find lifecycle maps very useful, for user experience design they provide a starting point for ideation and understanding of the customers the business has. Hence it is important to Customer Life Cycle in detail.This paper studies the importance of CLC mapping and also the relationship between CLC mapping and retention of consumers; to suggest various methods to improvise Customer Life Cycle. In conclusion, the importance of CLC mapping is clear and so is need of CLC mapping for retention of customers.

BIBLIOGRAPHY

- Megdha Gore J (2013), 'Customer Life Cycle Management- Time and beyond', IOSR Journal of Business and Management Vol 12, Issue no.6, pp 78-82.

- Kariuki Caroline Wanjiku (2016), 'Customer Life Cycle Mapping by Barclays Bank of Kenya', http://erepository.uonbi.ac.ke/bitstream/handle/11295/99892/Kariuki_CR\

- Micheal Smith,'Understanding the Customer Life Cycle and Its Importance', https://www.inventivemarcomm.com/blog/understanding-the-customer-life-cycle-and-its-importance

- 'The Essential Guide to the Customer Journey and Lifecycle' (2017) https://www.gainsight.com/guides/the-essential-guide-to-the-customer-journey-and-lifecycle/

- John Wozenaki, 'Customer Lifecyle Case Study: Toyota and HP' (2016), https://www.ukessays.com/essays/marketing/following-customers-lifecycle-toyota-and-hp-cases-marketing-essay.php?vref=1

- Tim Ross, 'Customer Lifecycle Management: Best strategies to increase profit', https://blog.marketo.com/2018/04/product-help-customers-get-promoted.html

OPINION OF TEACHERS ABOUT USE OF SMART BOARDS IN CLASSROOMS

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ABSTRACT

Technology is an ever changing medium in the world we live in today. Schools across the world are increasingly integrating technology into the classroom. The smart classes are a modernized method of education in Indian education scenario which provides quality education to students. The digitized classrooms have made the education joyous, interesting and enhanced students' performance. by helping them in better clarification of concepts.

A Smart Board operates with the combination of the interactive whiteboard, a computer, a projector, and a Smart Board software. The goal of integrating a Smart Board into the classroom is to improve student's achievement and increase their technology literacy. This study assessed the opinion of Teachers about using smartboard in classroom, their impact and problems associated with use of Smartboard.

Keywords: Technology, Smart classrooms, Smart Board, Interactive, Quality.

INTRODUCTION

Enormous technological changes have led to transformation of our society. Educational institutions are more and more using technology into the classroom. Technology has tremendous impact on every facet including education .Quality education is an essential indispensable in today's modernized world. Our educational institutions must gear up with technological advancements. The smart classes are a updated method of education which provides superior education aiding comprehension of students, acquiring and improvement in skills and enhancing their academic achievement.

Smart Classrooms are technology enhanced classrooms that provide opportunities for teaching and learning by use of computers, specialized software, assistive devices, networking, and audio/visual aids. The digital classrooms have enhanced students' performance by making learning a fun. Smart classrooms are way for smart learning.

SMART Technologies have produced a Smart Board which is an improvised substitution of the conventional overhead projector. A Smart Board operates with the combination of the interactive whiteboard, a computer, a projector, and Smart Board software. The projection screen is a white board or a display frame that fits over a plasma screen. The board can even portable. The touch screen device allows the teacher to control content with the touch of a finger. The interactive board makes learning joyful and class an active place of learning.

Smart Boards are being fixed in the classrooms as this marvellous technology enhances the way teachers teach and the way students learn. It can provide students with an enriched learning experience by projecting visual elements. It also makes differentiated learning much easier because teachers are able to accommodate different learning styles. Student's learning experience is enhanced by this technology because students view diagrams, charts, videos right on the huge screen in front of them.

NEED OF THE STUDY

Teachers need to adapt and keep pace with changes in use of technology at the optimum level. Professional developments for teachers leads to improvement in their teaching learning process. The purpose of integration of technology will bring a qualitative change.

The use of technology is both valuable for the students and the teacher. Smart Boards increases use of communicating instructional tools, enhancing curiosity, concentration and enthusiasm among students. Graphics, animation effects with audio-visual effects, provide superior instructional materials, catering to all learning styles. This innovative technology enables a quality and congenial learning atmosphere. The goal of incorporating a Smart Board into the classroom is to increase student accomplishment and enhance their technology literacy. This study is to know the opinion of teachers about use of smart boards in classrooms.

OBJECTIVES

1) To Study the opinion of Teachers about using smart board in classroom.

2) To study the impact of smart board in classrooms.

3) To identify the problems associated with use of Smart board in classroom.

METHODOLOGY

Survey method was used to conduct the study. The tool used for the study was an opinionnaire was prepared by the researcher. For the present study sample of 30 teachers was selected.Purposive sampling was used. The tool was administered and data was collected.

DELIMITATION

The Study is Restricted to the secondary school teachers using smart boards of English medium schools of Ulhasnagar, Kalyan, Dombivali, and Thane.

ANALYSIS AND INTERPRETATION

Table showing Opinion About Smart Boards. N=30

SR. NO.	ITEM	%AGREE	%UNCERTAIN	%DISAGREE
1	Smart board allows teacher to assemble note images and other media into virtual notebooks and projector.	96.6	3.3	---
2	Smart board interactive white board offers an information space that allows the students active teamwork.	86.6	13.3	-----
3	Smart board are environmentally friendly.	56.6	23.3	20
4	Audio and animation effect of smart board create interest among the student.	90	10	---
5	Smart boards provide permanent learning of different concepts.	43.33	40	16.6
6	Learning of Concepts by use of smart board becomes easy to remember.	83.3	13.3	3.33
7	Teaching by Presentations with the help of smart board leads better understanding among students.	86.6	13.3	----
8	Use of smart board create a congenial learning environment in the class.	80	20	-----
9	Teaching with smart board promotes critical thinking among students.	76.6	16.6	6.66
10	Smart board offers learners an opportunity to share and participate in the instructional process.	63.3	23.3	13.3
11	Brainstorming in the classroom can be fun with a smart board.	86.6	13.3	---
12	Learning among students using smart boards in class can be joyful and enjoying.	80	13.3	6.66
13	Students get easily engaged in the lesson by using smart board.	70	20	10
14	Discussion via notebooks or tablets leads to interactive learning.	53.3	40	6.66
15	The pen tool or the contact from a finger can be used to show experiment and process though animation.	73.3	20	6.66
16	Smart boards provide new ways for teacher to teach in the classroom.	96.6	3.33	-----
17	Smart board provide novel ways for student to learn in the classroom.	90	10	------
18	Use of smart board create difficulty in maintaining discipline in the classroom.	40	36.6	23.3

19	Inadequate training in the use of smart board prevents you from using it.	73.3	26.6	---
20	Completion of the syllabus becomes difficult using smart board.	13.3	33.33	53.3
21	Teachers need training for the use of smart board.	76.6	20	3.33
22	Regular training of teachers in use of smart board can overcome fear and boost confidence of teachers.	90	6.66	3.33

- 96.6% of teachers opined that a Smartboard allows teacher to assemble note image and other media into virtual notebooks and projector whereas 3.33% were uncertain.

- 86.6% of teachers agreed that a Smartboard interactive white board system offers an information space that allows the students active teamwork whereas 13.3% were uncertain.

- 56.6% of teacher agreed that smartboards are environmentally friendly whereas 23.3% were uncertain and 20% disagreed to it.

- 90% of teachers agreed that Audio and animation effect of smartboard creates interest among the student whereas 10% were uncertain

- 43.33% of teachers agreed that the Smart board provide permanent learning of different concepts whereas 40% were uncertain and 16.6% disagreed.

- 83.3% of teacher agreed that the learning of concepts taught by use of smartboard make them easy to remember whereas 13.3% were uncertain and 3.33% disagreed.

- 86.6% of teachers agreed that the presentation and teaching with the help of smartboard leads better understanding among students whereas 13.3% were uncertain.

- 80% of teachers agreed that the Use of Smartboard creates a congenial learning environment in the class whereas 20% were uncertain.

- 76.6% of teachers agreed that the Teaching with smart board promotes critical thinking among student whereas 16.6% were uncertain and 6.66% disagreed to it.

- 63.3% of teachers agreed that smartboard offers learners an opportunity to share and participate in the instructional process whereas 23.3% were uncertain and 13.3% disagreed.

- 86.6% of teachers agreed that brainstorming in the classroom can be fun with a smartboard whereas 13.3% were uncertain.

- 80% of teachers agreed that learning among students using smart boards in class can be joyful and enjoying whereas 13.3% were uncertain and 6.66% disagreed.

- 70% of teachers agreed that students get easily engaged in the lesson by using smart board whereas 20% were uncertain and 10% disagreed.

- 53.3% of teachers agreed that discussion via notebooks or tablets leads to interactive learning whereas 40% were uncertain and 6.66% disagreed.

- 73.3% of teachers agreed that the pen tool or the contact from a finger can be used to show experiment and process though animation whereas 20% were uncertain and 6.66% disagreed.

- 96.6% of teachers agreed that the smartboard provide new ways for teacher to teach in the classroom whereas 3.33% were uncertain.

- 90% of teachers agreed that smartboard provide novel ways for students to learn in the classroom whereas 10% were uncertain

- 40% of teachers agreed that the use of smartboard create difficulty in maintain discipline in the classroom whereas 36.6% were uncertain and 23.3% disagreed.

- 73.3% of teachers agreed that inadequate training in the use of smartboard prevents them from using it whereas 26.6% were uncertain.

- 13.3% of teachers agreed that it becomes very difficult to complete the syllabus using smartboard whereas 33.33% were uncertain and 53.3% disagreed to it

- 76.6% of the teachers need training for the use of smart board whereas 20% were uncertain and 3.33% disagreed.

- 90% of teachers agreed that regular training of teachers in use of smartboard can overcome fear and boost confidence of teachers whereas 6.66% were uncertain and 3.33% disagreed.

CONCLUSION

On the basis of above data and responses we can arrive at following conclusion that majority teachers agreed that a Smartboard allows user to assemble note images and other media into virtual notebooks. Simulations, Audio and Animation effect of Smartboard create interest among the students. Smartboards provide innovative ways for teacher to teach in the classroom and novel ways for students to learn in the classroom. Smartboard interactive white board system offers an information space that allows the students to engage in active collaboration. The concepts taught by use of Smartboard are easy to remember and the presentation and teaching with the help of Smartboard leads better grasping among students. Brainstorming in the classroom can be fun with a Smartboard.

Teachers also agreed that use of smartboard create a congenial learning environment in the class and teaching with smartboard create an environment to promote critical thinking among students. Smartboard also offers learners an opportunity to share and participate in the instructional process making learning enjoyable and interesting. Pen tool or the contact by a finger can be used to show experiments and animation.

The inadequate training in the use of smartboard prevents teachers from using it but proper training can help them to overcome fear and boost their confidence of teacher. Proper planning of lessons using smart board helps the teacher in the completion of syllabus in time.

SUGGESTIONS

Smart Board, a teaching aid must be a complementary tool for teaching and not a replacement to it. Students have their own learning abilities and a teacher's personal touch help student's at ease in the Learning Process. New and innovative methods are always welcome, only if they add on and augment the true methods of knowledge. Teaching should never be a slave to technology instead be a master of it.

Teachers should inspire students to learn, sets them on a pathway for becoming their best identities. Smart boards help teachers to try more innovative ways for students to learn. Students develop the skills they need to succeed in future. Teachers need to continue to discover new and innovative ways to use the Smart Board, which needs an extra effort on the part of teachers. Teachers need to keep themselves updated by attending various workshops and doing different courses related to use Smart Board in classroom. Smart teachers can make their classrooms active spaces of learning where students are active recipients of knowledge and learning is full of joy.

REFERENCES

- Chakravarthy.R.C & Murthy.P.R.S (2012). Pacific Books International. Delhi

- Kulshreshtha.S.P;&Kulshreshtha.A.K.(2016).Foundations of Educational Technology Ganapati Printers Meerut.

- Pandey.V.C (2005). Digital Technologies and Teaching Strategies. Sudha Offset Press Delhi.

- Pani.R. (2013). Role of ICT in Education, Swastik Publications, New Delhi.

- https://education.smarttech.com/

- https://www.neamb.com/work-life/interactive-whiteboards-enhance-classroom-instruction-and-learning.

- https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=1044&context=dissertations

- https://www.teachhub.com/technology-classroom-benefits-smart-boards

ENTREPRENEURIAL CHALLENGES – "A STUDY ON THE ISSUES AND CHALLENGES FACED BY INDIAN START-UPS"

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ABSTRACT

Purpose: The purpose of this paper is to increase understanding of the Entrepreneurial challenges that we are facing in India in respect with the evolution of Start-ups.

Research Implications: This paper provides a preliminary understanding of the Entrepreneurial challenges faced in our country. Futuristic researchers should delve into deeper in order to resolve the crisis of the Start-ups.

Findings : India is witnessing a boom of Start-ups in the current decade pertaining to the evolution of numerous businesses in order to curb the unemployment index. Entrepreneurs provide a direct assistance to these unemployed people by putting the idle labour into action. Start-ups are also offered financial incentives such as Tax Benefit, Subsidy and Bounty by the Government to promote the idea of Entrepreneurship. Creating a business of your own is a strenuous task as there are many aspects with reasonable consideration included in the Business Model. Moreover, businesses need to be capitalised adequately for it's establishment in the today's dynamic market where things change at the flash of an eye. Entrepreneurs need to stay at par with the technological advances because there is fierce competition in the market for survival. The businessmen are experiencing a clear indication that the nation is on the verge of evolving as one of the Entrepreneurial Global Hub by the year ending 2022.

Originality/Value: The paper presents the emergence of new Entrepreneurial challenges in respect to India's changing market conditions and the overall Economic Scenario.

Keywords: Entrepreneurship, Business models, Start-up, Digital Marketing, Start-up Ecosystem, 'Make-in-India' initiatives, Women Empowerment

INTRODUCTION

A Business Venture which is currently in it's Introduction Stage and operates in a comparatively small circuit could be advocated as a Start-up. It is then capitalised to an extent wherein the entrepreneurs can stretch their legs by opting for major Production dealings in order to strengthen the roots of the Business. Start-ups are generally recognised by a small body of individuals wherein the founders invent a Product or Service(or Product Line) which they intend to launch in the current Entrepreneurial Eco-system by framing the accurate Business Model. Entrepreneurs create wealth and gives employment to large sections of the society. The economically developed nations provide a galore of evidences catering to the emergence of entrepreneurial classes in those countries. India requires a good entrepreneurial class for developing small scale and large scale industries and as a result the Government is taking increased interest in promoting the growth of Entrepreneurship. Individuals are being provided with privileges to boost them for new businesses accompanied with financial subsidies. According to **Meir** and **Baldwin**, development does not occur rapidly as a natural reaction when economic conditions in some sense are seemingly true. A catalyst is needed ad this requires entrepreneurial activity to a considerable extent. As a matter of fact, entrepreneurs are an important source of economic development irrespective of the fact whether it is a Socialist, Capitalist or Mixed Economy scenario. A humongous campaign took off for the intensification of the **'Make in India'** project with a view of convincing the Investors to invest in the manufacturing sector. The outlook of the project was to attract Angel investors to spend some dollars in the Indian market thereby strengthening the Indian Rupee. The regulatory bodies such as the RBI, has bought up the CRR ratio thereby ensuring the vested money with the concerned authorities. The Government is focusing on Digitalisation in every potential sector for people to be closely bounded to technology for day-to-day transactions. Along with the growing involvement of women in the entrepreneurial programmes, there is an unmistakable economic traction in **tier-II and tier-III** towns of India. A pervasive and affordable communication and computation, and growing education levels in India's hinterland, there are local enthusiasts keen to solve local problems. The likes of Mera Gao Power that operates in the rural part of Uttar Pradesh, and Husk power systems from Bihar have shown that sustainability can be an outcome when local problems meet ingenious solutions. Much like reverse invention processing, where solutions deduced in the East and west provinces, the frugal and ingenious developments in rural India can address urban needs, or even create newer opportunities.

IMPORTANCE OR SIGNIFICANCE

The word Entrepreneur is derived from the **French verb** 'Enterprendre', meaning to undertake something. The role of an Entrepreneur in mixed economy is significantly important as it permits the growth of both the public and private sector. The nation today demands the need for a broad based entrepreneurial offering arises from the need to speed up the process of initialising the factors of production leading to a higher rate of economic growth , dispersal of economic activities, development of backward areas, creation employment opportunities and improvement in the standard of living of the weaker section of the society. Entrepreneurs mobilise the ideal savings thus leading to the phenomena of Capital formation. Economy grows along Entrepreneurship development by its increase in Exports and reduce the balance of payment to a certain extent. An Entrepreneur initiates a Small-scale industry, Ancillary industry to create employment opportunities for the people with reduced income inequalities. Entrepreneurs complement the revenue generation for the nation by means of periodic payments of direct taxes like Income Tax, Corporate Tax and indirect taxes like sales tax, excise duties, custom duties. Innovation and Creativity on the part of the entrepreneur assists in consumer welfare by means of new ideas for the consumer can enjoy better and efficient types of Goods and Services.

DISTINUISHING POINTS

ENTREPRENEUR	ENTREPRENEURSHIP
Person	Process
Innovator	Innovation
Visualiser	Vision
Programmer	Action
Technician	Technology

Ancillary units and Sub-contracting in India, started simultaneously with the Government setting up enterprises almost in all the core sectors viz. Defence, Heavy Electricals, Telecommunications and various other engineering and processing industries. PSU's were required to concentrate on core activities of design development, research and manufacturing critical items thereby sub-contracting the standard items which could be developed in small-scale sector. Franchising is one form of marketing channel, rather it is the fastest-growing form of retailing. It is an extended version of licensing exclusively for contributing in development of retailing in the recent years. BPO is typically categorised into back office outsourcing which includes internal business functions such as human resources or finance and accounting, and front office outsourcing which includes customer-related services such as contact centre services. Women entrepreneurship is emerging as one of the major sources of income for the Government of India, by providing them with different solutions pertaining to management, organisational activities and business dealings. Last five decades have seen phenomenal changes in the status and work place diversity of women in India. Today, in order to start a business of their own Women entrepreneurs are offered funds **@10-15%** of the total production cost under the **Seed Capital Scheme.** The main objective of these reforms is to facilitate women entrepreneurs in getting term loan and working capital from one and the same institution, by the Small Industries Development of India. The problem of women in the economic field have received the attention of National and International bodies in the recent years . The world conference of the United Nations held at Copenhagen adopted programme aimed at promoting full and equal opportunities for women in employment, equal remuneration and the access to non -traditional skilled trades. Moreover, Poverty and unemployment are the major problems of any under developed country, to which India is no exception. The rate of growth of women employment index is drastically low and thus a scheme has been launched for the upliftment of the same. **'Self-Help Group'** is a new initiative to remove poverty and enhance the financial support provided to women in India. These groups are accountable for the equality of women as participants, decision-makers and beneficiaries in the democratic, economic, social and cultural spheres of life.

OBJECTIVES OF THE STUDY

1) To study the impact of **' Make In India Initiative'** on Indian Start-up culture.

2) To analyse the issues and challenges of Indian start-ups.

3) To suggest measures to reduce the challenges faced by Indian Start-ups and need to create a conducive eco-system for Start-ups.

LIMITATIONS OF THE STUDY

The study is not exploratory as it is based only on secondary data from books , journal , news- paper articles , websites etc .

FINDINGS AND SUGGESTIONS

India is showcasing a major growth in the field of Entrepreneurship, not because of its X Factor but out of the need for its citizens to create their own job. With more than **65 percent** of the total population below 35 years of age and a record-breaking growth in smart phone adoption and data services across the globe. While India has been seeing this increasing trajectory of entrepreneurs and new start-ups over all the last five years 2016 has been a milestone year for all the key stakeholders in the Indian Ecosystem-including government, educational institutions, entrepreneurship support organisations, investors – to seek and provide support in sustaining the biggest hurricane of Entrepreneurship to date. The process of identifying risks, assessing risks and developing strategies to manage risks could be referred as Risk management. Such a plan is essential for any business as it guides us to understand the potential risks in it and identifies ways to minimise them or recover from their impacts. The enterprise may be small or big but it demands management abilities on the part of its owner or manager. Various management functions such as production , marketing and finance. These crucial functions for entrepreneurs influences the result directly and, therefore it is vital that these determinants for sustenance of an enterprise. Management skills of potential employees also raise their expectancy. These functions act as control devices for the organisation in shaping its domain for all the managerial activities based on its minimum basic requirements. In today's economy technical and business skills not enough to run a business where the entrepreneurial skills come into picture. A professional manager is required to possess, specific management knowledge relationship to the product, process, procedure, basic objectives of entrepreneurship and its position in the economic and social system, human knowledge about employee motivation, delegation of authority. Generally, an entrepreneur and manager are considered as an overlapping proficiencies pertaining to the various tasks performed by them in the organisation. In Partnership and Proprietorship and even in small companies the entrepreneur himself a paid manager for his skills and intelligence. To sum up, we are living in exiting times where starting a business, regardless of your gender educational or ethnic background is increasingly possible. Along with the access to digital technologies and ideas, enablement and active support from governments for start-ups and growing number of role models around us, starting up is truly in. May the coming decade belong to self-starting dreamers who execute their ideas and come a way.

CONCLUSION

The idea of Entrepreneurship operates in a fast-moving, highly uncertain unknowable and unpredictable context, wherein the entrepreneurs need to stay abreast with the state-of the art technology. Electronic commerce or E-commerce is not just a Jargon, but a ground reality at the dawn of the third millennium in India. E-commerce has emerged as a search engine for the success in the territory of the enterprise. India's E-entrepreneurs are storming the digital frontier with the new business ventures wherein they capture a piece of action in the cyberspace. Founders of new Businesses are realising the importance of being a part of the wired word and it's change or Perish Rule. The start-up Ecosystem is showcasing the movement in the start-up arena in India on account of the New Trends in Entrepreneurship. Many Joint Ventures (JV's) are evolving in the service sector including Education, Legal, Retail, Insurance and Health. It has become very evident these days that these enterprises will evolve as **Unicorns** in countries where favourable conditions will prevail the boom of Entrepreneurship.

REFERENCES

1) Growth of start-up Ecosystems in India (Start-up arena in India)- Oct-2015-Prof. CS Narayanamurthy

2) Methodology of how to write Research papers- Zolantan Acs- Dec 2010- London school of economics

3) A New Paradigm for Young Entrepreneurs – Dec-2016- Dr. V Arvind

4) The Distribution of firm Start-up size across Geographic Space- David. B. Audretsch

5) Start-up companies: Life-cycles and challenges- Aidin Salamazdeh, Faculty of Entrepreneurship, University of Tehran

6) Start-up in India- RETROSPECTS AND PROSPECTS- Harminder Singh, Jagannath University

7) The growth of start-ups Eco-systems in India- Surbhi Jain , 'International Journal of research and Studies'

8) The Process and Problems of Business Start-ups- The ITB Journal, (Article 3) DIT University

A STUDY ON THE IMPACT OF DELEGATION OF AUTHORITY ON EMPLOYEES PERFORMANCE

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ABSTRACT
The study it underscores and reinforces the critical role delegation plays in the success of organizations. A crucial aspect of how successful they are in executing their missions and objectives is how effectively responsibilities and tasks are delegated. Aimed at identifying the factor affecting delegation and impact of delegation on employee's performance. Effective delegation is an essential component of a manager's job. It is a critical leadership skill for improving the efficiency and motivation of supervisors and employees. The research is important because it shows the impact of delegation on employee's performance and why manger rely on delegation for growth of organisation.

Keywords: Delegation, Employee's performance, growth, impact.

INTRODUCTION

Every business organization come into the market with the aim of getting successful, get competitive advantage over other and to make profits. The success of an organization largely depends on its structure. Structure is a way in which organization is organized it can be either centrally organized or decentralized. It is a crucial factor to establish relation between superior and subordinates. Organizational structure is one of the major factor influencing growth of the organization, the ability of any business to grow depends upon the human resource it is having and how well does it performs. The authority to manage the enterprise is in hand of manager but no single manager can manage an enterprise alone because One person cannot be perfect or specialized in all areas, the span of control of each person is limited, this limitation of managing lead to division and distribution of work. One of the way to divide the work is by delegating it to someone. Delegation is the process of granting of any authority or responsibility to carry out any specific activity, it is delivery authority or power by one individual to another of right to act, to make decision, to acquire resources and to perform the task in order to fulfil responsibilities towards the organization. There are three elements of delegation authority, responsibility and accountability. Authority refers to the power given by the superior to the subordinate to act, to give instruction, to use resources, to gain access, to represent company etc. Responsibility is the duty to perform the assign task within specific time and in proper order. The third element being accountability align both authority and responsibility by aligning the subordinate to the task for which authority and responsibility are granted, it makes him accountable for the task assigned. Authority flows from top to bottom as people on higher levels have more power which is decentralized at different levels, at each lower level authority gets narrower and narrower. Responsibility and accountability flows from bottom to top as each subordinate is responsible and accountable to the person above his level. Delegation is of various type formal, informal, general, specific, there is no standard type of delegation which an organization should follow, but the delegation should be effective. Effective delegation takes place when a superior is willing to delegate to his subordinate the delegator's task and the subordinate is willingly ready to take responsibility of task delegated by his superior. There are various factors which contribute to effective delegation of authority like superior subordinate relationship, subordinate should know why the work delegated to him his important, he should take responsibility and put his best efforts to fulfil the task, at the same time he should be rewarded by his superior for the work and should be under guidance of his superior. Delegation will not be effective if the qualitative aspect is ignored it includes extent of involvement, supervision, instruction, kind of reporting etc. organization environment also plays an important role in effective delegation there should be an atmosphere of trust and subordinate should be free to take initiative and risk, superiors should help subordinates to grow, the subordinates should not be conservative and should be doing work willingly and not by force or as an obligation. For effective delegation there should be balance between authority granted and responsibility of subordinate, if authority is more than responsibility then it can lead to misuse of authority and if responsibility is more than authority then subordinate will face problems in completing in task delegated as he would not have access to resources. However by delegating task to subordinates superior cannot abdicate from responsibility, he will still be accountable for whatever work the subordinates' do. The superior should provide subordinate with established standards in order measure and evaluate his performance against those standards. Delegation should be done keeping in mind factors like size, task complexity, impact of decision taken on assigned task, organizational culture, qualities of subordinates etc. The subordinate must be willing to make determined effort and supervisor must be willing to extend freedom and cooperation, this lead to effective delegation of authority. When supervisor delegate his task he cannot abdicate his responsibility. By delegating authority the executive does not free himself from his own obligation

concerning them, he must continue to guide, direct and hold responsible the subordinate to whom he has delegated authority. Delegation has both positive and negative aspect on employee's performance, it helps employees to be enhance on the contrary excessive delegation can hamper employee's growth. Hence in order to get better results delegation should be adequate and balanced.

REVIEW OF LITERATURE

1. Olena Senyuta(2013) in Delegation and performance talks about how delegation of authority impact performance of organisation and employees performance.

2. Casandra C smith (2012) in recognising the need for, impact and benefits of effective delegation at workplace.

OBJECTIVES OF THE STUDY

1. To study the factors that contribute to effective delegation of authority.

2. To study the implications of delegation of authority on employees performance.

RESEARCH METHOLOGY

Only secondary data will be used to collect the required information for the present study.

Secondary data: - The secondary data would be collected from sources like books, journals, and research projects, web, newspaper articles, internet, etc. In addition, past survey data would be used for construction of questionnaire for our primary data.

SIGNIFICANCE AND IMPORTANCE

Delegation of the authority is one of the technique followed by managers, it not only benefits the organization but also the manager himself and subordinates. On the level of organization, delegation increases the level of productivity and even increases speed of completion of task, this helps organization to take a competitive advantage. On level of managers, it reduces the burden, helps to build good relations with employees by giving opportunity to employees to show their skills which builds trust and cooperation between them. It also helps manager to focus on other important tasks, it reduce workload from manager and make his performance more effective. Delegation provides a platform to subordinate to grow, it helps in achieving functional empowerment, constructing alternative and make them responsible. It makes employee self-confident and motivate him towards excellence. Delegation of authority brings new ideas and creates wider area of thinking which helps business to grow. It lead to preparation of future leaders to motivate employees, also helps in finding subordinates which are efficient to be managers. It helps to find out employees effectiveness by observing the ability to manage workload, completing task assigned within specific time with minimal errors, ability to work when manager is not guiding at each step, it measure productivity of employee. Through delegation employees will try to justify the authority delegated by showing positive attitude in performing the task and functions via effective utilization of resources provided to them.

LIMITATIONS

Many managers are reluctant and do not sufficiently or appropriately delegate to subordinates. Delegation requires managerial skills and intent, which are necessary so the manager can multiply his strength through others. Delegating is one of the most important skills used by successful managers and often overlooked. Managers often find delegation of any kind difficult. Barriers precluding delegation can have roots in negative feelings of insecurity and mistrust. Superior may have little or no faith in subordinate this can be due to prejudice manager have in their mind, this result in their meagre performance, becoming a self-fulfilling prophecy phenomenon. Delegation can be avoided due to fear of supervisory reprisal as Delegating necessarily means taking risks that less than stellar work will reflect poorly on the delegate which may make one accountable for the act of subordinate. While delegating work there are high chances of miscommunication as one is accountable for the work of other. If tasks are not well defined then delegation will not be successful as subordinate will not be able to work properly. Also if there is inadequate delegation then it will either result in non-performance of work or misuse of authority. If authority given to subordinate is more than the responsibility then there are chances that he may misuse them and if responsibility is more than authority then the subordinate will not be able to perform the task as he will not be able to access the resources which he need for completion of task. Hence there should be balanced delegation of authority. Also if manager has delegated more work on employee then it will hamper his performance as he will be having too much burden on himself and he will not be able to complete the task assigned, another aspect being that if he is given too much work and is not getting remuneration accordingly then he will de demotivated and will be loss for the organisation.

CONCLUSION

Delegation of authority has been recognised as the most important factor in developing a healthy organisation. Delegation is the process of granting of any authority or responsibility to carry out any specific activity, it is delivery authority or power by one individual to another of right to act, to make decision, to acquire resources and to perform the task in order to fulfil responsibilities towards the organization delegation of authority is significant to improving employee performance the more authority is delegated to employees, the more the employees perform the task expected from them effectively if authority is not delegated to the employees, execution of tasks will be ineffective. Giving the employees the right to carry out or executive some right increase their morale to perform effectively. This will make the employees to feel that they are integrated part of the organizations to achieve the missions and vision of the organizations. Thus, delegation of authority is a managerial practice. Delegation of authority shows that the superiors have confidence in the ability of the subordinates to act on his behalf or on the behalf of the organization. Delegation also has some limitations, as managers at times do not delegate authority which lead to excessive workload on managers, also if managers delegate too much work then it will put burden on subordinates and will demotivate them. Delegation will be of no use if quality of delegation is not maintained, the qualitative aspects of delegation such as the extent of involvement, supervision, instructions, authority responsibility balance should be maintained for success of an organisation.

REFERENCES

* Olajide Olubayo Adeoyo (2015) Delegation of authority and employees performance.

* Sumi Jha (2013) Determinants of delegation of authority.

* Cassandra C. Smith (2012) Recognising the need, impact and benefits of effective delegation at workplace.

* Olena Senyuta (2013) Delegation and performance.

* Hasan hamadat (2011) impact of delegation of authority on performance of organisation and employees.

LANGUAGE LABORATORY: OPPORTUNITIES AND CHALLENGES

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ABSTRACT

Language is an effective means of Education. In today's competitive world, competence in English language is mandatory. There are many components in learning the language. An English teacher uses various techniques and methods to develop different skills of learning the language. One of the important skills is developing speaking and communication skills among the learners. In this connection language laboratories provide immense help for the learners of the language.

Keywords: Language, techniques, skills, language laboratories.

MEANING OF LANGUAGE LABORATORY

Language is a means of communication. It is a medium of sharing ideas , suggestions, advices, experiences among the people.

Language, a system of conventional spoken, manual, or written symbols by means of which human beings, as members of a social group and participants in its culture, express themselves. The functions of language include communication, the expression of identity, play, imaginative expression, and emotional release There needs to be competency while speaking the language. The basic objectives of teaching and learning an English language are listening, speaking, reading and writing. Listening and reading are passive skills whereas reading and writing are active sills. A language teachers uses both traditional and modern techniques to develop competency among her students in learning the language.

Some of the traditional methods are lecture cum discussion method, grammar translation method, structural approach etc. some of the modern techniques she uses are collaborative learning, use of technology based teaching.

Some of the technology she uses are in form of social networking sites, e-mails and different software for her students. One of the most important digital technology used by a language teacher is the language laboratory.

Modern language labs are known by many names, digital language lab, multimedia language lab, language media center and multimedia learning center to name but a few.

A **language laboratory** is a classroom equipped with tape recorders or computers where people can practice listening to and talking foreign languages. A classroom in which students learning a foreign language can practice sound and word patterns individually or under supervision with the aid of audio equipment, etc. A language lab "allows the teacher, if desired, to transcend everyday teaching of a language to enter fully in the investigation of cognitive process of acquiring and learning foreign languages in general [...]".

"Digital language laboratories are much more than a tool for training and listening discursive language, they are places to study and experiment with real samples of languages, learn languages and exercise in their use. So they are configured using multimedia technology, communications and flexible and open organizational models with any necessary tool to process philological materials. All this and much more is what you get with language laboratories, a complete tool to put in the service of teachers and students the latest technology for teaching."

IMPORTANCE OF A LANGUAGE LABORATORY

➢ As compared to traditional classroom, a language lab creates a learning environment much more effective.

➢ Since there are many students who get access in a language laboratory here is lot of interaction amongst them.

➢ The teacher could ask to prepare different assignments to different groups of students,

➢ It updates the basic knowledge amongst the students .

➢ The use of language laboratory also fosters digital literacy responding to new educational and social needs.

➢ It promotes self learning .

➢ It accelerates language learning through a complete linguistic immersion.

➢ It is a technology specially designed for education that promotes high motivation of students

➢ Both teachers and students can access the new information and communication technologies quickly and easily.

➤ The teacher acts a s a guide, motivator and a facilitator for the students to enhance their learning using the digital technology.

➤ It helps the teacher to supervise the entire batch of students under one roof.

➤ There is improvement in the teaching learning since students could learn at their own pace. They could also clarify their doubts, and work more attentively.

STRATEGIES DEVELOPED IN LANGUAGE LABORATORIES

- Text, images, audio and video can easily be integrated; teachers can alter materials to fit their requirements

- Learners can record their own voice and play back the recordings, interact with each other and the teacher, and store results

- Teachers can intervene and control the learners' computers via the teacher's console, track of learners' work, etc.

- Self-access for independent learning which includes access to resources outside class

Need of English language laboratory for language teachers and students

➤ Gaining competency in English language is made possible by language laboratory.

➤ Vocabulary is enhanced when students learn the language using language laboratory.

➤ It develops the communication skills among the students.

➤ Listening skills are enhanced using language laboratory. The student are attentive while using the laboratory which help them in better comprehension.

➤ The accent and the pronunciation could be learned. How well a word needs to be pronounced can be learned using the laboratory. Since pronunciation is an effective component in learning the language, the student can listen and repeat the same to ensure proper usage.

➤ Since it follows audio lingual method the students would improve their voice modulation by listening to it.

➤ Punctuation plays an important role in speaking any sentence. When the students listen to dialogues and sentences, they would be aware as to where they have to stop, reduce their speed of speaking and also the importance of punctuation in English language.

➤ A good English language lab when established and used by an institute can do wonders for the learners. The learners develop a continuous interest to learn the language as it encourages them to understand it and facilitates the understanding of the concepts of the language.

CHALLENGES FACED BY A LANGUAGE TEACHER

➤ A language teacher has students who are first generation leaners. So she has to find the level of competence existing with the student before exposing them to something new.

➤ Some students come from rural or interior places for continuing their education. Their mother tongue is the regional language. Hence they do not have the needed competency in the English language. They are familiar only with some basics in the language. The teacher needs to assess them and then have to judge their learning abilities before exposing them to learn using language laboratory.

➤ Some students exposure to the language is very limited . Hence the teacher has to take efforts to ensure that they understand the pronunciation and enhance the vocabulary.

➤ Periodic assignments and practice needs to be provided by the English language teacher.

➤ The students may have inferiority complex when they are exposed to the language for the first time. The language teacher has to develop the self confidence among them.

➤ The language teacher needs to be a consistent motivator to do justice for the students.

➤ The accent of the students needs to be checked.

➤ The inhibition of mother tongue tend to disturb the accent and pronunciation of the students. The language teacher has to pay attention to the accent and rectify it.

➤ Timely diagnosis and remedial measures needs to be taken by the language teacher to help the students to develop competency in the language.

➢ The time taken by these students would be more as compared to their counterparts. The language teacher has be patient in nature. There may be repeated queries from the students which needs to be answered appropriately.

➢ The pronunciation needs to be monitored regularly. The language teacher needs to be provided drilling practice for the students so that they learn it properly.

➢ There is sometimes electricity breakdown which hampers the use of the laboratory.

➢ Regular attendance is also to be ensured by the language teacher. Only if the student are consistently attending the classes would the teacher be able to observe the improvement in the students with reference to pronunciation, accent, speed and pause.

➢ The most important challenge is the availability and selection of the appropriate software useful in Indian classroom. Most of the software uses English as a foreign language and hence the accent ,pronunciation differs as compared to the Indian classrooms.

➢ The language teacher herself has to be competent in the language. She has to set an example and act as a role model for her students. For this she has to get accustomed with the latest developments in the linguistic field with reference to new vocabulary, recent way of pronouncing different words etc.

Given the above challenges, when a blended methodology of language teaching is adopted in a language lab, the human touch brought in by a physical teacher (during the classroom section of the language lab) ensures a live delivery of language concepts. These concepts are discussed and where need be demonstrated by the teacher before the learners proceed to practice them individually in the computer based section of the language lab. Learners hence get ample scope for practice and internalization of language concepts. Language labs also provide scope for using English language through games and practice exercises to polish concepts learnt during classroom sessions.

The need for having a language lab is being widely recognized by the English language academia. Schools and colleges across the country are opening up to the idea of establishing language labs for the future benefit of their learners. There are very less colleges in the thane suburban district which has a fully equipped language laboratory. It would take a long time before every college develops such a language laboratory. Ample efforts would also have to be taken to practically use such laboratories which would help the students and the teachers at large.

REFERENCES
- Abrahams,M.H: a glossary of literary terms.

- Kachru,B.B(1983) the Indianization of English: the English language in India, Oxford university press, oxford.

- Peterson, E and Coltrane, B-culture in second language teaching.

- Stern, H-fundamental concepts of language teaching.

WEBLIOGRAPHY
- https://www.dexway.com/language-labs-advantages/

- https://en.wikipedia.org/wiki/Language_lab

- https://www.collinsdictionary.com/dictionary/english/language-laboratory www.wordsworthelt.com/.../need-of-english-language-laboratory-in-an-educational-in...

- https://www.iitk.ac.in/hss/language-laboratory

- Vanderplank, Robert; 2009; Deja vu? A decade of research on language laboratories, television and video in language learning; Cambridge University Press

- DESI; 2006; German Institute for International Educational Research

- Davies, Graham; Bangs, Paul; Frisby, Roger; Walton, Elizabeth. 2005. Setting up effective digital language laboratories and multimedia ICT suites for MFL. CILT, The National Centre for Languages and the Association for Language Learning

IMPACT OF CSR ON EMPLOYEE JOB SATISFACTION

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ABSTRACT
Purpose: To study how CSR impacts employee job satisfaction in an organisation

Objectives
- *To study impact of CSR on Employee Job Satisfaction*

- *To study and analyse attitude of employees towards CSR*

- *To suggest measures to enhance employee satisfaction through CSR*

Research implication
Major understanding of employee job satisfaction and the impact of corporate social responsibility towards employee job satisfaction and how employees react towards corporate social responsibility policies. Also, some measures to enhance employee job satisfaction through corporate social responsibility.

Keywords: Corporate social responsibility, job satisfaction, corporative behaviours, employee retention

INTRODUCTION
Due to the pressure imposed by customers, employees, the system and the society, the significance of Corporate Social Responsibility concept has started to increase. Nowadays, it is accepted that the most important and the most effective way of growing and addressing wider audiences is through Corporate Social Responsibility. As the value added by the Corporate Social Responsibility practices has been seen, its importance increased accordingly. The very first objective of the Corporate Social Responsibility practices has been to increase the profits for the company. Corporate Social Responsibility is a very important human resources management strategy which also increases corporate loyalty and employee loyalty. Company have begun to notice that work force and social security rights are the keys for Corporate Social Responsibility concept. Therefore, companies are now working towards increasing employee satisfaction

SIGNIFICANCE AND IMPORTANCE OF THIS STUDY
This study signifies that employees as secondary stakeholders are willing to follow CSR practices in their organisation. The earlier thought process was that that the importance of CSR was for the consumers but now it is realised that it is equally important for the employees as well. This study focuses on the impact that CSR puts on employee job satisfaction. Also, it deals with what is the attitude of the employees towards CSR practices in their organisation and measures to satisfy employees through CSR practices.

OBJECTIVES
Impact of CSR on employee job satisfaction
A company with a strong corporate social responsibility has more engaged, efficient and effective employees. Almost sixty percent of employees who are proud of their company's CSR program are engaged at their jobs, according to Double the Donation. A good CSR program must consider the needs of its employees.

Most employees wanted to work for a company that cares about them as individuals, a recent study by Cone Communications found. Considering that the study found, that Americans increasingly feel their work and personal life are becoming blended, and the companies are really in a need to really consider their employee's needs.

When employees decide which job to take, over half consider a company's CSR commitments. And over half (55 percent) say that they would opt to work for a socially responsible company even if they are paid less, while 51 percent will not work for a company without strong CSR commitments. Once, they work for a company they want to be kept informed about the details about their company's CSR program. The majority (75 percent) think that it is important for their company to share its goals, progress and achievements with them.

Cone is not the only organization to find that CSR programs bring employee benefits. The Cube Group found that a good CSR program supports being an employer of choice and encourages professional and personal development.

1. Increased Organizational Citizenship Behaviours and Improved Employee Relationships

If employees think that their employer is "doing the right thing," it seems they are more likely to "do the right thing" themselves. When organizations implement the best practices in CSR, employees are more likely to engage in cooperative behaviours towards their co-workers and the organization, like going out of their way to help their teammate. Similarly, CSR promotes higher-quality and closer relationships between employees.

2. Enhanced Employee Identification with the Organization

When an organisation's employees feel that their organization is socially responsible, they experience a greater sense of identity with the business they work for. In fact, corporate social responsibility is considered *more important* than financial success in determining how much employees identify with their workplace.

3. Improved Retention and Organizational Commitment

Employees who feel positive with their organization's CSR initiative show intentions to stay with their current employer, and their overall commitment to the organization. Commitment further includes a huge range of positive attitudes, including how much employees like their organization, make personal sacrifices for the organization, and see their own future and success tied to the organization's success.

4. More Attractive Company Culture to Prospective Employees

Along with increasing current employees' commitment, CSR further make organizations look more attractive to applicants and prospective employees. In the age when millennials look to work for "high impact" organizations who are engaged in CSR may help companies to attract top talent over other organizations. For example, a survey by the non-profit Net Impact found that 72 percent of students about to enter the workforce stated that a job where they can "make an impact" was important for their happiness.

5. Better Employee Engagement and Performance

Employees have also been shown to be more engaged and to perform better when they feel amazing about their company's CSR involvement. By making employees aware about their company's efforts to give back and celebrating these efforts, you can help employees become more actively engaged with their work, and do better work overall.

6. Increased Creativity

Finally, CSR can increase employees' creative involvement, including generating new but practical ideas, originality, and creative problem-solving. When organizations express their values and passions through CSR, employees may be inspired to develop new and better ways to do their work.

TO STUDY AND ANALYSE ATTITUDE OF EMPLOYEES TOWARDS CSR

Attitudes may be understood as value judgments held with respect to something. The formation of an attitude is based on different components: a cognitive component, the opinions or beliefs of an individual; an affective component, which is related to the feelings or emotions of an individual; and a behavioural component, which is related to the intention to behave in a certain manner.

The positive work attitudes of employees describe their high tendency and desire to have a positive attitude toward the organizational objectives and values. Positive work attitudes decrease the employees' resistance to changes and their intention to leave. It enhances employees' engagement and acts as an essential factor for diminishing counterproductive workplace behaviours. On the other hand, several factors can lead to have positive work attitudes toward the achievement of organizational goals, e.g., workplace friendship and job climate.

CSR to Employees and Creative Work Involvement In the first, it is predicted that the higher level of CSR to employees leads to more involvement in creative work. CSR to employees describe the employees' self-evaluation and personal interpretations of the CSR activities performed in the organization. This evaluation and perception shaped the employees attitudinal and behavioural reactions in the workplace. CSR to employees means that the organization encourages the employees to participate in the voluntary activities and set different policies to develop their skills and careers. In such organizations, the top-level management pays high attention to the employees' needs and wants and tries to implement flexible policies to provide a good work and life balance for the employees. Making work conditions healthy and safe is another aspect of CSR to employees.

METHODOLOGY

Secondary research methodology is adopted in this research paper where the data is taken from the research paper in which random sampling of 150 small-sized companies from the directory of the Association of SMEs in the Southeast of Iran. After contacting the CEOs, only 45 companies verbally agreed to be surveyed. The

sample of the study was drawn from employees of 45 small sized companies. In total, these 45 companies had 1008 employees. They randomly selected 300 employees from these companies. Data was collected in two rounds. In the first stage of data collection, a questionnaire with independent, control and mediating variables was distributed in mid-2016. In this stage, 233 usable questionnaires were received. Approximately six months later they distributed second questionnaire to the same employees with only the dependent variable. Finally received 209 completed questionnaires resulting in a response rate of 0.697. Following the Back-Translation Method, they took different steps to translate measurement items into Persian. In doing so, asked two business and management professors to translate the original questionnaire to Persian first. Then, they asked one bilingual expert to translate the documents back to English. In the final step, they had a meeting with all the three translators to compare the original version of the questionnaire with the back translated one. Any confusing words were modified. However, to ensure that the criteria of the questionnaire construction and pre-testing were met, they dedicated time and effort to the design, layout, and wording of the used questionnaire. Before sending the questionnaires, they were pre-tested ten employees, who were not included in the final sample and were asked to review the questionnaire for readability, ambiguity, completeness, and to evaluate whether individual items appeared to be appropriate measures of their respective constructs. To know if there was any significant common variance, the Harman one-factor test was conducted. The first factor explained 21.02 percent. Thus, no single factor emerged, nor did single factor account for the majority of variance. When comparing early respondents (first 25%) with late respondents (last 25%) on the respondents' age and education, they did not find any significant difference. Therefore, the result does not suffer from non-response bias.

CSR to employees: To measure this specific dimension of corporate social responsibility, we relied on the scale recently developed by Turker. For measuring CSR to employees, we adopted five items on a seven-point Likert scale (1 = strongly disagree and 7 = strongly agree). Cronbach's alpha coefficient was 0.955. 4.2.2.

Intention to Leave: For measuring this construct, four-item scale was adopted, developed by Rosin and Korabik. The Cronbach's alpha coefficient was 0.88.

Employees' Positive Work Attitudes: In the study, the employees' positive work attitudes were measured using five items from Lehman and Simpson on a seven-point Likert scale ranging from "never" to "very often". The Cronbach's alpha coefficient for the employees' positive work attitudes was 0.88.

Employee Involvement in Creative Work: Measured the employee involvement in creative work using the nine items by Tierney et al. Respondents were asked to indicate the extent to which they regularly exhibit various behaviours that indicate the involvement in creative work. Responses were made on a seven-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. The involvement in creative work scale has a Cronbach's alpha coefficient of 0.90.

Control Variables Based on the literature, they added some relevant control variables to analyses including the respondents' age, education, gender, organizational tenure, management and measured the employees' educational level on a five-point scale (1 = "high school", 5 = "doctorate").

Emphasizing CSR leads to a positive attitude towards their jobs. Once the employees have a positive attitude towards their job they tend to be more involved in creativity and develop new ideas. If employees feel happy when they are working, they are likely to support their organization as a mutual exchange.

MEASURES TO ENHANCE EMPLOYEE SATISFACTION THROUGH CSR
One way to foster engagement at your company is through sustainability, also called corporate social responsibility. CSR goes farther than inviting everyone out for a day with Habitat for Humanity or offering volunteer time off. It means integrating your company's mission and purpose with sustainable values, and supporting environmental and social goals in ways that connect to your company's business.

1. Engage Leaders to Improve Corporate Social Responsibility
It's important that leaders share their passion for sustainability and be involved with company goals such as reducing emissions, eliminating waste or providing for underserved communities. Employees will be motivated and inspired by the example set by company leaders.

2. Identify Your Purpose
It's important to know how your company can become more sustainable or socially responsible in a way that supports your company's mission and purpose. For this one can take a step back and ask a few questions. What are your products? What higher purpose do they serve? What resources does the process of conducting your business use? Consider manufacturing, shipping, warehousing, looking at energy consumption and materials.

3. Set Goals for CSR Programs

There are specific goals such as "reduce electricity consumption by 30%" or "find two or more ways to reduce materials used in packaging" which help in motivating employees. If you have multiple locations, consider how you can encourage healthy competition between locations to improve on company-wide sustainability goals.

4. Educate Employees on CSR Activities to Get Engagement

Not everyone would agree in achieving sustainability goals. In fact, it is tough to get employee engagement from CSR activities. For this reason, it's important to educate employees on how the goals will benefit the planet or communities. By instilling sustainability into existing training–particularly onboarding– you'll set employees up to expect and anticipate involvement in efforts that contribute the greater good.

5. Facilitate Employee Project Ownership

Some of the best ideas for sustainability come directly from employees. Make it known that good employee ideas will be supported, and encourage employees to follow through with projects. The process of piloting a new idea and involving a team to help can be great development opportunity for staff at all levels. Also, employee inclusiveness in organisational activities motivate them to work better and give a sense of belongingness to the organisation.

6. Celebrate Achievements in CSR

It is advisable for companies to publish an annual sustainability report. It's also important to celebrate the achievements internally, whether it's through awards or recognition events. Share stories of the energy saved and the lives assisted in meetings, on the intranet, a newsletter, or internal signage. This is what sets the best CSR programs and activities apart. This also helps in improving the overall brand image of the organisation and makes it gain reputation in the eyes of the general public.

7. Share the Knowledge

Showing the outside world how your company integrates sustainability into its business practices paves a path for other companies looking to do the same thing. Generating press from your sustainability efforts provides validation for employees and engages candidates, consumers and shareholders.

CONCLUSION

In recent years, buzz about corporate social responsibility has brought public spotlight; it has been an increasingly frequent topic of conversation in the mass media, the boardroom, the MBA classroom, and the scholarly literature. Can companies address the needs of society and satisfy their economic self-interest at the same time? Is this a pipe dream, or an enlightened business strategy? Understanding the effects of CSR on employees represents one relatively unexplored approach to answering questions about whether and how CSR affects businesses. CSR often is discussed as a means for firms to maintain positive and proactive relations with their stakeholders, and employees. Employees get a sense of belongingness in the organisation. They feel that they are doing something better for the society even if they are paid less. Employees add a touch of humanity to their overall personality by participating in CSR activities of the organisation. Employees are likely to perceive and respond to CSR. Immediate progress can be achieved through efforts to break down knowledge silos and bridge the gaps in the literature.

REFRENCES

- **Gina-Marie Cheeseman** (June 14, 2016), How CSR Programs Benefit Employees | Justmeans. Blog Retrieved from: http://justmeans.com/blogs/how-csr-programs-benefit-employees

- **OLIVIA VANDE GRIEK** (August 24, 2017). 6 Ways Corporate Social Responsibility Benefits Your Employees - Conscious Company. Article Retrieved from: https://consciouscompanymedia.com/workplace-culture/hr-innovations/6-ways-corporate-social-responsibility-benefits-employees/

- **Glassdoor Team** (October 5, 2017), 7 Steps to Engaging Employees in Corporate Social Responsibility. Article Retrieved from: https://www.glassdoor.com/employers/blog/7-steps-engaging-employees-corporate-social-responsibility/

- **Daniel Arenas** (2019), Do Employees Care About CSR Programs? A Typology of Employees According to their Attitudes Retrieved from: https://www.researchgate.net/profile/Daniel_Arenas/publication/23534539_Do_Employees_Care_About_CSR_Programs_A_Typology_of_Employees_According_to_their_Attitudes/links/56eb3a3a08aeb65d7593bb80.pdf

DIGITAL TECHNOLOGY IN EDUCATION: A BLESSING OR A CURSE?

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ABSTRACT

Digital technology is a base two process. Digital technology includes all types of electronic equipment and applications that use information in the form of numeric code. Introduction to Digital Technology is a foundation course for computer programming and Digital/Web communication courses. It is designed to help students to understand, communicate and adapt to a digital world as it has impact on their personal life, society and the business world. Technology has made information accessible from anywhere and by / to all groups of people. Education has reached most parts of the world and ICT has become an integral part of human life. Today's college students are often referred as the "Digital Generation," From the Teaching perspective, digital technology is enabling teachers to create more interactive, engaging, flexible learning materials in a range of digital and multimedia formats and try to make it available to students online. Technology in education has brought a drastic change in teaching we will ever see. For years, policy makers, teachers, parents and students have been weighing the potential benefits of technology in education in spite of its risks and consequences.

Keywords; Bit, Byte, Digital Technology, MOOC, Peer-to-Peer Learning, Pedagogy, wikis

MEANING
Digital technology **is a base two process. Digital describes electronic technology that creates, stores, and processes data in terms of two states: positive and non-positive. Positive is expressed by the number 1 and non-positive by the number 0. So, data transmitted with digital technology is represented as a string of 0's and 1's. Each of these state digits is termed as a bit and a string of bits that a computer can address individually as a group is a** byte**.**

Digital technology includes all types of electronic equipment and applications that use information in the form of numeric code. This information is generally in *binary code*—that is, code that can be represented by strings of only two numeric characters; these characters are usually 0 and 1. Devices that process and use digital information include personal computers, calculators, compact disc players, cellular telephones, automobiles, traffic light controllers, communications satellites, and high-definition television sets.

DEFINITION OF DIGITAL TECHNOLOGY
"An umbrella term for computer-based products and solutions, considering that nearly everything designed and developed these days uses computers, it is a rather vague term. Digital technology may refer to using new algorithms or applications to solve a problem even if computers were used to develop solutions in the past."

Figure 1

INTRODUCTION TO DIGITAL TECHNOLOGY
Introduction to Digital Technology is a foundation course for computer programming and Digital/Web communication courses. It is designed to help students to understand, communicate and adapt to a digital world as it has major impact on their personal life, society and the business world. Exposure to foundational knowledge in hardware, software, programming, web design, IT support, and networks are all taught in a computer lab with hands-on activities and project focused tasks. Students will be to understand the concepts and apply their knowledge to situations and defend their actions with the help of the knowledge and skills acquired in this course. Employability skills are integrated into activities, tasks, and projects throughout the course standards in order to demonstrate the skills required by business and industry.

DIGITAL TECHNOLOGY IN EDUCATION

Traditionally education was centered on sources such as schools, teachers and print media. The learners reached the information sources by enrolling their names with schools, teachers and libraries. Prior to the digital world, information was not accessible by the majority of people; even those accessed were unable to obtain current information with respect to today's context. The modern society is eager to know the information as it happens and when it happens and the world is changing from an information society to a knowledge society. Thus education is given the highest priority and brainpower is becoming the most valuable asset of an organization. Advances in digital technology have helped to open many avenues of learning. Technology has made information accessible from anywhere and by / to all groups of people. Education has reached almost all parts of the world and ICT has become an integral part of human life.

Today's college students are often referred as the "Digital Generation," using an impressive assortment of technological tools in a wide variety of ways. However, the findings reported here suggest that students prefer more traditional instructional technology for effective engagement and learning. Faculty members, however, prefer the use of course-learning technology offered by their universities or publishers. In addition to this potential mismatch between preferences of students and teachers, the research finds that there are vast differences in preferences and usage across disciplines, in particular, business and economics instructors and students having stronger technology preferences than instructors and students of the fine arts and life sciences.

From the Teaching perspective, digital technology is enabling teachers to create more interactive, engaging, flexible learning materials in a range of digital and multimedia formats and try to make it available to students online. Educators are also able to teach in number of ways in the classroom with the use of in-class technologies, online materials and students' own mobile devices. These changes are enabling educators to have a more dynamic set of pedagogical approaches to support their learners, which means that they can be more inclusive in their teaching methods.

7 WAYS THAT DIGITAL TECHNOLOGY IS CHANGING THE FACE OF EDUCATION

1. **Learning Texts Are Now Digitalized:** Now a day, physical textbooks of many High Schools and Colleges are replaced with i-pads and other forms of devices connected to online media. With the fast development of online media, e-books, e-readers, and learning programs developed for i-pads, i-Pods and smart phones, the textbook is becoming "extinct" in some areas. You can forget the time when your backpack was loaded down with a bunch of textbooks, because learning is going online.

2. **Availability of Online Classes and Programs:** One of the easy observations regarding digital technology and education is that online schools and classes are becoming widely available. Even free online classes called "MOOC's" also known as Massive Open Online Courses are becoming popular. Online courses and full online programs are making it possible for young and old learners to unite from all over the world at any given moment, and to have easy access to a course or program from home.

3. **Personalized Teaching and Learning:** Because of increase in the presence of digital technology in the classroom, teachers are having more ability to personalize lessons, instructions, and projects for each group. By using devices and programs to distribute class work and assignments, teachers can personalize lessons and focus on the work of each student. Individualized lessons are provided to each student, and learning tools helps students to work, perform, and excel at their own pace. Teachers can also now provide feedback, grades, and reports directly to students through online platforms, and online school portals and log-ins.

4. **Mobile Learning:** A combination of the result of the sharp and sudden increase in the availability of online courses and programs, and the wide availability of online resources and books, you can now study from your phone. MOOC's such as the well-known "Future Learn" MOOC allow you to access your course(s) from your Smartphone. Just open the course, plug in your headphones, and follow the content and the classroom discussions! Whether you are riding the subway or taking a bus or a train you can instantly connect to the world full of learners and learning.

5. **Collaboration and Peer-to-Peer Learning in the Classroom:** With an increase in access to online learning, whether part or full instruction is provided online, increased opportunities for students to collaborate together from a variety of places becomes possible. Student bodies can be made up of students from all over the world, with every continent represented. Different student bodies also increase diversity in form of thinking, giving ideas and contributions to class discussions and projects. Inside and outside the classroom students can work together with the help of online platforms and portals to exchange ideas. Students can express their views and communicate through programs provided by their schools, and also

informally through social media programs such as Face book, Twitter, etc.Peer-to-Peer learning has become increasingly popular as students share their views with each other by online discussions and share documents through programs such as Google Docs. Teachers are motivating and setting up classrooms that inspire and sometimes require peer-to-peer discussions

6. **Data Driven Instructions and Results:** Another change that is arising because of the rise of digital technology is the rise in data-driven instruction and results. Sometimes few teachers are being forced to use online grading tools and devices, analysis tools are also becoming more precise. These devices and grading tools can provide more accurate results regarding student performance, but can also result in a teacher's limited ability to judge a student's performance based on the content of their writing, classroom performance, and other contributions.

7. **Guidance and Instruction from Diverse Teachers:** The increase of digital technology has also affected the availability and access to diverse teachers and instructors for students worldwide. One student can be present in a multi-cultural online classroom with teachers with origins from South Africa, England, Brazil, Spain, Russia, and Poland all at the same time. Teachers from different backgrounds and countries all bring their own unique perspectives, cultures, and languages to the table of learning.

Figure-2

Technology in education is the biggest change in teaching we will ever see. For years, policy makers, teachers, parents and students alike have been weighing the potential benefits of technology in education against its risks and consequences. But now the debate is more pressing than ever, as curricula increasingly incorporate technology and professors experiment with new teaching methods. On one hand, technology allows you to experiment in pedagogy, democratize the classroom and better engage students. On the other hand, some argue technology in the classroom can be distracting and even foster cheating.

"Digital education is generating new learning opportunities as students engage in online, digital environments and as faculty change educational practices through the use of hybrid courses, personalized instruction, new collaboration models and a wide array of innovative, engaging learning strategies.

THE PROS
Technology in the classroom helps ensure full participation: Online polling and other technical tools encourage students to participate in class, including those students who wouldn't normally raise their hand in class. Online engagement systems allow you to have regular check with students for feedback on course materials, projects and assignments; data analytics could be used to help spot areas where students might be facing problems, so you can adjust the coursework accordingly.

Using technology in the classroom allows you to experiment more in pedagogy and get instant feedback: Technology allows for more active learning; you can increase participation with the help of online polling or asking quiz questions during lectures. Subject matter is dynamic and timely with digital textbooks that embed links to relevant materials or student-maintained course wikis. Whether adding a single tool for a specific project or term, or making a more dramatic change such as a flipped classroom, being well-versed in technology can help build credibility with students, and even fellow colleagues.

With technology in the classroom, your students have instant access to fresh information that can supplement their learning experience: There is value in having textbooks and course materials that are always up to date, which can even include additions suggested by students. This also fosters a more collaborative learning environment; students, networked together online, can share information, work together on group projects, and interact with the instructor.

There are many resources for enhancing education and making learning more fun, interesting and effective: From apps and e-textbooks to organizational platforms, there's no shortage of tools that can transform

the classroom. Some instructors are turning toward classroom 'gamification,' the use of competitive scenarios, and the distribution of points and rewards to make the classroom more fun and effective. Some gamification tips include role-play

We live in a digital world, and technology is a life skill: Being digitally literate is more than obtaining "isolated technological skills," according to the NMC Horizon Report: 2017 Higher Education Edition. Rather, it's about "generating a deeper understanding of the digital environment, enabling intuitive adaptation to new contexts and co-creation of content with others." Creating presentations, learning to differentiate reliable from unreliable sources on the Internet and maintaining proper online etiquette are all vital skills that students can learn in the classroom. It can also help universities deliver better ROI on student education.

Technology can automate a lot of your tiring tasks: Automation can speed up tedious, time-consuming tasks, such as keeping track of student attendance and performance. Engagement tools can help streamline grading for writing assignments, discussions and participation, as well as answer common questions asked by students, which otherwise could seem daunting due to their objective nature.

THE CONS

☐ **Technology can disconnect students from social interactions:** Many people are skeptical of technology and what it does to students' ability to verbally communicate. By creating assignments in class that use both technological tools as well as oral presentations and group collaboration, students can learn to be dynamic in how they learn and interact with others. Sara Eskridge, history professor at Randolph College in Virginia, believes that technology is a tool to be used in the classroom, rather than an end in itself. The teacher is in control—and knows how to bring the best out in the student.

☐ **Technology in the classroom can be a distraction:** It cannot be denied that Technology can provide a major distraction to students as well as educators and parents. It is no secret that students are majorly distracted by their devices. This is posing quite a problem and the only solution is to ensure that everyone concentrates on learning while in class on studying, without letting other things distract them.

☐ **Technology can foster cheating in class and on assignments:** While students have always found ways to cheat, the digital technology makes it even easier, from copying and pasting someone else's work to hiring an essay-writer from an online essay mill. While technology could be seen as yet another avenue for cheating, it's possible to prepare assignments and exams in such a way that makes cheating difficult, or make exams open-book and focus on problem-solving and mastery rather than retention. Some classroom software allows you set questions that are different for every student, making them focus on the technique rather than the answer; and software such as Turnitin is already well-established in most higher education settings.

☐ **All Students don't have equal access to technological resources:** Some students can't afford i-Pads or even the textbooks required for class. For those students, point them in the direction of library or community resources, or create assignments that allow them to work in groups and share resources.try not to make technology the focus of your class, and don't make it a barrier. Incorporate it in a holistic and inclusive manner.

☐ **The quality of research and sources they find may not be top-notch:** The Internet is a blessing and a curse. Students may need guidance on recognizing proper sources and unreliable sources. Many campuses have writing centers that can help with this. You can also use OERs, which are open educational resources in the public domain that anyone can freely use, copy and adapt; they range from textbooks to lecture notes, examinations and assignments.

☐ **Lesson planning might become more labor-intensive with technology:** Adapting technology into classroom can seem daunting or overwhelming. In many ways though using technology can become as natural to you as any daily activity. When you're choosing classroom technology, it's necessary to engage with the software vendor and make sure you have the support in place. Some questions you should ask including whether they supply training or on boarding, and what their reliability statistics and support functions are—after all, you don't need to be the person all the students come to if the technology goes offline. But the most important thing is to allow yourself time to learn how to use something, and make sure you ask for and receive the support that you need.

15 Must-Follow Teaching Strategies:

✓ ☐ Use Mobile Learning and Social Media to Create A Community

- ✓ Embrace a Philosophy of Formative Assessment

- ✓ Put Communication and Clarity First

- ✓ Take Advantage of E-books and Digital Content

- ✓ Encourage Handwritten Notes

- ✓ Upload Online Lectures

- ✓ Personalize Instruction

- ✓ Have Brainstorming Sessions in Class

- ✓ Incorporate Interactive Learning

- ✓ Take the Learning Process Outside of the Classroom

- ✓ Establish Peer-Assisted Learning

- ✓ Diversify Projects

- ✓ Restructure the Classroom

- ✓ Give Breaks

- ✓ Seamless Integration and Management

CONCLUSION

The most important thing is that technology is a large part of today's Education. It is very important to be able to not only use technology today, but also have the ability to learn new technology. This benefits not only the students but also assists an Educator. Although the presence of technology does not ensure equity and accessibility in learning, it has the power to lower the barriers. The balance between digital technology and social interaction is the key to take advantage of all of the affordances and minimizing all of the limitations that digital technology brings to children and their education.

REFERENCE

- https://tophat.com/blog/6-pros-cons-technology-classroom/

- https://www.pcmag.com/encyclopedia/term/69059/digital-technology

- Technologyin.org/digital-technology

A STUDY ON ETHICAL ISSUES IN CONSUMER RELATIONSHIP MANAGEMENT PRACTICES FOLLOWED IN ORGANIZATIONS WITH SPECIAL REFERENCES TO COSMETICS

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ABSTRACT
New trends in cosmetics show that ethical consumerism is maturing. Ethics, are a set of moral values which everyone should abide by to ensure fostering of positive relationships between the consumer and the marketer. Cosmetic product safety and claim substantiation have evidently progressed during the past years. However, the cosmetic industry has been under a lot of fire lately due to the chemicals that they use in their products. Hence, the aim of this paper is to study the ethical issues that the cosmetics industry is facing and suggesting measures that will help curb these issues. However, there are also other initiatives taken to avoid such unethical practices for the benefit of both, the consumer and the marketer. With the booming growth in the industry, it is necessary to take stringent measures and act upon such issues immediately to prevent the sales from dipping and also to prevent customers from losing faith in beauty products.

INTRODUCTION
Ethics in customer dealings presents your company in a good light and customers will trust your company irrespective of high prices or minor service lapses. It is about being able to differentiate between what is wrong and right and conduct all dealings based on what is right even when doing the wrong thing will reap richer benefits at least short term. Focusing on ethical issues in the realm of the cosmetic industry, ongoing unethical practices are evident and debatable. Animal testing, child labor, misleading advertisement claims, environmental pollution are a few of the major issues that the cosmetic industry is having to deal with recently. It must give preference to ethical consumerism and every consumer must also actively pursue for industry change in unethical practices, the demand will force these cosmetic companies to rethink their unethical policies, and access whether or not unethical behavior is really more lucrative in the long run.

Keywords: Cosmetics, Environment, Ethics, Unethical

AIMS AND OBJECTIVES
1. To Study The Ethical Issues In Customer Relationship Management With Reference To Cosmetics

2. To Highlight The Importance Of Ethical Marketing Practices

3. To Suggest Measures To Organizations To Bridge Gaps With Repesct To The Ethical Dilemmas They Face

RESEARCH METHODOLOGY
The title of the study is "A study on ethical issues in Customer relationship management practices followed in organizations with special reference to cosmetics". The research methodology is secondary data sources.

Secondary data: The secondary data includes analyses of research done on importance of ethical issues and measures to adopt sustainable business practices in the past.

REVIEW OF LITERATURE
Paige M. Gould in "Making a Difference: the Impact of Corporate Ethical Behavior on Consumers in the Beauty Industry" studied whether consumers consider ethical issues when evaluating cosmetics and whether decisions can be influenced by ethical perceptions.

THE ETHICAL ISSUES IN CUSTOMER RELATIONSHIP MANAGEMENT WITH REFERENCE TO COSMETICS
In more recent years, the beauty industry has been criticized for practices surrounding false claims and misleading advertisements, the unethical sourcing of ingredients, child labor, the use of harmful ingredients, animal testing and excessive packaging. Considering the rate at which the business society is growing, it is of prime importance to analyze whether it impacts the society in a positive or negative way.

One of the most unethical practices prevalent in the cosmetic industry is animal testing. Typically these animal tests for cosmetics include skin and eye irritation tests where chemicals are rubbed onto the shaved skin or dripped into the eyes of rabbits: repeated oral force-feeding studies lasting weeks or months to look for signs of general illness or specific health hazards, such as cancer or birth defects: and even widely condemned "lethal dose" tests, in which animals are forced to swallow massive amounts of a test chemical to determine the dose that causes death. These tests can cause considerable pain and distress including blindness, swollen eyes, sore

bleeding skin, internal bleeding and organ damage, birth defects, convulsions and death. Pain relief is not provided and at the end of a test the animals are killed, normally by asphyxiation, neck-breaking or decapitation.

Clinique, Bobbi Brown, Estee Lauder, Maybelline, Elizabeth Arden are few of the companies which still pay for their products to get tested on animals.

Bobbi Brown claims "the safety of our consumers is our highest priority. We utilize the latest advances in non-animal safety testing and human volunteer testing to deliver products of the highest safety and quality to our consumers. We do not test our products or ingredients on animals, or ask others to test on our behalf, except where required by law. "However, they do sell their products in China. Until China does not change their policy of animal testing for imported products, any company retailed in china is not considered cruelty-free. Hence even Bobbi Brown is not considered as cruelty-free.

The production of cosmetics and personal care products have a disastrous effect on the environment as well. Main concerns include "natural" label, packaging and pollution.

As manufacturers take advantage of the "going green" sentiment as a away to increase sales, the demand for natural ingredients increases. Companies want these ingredients fast, cheap and in huge quantities. This demand in-turn increases the amount of mining and farming, which leads to more pesticides and questionable labor practices. When unsustainable methods are used, non-renewable natural resources are depleted and ecosystems are disrupted.

With respect to pollution, the chemical substances used in makeup and other cosmetics do not break down. They accumulate in the world's ecosystems, slowly poisoning the planet. When washed down our drains, these products get recycled into rivers, lakes and public water systems. A few damaging chemicals are:

P-phenylenediamine is a dangerous chemical derived from coal tar found in lipsticks and hair-dye and can kill animal plankton and other aquatic species. BHA and BHT are synthetic antioxidants used as preservatives in moisturizers and lipsticks. Dioxane is an endocrine disruptive chemical found in creamy products like shampoo and bubble bath. Dibutyly phthalate is a plasticizer used in nail polish and Triclocan is an antibacterial found in deodorant, hand-sanitizers and laundry detergent which causes mutations in amphibians, alters fish behavior and reproductive cycle and in large amounts can also decimate an entire ecosystem.

➢ Another unethical issue the cosmetic industry faces is child labor. In Jharkhand and Bihar, children as young as 10 are hammering flakes of rock off the mountainside. Their job is to separate glittering fragments from rock debris. These fragments are mica, the mineral that adds a shimmer to the beauty products such as blusher, eye shadow, lipstick and foundation. Some of the worlds biggest cosmetics companies like L'Oreal and Estee Lauder, source mica from India. More than a decade after cosmetic suppliers were alerted to its existence, child labor remains prevalent in mica mining

➢ Advances in technology have allowed for cosmetics to be promoted brands through the utilization of media platforms, referring to misleading advertisements. We are constantly surrounded by images of women in the media with flawless skin; they have no bags under their eyes, no spots lacing their chins and no blemishes on their cheeks. It could be said that the beauty industry profits from this image of the 'ideal' face by suggesting that using their advertised products achieves the same air-brushed complexion. However, toxic ingredients existing in these High Street brands often go unnoticed – women are more likely to discuss the coverage of a product rather than how beneficial it is for our skin, the environment and animals. Natural, organic, green, pH balanced, chemical free, hypoallergenic, proven formula, boosts collagen production, patented formula, etc. are some false claims made by companies to gain sales. Marketers know that the term 'proven' automatically makes consumers think that the product works. And maybe it does work, but it almost never works in the way (or to the extent) that consumers will think it works. This is why it is a misleading claim.

• Estee Lauder companies CEO, Fabrizio Freda recently apologized for false ad claims on specific products. They had discovered that the testing related to certain product advertising claims had been altered by a small group of employees. Their sales then dipped by 6.9% marking the biggest decline since 2015.

• Maybelline was also in trouble with the ASA before for unethical advertising, for example in 2011 when the ASA ruled that an ad for Maybelline's 'Eraser' foundation was misleading as the photo shopping of the model had given the impression that the make-up had a bigger transformative effect than it was really capable of – as a result, the ad was no longer shown in the UK.

HIGHLIGHT THE IMPORTANCE OF ETHICAL MARKETING PRACTICES

With the development of the internet and the advent of social media, information can spread at an alarmingly fast rate. A company engaging in unethical practices can be destroyed by a simple post on Twitter or Facebook. Companies understand the problems that can arise as well as the benefits that can accrue to them and hence, there is a gradual shift occurring in favor of ethical marketing. They now aim at gaining loyalty of customers by emphasizing the good qualities of the brand, thereby creating a strong customer base.

The importance of ethical marketing is as follows:

1. *Satisfying basic human needs:* Being fair and honest is one of the basic human needs. Every employee desires to be such himself and to work for an organization that is fair and ethical in its practices.

2. *Creating credibility:* An organization that is believed to be driven by moral values is respected in the society even by those who may have no information about the working and the businesses or an organization.

3. *Uniting people and leadership:* An organization is driven by values is revered by its employees also. They are the common thread that brings the employees and the decision makers on a common platform.

4. *Improving decision making:* For example an organization that does not value competition will be fierce in its operations aiming to wipe out its competitors and establish a monopoly in the market.

5. *Long term gains:* Organizations guided by ethics and values are profitable in the long run, though in the short run they may seem to lose money. TATA group one of the largest business conglomerates in India was seen on the verge of decline at the beginning of 1990's which soon turned out to be otherwise. The same company's TATA NANO car was predicted as a failure, and failed to do well but the same is picking up fast now.

6. *Securing the society:* Often ethics succeeds law in safeguarding the society. The law machinery is often found acting as a mute spectator, unable to save the society and the environment. For example, technology is growing at such a fast pace that by the time law comes up with a regulation we have a newer technology with new threats replacing the older one. Lawyers and public interest litigations may not help a great deal, but ethics can.

7. *To avoid increased governmental regulations* : Unethical behavior simply increases the probability of more government regulations. Most of the government limitations on marketing are the result of management's failure to live up to its ethical responsibilities at one time or other.

SUGGESTING MEASURES TO ORGANIZATIONS TO BRIDGE GAPS WITH REPESCT TO THE ETHICAL DILEMMAS THEY FACE

With respect to the ethical dilemmas the cosmetic industry faces, there could be various alternatives used in order to do away with such issues. Few other ways like :

1. In vitro test methods and models based on human cells and tissue cultures

2. Stem cell and genetic testing methods

3. Non – invasive imaging techniques such as MRIs and CT scans

4. Micro-dosing (in which humans are given very low quantities of a drug to test the effects on the body on the cellular level, without affecting the whole body system) could also be used to sometimes even get better results. They are rather more cost efficient, practical and expedient. The use of human tissue in toxicity testing is also more accurate than the animal models. Cruelty-free products are more environmental friendly and create less waste.

Talking about misleading advertisements, what we need is a well-equipped independent laboratory to conduct spot checks on products that are sold in the market. The laboratory should be run by a non-government entity. With regards to the many unjustified claims on the cure-all, businesses promoting such claims should be asked to produce viable evidence on the efficacy of their products. Otherwise, they should be liable.

A few ways to avoid misleading advertisements are as follows:

1. No exaggeration of the capability or performance of a product – advertising is all about presenting the product in the best possible light, but do not over claim in a way that is likely to mislead.

2. Clear qualifications – qualifying text can be used to clarify a claim in an ad, but do not use it to hide important information or in a way that contradicts the headline claim.

3. Evidence to back up claims - before running an ad, one should hold adequate evidence to support all objective claims or those that are capable of objective substantiation, bearing in mind the impression consumers are likely to take from the ad.

4. Being careful of claims in product names – all the ad content, including your company or product names can count as potential claims. If the product name implies unproven effect or benefit, this could be problematic, even if it appears in a pack shot.

5. Avoid omitting key information – the key information should be stated close, or clearly linked to the main claim. Significance will vary depending on the circumstances.

A major chunk of the environment is affected due to the cosmetic industry. In such cases, the principles of reduce, reuse and recycle apply 100%, in this case. Fancy packaging is unnecessary and often only a marketing ploy to make us view a product as more luxurious and elite. Another way that we can mitigate the environmental impact of the cosmetics we use is to buy from smaller suppliers. The benefit of buying 100% natural products from a smaller company means that the ingredients are more likely sourced sustainably as supply chain are shorter. To make a successful transition towards a sustainable and low-carbon circular economy, companies need to carefully assess the supply and demand of all new materials they choose to use using a set of economic (i.e. commodity prices) and environmental indicators related to inputs (i.e. material, energy, water) and outputs (i.e. emissions, waste) to identify potential risks and impacts within the supply chain. The impact of the materials at all stages; manufacture, distribution and storage, needs to be assessed. A few ways to curb environmental problems are as follows:

1. *Using recycled packaging* - Planting flowers in an empty shampoo bottle or using your old body scrub bottle to hold all make up brushes are a good way of keeping containers out of landfills and recycle.

2. *Adopting the organic and sustainable movement* – Buying more organic products, free of harmful chemicals would make it safer for the environment, consumers and the workers that make the product.

3. *Renewable energy* – Along with using natural ingredients, companies should also manufacture their products with renewable sources of energy through wind powered factories.

CONCLUSION
A number of beauty companies have opted to take the holistic approach to the issue of ethics and sustainable business practices. These companies are now reducing the environmental effects of their products by opting to greener formulations, decreasing packaging of most of their products and also reducing greenhouse gas emissions as well as water and energy consumption. In addition, they are also considering the social dimension of their business and operations. These include ethical supply from supply responsibilities through corporate philanthropy. Since the burden of ethical marketing is on both, the marketer and consumer, the cost one has to bear for unethical behavior is enormous. For the marketer it may lead to the negative attitude towards business and for the consumers as a whole, they have to pay for the unethical behavior of marketers and also some of the consumers' anti-ethical behavior. A sustainable business practice would not only benefit consumers and the society but also ensure a continuous operation by the cosmetic companies within the sustainable environment.

BIBLIOGRAPHY
1. Dirty Secrets About the Environmental Impacts of the Cosmetics and Skincare Industries - https://mademoiselleorganic.com/2016/12/14/dirty-secrets-environmental-impacts-cosmetics-skincare-industries-go-green/

2. Ethical practices in the consumer industry - https://econgist.wordpress.com/2017/12/08/business-ethics-cosmetics-industry/

3. http://cosmeticsethics.blogspot.com

4. Importance of ethics in business –http://www.managementstudyguide.com

5. Lindsay Dahl on "The Beauty Industry's Impact on the Environment" - https://lindsaydahl.com/beauty-industrys-impact-environment/

6. Savvy consumers call out unethical beauty brands- https://www.raconteur.net/retail/savvy-consumers-call-out-unethical-beauty-brands

7. Unethical practices in the cosmetic industry - https://www.coursehero.com/file/15829955/Unethical-Practices-in-the- Cosmetics-Industry/

A STUDY ON THE IMPACT OF GST ON REAL ESTATE

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ABSTRACT
This research paper focuses on the impact which GST has had on the real estate sector in India. The impact of GST on property prices, construction costs, and ready properties are studied. Real estate industry has been one of the most important pillars of the Indian economy contributing between 6 - 8% to India's Gross Domestic Product (GDP), and is second only to the IT industry in terms of employment generation. With GST becoming applicable, indirect taxation in this sector has been wholly revamped. The switch to the GST regime, without any doubt, has to be one of the greatest tax reforms in the post- independence era. It effectively cuts through a confounding Gordian knot of tax complexity in the country. Indian real estate has undergone major transformations over the past years. The RERA Act has already started addressing issues concerned with non-transparency. Implementation of GST has been a sentiment booster among property buyers. However, it hasn't proven to reduce the prices of real estate over the short term. Data for the study was collected with the help of Google Online Forms and indirect observations. Hereby, this research enables to acquire a better insight of these concepts.

Keywords: GST, real estate, transparency, ITC.

INTRODUCTION
The real estate segment was brought under the GST with the objective of reducing property prices caused by tax inefficiencies pre-GST. These included cascading of taxes, restriction on input tax credits, classification and valuation amongst others, resulting in developers passing on such tax costs to customers. Under GST, construction activity has been explicitly categorized as services, with the GST rate pegged at 18% with a one-third abatement for land value involved in the contract, thereby having an effective rate of 12% This when compared with around 8%-14% chargeable under earlier regime depending on the taxation mechanism under State VAT law. The affordable housing segment continues to receive its share of benefits, with output rate lowered to 8% and other tax exemptions/ lowered rate on inputs.

Immediately post implementation of GST, the real estate market witnessed a sluggish trend, with customers expecting an immediate price drop. However, unlike an MRP based product, the pricing for real estate projects is dependent on various factors and estimates, for which an over-night change cannot be expected. Developers were required to analyze the benefit of input tax credit eligible on transition stock and on procurement to be made post GST.Further, determining project completion, clarity over valuation and taxability under the new regime, negotiations on price reduction from suppliers, etc. are time consuming process. While some developers offered up-front discount on projects, others offered freebies and subvention schemes as desperate attempt to make sales.

AIMS AND OBJECTIVES
The research study aims at achieving the following objectives:

- To study the impact of GST on property prices.

- Changes in real estate sector, post introduction of GST.

- Changes in construction costs, ready properties are studied.

RESEARCH METHODOLOGY
In order to gain broader knowledge and have extensive sources for the research topic, the research is based on mixed data i.e. Primary as well as secondary. Primary data refers to the first hand information to the researcher, here the questionnaire method, which is pure form of primary data collection, is used. While the secondary data has been gathered by referring various magazines, research books, websites, etc. Mixed data has greatly helped in getting a bigger picture of the content.

REVIEW OF LITERATURE
"With the new system of taxation, things need to be simpler and specific. If there is a governmental directive that affordable housing won't be charged with GST, then we need specific guidelines about who falls under that section and who doesn't. There should be guidelines regarding the connotation of affordable projects." -Abir Roy Chowdhury, Director, GSPR Developers, which is a part of The Banyan Tree Group, told BE.

"The one sector in India, where maximum amount of tax evasion and cash generation takes place and which is still outside the GST, is real estate. Some of the states have been pressing for it. I personally believe that there is a strong case to bring real estate into GST" -Finance Minister Arun Jaitley, while delivering a lecture at Harvard University on October 12, 2017.

GST coupled with Real Estate Regulatory Act came into effect on May 1st, 2017.

FINDINGS

GST: The Goods and Services Tax is a value-added tax levied on most goods and services sold for domestic consumption. The GST is paid by consumers, but it is remitted to the government by the businesses that sell the goods and services. GST provides revenue for the government.

Real Estate: means the property (physical or real), land, buildings, and air rights above the land and underground rights below the land.

REASONS FOR THE INTRODUCTION OF GST IN REAL ESTATE

1. The Real Estate Sector was subject to multiple taxation schemes by the government, the Central Government levied Service Tax on under constructed projects, and the State Government was charging VAT and Composite Tax on various materials used in construction, without benefit of Input Tax Credit. The immovable properties were charged Stamp Duty, at the time of registration of Sale Agreements. Thus theses taxes constituted almost 10% of the value of property sold.

The inclusion of Real Estate Sector in GST has increased transparency and organization in the sector.

2. Various ancillary industries such as cement, steel, brick, timer, fittings, building materials and many others are dependent on the real estate sector which constitutes a major part of Gross Domestic Product. However transfer transactions under this sector weren't fully taxable, which had a spillover effect on other sectors and results in non-transparency and non-availability of credit.

3. Expenditure on housing constitutes a large part of Personal Consumption Expenditure in India and if real estate sector was kept out of GST then this would have increased the RNR rate, because the base would have been reduced in order to get same result. To increase tax base and to reduce RNR rate, real estate sector has been included in GST.

4. There were various duties levied on this sector and there was no provision for claiming set off, which made taxation in this sector hectic and lethargic. There was tax evasion due to this condition. Now the inclusion of the real estate sector under GST, the revenue loss to the government will stop and set off facility will provide transparency and good taxation environment.

EFFECT

1. Impact on Buyers

Under the earlier tax regime, buyers paid VAT, Service tax, Registration charges & Stamp duty on purchase of properties under construction. Since VAT, Registration charges and Stamp duty were state levies, prices of properties varied from state to state. In addition, developers had to pay various duties like sales tax (CST), custom duty, OCTROI etc. for which credit was not available.

Under GST, a single tax rate of 12% is applicable on properties under construction while GST isn't applicable on completed or ready to sale properties which was the case in previous law. Hence buyers will enjoy benefits of reduced prices under GST. Also, in the long term, GST will have a positive impact on buyers if the benefit of input tax credit received by the developer is passed on to the buyer.

2. Impact on Developers / Builders / Contractors

Under the earlier tax regime, developers had to incur Excise duty, VAT, Customs duty, Entry taxes etc. on raw materials / inputs and Service tax on various input services such as approval charges, architect professional fees, labor charges, legal charges etc. ITC wasn't available for duties like CST, Customs duty, Entry Tax etc. This would impact the pricing and eventually the burden was transferred to the buyer.

Under GST, developers' construction costs are significantly minimized as multiple taxes are subsumed and due to the availability of input tax credit. Also, reduced costs of logistics will be an added benefit that may help developers see improvement in margins.

On the other hand, developers have to do multiple calculations to arrive at ITC in order to pass it on to the buyers. As a result, in most cases, they can pass on the ITC only during the final stages

3. Impact on other Stakeholders

The impact on the allied services such as labor, material suppliers, service suppliers etc. depends on the increase or decrease in the tax charged on these goods and services. This will have a significant impact on real estate industry as a whole.

For example, previously cement was taxed at an effective rate of 27-31 percent which will now be taxed at 18 percent. Increase in cement prices will result in significant increase in the overall cost of construction.

QUESTIONNAIRE

Sr No	Questions	Yes	No	Maybe
1.	Did GST have an impact on the real estate sector?	61.7%	8.5%	29.8%
2.	Did the EMIs on home loan shoot up, post the introduction of GST?	55.3%	44.7%	-
3.	Is it true that under-construction properties have become costlier, compared to ready-to-move-in properties?	44.7%	27.7%	27.6%
4.	Has GST impacted the stamp duty on buying a property?	44.7%	27.6%	27.7%
5.	Have resale properties become costlier under the GST?	37%	34%	29%

DATA INTERPRETATION

A methodology of mixed data collection has been used in this paper, for which the sample size was 60. Out of which 51% were employed. The paper portrays views of respondents relating to the impact of GST in real estate. 44.7% of the sample is of the opinion that under-construction properties have become costlier, compared to ready-to-move-in properties and GST has impacted stamp duty on buying a property. 61.7% of the respondents are of the view that GST had an impact on the real estate industry, 29.8% of the respondents aren't sure whether GST has an impact on real estate, and the remaining don't feel that GST impacts the functioning of real estate. This is my interpretation. If there are five questions there must be at least two elaborative sentences analyzing about it.

CONCLUSION

GST brings a lot of transparency in the real estate sector and minimize crooked transactions. GST law increases the margin in the hands of contractor. GST coupled with Real Estate Regulatory Act that has come into effect on May 1st, 2017, would ensure efficiency in the real estate sector. 12% tax rate under GST regime looks favorable for the industry.

Real estate sector enjoys a lot of benefits from facilities in special economic zone (SEZ) and same are carried forward in GST. GST will help in free transport of goods without stopping at the state borders for long hours for payments of state tax or entry tax from one state to another state. Paperwork will be reduced to a great extent.

GST cuts down the percentage of each real estate project expenditure that goes unrecorded on the books because of cloud storing of invoicing. Real estate sector is benefited with the new tax law having a positive effect on all ancillary industries. There is a substantial benefit from GST as it brings a lot of required transparency and accountability.

REFRENCES

- Survey in the form of questionnaire

- (September 17, 2018)- GST On Real Estate: Understanding Impact on Homebuyers, Builders- https://cleartax.in/s/gst-real-estate-sector-affect

- GST Impact on Real Estate Sector- https://www.deskera.in/gst-impact-on-real-estate-sector/

- CS Deepak Pratap Singh, (July 17, 2016)- Real Estate Sector and GST- https://www.gstindia.com/real-estate-sector-and-gst/

- Kunal Wadhwa, (Jun 10, 2018)- Impact of GST on real estate unfolding slowly- https://realty.economictimes.indiatimes.com/realty-check/impact-of-gst-on-real-estate-unfolding-slowly/3078

AN OVERVIEW OF APPLICATIONS OF GRAPH THEORY IN DIGITAL TECHNOLOGY

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ABSTRACT

Graph Theory is a branch of Mathematics with wide variety of real life applications. This paper gives an overview of the applications of graph theory in Digital technology that uses graph theoretical concepts. We discuss about Graph database that uses graph structure with nodes, edges and properties to represent and store data. We also discuss about Neo4j, a graph database, its advantages, features and some real world applications.

Keywords: Graph Theory, Digital Technology, Graph database.

INTRODUCTION

Use of Digital Technology in Education System is the need of the day. Modern development of educational technologies is based on introduction and development of software that can automate and optimize processes of fixing information received from the teacher. Increased interactivity of lectures and visual perception of study material also have vital importance. Graph theory is used to create graph database in recent years by technologists since graph technology is finding its way into a wider range of applications, in both the public and private sectors.

Euler pioneered Graph theory in the 18th century. Since then graph theory has been actively researched and improved by mathematicians, sociologists, anthropologists, and other practitioners ever since. The application of graph theory and graph thinking to information management is seen only in the past few years. Important problems in the areas of social networking, master data management, geospatial, recommendations, and more have been solved with the help of graph databases. This increased focus on graph databases is driven by two forces: by the massive commercial success of companies such as Facebook, Google, and Twitter, and by the introduction of general-purpose graph databases into the technology landscape. A graph is a collection of vertices and edges or, in less intimidating language, a set of nodes and the relationships that connect them. Entities are represented as nodes and the ways in which those entities relate to the world as represented as relationships using graphs. Many scenarios, from the construction of a space rocket, to a system of roads, and from the supply chain or provenance of foodstuff, to medical history for populations, and beyond can be modeled with this general-purpose, expressive structure.

GRAPH DATABASE

Mathematical graph theory can be used to build databases to store data and the links between data as relationships. A Graph database is a database that uses graph structure for semantic queries with nodes, edges and properties to represent and store data. It is an online, operational database management system capable of Create, Read, Update, and Delete (CRUD) processes that operate on a graph data model. Graph database technologies has two important properties:

- **Graph storage:** Native graph storage specifically designed to store and manage graphs is used by some graph databases.

- **Graph processing engine:** Native graph processing (i.e., index-free adjacency) is the most efficient means of processing data in a graph because connected nodes physically "point" to each other in the database. To process CRUD operations other means is used by non-native graph processing engines.

These two properties make graph database unique. A pictorial overview of some of the graph databases on the market today, based on their storage and processing models is shown in figure below.

Graphs can be categorized into multiple types. According to Gartner, graphs could be sorted into five broad categories: social, intent, consumption, interest, and mobile graphs. Connections between people comes under the social graph category, as it is an intuitive, widely-implemented graph type in the realm of graph databases. Social graph is utilized by some companies such as, Face book and Twitter. Social graph can be used to map the well-known idea of Six degrees of separation. The intent graph deals with reasoning and motivation. Retail industry uses the consumption graph or "payment graph" heavily. Consumption graph is used track the consumption of individual customers by E-commerce giants such as Amazon, eBay and Walmart. The interest graph maps one's interests. It is often complimented with the social graph. It has potential to follow the previous revolution of web organization; by mapping the web by interest rather than indexing web pages. The mobile

graph if built from mobile data. GPS, web, application, digital wallet, data from Internet of Things (IoT) devices may be included in future in Mobile data.
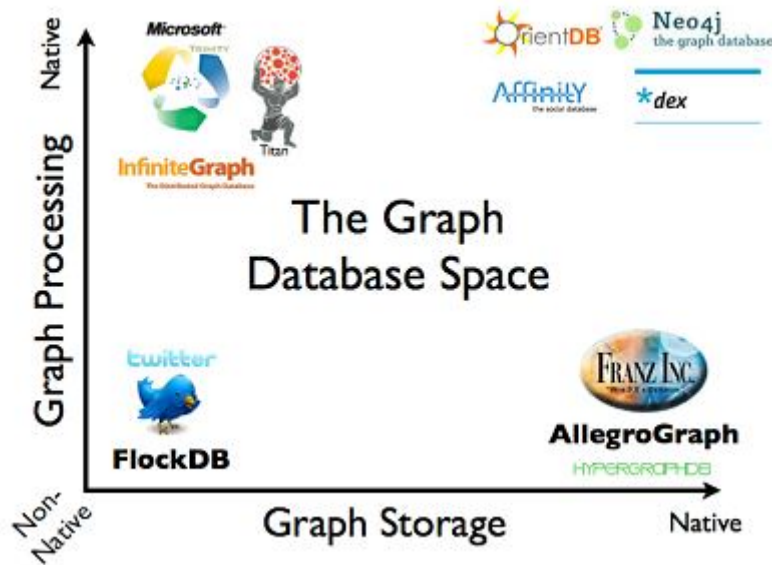
Graph (or edge or relationship), which directly relates data items in the store a collection of nodes of data and edges representing the relationships between the nodes is the key concept of the system . The relationships allow data to be directly linked in the store and often obtained with one operation. Graph databases prioritize the relationships between data. It is quick to query relationships in a graph database because they are constantly stored in the database itself. Graph databases can be used to visualize relationships intuitively and make them useful for highly interconnected data.

Graph databases are part of the NoSQL databases to address the constraints of existing relational databases. While the graph model explicitly identifies the dependencies between data nodes, the relational

model and other NoSQL database models connect the data through implicit links. By design, graphic databases allow for the simple and fast recovery of complex hierarchical structures that are difficult to model in relational systems. Graph databases are similar to network model databases of the 1970s, where both represent general graphs, but network model databases operate at a lower abstraction level and are not easily traversed across a chain of edges.
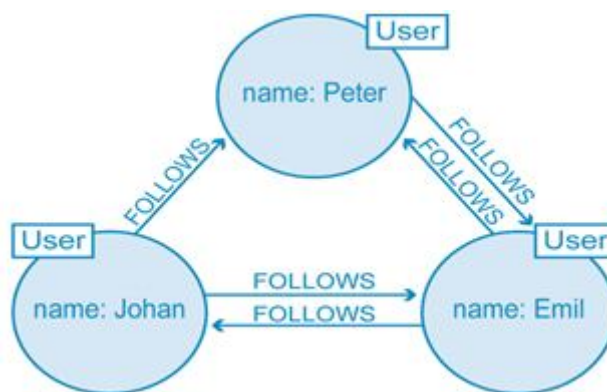
Consider another example

Twitter is an excellent example of a graph database that connects 330 million active monthly users. In the illustration above, we have a small slice of Twitter users represented in a graph database. Each node (labelled User) belongs to a single person and is connected with relationships describing how each user is connected. As we see above, Peter and Emil follow each other, as do Emil and Johan, but although Johan follows Peter, Peter hasn't (yet) reciprocated.

The graph database storage mechanism may vary. Some depend on a relational engine and "store "the graph data in a table (although a table is a logical element, this approach imposes another abstraction between the graph database, the graph database management system and the physical devices that actually store the data). Others use a key store or document-oriented database for storage to create NoSQL structures inherently. Most

graph databases based on non-relative storage engines also add the concept of tags or properties that essentially link to another document. The retrieval of data from a graph database requires a query language other than SQL, which was designed to handle data in a relational system and therefore cannot handle a graph "elegantly".

Databases of graphs differ from graph computing engines. Databases in graphs are technologies that translate relational OLTP databases. Graph computing engines, on the other hand, are used for bulk analysis in OLAP. Graph databases have attracted considerable attention in the 2000s, due to the successes of major technology corporations in using proprietary graph databases, and the introduction of open-source graph database.

LIST OF GRAPH DATABASES
The following is a list of some notable graph databases:
1) AllegroGraph: Used in commercial projects and a US Department of Defence project.

2) Amazon Neptune- Used in recommendation engines, fraud detection, knowledge graphs, drug discovery, and network security.

3) AnzoGraph- Used in Scientific data discovery, machine learning data automation, cyber security, risk assessment, network traffic analysis, pricing models, supply chain intelligence, insider trading and anti-fraud, 360-degree view of the customer and many more.

4) ArangoDB: Used in Fraud detection, Internet of Things, Enterprise Hierarchies, Identity and Assess management, Real-Time recommendation, E-Commerce Systems, Networks and IT information, Logistics, Content management, Social Networks, Traffic management, Knowledge graphs, Workflow Management software, Version management applications.

5) InfiniteGraph: InfiniteGraph is suitable for applications and services that solve graphic problems or answer questions such as "What are the cheapest roundtrip flights from California to New York with no more than 2 stops, at least 30 minutes between flights, from 8 a.m. on Tuesday to 6 p.m. on Friday? Adoption is seen in applications in government, telco / networking, healthcare, cyber security, manufacturing, finance, CRM and social networking.

6) JanusGraph: Used in Airline reservations and routing.

7) MarkLogic: Used in Defense and Intelligence, Financial regulation,

8) Microsoft SQL Server

9) Sparksee

A graph of Sparksee is a Labeld Directed Multigraph. Labeling because nodes and edges belong to types in a graph. Directed because it supports both directed and undirected edges. Attributed because both nodes and edges can have attributes and multigraph meaning that multiple edges can be found between the same nodes, even if they are of the same edge type. One of its main features is its performance storage and retrieval with specialized structures for large graphs (in the order of billions of nodes, edges and attributes).

10) Neo4j

Neo4j is a graphical database system developed by Neo4j, Inc. Described by its developers as an ACID compliant transactional database for the storage and processing of native graphs. All things are stored in Neo4j as an edge, node or attribute. Every node and edge can have a number of characteristics. Both nodes and borders can be marked. Labels can be used to search narrowly. Neo4j is available in a GPL3-licensed open-source "community edition", with online backup and high availability extensions licensed under a closed-source commercial license. Neo also licenses Neo4j under closed-source commercial conditions with these extensions. Neo4j is implemented in Java and can be accessed from software written in other languages using the Cypher Query Language via a transactional HTTP endpoint or the binary "bolt "log. Neo4j's own graph theory concepts are implemented. In the Neo4j database the labelled property graph model has the following components:

- **Nodes** (equivalent to vertices in graph theory). These are the main data elements linked in relationships. A node may have one or more labels (describing its role) and characteristics (i.e. Attributes to that).

- **Relationships** (equivalent to edges in graph theory). A relationship connects two nodes, which can have several relationships in turn. Relation can have one or more characteristics.

- **Labels**. These are used to group nodes and multiple labels can be assigned to each node. Labels are indexed to speed up the location of graph nodes.

- **Properties**. These are both nodes and relationships ' attributes. Neo4j enables data to be stored as key-value pairs, meaning properties can have any value (string, number or Boolean).

The structure of the graph data may appear unusual, but it is simple and natural. Here's an example of a simple Neo4j graphic data model:
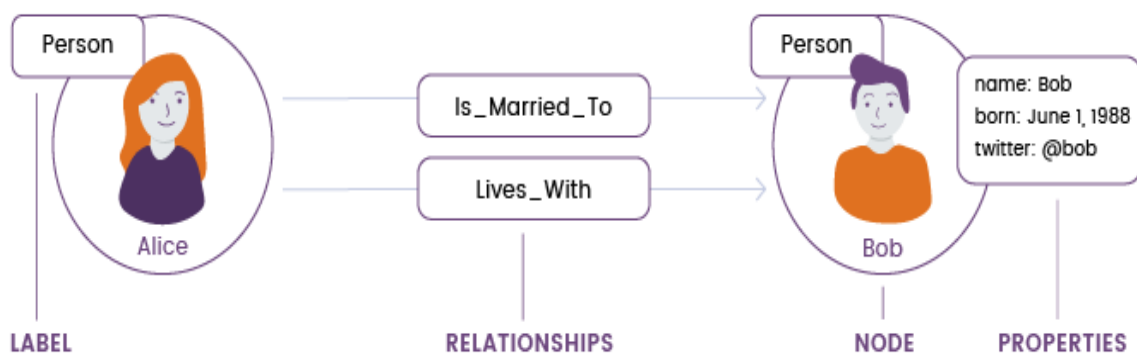
This graph contains two nodes (Alice and Bob) which are connected by relationships, as you can see. Both nodes, person, share the same label. Only the node of Bob has properties in the graph, but in Neo4j each node and relationship can have properties.

ADVANTAGES OF NEO4J
Following are the advantages of Neo4j

- Flexible data model − Neo4j offers a flexible, simple yet powerful data model that can easily be changed by applications and industries.

- Real-time insights − Neo4j provides real-time data results.

- High availability − Neo4j is highly available in real-time applications with transaction guarantees for large companies.

- Connected and semi structures data − Neo4j can be used easily to represent connected and semi-structured data.

- Easy retrieval − Neo4j not only represents but also easily retrieves (traverse/navigate) connected data faster when compared to other databases.

- Cypher query language − Neo4j provides a statement query language to visually display the graph using the ASCII-art syntax. The commands of this language are readable in human format and easily learned.

- No joins − Using Neo4j, it does NOT require complex attachments to retrieve connected / related data because it is very easy to get its adjacent node or relationship details without attachments or indexes.

Features of Neo4j

Following are the notable features of Neo4j −

- Data model (flexible schema) − Neo4j follows a native property graph model of a data model. The graph here contains nodes (entities) and these nodes are linked (represented by relationships). Nodes and relationships store data in pairs of key values called properties.

  There's no need to follow a fixed schema in Neo4j. Properties can be added or deleted on demand. It also imposes schematic limitations.

- ACID properties − Neo4j fully supports the ACID rules (Atomicity, Consistency, Isolation and Durability).

- Scalability and reliability − the database can be scaled by increasing the number of reads/writes, and the volume without effecting the query processing speed and data integrity. Neo4j also supports the replication and reliability of data security.

- Cypher Query Language − Neo4j provides a powerful language for declarative queries called Cypher. It uses ASCII-Art to show graphs. Cypher is easy to learn and can be used to create and recover data relationships without the use of complex queries such as joins.

- Built-in web application − Neo4j provides a built-in Neo4j Browser web application that can be Used to create and query graph data.

- Drivers − Neo4j can work with −

  o REST API to work with languages like Java, Spring, Scala, etc.

  o Java Script to work with UI MVC frameworks such as Node JS.

  o It supports two kinds of Java API: Cypher API and Native Java API to develop Java applications. You can also work with other databases, like MongoDB, Cassandra, etc.

- Indexing − Neo4j supports Indexes by using Apache Lucence.

Neo4j database use cases
Graph databases can be used to solve problems, but this is not the case. Let's look at several cases of Neo4j database usage:

Fraud detection and analytics: Companies are losing billions of dollars each year due to fraud. Despite extensive methods of fraud prevention, fraudsters find more and more sophisticated ways of stealing money and identities. Thanks to its graphical data model, a Neo4j database improves the fraud detection capabilities of applications and detects financial crimes such as credit card fraud, e-commerce fraud and money laundering.

Network and database infrastructure monitoring: The growth of complexity of network and IT infrastructure needs a more powerful configuration management database than a relational database can provide. The Neo4j graph database allows connecting network, data centre, and IT assets in order to get important insights into the relationships between different operations within the network. For example, Neo4j can help manage dependencies and monitor micro services.

Recommendation engines: A Neo4j database can easily handle recommendations by focusing on entities and relations between them, by correlating a lot of data and quickly detecting new interests shown by clients, significantly outperforming other relational and non-relational databases.

Social networks: Social networks basically have graph structures since they are about connections between people. Neo4j speed up the development of social network applications, enhance an app's overall performance, and allow to better understand data.
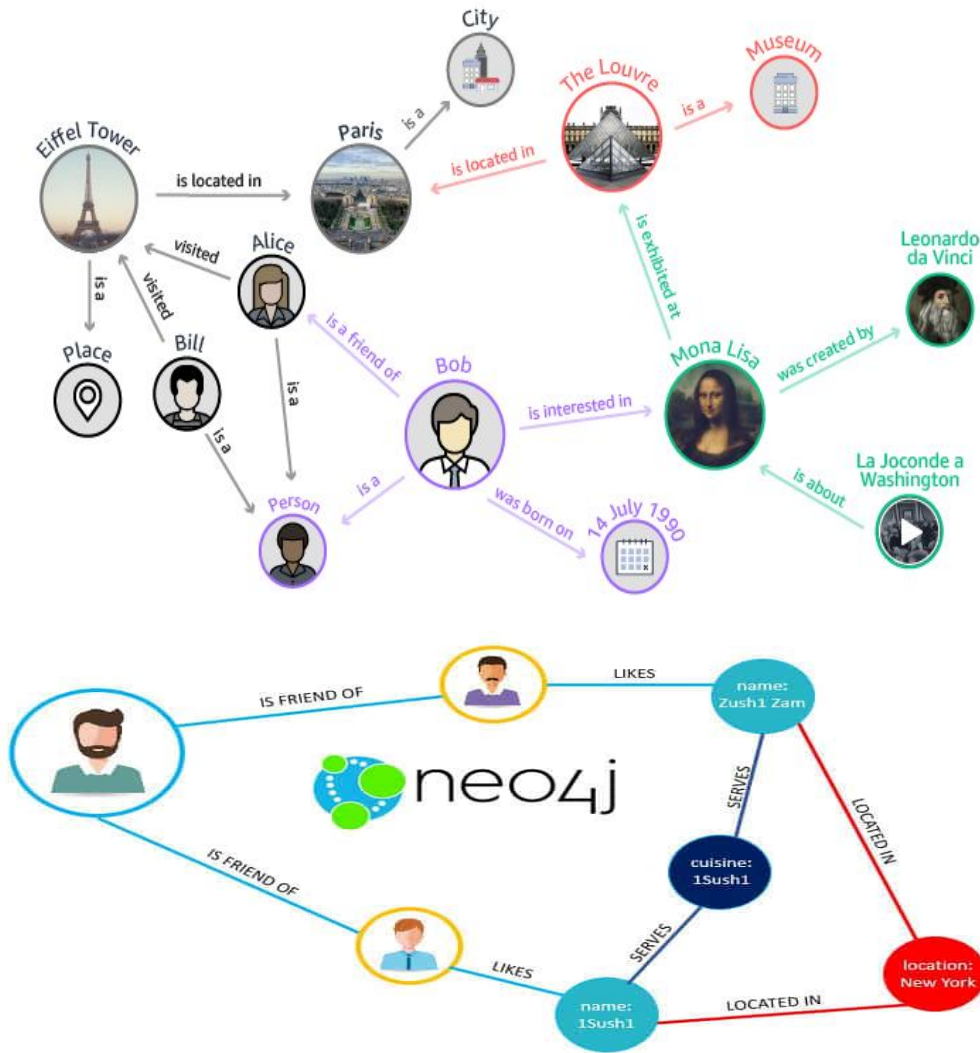
Knowledge graph: Neo4j can enhance application's search capabilities to deliver relevant results. The graphic data model can improve simple keyword search and deliver additional keyword results.

Identity and access management: A graph database like Neo4j allows to monitor identity and access authorizations in businesses thereby reducing complexity.

Privacy and risk compliance: Neo4j facilitates personal data storage and management: it allows to track where private information is stored and which systems, applications, and users access it. The graph data model helps to view personal data and to analyse data and detect patterns. Neo4j is also useful for reporting financial risk and compliance.

Master data management: To deliver the most pleasant customer experience, businesses need to analyse lots of data. Graph databases help to unify master data, such as customer, product, supplier and logistics information. Neo4j allows the organization and modelling of master data in a graph showing connections and relationships. Neo4j can provide important insights in order to make relevant company decisions.

Building an email targeting system with Neo4j: Neo4j can be used to build a simple Neo4j database e-mail targeting system, as an e-mail targeting system is an important feature for many online companies, namely online stores and markets. The email targeting system may help analyse customer behaviour and decide which offers to target audiences with. With this targeting system, businesses can offer relevant products to people and, therefore, increase conversions and contribute to overall customer satisfaction.

CONCLUSION
If the solution to a problem can be represented as a local process within a larger global data structure or if the solution to a problem can be represented as being with respect to set of root elements or if the solution to a problem does not require a global analysis of data, then a graph database may be the optimal solution to the problem.

REFERENCES

- Baesens, B. (2014) "Analytics in a Big Data World", Hoboken, NJ: John Wiley & Sons.

- Chartrand, G., and Zhang, P. (2012), "A First Course in Graph Theory", Mineola, NY: Dover Publication, Inc.

- "Examples where Graph databases shine: Neo4j edition", *ZeroTurnaround*Angles,

- Jaiswal, Garima (August 2013). "Comparative analysis of Relational and Graph databases". *IOSR Journal of Engineering*. 03 (8): 25–27. doi:10.9790/3021-03822527. ISSN 2278-8719.

- https://en.wikipedia.org/wiki/Graph_database

- https://en.wikipedia.org/wiki/AllegroGraph

- https://aws.amazon.com/neptune/

- https://en.wikipedia.org/wiki/ArangoDBGraph

- https://en.wikipedia.org/wiki/Sparksee_(graph_database)

- O'Reilly Graph *Databases* The Definitive Book of Graph Databases, by Ian Robinson, Jim Webber, Emil Eifrem.

- P. Cudr´e-Mauroux and S. Elnikety. Graph data management systems for new application domains in International Conference on Very Large Data Bases (VLDB), 2011.

- Renzo Angles. A comparison of current graph database models. In Proceedings of the 2012 IEEE 28th International Conference on Data Engineering Workshops, ICDEW '12, pages 171–177, Washington, DC, USA, 2012. IEEE Computer Society.

- Renzo Angles and Claudio Gutierrez. Survey of graph database models. ACM Comput. Surv., 40(1):1:1–1:39, February 2008.

- S. Batra and C. Tyagi. Comparative analysis of relational and graph databases. International Journal of Soft Computing, 2.

- BLP Baas. Nosql spatial–neo4j versus postgis. 2012.

- The Current State of Graph Databases Mike Buerli Department of Computer Science Cal Poly San Luis Obispo mbuerli@calpoly.edu, December 2012.

PEER TO PEER LENDING AS AN INVESTMENT OPTION IN THE DIGITALIZED WORLD

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ABSTRACT

Peer to Peer lending is a method of debt financing that enables individuals to borrow and lend money through online services without the use of an official financial intermediary. In India, P2P Lending is gaining traction at very fast pace and becoming a very attractive investment option for investors. Peer-to-peer (P2P) lending in India is set to grow into a US$5 billion industry by 2023 as alternative financing option filling the void left by banks.

2018 was a landmark year for the peer-to-peer (P2P) industry in India. RBI has issued license to almost 11 P2P players to operate as an NBFC-P2P company. There were over 30 P2P platforms operating in India in 2016 but only few of them prospered in getting the RBI license so far. Faircent was the first P2P Company to receive the RBI license.

Being in the nascent stage, the level of awareness of P2P lending as an alternative investment option is insufficient among people. Hence this paper highlights the need of raising awareness among people about P2P lending and identifies the risk involved in P2P lending for the investors in India. Also this paper tries to suggest measures to make P2P lending more feasible investment option for the lenders.

Keywords: Peer to Peer Lending, Lenders, Investment. Online platform

1.1 INTRODUCTION

In Today's world, online industry is penetrating in all the sectors of business financial service sector is not an exclusion to it. This has led to its popularity among the investors, analysts, businessmen and regulators. As a result there is an introduction of new business model – Peer to Peer lending that has gathered pace globally and also it has started taking roots in India. P2P lending is the process of lending money through online portal. It is a kind of crowd-funding which helps in raising unsecured loan to be repaid along-with interest through Non-Banking Financial Corporation performing the function of an agent. It brings together lender and borrowers using digital technology. The borrower and lender can be either individual or legal entity. The borrowers finds easier loan whereas lender gets higher return in the form of interest. The interest is decided upon by the NBFCs or by mutual agreement between the borrower and the lenders. As it operates online, it runs with less overhead and provides the service at a cheaper rate.

P2P lending services in India have started from 2014 but RBI came out with the guidelines and regulation for P2P lending platforms in October 2017. There are 30 online P2P companies operating in India out of which only 11 companies have obtained certificate of registration from RBI. The number being less due to the reason that companies are required to have a net owned fund of Rs. 2 Crore, for becoming a registered NBFCs. This has weeded out all the small players from the market.

Procedure of P2P lending:

The borrower first registers on peer to peer lending platform (NBFCs) in order to request loan on online portal. NBFC then evaluates the loan risk of each borrower and assigns them a risk class/Credit score. After that the borrowers are allowed to access to the portal where they can submit a loan request. The details of the borrowers are then made available to prospective investors who can choose to provide fund either partial or full amount of the loan at an agreed rate of interest depending upon the credit score assigned to them by the NBFCs. The borrower repays the amount in easy monthly installments for the tenure of the loan which includes a principal and interest component. Fees are paid by both lenders and borrowers. The borrower pay origination fees according to the risk involved. The lenders have to pay an administration fees and also additional fees if they request for additional services like legal consultation etc.

Risk involved in P2P Lending
Risk of no insurance: In case the borrower has no risk cover for the amount of loan and if he/she meets with some unforeseen situation like death, sickness, accident, business loss etc then the lender is exposed to huge loss of amount invested.

Macro risk: Macro risks like economic recession, policy change, political turmoil, natural disasters, and terrorist attacks are beyond the control of the P2P platform which may affect the capacity of borrower to repay loanamount.

Foreclosure of loan: A borrower may repay the loan amount before the due period which may lead to loss of interest for the lender. This may be a demotivating factor for lender in investing the amount on this platform.

1.2 OBJECTIVES OF THE STUDY:

1) To assess the level of awareness of P2P lending among people in Ulhasnagar.

2) To identify the risk involved in P2P lending for the lenders.

1.3 RESEARCH METHODOLOGY

For the purpose of the present study, both primary and secondary data has been used.

Primary Data-

Primary data is collected from the 30 people in Ulhasnagar. Data was collected through structured questionnaire. Direct personal Interview method was followed by adopting Simple Random Sampling Method.

Secondary Data-

The required secondary data was collected from the Official Website, various Journals and Research Papers, diagnostic study reports and newspaper articles have been surveyed in making this study.

1.4 Limitation of Study:

The sample size for this study is too small for a diversified country like India. It covers only investors from Ulhasnagar city. The responses given by the respondents may be biased.

1.5 REVIEW OF LITERATURE

Rajiv Rajan, Founder and CMD of **Paisadukan** said "*considering that the industry is yet to establish its credibility, individual lending is going to be an issue and limits at an institutional level must go up*"

Rainer Lenz in his paper- *Peer-to-Peer lending – opportunities and risks* concluded that "*Web-based financial intermediation on a peer-to-peer basis will eventually prevail as an economically superior form of organization compared to the traditional banking business model. Whether this change occurs with or without the participation of banks depends on whether the banking industry recognizes the signs of the times and is in a position to gradually restructure its present business model of loan origination and money creation towards more web-based financial intermediation.*"

1.6 DATA ANALYSIS AND INTERPRETATION

Responses collected from 30 people from Ulhasnagar city

Demographic Profile of Respondents:

Factor	Group	No. of Respondents
Gender	Male	18
	Female	12
Age	20-30 yrs	13
	30-40 yrs	14
	40-50 yrs	03
	Above 50yrs	Nil
Qualification	SSC	02
	HSC	08
	Graduate	09
	Post Graduate	06
	Professional	05
Annual Income	Below 3Lakhs	06
	3-6Lakhs	13
	6-9Lakhs	07
	Above 9Lakhs	04

➢ **% of Annual Investment**
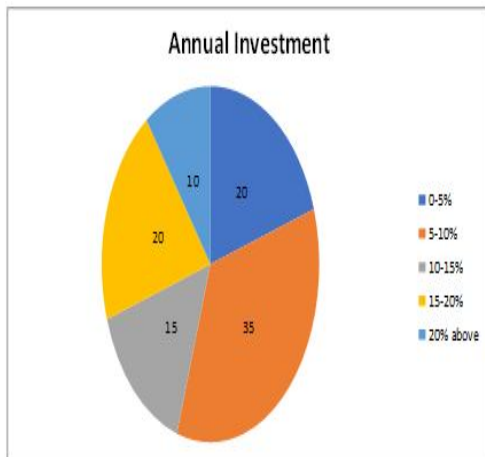
Source: Data compiled by Researcher

About 55% of the lenders annual investment ranges from less than 10 %. And of 35% of the lenders annual investment ranges from 10% to 20 % of their income whereas only 10% of the respondents invest more than 20% of their income.

➢ **Schemes invested in:**
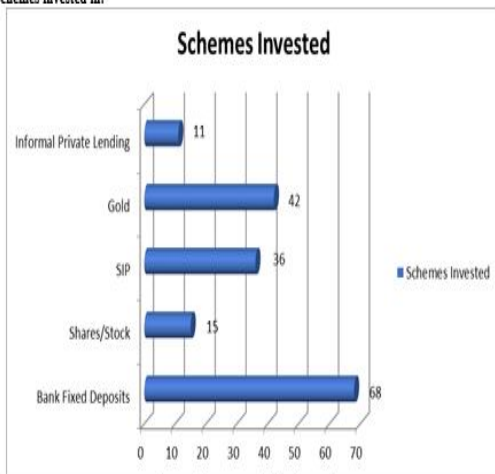
Source: Data compiled by Researcher

Majority of the respondents still follow the traditional investment schemes by investing more in banks fixed deposits, NSC and gold, whereas investment in shares/stocks and SIP still lagging back.

➢ **Factors considered while investing:**
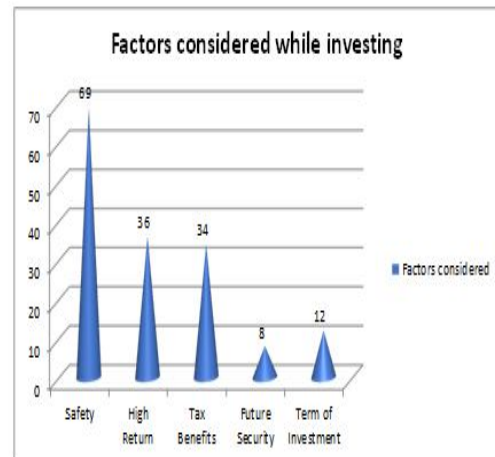
Source: Data compiled by Researcher

Most of the respondents (69%) consider safety of their money as most important factor before investing into any scheme followed by high return and tax benefits consisting of 36% and 34% respectively. Only 8% consider future security while investing whereas 12% of respondents are interested in the term of investment.

➢ **Channel of Investment:**
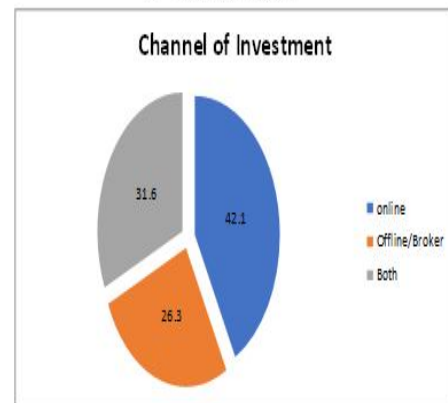
➢ *Source: Data compiled by Researcher*

It is observed that people have started using digital technologies while investing their funds as majority of the respondents (nearly 73%) are investing through online channel. Only 26% of the respondents still follow the traditional method may be due to lack of education and technical knowledge.

➢ **Awareness of P2P lending Platforms among people:**
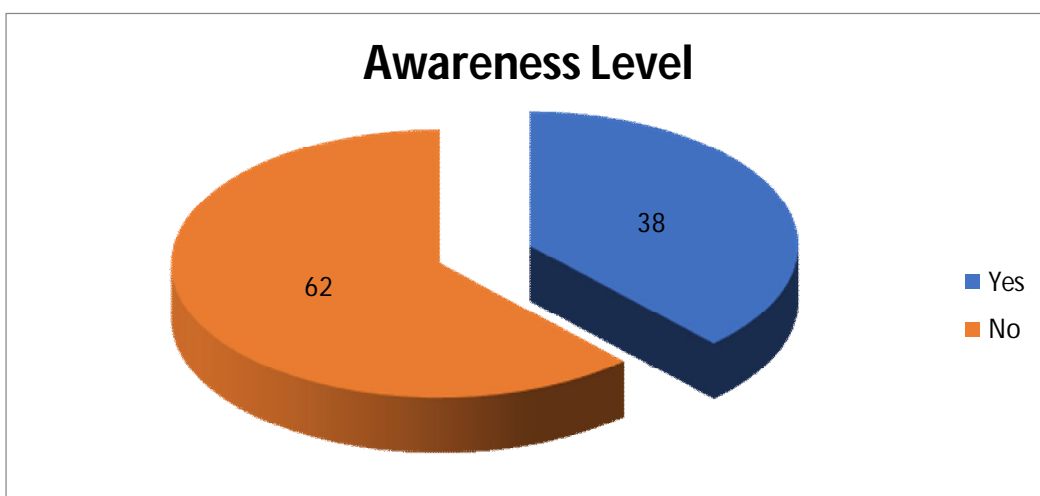
Source: Data compiled by Researcher

Majority of the respondents (62%) are unaware of the peer to peer lending as an evolving alternative investment option available for the people. Only 38% of the respondents know about P2P lending that too having just basic information about it.

➢ **If ever invested in P2P lending platforms**
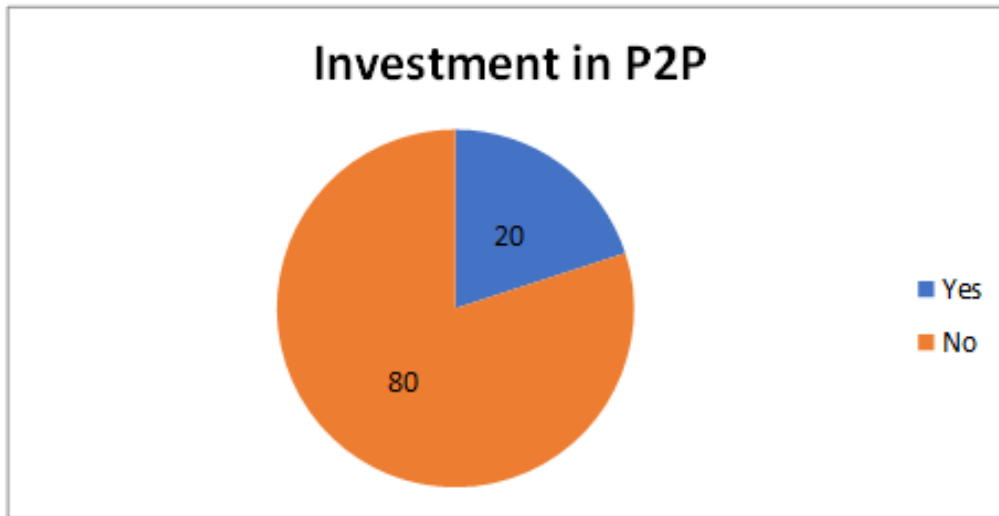
Source: Data compiled by Researcher

Out of the respondents who are aware of P2P lending, only 20% of these respondents have actually invested in P2P lending scheme which shows that awareness and confidence of people on P2P lending platform is very minimal.

(I)   Responses from respondents those who have invested in P2P lending:

➢ **How do you find the Procedure of investing P2P lending?**
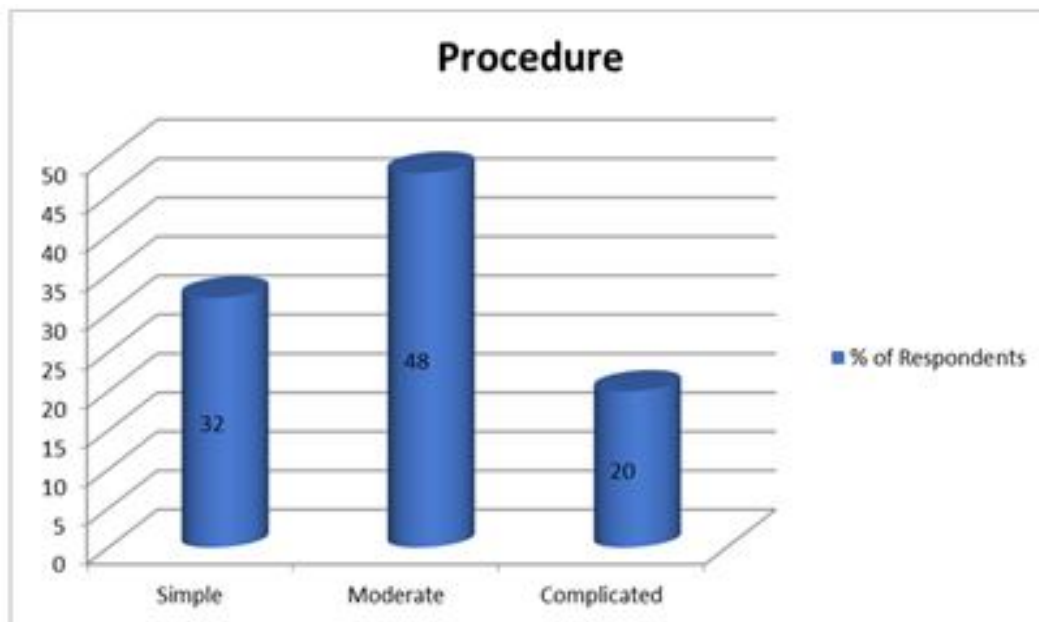
Source: Data compiled by Researcher

About 32% of the respondents found the procedure of P2P lending very simple due to their excellent knowledge in the investment scheme whereas 48% of the respondents rated the procedure to be moderate as they opted the scheme for the first time. 20% of the respondents found it complicated due to insufficient knowledge of the scheme and procedure.

➢ **Rate of Return**
The rate of return of the P2P lenders depends upon the credit score of the borrowers ranging from 10% to 20 %. It emphasized on the fact that higher the risk of the loan agreement, higher is the rate of return. Also some of the rate of return is the average of diversified investments.

Credit Score	Between 500 - 600	Between 600 - 700	700 and above
Interest Rate	17.5%	16%	12.5%

Source: Data compiled by Researcher

➤ **Do you think P2P lending is a better option for earning higher return as compare to other investment schemes?**
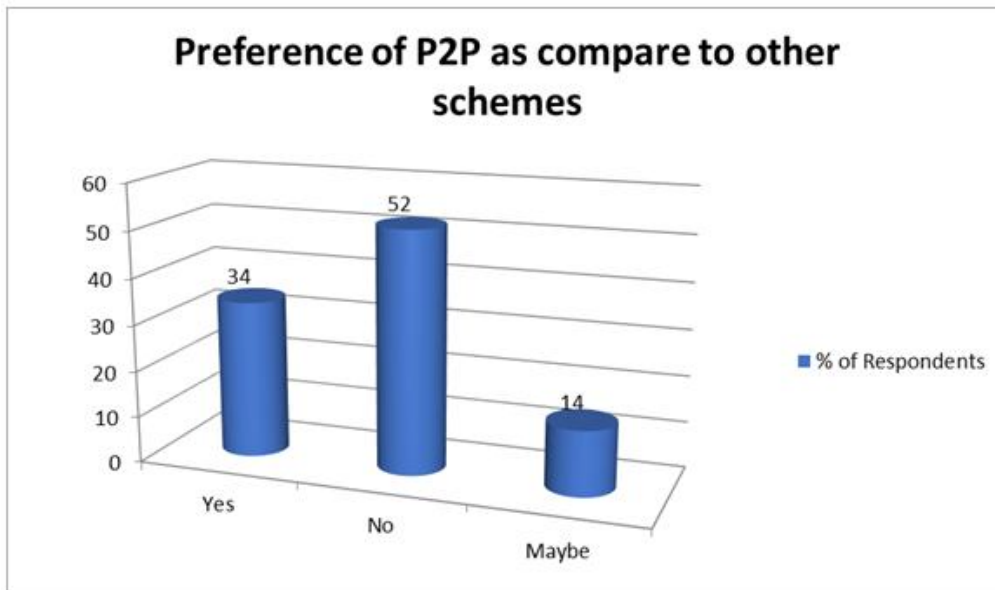
Source: Data compiled by Researcher

34% of the respondents agreed that P2P lending is a better option for earning higher return as compare to other investment scheme whereas 52% of the respondents disagreed as they feel investment in shares and stock is better for higher return. 14% of respondents are not sure about the reliability of the scheme with respect to higher return.

➤ **How do you rate the risk factor involve in P2P?**
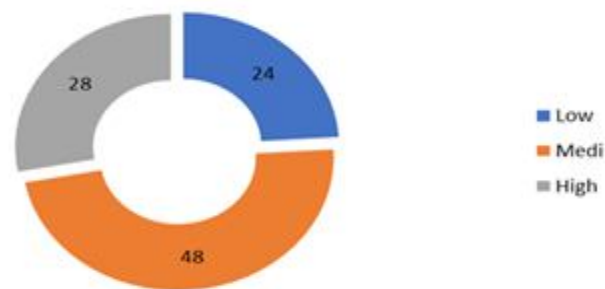
Source: Data compiled by Researcher

Nearly 24% of the respondents rated the risk involved in P2P lending as low. About 48% of the respondents felt the scheme to be moderately risky whereas 28% rates it to be highly risky scheme.

(II) Responses from respondents those who have not invested in P2P lending after briefing them about P2P lending:

➤ **Would you like to invest in P2P lending Platforms in future?**

Group	% of Respondents
Yes	33
No	59
Maybe	08

Source: Data compiled by Researcher

Out of the respondents those who have not invested in P2P, 33% of them are interested to invest in it whereas 59% showed disinterest as they want to gain more knowledge about the scheme before investing. About 8% were unsure due to lack of confidence at present.

> ➤ **Do you think P2P platform will be a better option to overcome the stringent rules of traditional banks for lending & borrowing?**
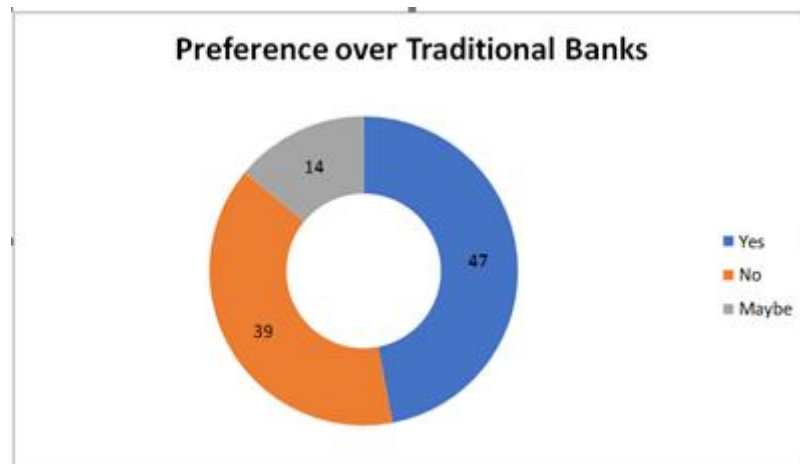
Source: Data compiled by Researcher

About 47% of the respondents believe that p2p lending is better option to overcome the stringent rules followed by traditional banks. 39% still find banking investment to be better whereas 14% are not sure about the same.

1.7 FINDINGS

It is observed that P2P lending platform is gaining momentum in India but the awareness level of the same is still very low in sub-urban city like Ulhasnagar. There is a general shift of the mode of investment from offline to online portal. Strict regulations from Government and RBI is boosting the public to invest in P2P platform as people are now confident about the safety of their money invested in this platform. Off late there is a movement of funds from traditional investment schemes like Fixed Deposits and NSC, Gold, Real estate etc. to modern investment schemes like Share, Stock and SIP. Overall P2P is evolving as a better investment option for the people.

1.8 SUGGESTION

(A) Suggestion to Governing Bodies

1. Government should make it mandatory for the borrowers to take insurance of the loan amount as a precautionary measure against unforeseen situations like accidents, sickness, loss in business or death. This will ensure the lender about the safety of their money.

2. Efforts should be made to increase the financial literacy and technological up-gradation of general public so that they can increasingly invest in various profitable investment schemes available in the market which will help them to earn higher return on their investment and may ultimately help in the overall development of the country.

(B) Suggestion to Lender

Diversification is the biggest remedy to mitigate risks while lending on P2P platforms. Investors should carefully divide the amount among different platforms and spread thoughtfully among the borrowers. Evaluating the risk profiles of borrowers is important to diversify the portfolios. The ideal formula to create ideal P2P portfolio is 30:60:10. i.e. the lender should invest 25-30% in low risk profile, 50-60% in moderate risk profile and 10% in high risk profiles in order to earn good return.

1.9 CONCLUSION

P2P lending is certainly an innovative method which eliminates the requirement for financial intermediary services by banks and financial institutions. The level of confidence put by most of the people in Ulhasnagar on the financial services provided by non-banks is still very low. In terms of digitalization, proper initiatives need to be taken by government or regulatory bodies to increase the level of technology adoption among people to a higher level and to change the aspect of saving and investment practices in order to encourage people to move into digital space. The RBI has recently introduced stringent guidelines to ensure the safety of investors' fund which will play a pivotal role in the development of controlled and regulated expansion of market in India in the long run. Although P2P lending is at its nascent stage but it is developing as a controlled growth market attracting people and evolving to become the biggest platform in the financial service industry.

1.10 SCOPE OF FURTHER RESEARCH

1) The research from the perspective of the borrowers can be done to know the challenges faced by them in obtaining loan through P2P lending platform.

2) The same research can be undertaken in rural areas and also urban areas to assess the perception of the people towards P2P lending platforms

REFERENCE

➢ Agrawal, A., Catalini, C., and Goldfarb, A. 2013. *Some Simple Economics of Crowdfunding*. NBER WP No. 19133.

➢ Petersen, M. A., & Rajan, R. G. 2002. *Does distance still matter? The information revolution and small business lending.* Journal of Finance, 57(6): 2533-2570.

➢ https://www.bloombergquint.com

➢ https://www.datasociety.net/pubs/dcr/PeertoPeerLending.pdf

➢ http://economictimes.indiatimes.com/small-biz/money/over-90-lenders-   in-p2p-lendingrn-gross-returns-of-18-26-per-annum-faircent-   report/articleshow/58789339.cms https://p2plendingsite.wordpress.com/2017/06/30/12-benchmarking-p2p- alternative-vs-mainstream-returns/

GROWTH OF URBAN CO-OPERATIVE BANKS IN INDIA

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ABSTRACT

Urban Co-operative banks play an important role in achieving the growing credit needs of urban and semi urban areas of the country. In past years they have concentrated more on retail services, providing savings, products & credit to consumers, retail traders, professionals, self employed, small and medium size enterprises. The most important progress related to urban cooperative banks was the addition of provision of banking regulation Act, 1949 to the cooperative societies in 1996 after that which the cooperative banks also got the benefits the deposit insurance scheme. The Objective of this paper is to access the growth of cooperative credit societies in India and to study the financial and indentify the overall growth of Urban Co-operative banks in India. This study is based on secondary data. An urban Co-operative bank plays an important role for the government of inclusive growth and has to come to occupy a formidable place in the Indian financial system.

Keywords: Growth, Services, provision

- **INTRODUCTION**

Co-operative bank, which provides financial assistance to the people with small means to protect them from the debt trap of the money lenders. It is a division of vast structure of co-operative institutions which are engaged in tasks of production, processing, marketing, distribution, servicing and banking in India. A co-operative bank is a financial body which belongs to its members, owners and the customers of their bank. Co-operative banks are regularly created by persons belonging to the same local or professional community or sharing a common interest. These Co-operative banks provide their members with a ample range of banking and financial services .Co-operative banks differ from stockholder banks by their organization, their goals, their Values and their governance. The Co-operative Banking System is characterizing in India by a relatively comprehensive network to the root stage. This sector mainly focuses on the local population and micro- banking among middle and low income level of the society. These banks operate mainly for the benefit of small investors, Households and small industrist.

Urban Co-operative Banks defines as, "Urban *Co-operative is those banks which provide credit to small industrialist, small investors and households."*

The Co-operative Banks Act, of 2007, defines a Co-operative bank as a co-operative registered as a co-operative bank in terms of the Act whose members –

1. are of same occupation or who are employed by a same employer or who are employed within the common business district: or

2. have same membership in an association including a business, religious, social, co-operative, labour or educational group; or

3. Reside within the same defined community or geographical area.

- **OBJECTIVES**

1. To study the origin and growth of urban cooperative banks in India.

2. To know the importance of Urban Co-operative Banks in India

3 To study professionalism of Urban Co-operative Banks.

4. To know the Development of Co-operative Banks in India.

- **REVIEW OF LITERATURE**

The aim of a literature review is to show reader that researcher has read, and have a good grab of, the main published work concerning a particular topic in the field. This effort may be in any layout, including digital sources. In the later cases in particular, the review will be guided by the researcher's research objective or by the issue or thesis the researcher are arguing and will provide the framework for further work.

(1) K. Selvavinayagam (2005), in his paper titled "Financial Analysis of Banking Institutions" intended to provide an improved analytical framework to present the different aspects of performance. The framework divides the analysis into five different but interrelated aspects of the health of the institution, and uses a time-

series to analyses any positive or negative trends. The five divisions are: (i) Deposit, (ii) Quality of lending, (iii) Capital adequacy analysis, (iv) Liquidity analysis and (v) Earnings performance analysis. The techniques used by K. Selvavinayagam for analysis of Banking institutions are useful in the research undertaken by the researcher.

(2) Indian Bank's Association as defined, customer service rates is provided by all the more than 27 public sector banks designed at support to competitive spirit amongst banks to improve upon their customer service. The objective of this study is to ensure the quality of service as received by the customers of Urban Co-operative Banks and identify areas where the banks need to improve for achieving higher levels of customer satisfaction. In addition to bank rating at regional level and all India level, the survey results will also be used for rating each region on the basis of the customer service of all sample branches of the banks' operating in the region.

- **RESEARCH METHODOLOGY**

In this paper an attempt has been taken to study *"Growth of Urban Co-operative banks in India"* This paper is based on secondary data. The secondary data was collected from various published sources like reports, magazines, journals, newspapers and Internet etc. It is referred paper.

- **IMPORTANCE OF CO-OPERATIVE BANKS**

☐ Urban Co-operative bank is a financial body belonging to its members who are its customers as well, providing them with a broad range of banking and financial services.

☐ Main motive is to provide best possible products and services to its members.

☐ Urban Co-operative bank reduces banking exclusion and encourage economic growth not only in urban areas but also for countries farmers, middle or low income households.

☐ Urban Co-operative banks are giving more attention on local areas and communities. They are more concerned in local development.

☐ Rules and regulation for getting loan from Urban Co-operative banks are less strict than for a loan from a Commercial bank.

☐ The growth of Urban Co-operative banks in India is attributed mainly to their local reach, personal interaction with customers.

- **TO STRENGTHEN THE DEVELOPMENT OF CO-OPERATIVE BANKS GOVERNMENT INITIATIVES**

The Indian government and the RBI had taken certain measures to strengthen the development of co-operative banks. Some of these policy initiatives were as follows:

(i) The NABARD had formulated a scheme for the reorganization of Primary Agricultural Co-operative Societies and the implementation of this scheme had started in those states which have accepted it.

(ii) The programme for development of selected Primary Agricultural Cooperative Societies into truly multi-purpose co-operative societies has be unimplemented in many states and Union territories.

(iii) In addition to such programmes, certain state governments like Andhra Pradesh, Madhya Pradesh West Bengal had also initiated development programmes to strengthen the working of the co-operative credit institutions at the base level.

(iv) On the basis of their financial position as on 30 June 1987, 175 Central Co-operative Banks and 7 State Co-operative Banks in the country were identified as 'weak' banks and bring under the programme of analysis which, however, did not really work.

(v) With a view to enabling poor performance of banks which were either unable or were on the limit of becoming ineligible for refinance, a 12-Point Action Programme had been made and spread by NABARD to every state governments in India.

- **CONCLUSION**

Urban cooperative bank plays an important role for the governments of inclusive growth and has come to occupy a difficult place in the Indian financial system. Despite more than six decades of independence more than 480000 villages are yet to be provided with banking service. For there are 271 districts in the country were UCBs have no presence. The scope for financial inclusion and growth of UCBs largely depend on professionalization of management, adoption of good corporate governance practices, extent to which it is able

to leverage technology, give high quality customer service and newt strategies required in their efforts to attain a larger share in the growth of the banking system. It has been the endeavor of the Reserve Bank of India (RBI) to promote their healthy growth. However, the varied nature of the sector has called for a differentiated regime of regulation. In recent years therefore, the RBI has provided regulation support to small and weak UCBs, while at the same time strengthening and supervision.

BIBLIOGRAPHY
1. N.Lakshmi Kavitha(2017)," An Overview of Banking Sector", Mumbai, VipualPrakashan,*ISBN:* 978-93-86597-54-0.

WEBLIOGRAPHY
1. https://www.slideshare.net/raghuramyendakurthi/p-3619cooperativebankingproject

2. https://ask.careers/co-operative-bank-types/

3. https://www.rbi.org.in/scripts/fun_urban.aspx

4. http://www.yourarticlelibrary.com/banking/urban-co-operative-banks-of-india/26346

DEMONETIZATION –A NEW ERA OF CLEAN INDIA

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ABSTRACT
When a currency note of a particular denomination ceases to be a legal tender, it is termed as demonetization. Legal tender refers to money which can be legally used to make payments of debts or other obligations. A creditor is obliged by law to receive such money in payment of due debt to him.

Demonetization is going to be a landmark in the history of the Indian economy. It was an experience which might create fear in the minds of the people who indulge in illegal activities like tax evasion or money laundering of any kind.

On November 8, 2016, the Indian government declared that the 500 and 1000 rupee notes will be stripped of their status as legal tender effective from midnight.

It was also announced that the new Rs.500 and Rs.2000 banknotes would be introduced in exchange for the old banknotes.

The objective of demonetization was to curb the black money running as shadow economy and to stop the use of fake money to fund illegal activity and terrorism.

The sudden nature of the announcement—and the prolonged cash shortages in the weeks that followed—created significant disruption throughout the economy, threatening economic output.

The demonetization was criticized as poorly planned and unfair, and was met with protests, litigation, and strikes.

Keywords: Demonetization, Legal Tender, Currency.

OBJECTIVE OF THE STUDY
1. To understand meaning and background of demonetization.

2. To study the positive and negative impacts of demonetization. .

3. To study the impacts of demonetization on Indian economy.

DEMONETIZATION
Demonetization is a situation where the Central Bank of the country (Reserve Bank in India) withdraws the old currency notes of certain denomination as an official mode of payment. Demonetization is a necessary condition for changing the old currency with the new units of money... It may involve the introduction of new notes or coins of the same denomination or completely new denomination.

On November 8, 2016, Prime Minister Narendra Modi's surprising announcement was existing higher denomination currency (Rs 500 and Rs 1000) will cease to be legal tenders. PM said this is government's biggest push to fight black money and end corruption.

These notes accounted for 86 percent of the country's cash supply by value. Citizens were given time till December 31, 2016 to deposit their old currency notes and exchange them for the new currency notes of rupee 500 and 2000.

BACKGROUND (1946-2016)
This is not the first time that demonetization has been implemented in India. The currency has been demonetised thrice in India.

The first currency ban
The first demonetization was on 12th January 1946 (Saturday) Rs 10,000, which was the highest denomination note, was demonetized.

The second currency ban
Second on 16th January 1978 (Monday), the then Prime Minister Morarji Desai in his intensive move to counter the black money, introduced The High Denomination Banks Act (Demonetization) and declared Rs 500 , Rs 1000 and Rs 10,000 notes illegal.

The third currency ban
The third was on 8th November 2016 (Tuesday).

The government has declared demonetization across the country on 8th November 2016.There was a background to the current decision of demonetization of 500 and 1000 rupees note in India. But before the announcement of demonetization, the government has taken some steps in this direction.

STEPS TAKEN BY GOVERNMENT BEFORE DEMONITISATION
As the first and foremost step government had requested the citizens to open free bank accounts under Jan Dhan Yojna

And then government has asked the people to deposit their money in Jan Dhan account and do their transactions through proper banking procedure only.

Thereafter the step that the government started was an obligation declaration of the compensation and had given October 30, 2016, due date consequently. This can be considered a major step by the government in the process of demonetization

The demonetization approach is being seen as a monetary change in the nation yet this decision is brimming with its own particular advantages and negative imprints as well.

ADVANTAGES OF DEMONETIZATION
Decline in corruption
Demonetization was done to help India to become corruption-free as it will be difficult now to keep the unaccounted cash. People who are not involved in malpractices, corruption welcomed the demonetization as the right move.

Increased Tax revenue
The income tax collections like Property tax, water tax and other corporation levies in all states have risen considerably.

The number of income tax returns filing increased between financial year 2016 and 2017 from 43.3 million to 52.9 million which was not a significant increase compared to increase between 2015 and 2016. The income tax collections increased in financial year 2017 due to Income Disclosure Scheme 2016

Good Governance
Demonetization will enhance the transparency levels in governance to a great extent by bringing all transactions in the formal banking sector Demonetization is done as a measure of good governance as suggested in the World Bank's Ease of Doing business report. This measure will improve the rankings of India in terms of governance at various indexes published by World Bank, World Economic Forum, United Nations and IMF etc.

Black money
The main objective of demonetization is to curb black money.Demonetization has made it mandatory for every person in India to deposit their old currency in the banks and exchange them for new currency. This will help the public to deposit their money in the account and make it accountable. In this way, black money will be retrieved to a certain limit.

After the declaration of demonetization, as per new government rule, those individuals who have unaccounted money are by and by required to show pay and submit PAN for any genuine budgetary transactions.

Fake money
This move will help to stop the circulation of a large portion of the fake money which is circulated in the country in the form of 500 and 1000 notes. It will also help to get rid of the circulation of fake money.

Promotion of a cashless society
A conclusive objective is to make India a cashless society. All the monetary transaction must be through the dealing with a record system and individuals must be responsible for each penny they have. It is a monster wander towards the dream of making an automated India

The unaccounted cash could be deposited in the Pradhan Mantri Garib Kalyan Yojana after paying 50% tax. The money will remain deposited for 4 years with the bank without any interest. However, after 4 years the amount will be returned. This amount can be utilized for the different social welfare schemes and for the betterment of low income groups in the country.

Decline in crime
Due to the demonetization of notes, criminal activities were badly hit. Hawala operations in various parts of Western and South Western India were badly hit. This resulted in a considerable decrease in crime across respected areas.

DISADVANTAGES OF DEMONETIZATION
Public inconvenience
Public inconvenience is the major disadvantage of the demonetization measure. People are rushing to the banks to exchange, store or draw back notes. Even they spend a full day in the banks to withdraw the money from the bank account. People faint and some have even died due to standing for a long time in the long queue of bank.

Reduced Money Circulation
There is severe shortage of money circulation in the economy as a whole. Everyone has a single 2,000 rupee note and cannot transact with it where swipe machines are absent due to the problem of change. There is severe shortage of 100 rupee notes and with a single 2,000 rupee note, people find it very hard to find change. People have restricted their daily transactions it has affected the business in all spheres considerably.

ATM Calibration
Some of the ATM machines have been calibrated to the new currency while the rest of the ATM machines are still put of order. This creates a long queue in ATM machines and the cash gets finished within hours. Because of these the ATM machines are not fully operational creates further inconvenience to the people. It resulted that most of the time the ATM machines are out of cash.

Corruption and Fraud
There are many instances of fraudulent activities like the banking personnel and the post office personnel illegally exchanging the old currency for new currency for a commission amount. The brokers are making benefits of the current situation and earn undue commission of 50 to 60 percent for exchanging the currency using the poor people. It was also seen that the misuse of Jan Dan accounts to exchange black money and restrictions are implied on such accounts. Media has exposed such cases of corruption.

The Impact Of Demonetization On The Indian Economy
Various poor wage workers are left with no occupations and their consistent pay has stopped in light of the way that organizations can't pay their step by step wage. The lawmaking body is suspecting that it's hard to complete this procedure. It also bears the cost of printing of the new money notes.

Sectors in the economy such as Construction, Agriculture, and Forestry & Fishing which employ a large number of daily wage workers and have liquidity preference witnessed a decline in growth. Agriculture increases by 2.3% in Q1 of 2017-18 as compared to 2.5% in Q1 of 2016-17; Construction increases at a rate of 2.3% in Q1 of 2017-18 and shows a decline of 0.2% from the Q1 of 2016-17.

As per the data published in hand book of statistics on Indian Economy by RBI, GDP at Market price decreased approximately by 1 percent as compared to previous financial year. It registered a growth of 7.11 % to 8.01% during 2015-16. GDP growth rate increased from 5.46% in 2012-13 to 8.01% in the year 2015-16.

According to the estimates of the Central Statistics Office, all the sectors of the economy faced different situations in Q1 of the financial year 2017-18. According to these estimates, the GVA at constant prices in Q1 of 2017-18 was rupees 2904128 crores as compared to rupees 2751407 crores in the Q1 of the previous financial year. These shows a decline in growth from 7.6% in 2016-17 to 5.6% in 2017-18 (see table 2)

Quantitative Analysis of the Impact of Demonetization on the Indian Economy

Year	GVA at Basic Prices	Consumption of Fixed Capital	NVA at Basic Prices	Indirect Taxes Less Subsidies	GDP at Market Price	NDP at Market Price	GDP Growth Rate
2011-12	81069.46	9171.75	71897.71	6293.83	87363.29	78191.54	6.5
2012-13	85462.76	10106.61	75356.14	6667.41	92130.17	82023.56	5.46
2013-14	90636.49	11006.1	79630.39	7377.21	98013.7	87007.6	6.39
2014-15	97190.23	11807.24	85382.99	8179.61	105369.8	93562.6	7.51
2015-16	104905.1	12641.93	92263.21	8904.88	113810	101168.1	8.01
2016-17	111854.4	13479.37	98375.03	10044.14	121898.5	108419.2	7.11

Table 1: Macro-Economic Aggregates at Constant Prices (Base Year: 2011-12; Amount in Rs Billion)

Source: Handbook of Statistics on Indian Economy 2016-17

CONCLUSION

Demonetizations has been admired as well as disapproved of on various grounds. There has been a lot of opposition of this policy. In the short run, economy of the country faced different problems like liquidity crunch, unemployment, loss of growth momentum, and a temporary halt to major economic activities. All this is evident from the data provided by the RBI.

In long term it is expected that it can improve the Indian economy by increasing tax compliance, financial inclusion, consequently improving the state of the economy. It can boost the GDP by increasing the availability of funds for lending and also by reducing transaction costs if the economy moves to digital modes of payments.

Overall, Demonetization is a bold step towards good governance and transparency.

REFERENCES

- "Demonetization announcement anniversary 2017 | onmanorama". Onmanorama.

- https://guidetoexam.com/demonetisation-essay-article/

- https://www.adamsmith.org/blog/the-very-real-impact-of-indias-demonetization

- https://www.civilserviceindia.com/subject/essay/advantages-and-disadvantages-of-demonitization-policy.html

- *https://www.researchgate.net/.../324952991_impact_of_demonetisation_on_indian_eco.*

- *https://www.livemint.com › politics*

- *https://www.quora.com/what-are-positive-and-negative-effects-of-demonetization*

- Https://www.youthkiawaaz.com/2017/12/impact-of-demonetisation-on-the-indian-economy/

- "Here is what pm modi said about the new rs 500, rs 2000 notes and black money". India today. 8 November 2016. Retrieved 9 November 2016.

- "Notes out of circulation". The times of India. 8 November 2016. saikia, bijoy sankar (18 November 2016). "Demonetisation may drag India behind china in gdp growth; rob fastest-growing economy tag". The economic times. Retrieved 5 January 2017.

- "The dire consequences of India's demonetisation initiative". The economist. 3 December 2016. Retrieved 5 January 2017.

EFFECTS OF E-COMMERCE ON SHOPPING MALLS, REAL ESTATE SECTOR AND YOUNG CONSUMERS –A KALYAN REGION STUDY

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ABSTRACT

The Study tries to recognize as to why consumers nowadays are more attracted towards E-commerce sites. Due to greater internet penetration, online Shopping is increasing day by day and its effect is on Offline shopping especially Shopping malls, Real Estate Sector and also Consumer Retail Sector. Kalyan Region of Mumbai is one of the important regions, which have few Malls but Consumers is more relying on online shopping and due to which, results in a reduction in the retail sector especially shopping malls in the region. Our Indian population always accepts new innovation with open hands, but still, there is a certain population who don't even have mobile or internet facilities. So still hope is relevant regarding the increase in sales in Shopping malls and positive increase in Real Estate Sector and also in the behaviour of Consumers towards the offline retail sector. The data is collected from Kalyan Region, the paper explores the preference of consumers for online shopping, factors responsible for online Shopping and the facilities which online and offline shopping provides to Consumers which are also reasons for shopping.

Keywords: Online Shopping, Shopping malls, E-commerce, Real Estate Sector, Consumers and Offline Shopping.

INTRODUCTION

The increase in internet penetration provides good opportunities to Consumers to shop online, now days due to increased use of Mobile phones; Consumers can shop at any time, from anywhere, which gives them a real time experience. Retailers due to online shopping and using E-commerce sites can reach to the consumers in much faster and easier way and also due to this they save their cost also.

Consumers Shop from Shopping malls as they want to examine the product and have possession of the product immediately after payment. However, this is not the case with eCommerce sites, as Consumers get the product within the stipulated delivery time as fixed by Online Retailers. Still million and millions of people Shop online due to many factors which determine their behavior and attitude towards online shopping. Online Shopping does not provide benefits to only Consumers but also to the Nation. However, due to increase in online Shopping, the impact is directly on offline shopping like shopping malls, departmental stores, mom and pop stores and many others. Real Estate Sector is one of the sectors which areaffected much, as more and more people today are attracted towards E-commerce sites. Growing popularity in this sector is giving physical retail stores, especially shopping malls a run for their money. The future war is going to exaggerate with the global retail giant like Wal-Mart insistently enters the e-commerce market after the acquisition of Flip kart. Due to all this rise in shopping malls in Kalyan region has become a dream and if they need to retain the sales at same level, the in-store experience has to be enhanced with great ambience, better displays and faster check-outs.

Advantage to Country

Source: www.IBEF.org

OBJECTIVES OF THE STUDY

The present study broadly compares the Shopping through E-commerce sites and offline shopping, specifically the objectives are:

1. To analyse the significant difference between the online and offline consumer groups in terms of demographic,Mobile use, availability of the Internet

2. To study the preference of Consumers to buy products by using E-commerce and the level of agreement of offline and online shoppers which determine their attitude.

3. To determine the role played by online shopping in determining future of Shopping malls and Real Estate Sector.

4. To examine the factors influencing the consumer to switch from the offline shopping to online shopping.

5. To explore the facilities received by Consumers doing offline and online shopping.

REVIEW OF LITERATURE

Chaing and Dholakia (2003) carried out a study in which they examined the purpose the customer to purchase goods online during their shopping. Accessibility features of the shopping sites, the type of the products and their characteristic, and the actual price of the product are three variables usedin their study those affects the consumer to purchase online or to go offline..The study revealed that the accessibility and the convenience of the shopping sites create the intention in the customer to purchase or not. Researcher studied both the mediums and as per respondents perception online shopping is more convenient for and gives more satisfaction which inspires the consumer to purchase online in the internet.

Iyer and Eastmen(2014) found that the population of senior who are more literate,more knowledgeable and who are more aware of the technology and those who have a positive behavior towards online shopping and internet are more into online shopping.But the population of senior who are less aware of the internet and the shopping sites are less involved in the shopping sites because they do not have a positive attitude towards online shopping rather they are much more interested in offline shopping and the seniors who are more involved in the internet uses more online sites for purchasing the goods over the internet. The senior which has more knowledge about the internet and the shopping sites they compares both the shopping i.e. online and offline shopping for their purchasing ofgoods.However,their knowledge and the use of internet by them has no connection with their age and their satisfaction level while purchasing online.

Selvakumar(2014) analysed on consumer's perception of the products online and the issues considered important to online shopping. Researcher studied among the online shoppers at Coimbatore which is in Tamil Nadu state. It is to analyse the impact of consumer opinion and the attitude. A questionnaire was made to collect the data from the population; these questionnaires were given to college going students.The total samplesize is 15 respondents.The finding of this study shows that improvement and accessibility influence the customer's intention to shop online.

STATEMENT OF THE PROBLEM

Kalyan Region of Thane District is one of the regions where Consumers have a good option to shop from E-commerce sites as there are a few shopping malls. Those consumerswho want to shop from Shopping malls have to go far away to Thane, Mumbai and Navi Mumbai to shop for branded goods, though the consumers who can't afford to buy from Shopping malls prefer to buy from mom and pop stores or departmental stores nearby to their home. From decades the people of Kalyan are mostly business oriented and have their own shops and a few shopping malls are also opened like Metro Junction Mall, My Mall, Sarvoday Mall, etc., Few Shopping centers are there in Kalyan but still due to their per square feet area they are not in list of Shopping malls. It is significant to look into the situation from an academic point of view so as to question the reasons behind the condition of the shopping in Kalyan Region. This research may fill the gap between the choice of E-commerce sites to shop online and shopping from Shopping malls. What are the Preference of Consumers, Factors responsible for Online Shopping and Satisfaction level of Consumers for using E-commerce sites for Online Shopping. The study makes the Consumer clear about the benefits of using E-commerce sites over Offline Shopping like Shopping malls.

METHODOLOGY OF THE STUDY

This part of study defines all the process of data collection. When it comes to data collection,there are two methods in general used by researchers to collect data,primary and secondary method.Primary method includes an observation method, interview/questionnaire method, and case study method. Secondary method is the method in which already collected data. The present study is based on a combination of both qualitative and quantitative data. The qualitative data are collected through the sampling from the consumer.Random consumer is selected for the sampling purposes. The sample individual is selected from different age group,

differentsexandfromdifferentlocationof Kalyan Region.Thedifferent group of people, including student, Salaried, Professional/Self Employed, housewives, etc. are considered as a sample for the study

i] Sampling: Respondents are of different age, information is taken from both male and female, their occupation, income and Qualification is taken into consideration.

ii] Sample size: Determining the size of the sample that is needed for a particular research. For this google form was used as a medium to collect information, Although many people were sent form using their mail id, but 42 respondents replied through filling form. From this sample size, frequency table was derived for each variable used in this study.

DATA ANALYSIS AND INTERPRETATION
1. Demographic profile of the Respondents

Gender	Frequency
Male	20
Female	21

AGE	FREQUENCY
18< 28	24
28<38	6
38<48	8
48<58 YEARS	3
58 YEARS AND ABOVE	0

ANNUAL INCOME	FREQUENCY
NIL	12
BELOW 2 LACS	11
2 LACS TO 4 LACS	15
4 LACS TO 6 LACS	2
6 LACS AND ABOVE	1

QUALIFICATION	FREQUENCY
SSC	2
HSC	9
GRADUATE	23
POST GRADUATE	2
GRADUATE+PROFESSIONAL	0
POST GRADUATE+PROFESSIONAL	5

CATEGORY	FREQUENCY
Student	13
Professional/Self employed/	2
Salaried	23
Housewife	3
Retired	0

Mobile Phone usage	Frequency	Availability of Internet	Frequency	Have you ever visited E-commerce sites	Frequency
Yes	40	Yes	41	Yes	37
No	1	No	0	No	4

Source: Primary and Calculated data

It is clear from Table 1 that 21 respondents are Female and 20 are Male. 24 Respondents are in the Age bracket of 18< 28 ,6 are in 28< 38, 8 are in 38< 48, 3 are in 48<58 Age bracket.   For Annual Income 12 respondents have no income as they might be from the Student or Housewife category, 11 respondents have Below 2 lakhs income, 15 are in 2 lacs to 4 lacs, 2 are in 4 lacs to 6 lacs category and 1 respondents is in 6 lacs and above category. Highest qualification can be seen in Graduatewith 23 respondents. 23 respondents are Student, 2 are Professional/employed, 23 are Salaried, 3 are Housewife.

Almost every respondents uses Mobile Phone and have Internet facility, Out of all respondents 40 Respondents have Mobile phone and All have Internet facility in their mobile phone or at home.

2. Preference to buy products
Preference to buy products by using E-commerce plays an important role in determining and the behaviour and attitude of Consumers towards Online Shopping

Preference	Total Score	Mean Score	Rank
Electronics	26	0.619	II
Apparels	14	0.333	VII
Home and Kitchen items	25	0.595	III
Toys	25	0.595	III
Beauty and Personal care	20	0.476	VI
Bags and Luggage	25	0.595	III
Sports and Fitness Equipment	21	0.500	V
Motor Accessories	20	0.476	VI
Medicines	11	0.262	X
Books,Music and Gifts Cards	24	0.571	IV
Mobiles and Tablets	29	0.690	I
food groceries	12	0.286	IX
any other	21	0.500	V

Source: Primary and Calculated data

From the above table it can be seen that Mobile and Tables are the products which almost every respondent prefers to buy online and have obtained I Rank with Mean score of 0.690 and Medicines have the least preference to buy with last Xth Rank with lower Mean Score of 0.262.

3. Factors Influencing Online Shopping using E-commerce sites.
Factors influencing online shopping plays an important role in behaviour and attitude of Consumers towards Online Shopping using E-commerce sites.

Factors	Total Score	Mean Score	Rank
Site search [ease availability of products]	12	0.286	II
Brands	10	0.238	III
Door service	17	0.405	I
Lack of time	3	0.071	VI
New styles and fashion	12	0.286	II
Wide variety of goods	17	0.405	I
Some goods available only online then in Shopping malls	6	0.143	IV
Easy internet availability over Mobile phone	4	0.095	V
Income	2	0.048	VII

Source: Primary and Calculated data

From the above Table it can be seen that a wide variety of goods are the factor with the highest mean score following site search and Brand. The Lowest being Income with lower mean score and Rank VII.

4. Affect on offline shopping
It plays an important role in determining future of Shopping malls and Real Estate Sector.

Affect on offline Shopping	Frequency
Yes	28
No	13
TOTAL	41

Source: Primary and Calculated data

From the above table, 28 respondents accept affect on offline shopping and 13 respondents doesn't accept the affect on online shopping due to E-commerce.

5. Level of Agreement plays an important role in analyzing the Consumer behaviour and attitude towards online shopping

Level of Agreement-	Frequency	Level of Agreement-	Frequency		Level of Agreement-	Frequency

Takes more time		More Risk		gives personal experience	
SD	18	SD	5	SD	9
2	14	2	16	2	17
3	2	3	10	3	9
4	2	4	2	4	1
SA	5	SA	8	SA	5
TOTAL	41	TOTAL	41		41
Level of Agreement-will take over offline shopping	Frequency	Level of Agreement-description is accurate	Frequency	Level of Agreement-hesitate to give my bank details	Frequency
SD	11	SD	10	SD	8
2	12	2	14	2	6
3	9	3	10	3	4
4	5	4	0	4	3
SA	6	SA	7	SA	20
TOTAL	41	TOTAL	41	TOTAL	41
Level of Agreement-preference for cash on delivery	FREQUENCY	Level of Agreement-shop at anytime	FREQUENCY		
SD	2	SD	11		
2	2	2	4		
3	4	3	12		
4	5	4	8		
SA	28	SA	6		
TOTAL	41	TOTAL	41		

Source: Primary and Calculated data

SD =1, D=2,N=3, A=4, and 5 =SA

(SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA)

From the above Table it is clear that

- Level of Agreement-Takes more time-

  18 respondents strongly disagree, 14 respondents Disagree, 2 respondents are Neutral , 2 Respondents Agree and 5 respondents Strongly Agree that Online Shopping takes more time.

- Level of Agreement-More Risk involved-

  5 respondents Strongly disagree, 16 respondents Disagree, 10 respondents are Neutral, 2 Respondents Agree and 8 respondents Strongly Agree that more risk is involved in Online Shopping .

- Level of Agreement-gives personal experience-

  9 respondents Strongly disagree, 17 respondents Disagree, 9 respondents are Neutral, 1 Respondents Agree and 5 respondents Strongly Agree that Online Shopping gives personal experience.

- Level of Agreement-Onlinge Shopping through E-commerce will take over offline Shopping-

  11 respondents Strongly disagree, 12 respondents Disagree, 9 respondents are Neutral, 5 Respondents Agree and 6 respondents Strongly Agree that Onlinge Shopping through E-commerce will take over offline Shopping.

- Level of Agreement-description is accurate -

  10 respondents Strongly disagree, 14 respondents Disagree, 10 respondents are Neutral, 0 Respondents Agree and 7 respondents Strongly Agree that description is accurate.

- Level of Agreement-hesitate to give my bank details

  8 respondents Strongly disagree, 6 respondents Disagree, 4 respondents are Neutral, 3 Respondents Agree and 20 respondents Strongly Agree that consumers hesitate to give bank details.

- Level of Agreement-preference for cash on delivery

  2 respondents Strongly disagree, 2 respondents Disagree, 4 respondents are Neutral, 5 Respondents Agree and 28 respondents Strongly Agree that consumers prefer cash on delivery system.

- Level of Agreement-shop at anytime

  11 respondents Strongly disagree, 4 respondents Disagree, 12 respondents are Neutral, 8 Respondents Agree and 6 respondents Strongly Agree that consumers can shop at any time through online shopping.

6. Facilities from Shopping malls vs. Online Shopping[E-commerce sites]

Facilities from Shopping malls	Online Shopping	Mean Score	Rank	Offline Shopping	Mean Score	Rank
Ambience	7	0.171	V	34	0.829	II
Discounts	31	0.756	III	10	0.243	V
Time Saving	31	0.756	III	10	0.243	V
High quality	25	0.806	II	16	0.390	IV
Door delivery	37	0.902	I	4	0.0970	VI
Attractive Management	19	0.463	IV	22	0.5360	III
See and Touch the product	5	0.122	VI	36	0.878	I
Physical Selection of goods	5	0.122	VI	36	0.878	I

Source: Primary and Calculated data

It is clear from Table 6 that, facilities from Shopping malls vs. Online Shopping, among the Online Shoppers, first rank obtained by door delivery(Mean Score 0.902) and second rank obtained by High quality(Mean score 0.806), third rank obtained by Discounts and Time saving with equal(Mean Score 0.756) and fourth Rank obtained by Attractive management(Mean Score 0.463), Fifth Rank is obtained by Ambience(Mean score 0.171) Sixth Rank is obtained by Seen and touch he product and   Physical selection of goods (Mean Score 0.122). Among offline Shoppers, first rank   obtained by see and touch the product and physical selection of goods(Mean Score 0.878) and second rank obtained by Ambience(Mean score 0.829), third rank obtained by Attractive Management(Mean Score 0.536) and fourth Rank obtained by high quality(Mean Score 0.463), Fifth Rank is obtained by Discounts and Time Saving equally(Mean score 0.243) Sixth Rank is obtained by door delivery (Mean Score 0.0970).

CONCLUSION

The Researcher collected data from 41 respondents out of which equal response was obtained from Male and Female consumers, many of the respondents were in the bracket of 28<38 age and highest numbers of respondents had graduation as qualification. More number of respondents are salaried. In current arena almost everyconsumer who wants shop online or offline have mobile phone and internet available in many ways like secured as well as public . Consumers mostly prefer Mobiles and Tablets follow with Electronic items to shop online, this could be due to many companies are giving higher discounts as they have partnered with paytm, google pay, and Mobikwik and many other to offer cashbacks and rewards during festivals and ongoing sale.The door service and wide variety of goods are the important factors which influence consumers to buy online through E-commerce sites, still there are customers of online shopping those prefer to site search and feel upgraded about the new fashion and trends and does not buy. More than 50 percent consumers agree that online shopping have affected offline shopping. However, when asked about their level of agreement, many consumers disagreed with the perception. More number of respondents disagreed of any risk involved using Ecommerce sites, this could be due to many respondents pay cash on delivery or either they have not come across with the risk themselves.Although respondents are hesitant to share their bank details and also they still think that online shopping doesn't give personal experience and products description is also not accurate after receiving the product. Consumers have different perception for choosing online shopping through Ecommerce sites and offline shopping by shopping in Shopping malls.Regarding facilities,maximum number of respondents shop online due to door delivery and high quality products which branded companies can provide. And offline

shoppers shop due to see and touch the product and physical selection of goods. Technology is taking its upper trend and more and more number of consumers are increased for using Internet. Still as per the reports for Organised retail like Shopping malls also only 8% of the population is shopping from organized sector. Yet, there are many consumers who are unable to operate internet and are sometimes not using cell phone also. These consumers are going to shopping malls if they needed branded and wide variety of goods where they can touch and physically verify the goods. In last many years, footfalls in shopping malls have fallen to 60 percent this is not because consumers don't want to buy from shopping malls, but consumers want something new to experience.If Retail sector of Shopping malls want to grow and develop further it has evolve rapidly towards new trends. Many shopping malls forget to give simple facilities like water in its washrooms,house keeping and security services no central air conditioning. While there is demand for quality retail space, mallsof poor or average quality are struggling due to factors such as deteriorating tenant profiles, dilapidated structures, group independent companies sales, lack of vibrant environment, poor mall management or some cases poor location of opening of shopping mall. The rise of ecommerce has some role to play but still there is hope that this condition of retail sector will improve in Kalyan Region and many more Shopping malls will develop in order to grow organized retail sale, which will also positively impact Retail Sector.

REFERENCES

- Anderson, J. C. and Narus, J. A. (1998). Business marketing: Understand what customers value. Harvard Business Review, Vol. 76, No. 6, pp. SA3-SASA, SA8-6SA.

- Anderson, J. C. and Wynstra, F. (2010). Purchasing higher-value, higher-price offerings in business market. Journal of Business-to-Business Marketing. Vol. 17, No. 1, pp. 29-61.

- Anderson, J. C., Jain, D. C. and Chintagunta, P. K. (1993). Customer value assessment in business markets: a state of practice study. Journal of Business to Business Marketing, Vol. 1 No. 1, pp. 3-30.

- Anderson, J. C., Narus, J. A. and Narayandas, D. (2009). Business Market Management – Understanding, Creating and Delivering Value. 3rd edn, Pearson Education Inc., New Jersey.

- Anderson, J. C., Narus, J. A. and Rossum, W. (2006). Customer value proposition in business markets. Harvard Business Review. Vol. 84, No. 3, pp. 1-8.

- Andrews, L., Kiel, G., Drennan, J., Boyle, M. and Weerawardena, J. (2007). Gender perceptions of experimental value in using web-based retail channels. European Journal of Marketing, Vol. 41, No. SA/6, pp. 640-6SA8.

- Chiang, Kuan & Dholakia, Ruby. (2003). Factors Driving Consumer Intention to Shop Online: An Empirical Investigation. Journal of Consumer Psychology. 13. 177-183.

- Hritzuk, N. and Jones, K. (2014). Multi-Screen marketing: The seven things you need to know to reach your customers across TVs, computers, tablets and mobile phones.1st edn, Wiley, New Jersey

- Iyer and Eastmen(2014) The Elderly and Their Attitudes Toward the Internet: The Impact on Internet Use, Purchase, and Comparison Shopping Journal of Marketing Theory and Practice, Volume 14

- Piotrowicz, W. and Cuthbertson, R. (2014). Introduction to the special issue: Information technology in retail: Towards the Omnichannel retailing. International Journal of Electronic Commerce, Vol. 18, No. 4, pp. SA-16.

- Varshney, G. and Madan, P. (2010). A study of functionality dilemma and barriers to optimal usage of M-commerce. Curie Journal (BITS), Vol. 3, No. 1, pp. 60-73.

- Mittal, A. (2013). E-Commerce: It's impact on consumer behavior. Global Journal of Management and Business Studies, Vol. 3, No. 2, pp. 131-138.

IMPACT OF TECHNOLOGY IN MATHEMATICS EDUCATION

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ABSTRACT

The growing importance of information and communication technology has produced great changes in industry, government, and education. The use of technology in education has grown rapidly in recent years. Mathematics in education is related to technology and technology is in turn related to mathematics, thus deep knowledge of the influences of ICT on mathematics learning attracts high interest. The crucial factors for the success of digital technology in mathematics education includes the design of digital tool and corresponding tasks exploiting the tool's pedagogical potential, the role of the teacher and the educational context. Technology is pervading all levels of mathematics teaching and learning in our modern world, bringing ever more sharply into focus the change from traditional pencil and paper learning to a mixture of calculator, computer, pencil and paper learning environments. This paper attempts to understand the benefits and barriers in adopting technology in mathematics education.

Keywords: Math, teaching math, mathematical concept, problem, Digital Technology.

INTRODUCTION

Information and Communication Technologies (ICT's) have a central role in the emerging knowledge-based economy in which the generation and exploitation of knowledge are seen to play a predominant part in the creation of wealth. In recent times students need to be well equipped to enter the workforce and navigate a complex world therefore the education system comprising of School and Higher education faces an ever-increasing demand to meet these needs. Studies has shown that information communication technology can help support learning, visualization and it is especially useful in developing the higher order skills of critical and scientific thinking and analysis of problems. The main reason for adopting technologies in education is that it is available anytime, anywhere to the learner and he can use it any number of times and also he has the choice of choosing the subject.

Mathematics is considered to be the queen of all sciences. Mathematics, to most, is a complex and difficult subject. The tendency for most students is to consider the subject as one that is boring, difficult to understand and solve thus, creating lack of interest in the topics being discussed and thus invokes a fear of failure in examination. Our education system teaches us to solve problems through a sequence of dull, memorized steps, whereas the problem has to be solved with creativity through interactions with others and with new ideas. This poses a great challenge for teachers and educators, especially in the primary and intermediate levels, wherein a good study habit and a firm grasp of basic concepts should be developed. Teachers can't afford to teach students to solve the problems creatively due to time constraints and vast syllabus. So this problem has to be solved like solving a jigsaw puzzle. So, the challenge is to how to make this subject interesting while adhering to the time constraints? Here we can make use of digital technologies in teaching, learning and doing mathematics.

Teacher remains central to the learning process. We need to recognize that mathematical digital technologies are the pencils of today and that we will only fully exploit the benefits of digital technologies in teaching, learning and doing mathematics when it becomes unthinkable for a student to solve a complex mathematical problem without ready access to digital technological tools. Technology is an essential tool for learning mathematics in the 21st century. Mathematics is not taught in India as a subject in itself or a career in itself. Mathematics of late has been used as a tool mainly for calculations in fields such as engineering, economics, commerce. In recent years mathematics is a declining discipline in India.

Modern math teaching methodology develops problem solving skills and develops creative thinking processes and skills. Math teaching today primarily takes place within a professional framework. However, teaching math is a complex and demanding process. This complexity can be successfully resolved by relating math to other sciences. As society changes, as technology changes and as the education system changes, the environment for learning mathematics can be fundamentally altered.

TECHNOLOGY AS A TOOL IN TEACHING

Technology in mathematics education means the use of computers and other technical tools such as calculators, projectors, software, online courses within and outside the classroom. Subject of mathematics is no longer restricted to academic domain, it has entered the domain of Technology, Industry and Social Science. Fields such as Operation Research, Control theory, Signal Processing, Cryptography, Machine learning, Artificial

Intelligence make extensive use of Mathematics. Technology can reduce the effort devoted to tedious computations and increase student's focus on more important mathematics. Various techniques and technological tools such as Abacus, OHP, Radio, Television, Calculator, Computer, and Interactive Board are used in teaching mathematics. Geo boards are useful for introducing geometric concepts. Clinometers are useful for teaching and learning of Trigonometry. An Abacus is used to teach children basic Arithmetic operations. Software tools like Matlab, GeoGebra, Scilab can be used to teach mathematical concepts, visualization of graph etc. thus making the subject interactive and interesting. Innovative tools for graphing has made it one of the most important technology to date since scientific calculators. In schools where students have access to graphics calculators or computer software for function graphing, they have immediate access to multiple representations of functions, so that they can move readily between the symbolic expression, the table of values and the graph.

While it is clear that the role of the teacher is the key to the successful use of digital technology in the mathematics classroom, incorporating technology into teaching remains a challenge for many teachers and they need to be well prepared (Zbiek & Hollebrands, 2008). Hoyles *et al.* (2010) in his paper provides evidence for the critical role of teacher: as a facilitator who maintained and supported the interaction, as a gatherer, making visible on a common workspace (the screen, for example) students' production and as a mechanism for discussion; validating what did and did not make sense in terms of knowledge building.

SOFTWARES USED IN TEACHING

- **MatLab:** It is one of the language for technical computing. It allows matrix manipulations, plotting of functions, visualization, programming and implementation of algorithms.

- **Scilab:** It provides a free and open source platform for numerical computation. It provides a computing environment for engineering and scientific applications.

- **Geogebra:** Is a free mathematics software that is useful for both the instructors and learner's alike. It is one of the powerful mathematical software that helps students to learn various branches of mathematics such as vectors, calculus, linear programming, algebra, complex numbers, statistics and more effectively.

- **Maxima:** It is an open source software developed by Massachusetts Institute of Technology. Maxima is an algebra solver. The software uses Gnuplot for drawing. Maxima specializes in symbolic operations and also helps in generating codes in other languages much efficiently.

- **SageMath:** It is an open source and free software that helps students with general, applied, advanced and pure mathematics. SageMath uses many software packages and smoothly assimilates their features for common usage. It is more suited for research, studies, and education.

- **FX Algebra Solver:** It is an iOS app available for download in the App Store. It's mostly used as a learning aid rather than a teaching tool as it can solve most of the algebra questions. It gives detailed steps in the answers and it can also be used to plot a graph.

- For statistical problem solving, data analysis one can use Excel, R or Python.

BENEFITS OF USING ICT

- Using technology in solving mathematical problems reduces the computational time of drawing figure or graphs. Thus one can focus on different strategies.

- It increases possibility of collaboration of work between the individuals as one can present and use it anytime, anywhere.

- Performance can be improved as one can analyse and interpret the relationship between the data.

- ICT based tools provides advance communication capability. Using graphics, images and text together one can easily explain the mathematical concept.

- Dynamic geometry systems (DGS) allows pupils to manipulate and measure shapes on screen, and it has been shown to produce a higher level of learning among pupils (Clements, 2000)

- Pupils with special needs have equal access to ICT through access devices.

STUDENT SKILLS AND COMPETENCES

The integration of technology in teaching and learning mathematics will lead to students being actively involved in the learning process, which in turn will lead to a positive attitude towards the subject. Technology introduces

new skills that students must master. They acquire skills in interpreting displays and to make connections between numeric, symbolic and graphic/geometric mathematical representations. Better performance in the subject means better understanding of the concepts, this leads to better critical and analytical thinking and thus the development of creativity. According to study conducted by Karthik Muralidharan from the University of California in San Diego, Abhijeet Singh from University College London, and Alejandro J Ganimian from the Abdul Jameel Poverty Action Lab at the Massachusetts Institute of Technology, government upper primary and secondary school children (grades VI to X) who were part of an intervention that used technology to improve learning made twice the progress in mathematics, and 2.5 times the progress in Hindi, compared to students who were not part of the programme.

BARRIERS PREVENTING THE INTEGRATION AND ADOPTION OF ICT IN MATHEMATICS TEACHING

- Lack of infrastructure in the institution.

- Inadequate technical support for the usage of ICT in classroom teaching.

- Teachers may not be aware of the range of software available and programs to support particular learning skills. This leads to difficulty in integrating ICT to enhance the curriculum.

- Difficulty in integrating and using different ICT tools in a single lesson.

- Lack of computer and internet facility at home deprives the students to access the necessary educational materials.

- Crucial factors for the success of digital technology in mathematics education include the design of the digital tool and corresponding tasks exploiting the tool's pedagogical potential, the role of the teacher and the educational context.

- Lack of interest in students, as majority of the students are mark-oriented and job-oriented.

- A technology intensive course needs a change from routine symbol manipulation in the curriculum to understanding function relationships and developing new insights. This provides a serious challenge to existing curriculum.

- Lack of technical skills.

CONCLUSION
Mathematics education should promote better understanding of mathematics. The knowledge acquired should benefit both society and individual through ones contribution to science, engineering and economic growth of the nation. There has to be awareness on the use of software in support of student learning and the specific ways in which software enhances mathematics instruction. By using existing technologies teachers should develop interest and curiosity in students. Technology enhanced teaching reduces the time in solving tedious computations and increase student's focus on the subject.

REFERENCES
- Clements,D.H., 2000. 'From exercises and tasks to problems and projects – Unique contributions of computers to innovative mathematics education.' The Journal of Mathematical Behavior, 19 (1), pp. 9-47.

- Hennessy, S., 2000. 'Graphing investigations using portable (palmtop) technology.' Journal of computer assisted learning, 16 (2000), pp. 243-258.

- Hennessy, S., et al., 2001.'The role of the graphic calculator in mediating graphing activity.' International Journal of Mathematical Education in Science and Technology', 32 (2), pp.267-290.

- Hoyles, C., Noss, R., Vahey, P., & Roschelle, J.(2013).'Cornerstone Mathematics: designing digital technology for teacher adaptation and scaling'. ZDM, The International Journal on Mathematics Education, 45(7), 1057-1070.

- http://www.ncert.nic.in/pdf_files/use of technology in teaching –learning mathematics -pratimanayak.pdf

- Hudson, B., 1997.'Group work with multimedia.'MicroMath, 13 (2), pp. 15-20.

- Jarrett,D., 1998. Integrating technology into middleschool mathematics. It's just good teaching. Northwest Regional Educational Laboratory.http://www.nwrel.org/msec/book6.pdf

- Kaye Stacey(2004), Trends in Mathematics Education Research: The Example of Algebra Education. http://www.hbcse.tifr.res.in/episteme/episteme-1/allabs/stacy_abs.pdf

- Karthik Muralidharan, Abhijeet Singh, Alejandro J. Ganimian, 'Disrupting Education? Experimental Evidence on Technology-Aided Instruction in India', December 2016.

- Maria h Adamides, Katerina Nicolaou (2004) Technology in Mathematics Education, science Education International Vol.15, No.2, June 2004, pp139-151

- Moseley,D., et al., 1999.Ways forward with ICT: effective pedagogy using information and communications technology for literacy and numeracy in primary schools. http://www.ncl.ac.uk/ecls/research/project_ttaict/TTA_ICT.pdf

- https://www.ibef.org/archives

- Ruthven, K.,Hennessy, S., 2002.'A practitioner model of the use of computer-based tools and resources to support mathematics teaching and learning.' Educational Studies in Mathematics, 49 (1), pp. 47-88.

- Zbiek, R. M., & Hollebrands,K. (2008). A research-informed view of the process of incorporating mathematics technology into classroom practice by in service and prospective teachers. In M. K. Heid & G. W. Blume (Eds.), *Research on technology and the teaching and learning of mathematics: Volume 1. Research syntheses* (pp. 287–344). Charlotte, NC: Information Age Publishing.

STUDY OF CYBERCRIME AWARENESS AMONG HIGHER SECONDARY STUDENTS IN DIGITAL EPOCH

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ABSTRACT

The present study was conducted as survey to know the awareness of junior college students regarding cybercrime. In todays digital world internet , smart phone become the part and parcel of the daily affairs. Students are also using smart phone and internet for many purposes, but while using internet students are not that much aware about cyber safety and cybercrime. .The study has provided an opportunity for researcher to know the cybercrime awareness of junior college student. A sample of 96 junior college students of urban and rural area of Ulhasnagar and Murbad region was selected by random sample technique. To collect data researcher used questionnaire having ten items .The study revealed that too few students having cybercrime awareness. Finally study shows that cybercrime awareness among junior college students cannot be attributed to their, locale, gender.

INTRODUCTION

Everything on one click is the mantra of the young generation in digital era. Today any type of information is available in the palm of the young people in the form of different app on Google. Students areexpose to many type gazettes.1.5.GB per day make easy access to internet for young generation. Internet capture the enormous part of young lives today, including children. College going students are full of curiosity but limited maturity and awareness.

The adolescence found to have highest smartphone usage rate of 62%.The smartphone addiction magnitude in India ranged from 39% to 44%, Smartphone users in Urban India and rate of rise from year 2012 was 90%.Smartphone addiction among Indian teens can not only damage interpersonal skills, but also it can lead to significant negative health risks and harmful psychological effects on Indian adolescents.A majority of adolescents from lower socioeconomic background in whole world; are not untouched by the effects by the widely available and cheaper Smartphone. Adolescents are also affected, in India and around the world.

Face book reported that it has 71 million users in India ,most of them are accessing internet through mobile phones .it shows us how much Indian youth has made internet communication medium such as Google and face book part and parcel of everydays affaire, But at the same time millions of internet users in India are unknown of cyber safety and cybercrime.

Considering the high rate of smartphone use among Indian adolescents, they are knowingly and unknowingly encounter with the cyber crimes .junior college students are very much eager to use smart phone to download each and every thing that popup on the screen , they are using smart phone to play the games all the time , many harm full games are played by junior college students because of unawareness. This unawareness can leads to become a victim to the dangers of the cyber crime.

Cybercrime has become more of a threat than traditional types of crime. Cyber Crimes like Internet time theft, cyber stalking, Identity theft, Phishing, E-Mail spoofing , E-Mail Bombing, logic bomb are the new ways of crime in the digital world. Hence it is cause of worry for teachers as well as parents too.Most of the youth have been born right in to the digital We cannot prevent them from using the internet. so it is necessary to make them aware about the flaws of internet. But when we observed student using smartphones they are not taking care of own security, they are unaware of the evil behind it .while talking informally with student researcher come to know that junior college students are very poor knowledge of cyber crime and online safety .Authors therefore aimed to find outcyber crime awareness among junior college students ..

OBJECTIVES

1) To study the cyber crime awareness among Junior College students.

2) To compare the cyber crime awareness among rural and urban Junior College students.

3) To compare the cyber crime awareness among Girls and boys Junior College students.

HYPOTHESIS

1) There is no significance difference between cyber crime awareness among rural and urban Junior College students

2) There is no significance difference between the cyber crime awareness among Girls and Boys students of Junior College .

SCOPE AND LIMITATIONS OF THE STUDY

For any investigator it is not easy to conduct an exhaustive study due to time, money and many things. The present research studyhas following limitations,

1. The study is limited to Ulhasnagar & Murbad Taluka only.

2. The study is restricted to Junior college (11th&12th standard) students only.

METHODOLOGY

• In the present study investigator used survey method to carry out the investigation

TOOL OF THE STUDY

• For this study investigator used self-made questionnaire for Junior college students.

Sample

▪ The sample of 96junior college student were chosen through random sampling technique, sample selected from six Junior college situated in urban and rural area of Ulhasnagar & Murbad region

Statistical technique

▪ The data was analyzed using percentage, mean, SD and t-value.

DATA ANALYSIS AND INTERPRETATION

The data collected from Junior College students were analyzed using percentage and t- test. The results are presented in tabular form. The table exhibits N, Mean, SD, and t-value of each variable of respondents.

Table No-1: Showing awareness related to cyber crime

Types of Cyber Crime	Term Cyber Crime	Internet Time Theft	Cyber Stalking	Identity Theft	Hacking	Cyber defamation	Virus dissemination	Phishing	E-Mail Spoofing	E-Mail Bombing
Percentage	78%	12%	08%	26%	81%	14%	36%	23%	34%	47%

From Table no-1

It was observed that Junior College students were very less awareness about cyber crime . 78%   students responded that they were aware about term cyber crime only 22% was not. 88% of students were not aware about Internet time theft, only 12 % show awareness regarding it. To harass an individual or group i.e Cyber stalking was not aware by 92% of students,8 % shows awareness related to cyber stalking. Identity theft was known by 26% of students, While 81% of students was very much familiar with the hacking crime.14% of students were aware about Cyber defamation while 36% aware about virus dissemination. Phishing was known by 23% of students only . Email spoofing and Email Bombing were known by 34% and 47% respectively.

Hypothesis-1: There is no significance difference between cybercrime awareness among rural and urban Junior College students

Table no-2: Showing difference between cybercrime awareness among rural and urban Junior College students

Region	N	MEAN	Standard deviation	Obtained ' t' Value
Urban	54	32.00	6.5	0.4251
Rural	42	31.40	7.3	DF -94

From the table-2the t- value is found to be 0.4251 and it is not significant at 0.05 level, hence the hypothesis is accepted at 0.05 level. It is concluded that There is no significance difference betweencybercrime awareness among rural and urban Junior College students Hence the difference between cybercrime awareness among rural and urban Junior College students cannot be attributed to their Locale factor.

Hypothesis-2: There is no significance difference between the cybercrime awareness among Girls and Boys students of Junior College .

Table no-3: Showing difference in problems faced by Marathi and English medium school administrators

Medium	N	Mean	Standard deviation	Obtained ' t' Value
Boys	62	34.80	6.6	0.2865
Girls	34	35.21	6.9	

It has been hypothesized that There is no significance difference between the cybercrime awareness among Girls and Boys students of Junior College.But from the table-3, t-value   was 0.2865 indicatesthat the observed difference in mean scores of Boys and Girls was not significant at 0.05 levels. Hence the hypothesis accepted on the basis of above statistical information.

FINDING S & CONCLUSION

- Awareness of Cybercrime like cyber stealing, Identity Theft, Cyber defamation, and phishing was known by too few students of junior college.

- Maximum number of junior college students' were aware of term cybercrime.

- Hacking was known by most of the junior college students.

- Average number of students having awareness about Email Spoofing and Email Bombing.

- There is no significance difference between cybercrime awareness among rural and urban Junior College students Hence the difference between cybercrime awareness among rural and urban Junior College students cannot be attributed to their Locale factor.

- t-value indicates that the observed difference in mean scores of Boys and Girls ofJunior College students was not significant at 0.05 level. Hence There is no significance difference between cybercrime awareness among rural and urban Junior College students

From data analysis researcher comes to conclusion that, in total very few number of junior college students were aware about the cybercrime .

REFERENCES

- Best, J. W. and Kahn, J. V. (1986) Research in Education. New Delhi: Prentice Hall Inc.

- Koullokesh, (1988) Methodology of Educational Research. Delhi; Vikas Publishing House Pvt. Ltd.

- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4336980/

- https://juniperpublishers.com/jfsci/pdf/JFSCI.MS.ID.555757.pdf

- https://www.emergingedtech.com/2017/05/teaching-students-about-cyber-security/

- https://www.emergingedtech.com/2017/07/tips-how-to-keep-yourself-safe-from-online-crime/

A COMPARATIVE STUDY OF TRANSFORMATIONAL AND TRANSACTIONAL LEADERSHIP ON JOB SATISFACTION OF EMPLOYEES

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ABSTRACT
Purpose*: The purpose of this paper is to understand the difference between transactional and transformational leadership styles, the different dimensions of these leadership styles and impact of transformational and transactional leadership styles on job satisfaction of employees.*

Research Implications*: This paper is a comparative study of transformational and transactional leadership styles on job satisfaction of employees.*

Findings*: Earlier studies have found out that there is a relationship between leadership styles and job satisfaction of employees. In transactional leadership style, the leaders make their employees achieve organizational objectives through reward and punishment.in this scenario the employees are less satisfied as compared to transformational leadership style. In transformational leadership style, the leaders motivate and empower employees to achieve organizational objectives by appealing to higher ideals and moral values. Transformational leadership fits the best for leaders as they have a very optimistic effect on job satisfaction and the employees of the organization have a positive response towards it.The findings of the study concluded that transformational leadership positively affects job satisfaction of employees.*

Originality*: The paper presents the impact of both transactional and transformational leadership styles on job satisfaction of employees after analysing both the leadership styles.*

Keywords*: Transformational leadership, Transactional leadership, Job Satisfaction of Employees*

INTRODUCTION
Leadership has increasingly become a significant area of study, especially in the past decades. Recent research in the field of leadership has been focused particularly on transformational and transactional leadership. Particularly, it is observed that leaders who display transformational leadership style are commonly considered to be most effective. Leadership is a very important part of any organization. An effective leader would be one who will be able to guide the employees properly and will make sure that the employees are satisfied with their job. There are different leadership style which are adopted by different leaders. Transformational and transactional leadership styles are generally adopted by the leaders. The leaders have to make sure that the employees are satisfied with their job because the employees are the main resource of an organization.

Leadership style is the approach that a manger uses to influence subordinates. Leadership is an influence relationship between leaders and employees who expect real changes and reflect their mutual purpose. It is a process. Different leadership style are adopted in different organization based upon the culture and goals of an organization. For different situations different styles are needed and every leader should know when to exhibit a particular approach. A good leader must be able to communicate his ideas, vision and mission of the organization properly to his employees.

Transactional Leadership
Transactional leadership is referred as one that focuses on the changes that happen between leaders and their followers. Similarly, transactional leadership is displayed by managers who offer raises and incentives to employees who exceed their goals. There is a kind of exchange aspect which is normally followed by the leaders throughout the organization. This style has its main focus on meeting with the targets and deadlines of the job. This leadership style usually has two approaches, one is contingent reward approach and management by exception. In contingent reward approach it is observed that rewards are being given on completion of certain objectives or on the capability of the employee to complete the task based on the wish of the leader. In management by exception, the leaders are normally observed to interfere with the work of the employee. In this scenario the employee is given punishment for non-completion of the task or on not working efficiently. The leader keeps on giving protocol and keeps intervening even before the employees making any sort of error. This leadership is equally important because it helps the leaders to increase organizational competitiveness in an era of global competition

Transformational leadership

In many studies it has been observed that transformational leadership is the most liked and preferred leadership style by the employees. This leadership style is very convenient because in this the authority of a position is being connected to followers or employees needs and responsibilities. Transformational leadership is very prevalent in most of the organization because the organization want to develop in the era of globalization. Transformational leadership is the most appropriate leadership style because in this the leaders not only create awareness on the importance of group interests but also guides the employees in such a manner that they can achieve maximum result. In this leadership style, the leaders are very cooperative and treat their employees properly by understanding their crucial needs and encouraging them to move forward towards a particular goal. There are many elements of transformational leadership such as idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. The leaders encourage and motivate their employees in such a manner that the employee's confidence is increased and they learn how to tackle problems and approach them in a different manner. Charisma is also a crucial component but that by itself is not sufficient. A transformational leader is a person who will try to create more leaders and will always encourage his employees to move towards a common goal.

Job satisfaction

This is a topic which is of interest for not only the researchers but also for the people who are working in the organization. This topic is associated with various organizational aspects of leadership, morale, attitude and performance. Job satisfaction in general terms means the degree to which an employee enjoys his work. By some researchers it is the aspect of fulfilment of need. Job satisfaction can also be defined as an emotional reaction to an individual's responsibility and workplace conditions, and the extent to which an employee's expectations are satisfied. The recent interest in job satisfaction is more over vested on its effect on employee's commitment to the organization. High levels of job satisfaction are linked with reduced stress level, higher empowerment, rising productivity, growth in the organization and an increased motivation among employees. If the employees are satisfied than they will be more dedicated, efficient, productive and will be settled in their jobs. Job satisfaction is very essential for an organization because if the employees are satisfied with their jobs they will put in all their efforts and will try to achieve their goals on time. This in turn will lead to growth of the organization and help to increase the productivity.

Impact of leadership on job satisfaction of employees

The main objective of the study was to examine the impact of transformational and transactional leadership style on job satisfaction of employees. In the study it was found out that transactional leadership, transformational leadership and job satisfaction of employees correlated to each other. It was observed that transformational leadership had a significant and positive impact on job satisfaction of employees. The organizations which followed transformational leadership style showed that the employees were very satisfied with their jobs and they were very productive and efficient in their work. In transformational leadership since the leader motivates and encourages the employee to move towards a common goal, the employee is satisfied as his problems are taken into consideration and he is being motivated and provided support so that he can soon achieve the target. The employees basically need motivation, support and solution to problems which are provided by transformational leaders. So in this kind of leadership the employees are the most satisfied.

Whereas in transactional leadership there was no significant impact on job satisfaction of employees and showed a negative impact on job satisfaction of employees. It was observed that employees were not satisfied with their job in the organization which followed transactional leadership. Here the leaders use carrot and stick approach which means good work is rewarded and one which are not up to the mark are given punishment. The basic disadvantage of transactional leadership is that the leaders do not motivate their employees which leads to dissatisfaction of employees. This can also lead to negative emotions and affects the performance of the employees.

Both transactional leadership and transformational leadership have impact on job satisfaction of employees. Due to the characteristics which are possessed by transformational leader being better and more inclined towards betterment of employees it has got a positive response by the employees. The employees are more satisfied with their work when the organization has transformational leader. If the employees are satisfied with their job they have a better performance and work efficiently which in turn leads to organizational growth.

REVIEW OF LITERATURE

Akhila Nidadhavolu (2018) assessed the impact of leadership styles on employee job satisfaction and organizational commitment and found out that when there were 19 respondents from Company A which followed transformational leadership style had an overall mean of 3.21. This showed that there was a high level

of job satisfaction in the company. Here the employees were most satisfied. Company B which followed transactional leadership had a mean of 2.49 which shows that there is a low level of job satisfaction in the company. Here there were low inter personal relation which resulted into weak employee job satisfaction.

OBJECTIVES OF THE STUDY
The objective of the study is:

1. To study the dimensions of transformational and transactional leadership.

2. To compare the impact of transformational and transactional leadership on job satisfaction of employees.

3. To suggest leadership development strategies to enhance job satisfaction of employees.

RESEARCH METHODOLOGY
The title of the research is "A comparative study of transformational and transactional leadership styles on job satisfaction of employees". The research methodology used is only secondary data. The secondary data includes all the analysis of research work on impact of transactional and transformational leadership on employee's job satisfaction. The secondary data is collected from sources like newspaper articles, past research survey data, journals and research paper.

SIGNIFICANCE OF THE STUDY
The significance of this study is to understand how transactional leadership affects job satisfaction of employees and comparing it with how transformational leadership affects job satisfaction of employees. To find out various reasons and factors which affect job satisfaction and how can employees be satisfied with their work. The study helps to get a clear idea of which type of leadership should be adopted so that in long run the employees are satisfied with their work. The study helps us to understand different dimensions of transformational and transactional leadership. It is also important to understand that leadership styles have a direct relation with the job satisfaction of employees and it is necessary for the organization to have employees who are satisfied with their work. This study is important for researchers, leaders of any organization and employees.

LIMITATIONS OF THE STUDY
The barriers faced in conducting the research for this paper were that data from primary sources has not been taken due to which it was a difficult task to analyse how transactional and transformational leadership styles have affected job satisfaction of employees. The data is collected from various sources so it was a difficult task to find out reliable information. Since no survey was conducted the information collected are all from internet which makes it a bit difficult to interpret the effect.

CONCLUSION
It is observed that transactional leadership style is a clear chain of command. In this the subordinates does whatever the manager tells them to do. It is like the carrot and stick approach. It creates a very clear structure, if you do well in your work you will be rewarded but if you do not do the work properly or on time than you can be punished. This type of leadership is good for short run only. It has some amount of bias involved. It was found out that the transactional leadership style has an insignificant effect on job satisfaction of employees.

In transformational leadership style, it creates valuable, positive change with end goal developing followers into leaders. It means leader creates leader. It enhances motivation, morale and performance of the employees. It transforms others to help each other, be encouraging and to look out for the whole organization. It aligns the strengths and weaknesses of the employees so that their performance becomes better. The leaders serve as the role model for the employees. This is a very good leadership style especially for long run. Transformational leadership has a very optimistic effect on job satisfaction of employees.

Transformational leadership should be adopted by the leaders because in this type of leadership style the employees are satisfied with their work and has an optimistic effect. This leadership style is not only good for the employees but also for the organization. When the employees are satisfied with their job they will automatically do their work efficiently and in turn will lead to better performance which will directly affect the organizational growth. The future research may include the effect of sub dimensions of leadership on job satisfaction and also how transactional and transformational leadership style affect job satisfaction of employees in different sectors and industries. Also how they job satisfaction of employees lead to better and efficient performance of employees and leads to organizational growth.

REFRENCES

1. Akhila Nidadhavolu (2018) "Impact of Leadership Styles on Employee Job Satisfaction and Organizational Commitment – A Study in the Construction Sector in India", Western Kentucky University.

2. Irene Spitzbart (2017) "The impact of transactional versus transformational leadership on job satisfaction in the hotel industry", Stenden Hotel Management School.

3. Awamleh (2005) "A Test of Transformational and Transactional Leadership Styles on Employees Satisfaction and Performance in the UAE Banking Sector", Journal of Comparative International Management.

4. Alisa et al (2014) "Transformational Leadership and Employee Satisfaction".

5. Jeevan Jyoti and Sonia Bhau (2015) "Impact of Transformational Leadership on Job Performance"

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Liu, W.B, Wongcha A, & Peng, K.C. (2012), "Adopting Super-Efficiency And Tobit Model On Analyzing the Efficiency of Teacher's Colleges In Thailand", International Journal on New Trends In Education and Their Implications, Vol.3.3, 108 – 114.

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- **Article in magazine:**

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